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

U.S. Department of Labor

Bureau of Labor Statistics

*In this issue:*  
**Experimental poverty measures**



U.S. Department of Labor  
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Bureau of Labor Statistics  
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### The August Review

The number of poor increased by 1.3 million people in 2001, according to data recently released by the Census Bureau. This underscores the continuing need to carefully evaluate and improve our measures of poverty. Kathleen Short and Thesia I. Garner use Consumer Expenditure Survey data to explore how accounting differently for out-of-pocket medical expenses may affect poverty measurements. The two alternate poverty measures they look at—one subtracts medical out-of-pocket expenses from income, the other adds them to the poverty threshold—would have added 1- to 1.5-percentage points to the official poverty rate for 2000.

Joe G. Baker uses economic analysis to understand the rapid increase in the number of women entering the legal profession. He points out that in 2001, there were more women than men entering law schools. He attributes the attraction of the profession to factors such as high earnings early in the career and relatively easy re-entry after periods of nonparticipation in the labor force.

Ming Lu, Jianyong Fan, Shejian Liu, and Yan Yan provide a survey of recent employment trends in China. In addition to documenting a shift away from agricultural and extractive primary industries and toward the goods-producing and service-providing secondary and tertiary sectors, the authors provide a number of interesting details on the educational profile of the workforce, the demographic structure of employment, and the changing relationship between private and public ownership in China.

### Regional trends in 2000

The proportion of the population with jobs was the highest in the Midwest in 2000. Among Midwesterners, 67.4 percent of the population was employed on average in 2000. The percentages for the other three regions were clustered

within a narrow range: 64.7 percent of those in the West were employed, 63.4 percent in the South, and 62.8 percent in the Northeast. In the Nation as a whole, 64.5 percent of the population had jobs.

Regional unemployment rates varied from a low of 3.7 percent in the Midwest to 4.6 percent in the West region. Workers unemployed for 27 weeks or more made up 14.3 percent of the total unemployed in the Northeast. This was nearly 3 percentage points higher than in any of the other broad geographic regions. In the West, 11.5 percent of the unemployed were in a spell of unemployment that had lasted 27 weeks or more. Such long durations of unemployment accounted for 10.8 percent of those unemployed in the South and 9.8 percent of those in the Midwest.

### JOLTS starts

A new Job Openings and Labor Turnover Survey (JOLTS) was introduced in July 2002 by the Bureau of Labor Statistics. Job openings are a measure of unmet labor demand and may be compared with unemployment, which measures unused labor supply. Job openings refer to the number on the last business day of the month, and the number of hires and separations are for the entire month. The sample of 16,000 business establishments covers both the private sector and government.

The first release of JOLTS estimates covered the period from May 2001 to May 2002 and showed that the number and rate of job openings in May 2002 were substantially lower than a year earlier. On the last business day of May 2002, there were 3.5 million job openings, 2.6 percent of the number of total filled and unfilled positions (employment plus job openings) in the United States. This was down significantly from 4.3 million openings, or a job openings rate of 3.2 percent, in May 2001. Over the same period, the total U.S. unemployment rate (not seasonally

adjusted) rose to 5.5 percent from 4.1 percent.

The pace of hiring also declined compared with a year ago. The hires rate, or the number of hires during the month divided by employment, was 3.7 percent in May 2002, down significantly from 4.3 percent a year earlier. Hires are any additions to the payroll during the month.

The total separations, or turnover, rate (the number of separations during the month divided by employment) was 3.1 percent in May 2002, down significantly from 3.7 percent a year ago. Separations are terminations of employment that occur at any time during the month. Total separations includes quits (voluntary separations), layoffs and discharges (involuntary separations), and other separations (including retirements).

Hires and separations estimates help show dynamic flows in the labor market that net changes in the employment level do not. Over the year ended in May 2002, employment declined by 1.4 million. Over the same period, 52.3 million hires and 52.9 million separations occurred at U.S. businesses. For more information see the Job Openings and Labor Turnover Survey page at <http://www.bls.gov/jlt/home.htm>

### Veterans in the labor force

Two-thirds of veterans discharged from active duty between 1998 and 2001 were ages 18 to 34. These young recently discharged veterans had a labor force participation rate of 84.9 percent, and an unemployment rate of 4.4 percent in August 2001. Nonveterans of the same age had a labor force participation rate of 85.7 percent, and an unemployment rate of 6.7 percent.

In August 2001, 76.6 percent of male veterans of the Vietnam era were in the labor force. Among male Vietnam-era veterans, 91 percent were between 45 and 64 years of age in August 2001. Their nonveteran peers had a labor force participation rate of 82.2 percent. □

# Experimental poverty measures: accounting for medical expenditures

*Alternate methods of measuring medical expenses affect the relative incidence of poverty, the depth of poverty experienced by the poor, and the number of people who are classified in extreme poverty*

Kathleen Short  
and  
Thesia I. Garner

The official measure of poverty in the United States has been in place since the 1960s and has served to inform many policy debates. However, over the years, debate has ensued concerning the level and extent of poverty estimates, as well as the methodology that should be used to measure poverty. One issue that has arisen is whether medical care is or should be accounted for in poverty measurement. Based on research, and recommendations by an expert panel, experimental measures of poverty have been developed that account for medical care costs as well as other dimensions. Accounting for health care costs considerably increases the number of people who appear to be struggling to get by. Particularly, it increases the number of elderly who are considered poor, while only slightly affecting other groups, such as poor children and Blacks.

This article describes and compares the size and composition of the poverty population under the official poverty measure and two experimental measures of poverty. The major focus is a discussion of methods and data used to estimate medical out-of-pocket expenses. All statistics shown in this article—poverty rates, poverty gaps, and income-to-poverty thresholds ratios—are affected by the method chosen to account for medical expenses in the measure. Results indicate that, while many groups are somewhat more

likely to be classified as poor under the experimental measures, the depth of their poverty is less than is generally found under the official measure. In general, results show that alternate methods of measuring medical expenses affect our perception of the relative incidence of poverty, the depth of poverty experienced by these groups, and the number of people who are classified in extreme poverty (those with family income below one-half of the poverty threshold).

Experimental poverty measures are presented here that update those presented in the 1999 Current Population Report by the Census Bureau.<sup>1</sup> Two experimental measures that use Consumer Expenditure (CE) data to estimate poverty thresholds and medical out-of-pocket expenses are presented. These measures and resulting poverty rates are contrasted with the official poverty measure for 2000.

## Background

The official poverty measure has often been the focus of criticism from scholars and policymakers alike. In her book, *Drawing the Line*,<sup>2</sup> Patricia Ruggles describes alternative concepts of poverty and methods for measuring poverty; she also proposes methods to update and revise the current official poverty threshold and resource definitions. In response to this work, the Joint

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Economic Committee held Congressional hearings in the early 1990s. These hearings lead to the formation of the National Academy of Sciences Panel on Poverty and Family Assistance (the Panel, for short, henceforth). The goal of the Panel was to examine the current official measure of poverty in the United States. In 1995, this panel of scholars published their findings in a report titled *Measuring Poverty: A New Approach*.<sup>3</sup> In general, the report proposed eight broad sets of recommendations that focus on the following tasks:

- Adopting a new poverty measure
- Setting and updating the poverty threshold
- Adjusting the threshold for geographic differences in prices
- Defining family resources
- Identifying needed data
- Highlighting other issues related to poverty measurement
- Relating poverty measurement to assistance programs
- Linking States' needs to the panel's proposed measure

The Panel stated that poverty thresholds should represent a budget for food, clothing, shelter (including utilities), and a small amount for other needs. Family resources would be defined—consistent with the threshold concept—as the sum of money income together with the value of near money benefits minus expenses that cannot be used to buy the goods and services in the threshold budget. The panel also stated that:

The U.S. Office of Management and Budget should adopt a revised poverty measure as the official measure for use by the federal government. Appropriate agencies, including the Bureau of the Census and the Bureau of Labor Statistics, should collaborate to produce the new thresholds each year and to implement the revised definition of family resources.<sup>4</sup>

According to the Panel, the basic criteria for developing the poverty measure are that it should be understandable and broadly acceptable to the public, statistically defensible, internally consistent, and operationally feasible.

In response to the Panel's report and recommendations, staff from the Bureau of Labor Statistics (BLS) and the Census Bureau have been conducting research. Their work has resulted in several papers and conference presentations that reproduced the Panel's work, and examined and tested underlying assumptions and measurement issues.<sup>5</sup>

Building on this joint research, the Census Bureau released two reports that presented several variations of alternative methods of measuring who is poor, based on the recommendations of the Panel. The first report, published in July 1999, contains 1990–97 results and the second report, published in October 2001, has results for 1999.<sup>6</sup> The second Census Bureau report includes improved methods for

measuring individual elements of experimental measures and further refines the concepts outlined in the Panel report. In particular, the second report examines two new methods for handling medical out-of-pocket expenses: accounting for them in experimental thresholds, or subtracting these expenses from family resources. The treatment of medical out-of-pocket expenses in a poverty measure has proved most controversial in the discussion that followed the release of both the Panel's and the Census Bureau's first reports.<sup>7</sup>

### Medical out-of-pocket spending

Medical out-of-pocket expenditures include those for health insurance premiums, medical services, drugs, and medical supplies. The method that the Panel used to value these expenses in a poverty measure using survey data is somewhat complex. Data from the 1987 National Medical Expenditure Survey were used to develop a model that assigned the occurrence of such expenditures and the amount spent. Once these amounts were assigned to families, then the aggregate amount assigned across all families was adjusted to match benchmarks developed from the Health Care Financing Administration's National Health Accounts.<sup>8</sup> The adjusted amounts of out-of-pocket expenses were then subtracted from income as a necessary expense before comparing family resources to poverty thresholds. This step introduced some inconsistency in a complete poverty measure in that no other component in the Panel's measure was adjusted to match independent aggregate estimates. That is, while other elements in the Panel's proposed poverty measure suffer from nonsampling error, such as the underreporting of income or benefits, they are nevertheless unadjusted in the poverty measures reported here, as they are in the official measure. This inconsistent treatment likely resulted in an overstatement of the effect of out-of-pocket expenses on poverty rates in the Panel's report and the first Census Bureau report that mimicked the Panel's approach.

In light of both the conceptual and practical issues raised by this approach, an alternative was proposed to add out-of-pocket needs to the thresholds and not to subtract such expenses from income.<sup>9</sup> Thus, the threshold would include medical out-of-pocket spending along with spending on the commodity bundle of food, clothing, shelter, and utilities. Thresholds could be calculated for family types based on health care spending patterns according to size of family, age of family members, and health insurance coverage status.

The Panel did not pursue this alternative because it would require a much larger number of thresholds to reflect different levels of medical care need.<sup>10</sup> They argued that medical care needs differ from the need for food or housing in that not every family requires medical care in a given year, but when they do, the associated costs may be extraordinarily large.

Assigning an average expenditure to incorporate medical care needs in the thresholds may overestimate the costs for many families and underestimate the cost for a few families due to the distributional properties of these expenditures. The panel concluded that it would be impossible to capture the actual variation of medical needs by variations in the thresholds and that this could lead to what the panel termed “erroneous poverty classification.”

The second Census Bureau report presented two new methods of accounting for medical needs, one that subtracted medical out-of-pocket expenses from income and another that included these in the threshold.<sup>11</sup> The first was an updated model following the Panel’s procedure. This method used the 1996 and 1997 Consumer Expenditure Survey (CE) to assign values of medical out-of-pocket expenses to different families.<sup>12</sup> This version of the out-of-pocket model differs in some important ways from the earlier model created by the Panel. These differences were summarized by David Betson in a series of recommendations that are made to guide the estimation of this model. For example, one recommendation stated that the out-of-pocket amounts predicted by the model should *not* be calibrated to aggregate totals, as was done in the earlier version. A separate model was estimated for each of 42 different family types, based on characteristics such as age, health insurance coverage, family size, race, and income level. Limits were placed on the maximum out-of-pocket amount that could be assigned. Estimates were then used to assign values of out-of-pocket expenses to individual families in the Current Population Survey (CPS). These amounts were estimated for each family and subtracted from family income before determining poverty status, in the measure referred to as MSI—medical out-of-pocket expenses *subtracted from income*.

*Medical out-of-pocket expenses subtracted from income.* The MSI measure is conceptually similar to the measure described in the report by the Panel, but with some computational differences. In general, this measure is constructed in the following way:

Thresholds:

- Thresholds for two adult-two child reference families are based on expenditures on food, clothing, shelter and utilities<sup>13</sup>—from the 1998, 1999, and 2000 CE
- The equivalence scale is a three-parameter version<sup>14</sup>
- Geographic indexes are calculated, using the Department of Housing and Urban Development (HUD) Fair Market Rents<sup>15</sup>

Resources:

- Cash income from the March 2001 CPS
- Include the value of food assistance programs (food stamps and school lunches)

- Include the value of housing subsidies
- Include the value of energy assistance (only heating assistance)
- Subtract work-related and childcare expenses
- Take account of taxes as modeled in the CPS
- Subtract medical out-of-pocket expenses as modeled, using CE data

*Medical out-of-pocket expenses added to the threshold.* The second measure accounts for medical out-of-pocket expenses differently. This method adds health care out-of-pocket expenditures, as reported in the CE, in the calculation of poverty thresholds for the two-adult, two-child reference family. Thus, the thresholds, which typically are based on spending for food, clothing, shelter and utilities, now also include out-of-pocket spending for an additional commodity—health care.

Once the reference family threshold is estimated from CE data, thresholds for families other than the reference family are produced using what we refer to as a ‘medical risk index.’ These additional thresholds are based on characteristics associated with variations in medical care utilization and cost. These characteristics include, among others, family size, age, and health status of family members, and health insurance coverage. In the case of the uninsured, an adjustment is made to reflect the likely underutilization of health care by the uninsured.<sup>16</sup> These indexes use median medical out-of-pocket expenditures from the 1996 Medical Expenditure Panel Survey to compute ratios of medical out-of-pocket expenditures for different groups varied by the set of characteristics listed to those of the reference family. Data from the Medical Expenditure Panel Survey are used because health status data are not collected in the CE.<sup>17</sup> This method is referred to as medical out-of-pocket expenditures in the threshold or MIT. Again, unlike the panel’s original method, no attempt was made to adjust these dollar amounts to aggregate spending totals. Once medical out-of-pocket amounts were calculated, they were included in the thresholds, rather than subtracted from income, before determining poverty status. Generally, the MIT measure is calculated as follows:

Thresholds:

- Thresholds for two adult-two child reference families are based on estimated expenditures for food, clothing, shelter and utilities, and medical out-of-pocket expenditures from the 1998, 1999, and 2000 CE
- The equivalence scale is a three-parameter version and is applied to the food, clothing, shelter, and utilities portion of the threshold
- A medical risk index is applied to the medical out-of-pocket expenditures portion of the threshold

- Geographic indexes are calculated using HUD Fair Market Rents

Resources:

- Cash income from the March 2001 CPS
- Include the value of food assistance programs (food stamps and school lunches)
- Include the value of housing subsidies
- Include the value of energy assistance (only heating assistance)
- Subtract work-related and childcare expenses
- Take account of taxes as modeled in the CPS

The poverty thresholds in 2000 for a two-adult, two-child reference family are presented in the following tabulation. The experimental threshold without medical costs is slightly higher than the official threshold for this family type. As may be expected, the threshold that includes medical out-of-pocket expenditures is higher than that without.

Official measure .....	\$17,463
Experimental without medical .....	17,884
Experimental with medical .....	19,549

Mean values of medical out-of-pocket expenditures assigned by the two different methods for different family types are shown in the appendix. Although the two methods assign different amounts to different families, the key difference between the two methods is that MSI models health expenditures (medical out-of-pocket expenses) based on individual family characteristics, whereas MIT fixes the level at the median value for families categorized by certain specific characteristics.

Finally, we note that the second Census Bureau report included a third method. This approach to valuing medical expenses combined the two approaches just described into a single measure. This combined approach included the addition of a medical out-of-pocket value in the thresholds, but also subtracted a net medical out-of-pocket amount from family income.<sup>18</sup> The discussion here focuses only on the two separately estimated methods to establish more clearly the differences in the two methods.

**Experimental poverty rates**

The estimated poverty rate using the MSI measure was 12.2 percent in 2000. The MIT measure yields a poverty rate of 12.7 percent. Both of the new experimental measures result in similar poverty rates that are slightly higher than the official rates for the total U.S. population (11.3 percent). The inclusion of medical out-of-pocket expenses in a poverty measure and the method by which that is done have important effects on the poverty rates of different population subgroups. Poverty rates based on these MSI and MIT measures

are presented in the following tabulation along with the official poverty rate:

	<i>Number of persons (in thousands)</i>	<i>Percent of the U.S. population</i>
Official measure .....	31,054	11.3
Medical out-of-pocket expenses subtracted from income (MSI) .....	33,739	12.2
Medical out-of-pocket expenses in the threshold (MIT) .....	34,960	12.7

*Demographic subgroups.* Using the poverty measures described in the previous section, this section examines the differential incidence of poverty for various socio-economic and demographic subgroups. Table 1 shows poverty rates under the official and the two experimental poverty measures for various demographic groups.

Poverty rates by age group show higher rates for adults using the experimental measures, especially for the elderly. (See chart 1.) The child poverty rate under the official measure, 16.1 percent, is about the same as that under the MIT measure, 15.9 percent, but considerably lower under the MSI measure, 14.6 percent. The non-elderly adult poverty rate increases modestly from 9.4 with the official measure to 10.4 under the MSI measure and 11.0 percent with the MIT measure. The poverty rate for persons age 65 and older is higher: 10.2 percent under the official measure, compared with 14.2 percent under the MIT and 16.6 percent under the MSI measures.

Differences in poverty rates between the official and the experimental measures are explained by all of the elements included in an experimental measure. Chart 2 shows that average family amounts added and subtracted from income vary from the official to the experimental measures for selected subgroups. The chart illustrates the higher average benefits received, including earned income tax credits, and the lower medical out-of-pocket expenses included for children relative to the elderly. The combination of these calculations results in increased poverty rates for the elderly using the experimental measures relative to the official measure.

Differences in poverty rates between the two experimental measures are only explained by different treatments of medical out-of-pocket expenses. While average values for medical out-of-pocket expenses are lower for most subgroups that we examine under the MIT method, this method likely errs by assigning the same values to all in a given group. This results in the imputation of too large a value to too many families, and too small a value to the few families who actually face large medical out-of-pocket expenses.

Experimental poverty rates also differ from official rates by race and ethnicity. Experimental poverty rates are higher

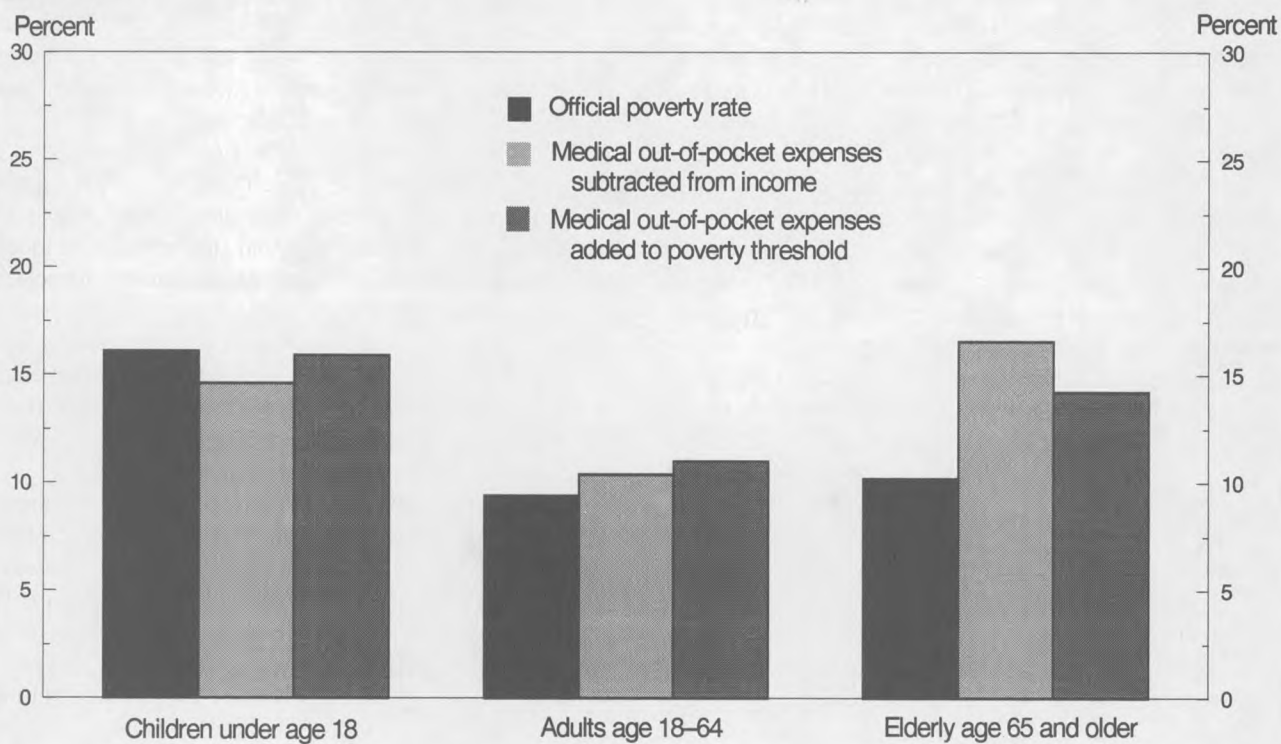


**Table 1. Poverty rates by selected characteristics, 2000**

Characteristic	Official measure	Medical out-of-pocket expenses subtracted from income (MSI)	Medical out-of-pocket expenses in the threshold (MIT)
<b>All persons</b> .....	11.3	12.2	12.7
<b>Age</b>			
Children (under age 18) .....	16.1	14.5	15.8
Adults, 18–64 years .....	9.4	10.4	11.0
Elderly, 65 years and older .....	10.2	16.6	14.2
<b>Race/ethnicity</b>			
Non-Hispanic white .....	7.5	8.5	8.6
Black .....	22.0	20.6	21.3
Hispanic .....	21.2	24.2	26.3
<b>Family type</b>			
Married-couple .....	5.6	6.9	7.2
Male-headed (no spouse present) .....	14.8	17.3	17.5
Female-headed (no spouse present) .....	25.7	25.1	25.8
<b>Number of workers</b>			
No workers .....	33.2	35.4	33.8
One or more workers .....	8.0	8.7	9.5
<b>Region</b>			
Northeast .....	10.3	12.9	13.2
Midwest .....	9.5	9.0	9.3
South .....	12.5	12.2	12.5
West .....	11.9	14.9	15.8
<b>Metropolitan area</b>			
Central city .....	16.1	17.6	18.4
In metropolitan area, but not central city .....	7.8	9.8	10.2
<b>Nonmetropolitan area</b> .....	13.4	10.8	10.8

SOURCE: March 2001 Current Population Survey.

**Chart 1. Poverty rates by age, 2000**



SOURCE: March 2001 Current Population Survey.

than official poverty rates for Non-Hispanic whites and Hispanics, though slightly lower for Blacks. The rates tend to be lower for Blacks due to a combination of factors, including higher receipt of some near-cash transfers and slightly lower work-related expenses and taxes paid. Differences in average amounts of these elements are shown in table 2 by race and Hispanic origin.

Accounting for noncash transfers also affects the incidence of poverty by family type. When poverty rates by family type are examined, one sees increases moving from the official to the experimental measures among persons in married-couple and male-householder (unmarried) families, and little change among female-householder families. Married-couples tend to receive less near-cash transfer income and have higher work-related and medical expenses than the other family types. (See table 2 for average amounts.)

As expected, the experimental measures (which include geographic adjustments) result in poverty rates that differ by region and by metropolitan/nonmetropolitan status. As highlighted by the change in the poverty rates between the official and the experimental measures, poverty estimates

increase in the Northeast and West and decrease in the Midwest and South. Likewise, measures that include geographic adjustments (as MSI and MIT do) yield higher poverty rates in central cities, and to a less extent in the suburbs, while lower poverty rates result for nonmetropolitan areas.

### Poverty gaps

The previous section reports the prevalence of poverty under different poverty measures. While the poverty rate tells us the proportion of a population that is poor, it does not give us information about the depth of poverty in that population. The mean income deficit, or average poverty gap, tells us something about the shortfall of income relative to the poverty threshold, and thus the depth of poverty for various people.

Table 3 lists mean income deficits, or poverty gaps, under the official measure and under the two experimental measures, MSI and MIT. These income deficits are calculated by determining who is poor under the given measure, and for those individuals, subtracting their family income from their

**Table 2. Mean family amounts across individuals, 2000**

Benefit	Total	Official	Near poor <sup>1</sup>	Children	Adults	Elderly	White	Black	Hispanic	No workers	One or more workers
Food stamps .....	\$117	\$750	\$248	\$252	\$76	\$33	\$83	\$314	\$231	\$264	\$95
Housing subsidies .....	142	978	346	270	93	116	85	473	293	460	94
School lunch .....	103	322	256	229	68	9	87	190	254	65	109
Heating .....	6	28	25	10	5	6	5	11	5	15	5
Federal income tax .....	-9,075	-20	-101	-9,159	-10,031	-3,936	-9,711	-4,496	-3,887	-1,144	-10,271
FICA tax .....	-3,475	-438	-979	-3,807	-3,827	-931	-3,611	-2,379	-2,770	0	-4,000
Earned income tax credit .....	319	1,147	1,257	624	245	41	276	559	795	0	368
Work expenses .....	-1,230	-460	-771	-1,312	-1,361	-374	-1,242	-1,096	-1,364	0	-1,416
Child care .....	-377	-162	-305	-746	-292	-8	-367	-468	-429	0	-434
Medical out-of-pocket (msi) <sup>2</sup> .....	-1,762	-551	-753	-1,563	-1,643	-2,818	-1,824	-1,419	-1,281	-1,987	-1,729
Medical out-of-pocket (mit) <sup>3</sup> .....	1,323	851	1,102	1,256	1,210	2,053	1,340	1,201	1,203	1,443	1,304
Benefit	Married couple	Female householder	Northeast	Midwest	South	West	Central city	Suburbs	Non-metropolitan territory		
Food stamps .....	\$62	\$309	\$117	\$92	\$120	\$136	\$198	\$64	\$138		
Housing subsidies .....	48	439	239	98	100	171	287	82	88		
School lunch .....	98	154	89	86	106	126	135	81	115		
Heating .....	4	14	11	9	3	4	8	4	10		
Federal income tax .....	-11,933	-2,621	-10,651	-8,709	-8,414	-9,151	-7,647	-11,235	-5,254		
FICA tax .....	-4,333	-1,607	-3,736	-3,668	-3,184	-3,513	-3,002	-3,985	-2,787		
Earned income tax credit .....	238	627	284	252	337	389	410	263	335		
Work expenses .....	-1,455	-787	-1,240	-1,281	-1,184	-1,242	-1,155	-1,299	-1,154		
Child care .....	-415	-369	-434	-346	-352	-398	-372	-410	-292		
Medical out-of-pocket (msi) <sup>2</sup> .....	-2,042	-1,313	-1,883	-1,824	-1,715	-1,674	-1,533	-1,894	-1,753		

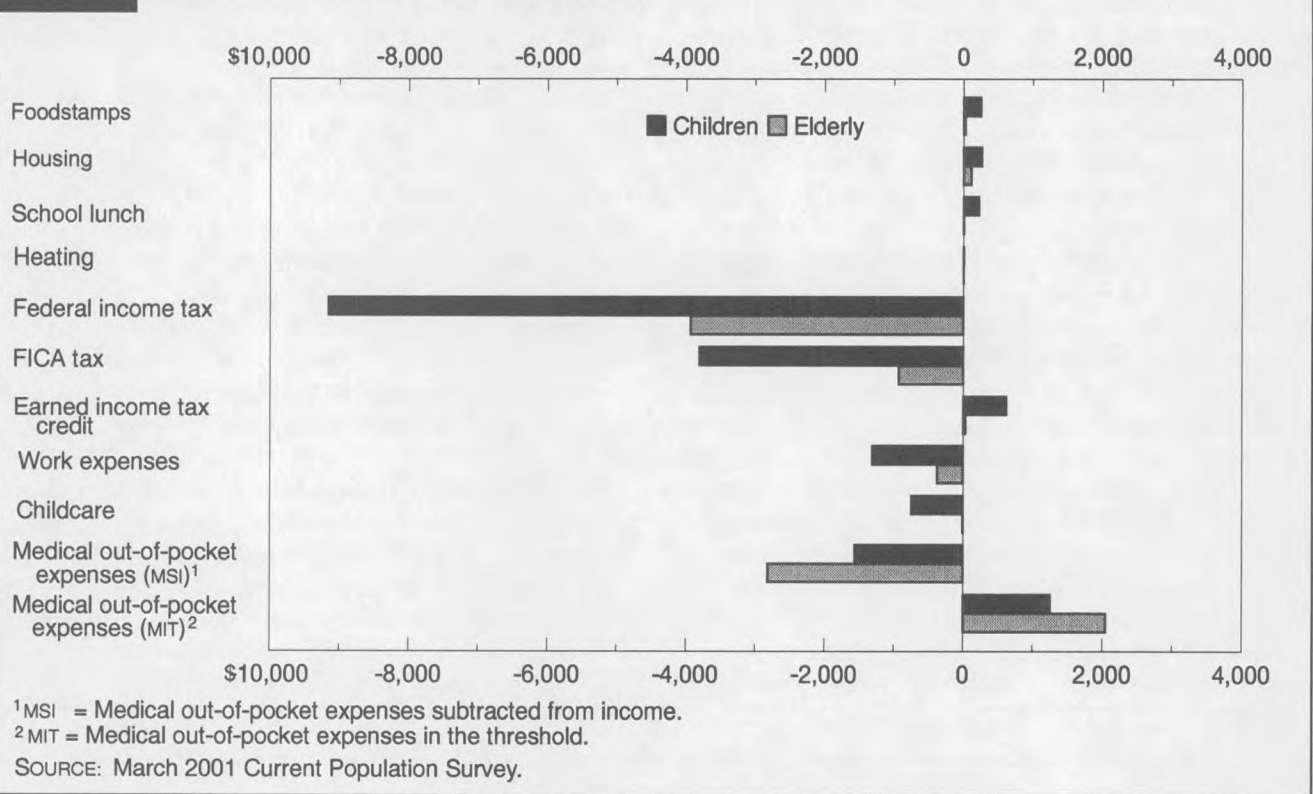
<sup>1</sup>People classified as "near poor" are those with family income below 125 percent of the poverty threshold.

<sup>3</sup>Average out-of-pocket expenditures included in threshold.

<sup>2</sup>Average out-of-pocket expenditure subtracted from income.

SOURCE: March 2001 Current Population Survey.

Chart 2. Mean transfer benefits and expenses, 2000



relevant poverty threshold. When incomes are negative, the deficit is set equal to the poverty threshold, suggesting that no deficit exceeds the measure of need for the basic bundle of goods.

In official Census Bureau publications, income deficits are calculated separately for families and for unrelated individuals. The first two lines of table 3 show these calculations for these two groups under the three measures. The third line combines family heads and individuals for simplicity, and the remaining averages for subgroups are based on this combined group, by characteristic of the family head or the unrelated individual. (In effect, unrelated individuals are treated like families consisting of one person. See chart 3.)

Although the prevalence of poverty may be higher under the experimental measures relative to the official measure, table 3 indicates that average poverty gaps are much lower for both experimental measures than the official measure. This result holds for all groups shown in table 3 except one, the elderly. While the differences between the income deficits are larger or smaller for different groups, in general, the family incomes of poor individuals are closer to the poverty line under the experimental measures than under the official measure. Thus, while subtracting taxes and other necessary expenses from income does move some people across the

poverty line and into poverty, on average, they are not being moved as far below the line as families who are poor using the official measure. Including noncash benefits in income raises the income of many poor families, even if those benefits are not sufficient to raise them out of poverty.

As mentioned earlier, for all groups, average poverty gaps are much lower for both experimental measures than for the official measure, except for the elderly. As shown in table 3, the elderly demonstrate higher mean income deficits under the MSI experimental measure relative to the official measure. Although the large medical out-of-pocket expenses attributed to the elderly contribute greatly to these higher figures, there is an additional factor that explains this difference. The official poverty thresholds are specified to be lower for the elderly than for the nonelderly, whereas the experimental poverty thresholds make no distinction for age of householder. However, due to the lower values of medical out-of-pocket expenses assigned using the MIT measure, the poverty gap for the elderly under that measure is lower than the official measure gap.

### Income-to-poverty-threshold ratio

Another gauge of the relative distance of the poor from the poverty level is the proportion below specified fractions of

their respective poverty thresholds. This section examines income-to-poverty-threshold ratios under the various measures and does so across the entire income distribution. This exercise illustrates not only the difference in distribution below the poverty line, but also the difference across all income levels as the definition of family resources changes.

Table 4 shows estimates of the percent of people by family income-to-poverty-threshold ratios under the three measures: the official, MSI, and MIT. Accounting for taxes and transfers in the MSI and MIT measures results in greater percentages of individuals in the middle ratio categories. This is the result of the re-distributional effect of taxes and transfers that are included in the experimental measures.

Comparison of the official and the MSI measures shows that a slightly higher percentage of all persons—4.4 percent, versus 3.8 percent—are in extreme poverty (below one-half of the relevant poverty threshold) using the official measure. (See table 4.) Further, although the MSI measure yields a slightly higher percentage of people below the poverty line than the official measure yields, more of those individuals are above one-half the relevant poverty threshold than are found using the official measure—8.4 percent using MSI, versus 6.9 percent using the official measure. This is as expected from the calculation of

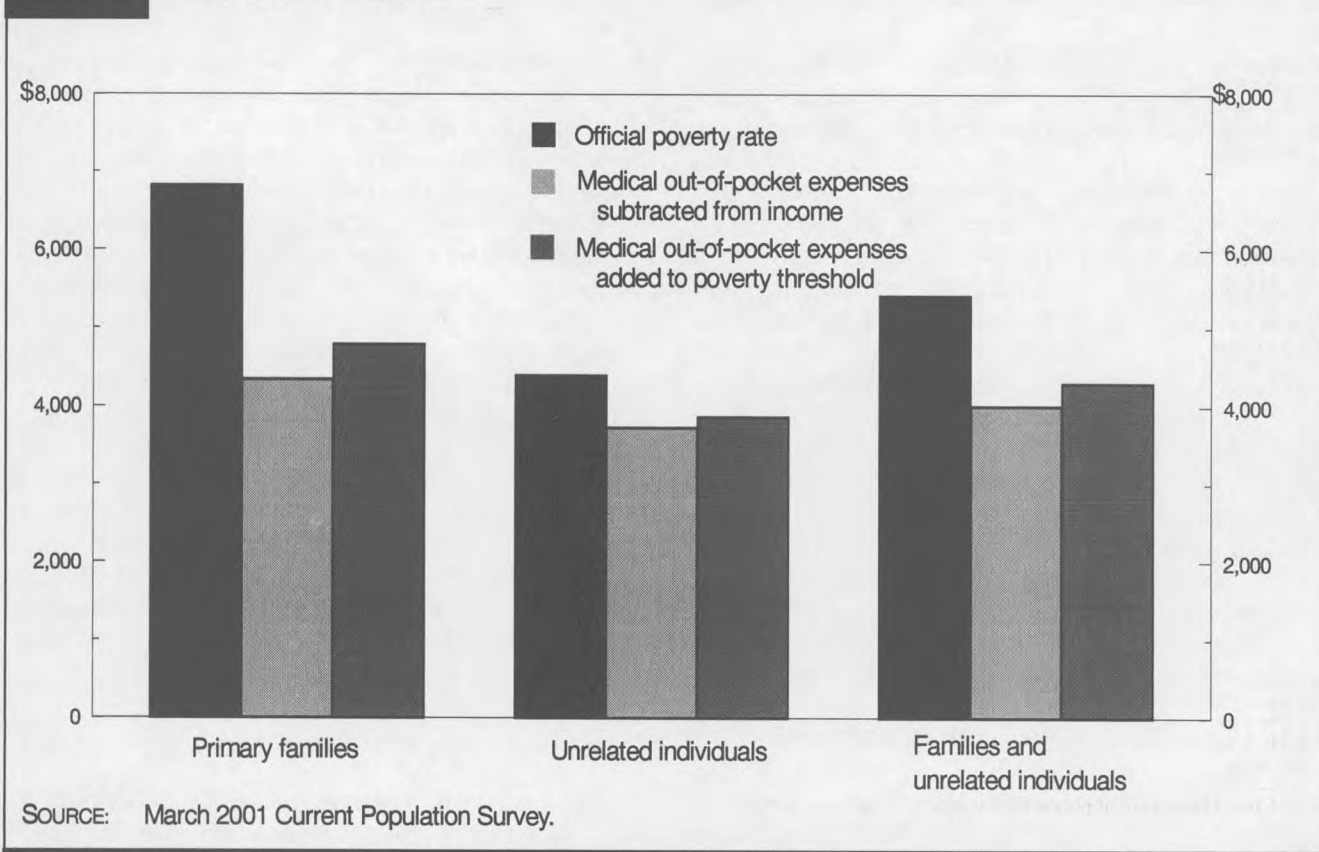
poverty gaps and results from the addition of in-kind transfers to family incomes in the experimental measures. The results are similar, though even more pronounced, for the MIT measures relative to the official measure.

Table 4 also shows that this pattern of fewer people in extreme poverty, when using the experimental measures, holds for most demographic groups including children, Blacks, and Hispanics. Under the official poverty measure, 6.4 percent of children are in extreme poverty. Under the experimental measures, that share falls to 3.9 percent for MSI and 3.8 percent for MIT.

The one exception is the elderly. Notably, 2.2 percent of the elderly are in extreme poverty under the official measure. Under the MSI measure, this rate rises to 4.6 percent. This result follows from the method used in that measure to value medical out-of-pocket expenses. However, the MIT measure is much closer to the official measure in this regard.

AN IMPORTANT CONCLUSION from this study is that there is much to be learned from a poverty measure that is carefully and explicitly constructed. It allows us to understand more precisely the economic situation of families and individuals. Including government benefits aimed at the most needy within the

Chart 3. Mean income deficits, 2000



**Table 3. Mean income deficits, 2000**

Household characteristic	Official	Medical out-of-pocket expenses subtracted from income (MSI)	Medical out-of-pocket expenses in the threshold (MIT)
Families .....	\$6,821	\$4,333	\$4,787
Unrelated individuals .....	4,388	3,731	3,869
Families and unrelated individuals .....	5,414	4,013	4,296
Age of household head			
18 to 64 .....	5,986	4,249	4,831
65 and older .....	2,868	3,173	2,573
Race			
White .....	5,248	3,931	4,184
Black .....	5,773	4,078	4,438
Hispanic origin .....	6,258	4,847	5,366
No workers .....	5,486	4,701	4,701
One or more workers .....	5,335	3,434	3,951
In family of type:			
Married couple .....	6,612	4,153	4,578
Male householder .....	4,968	4,129	4,445
Female householder .....	5,243	3,889	4,091
Geographic regions:			
Northeast .....	5,344	4,286	4,607
Midwest .....	5,398	3,666	3,843
South .....	5,214	3,718	3,929
West .....	5,841	4,459	4,893
Metropolitan area:			
Central city .....	5,588	4,292	4,638
Not central city .....	5,496	4,150	4,470
Nonmetropolitan area .....	4,972	3,113	3,176

SOURCE: March 2001 Current Population Survey.

**Table 4. Percent of total population by income-to-poverty threshold ratios, 2000**

Ratio	Total population			White		
	Official	MSI <sup>1</sup>	MIT <sup>2</sup>	Official	MSI <sup>1</sup>	MIT <sup>2</sup>
Less than 0.5 .....	4.4	3.8	3.6	3.5	3.4	3.2
0.5 to 0.99 .....	6.9	8.4	9.1	5.9	7.3	7.9
1.0 to 1.99 .....	17.9	27.8	29.6	17.0	26.1	27.9
2.0 to 3.99 .....	32.5	37.8	38.7	32.7	39.0	40.3
4 or more .....	38.3	22.2	19.0	40.9	24.1	20.7
	Children			Black		
	Official	MSI <sup>1</sup>	MIT <sup>2</sup>	Official	MSI <sup>1</sup>	MIT <sup>2</sup>
Less than 0.5 .....	6.4	3.9	3.8	9.3	6.1	5.7
0.5 to 0.99 .....	9.6	10.7	12.0	12.7	14.5	15.6
1.0 to 1.99 .....	21.3	33.3	34.1	24.4	37.8	39.6
2.0 to 3.99 .....	33.3	36.7	36.8	32.0	30.7	30.1
4 or more .....	29.3	15.4	13.2	21.7	11.0	9.0
	Nonelderly adults			Hispanic		
	Official	MSI <sup>1</sup>	MIT <sup>2</sup>	Official	MSI <sup>1</sup>	MIT <sup>2</sup>
Less than 0.5 .....	3.9	3.6	3.6	7.3	6.3	6.1
0.5 to 0.99 .....	5.5	6.8	7.4	13.9	17.9	20.2
1.0 to 1.99 .....	14.7	24.6	25.9	30.1	44.1	44.3
2.0 to 3.99 .....	31.6	39.0	40.4	32.6	25.7	24.4
4 or more .....	44.3	26.0	22.6	16.1	6.0	5.1
	Elderly			Female householder		
	Official	MSI <sup>1</sup>	MIT <sup>2</sup>	Official	MSI <sup>1</sup>	MIT <sup>2</sup>
Less than 0.5 .....	2.2	4.6	2.7	10.9	8.6	8.0
0.5 to 0.99 .....	8.0	12.0	11.5	14.8	16.5	17.9
1.0 to 1.99 .....	27.1	32.5	38.8	27.2	38.6	40.1
2.0 to 3.99 .....	35.7	33.5	34.0	29.2	26.6	26.2
4 or more .....	27.0	17.4	13.1	17.9	9.7	7.9

<sup>1</sup> MSI= Medical out-of-pocket expenses subtracted from income.

<sup>2</sup> MIT= Medical out-of-pocket expenses in the threshold.

SOURCE: March 2001 Current Population Survey.

experimental measures also helps gauge the effectiveness of these programs in improving the lives of low-income families and individuals. With such a procedure one can more carefully ascertain the situation of particular population subgroups that

are often specifically targeted for aid. Finally, the experimental measures allow us to more thoroughly understand the costs and economic hardship that individuals and families face and to examine where and how difficulties arise. □

## Notes

ACKNOWLEDGMENT: We thank Jessica Banthin, Richard Bavier, David Betson, David Johnson, and Barbara Wolfe for their input into our research. This paper reports the results of research and analysis undertaken by BLS and Census Bureau staff. This study is to inform interested parties of research and to encourage discussion. All views expressed in this article are those of the authors and do not reflect the views or policies of their respective agencies or the views of other staff therein. The authors accept responsibility for all errors.

<sup>1</sup> Short, Kathleen, *Experimental Poverty Measures: 1999*, Current Population Reports, Consumer Income, P60-216 (U.S. Census Bureau, 2001).

<sup>2</sup> Patricia Ruggles, *Drawing the Line—Alternative Poverty Measures and Their Implications for Public Policy* (Washington, DC, Urban Institute Press, 1990).

<sup>3</sup> Constance F. Citro and Robert T. Michael, eds., *Measuring Poverty: A New Approach* (Washington, DC, National Academy Press, 1995).

<sup>4</sup> Citro and Michael, *Measuring Poverty*, p. 5.

<sup>5</sup> Early work includes David Johnson, Stephanie Shipp, Thesia I. Garner, "Developing Poverty Thresholds Using Expenditure Data," in *Proceedings of the Government and Social Statistics Section* (Alexandria, VA, American Statistical Association, August 1997) and Thesia I. Garner Stephanie Shipp, Geoffrey Paulin, Kathleen Short, and Charles Nelson, "Poverty Measurement in the 1990s," *Monthly Labor Review*, March 1998, pp. 39-61. These and other Poverty Measurement Working Papers are available on Census Bureau poverty measurement Web site: <http://www.census.gov/hhes/www/povmeas.htm>.

<sup>6</sup> Short, *Experimental Poverty Measures: 1999, 2001* and Kathleen Short, Thesia I. Garner, David Johnson, and Patricia Doyle, *Experimental Poverty Measures: 1990 to 1997*, Current Population Reports, Consumer Income, P60-205 (U.S. Census Bureau, 1999).

<sup>7</sup> See for example, "Open Letter on Revising the Official Measure of Poverty," Conveners of the Working Group on Revising the

Poverty Measure, U.S. Census Bureau, Aug. 2, 2000, on the Internet at: <http://www.census.gov/hhes/www/povmeas.htm> for the full text of this letter.

<sup>8</sup> See David Betson, "Poor Old Folks: Have Our Methods of Poverty Measurement Blinded Us to Who is Poor?" University of Notre Dame, Poverty Measurement Working Paper (U.S. Census Bureau, 1995).

<sup>9</sup> See Richard Bavier, "Medical Needs and the Poverty Thresholds," Poverty Measurement Working Paper (U.S. Census Bureau, 1998), and a summary of Marilyn Moon's proposal in Citro and Michael, *Measuring Poverty*, p. 236.

<sup>10</sup> Citro and Michael, *Measuring Poverty*, 1995, pp. 223-37.

<sup>11</sup> Short, *Experimental Poverty Measures: 1999, 2001*.

<sup>12</sup> See David Betson, "Imputation of Medical Out of Pocket (MOOP) Spending to CPS Records," University of Notre Dame, Poverty Measurement Working Paper (U.S. Census Bureau, February 2001) for complete details.

<sup>13</sup> For a description of the procedure using earlier data, see Garner and others, "Poverty measurement," 1998.

<sup>14</sup> Johnson and others, "Developing Poverty Thresholds," 1997.

<sup>15</sup> Short, *Experimental Poverty Measures: 1999, 2001*.

<sup>16</sup> For more details on this method, see Jessica Banthin, Thesia I. Garner, and Kathleen Short, "Medical Care Needs in Poverty Thresholds: Problems Posed by the Uninsured," Paper presented at the American Economic Association Meetings, Poverty Measurement Working Paper (U.S. Census Bureau, 2001).

<sup>17</sup> Other options using the CE are presented in Banthin and others 2001.

<sup>18</sup> Short, *Experimental Poverty Measures: 1999, 2001*.

**Appendix: Medical risk factors (with adjustment for the uninsured) and mean values of Medical out-of-pocket expenditures for MSI and MIT measures**

Characteristic	Medical risk factors	MSI mean amount <sup>1</sup>	MIT mean amount <sup>2</sup>
Reference family .....	1.00	\$1,853	\$1,349
Families with no elderly members:			
Private, one person			
Good health .....	.42	868	571
Fair/poor health .....	.77	933	1,044
Private, two people			
Good health .....	.89	1,991	1,196
Fair/poor health .....	1.13	2,143	1,520
Private, three or more people			
Good health .....	1.00	1,946	1,352
Fair/poor health .....	1.26	1,913	1,695
Public, one person			
Good health .....	.02	438	24
Fair/poor health .....	.07	487	93
Public, two or more people			
Good health .....	.03	322	45
Fair/poor health .....	.09	403	124
Uninsured, one person			
Good health .....	.48	235	649
Fair/poor health .....	.90	278	1,217
Uninsured, two or more people			
Good health .....	1.02	556	1,370
Fair/poor health .....	1.08	460	1,462
Families with elderly members:			
Private, one person			
Good health .....	1.19	2,043	1,606
Fair/poor health .....	1.31	2,059	1,765
Private, two or more people			
Good health .....	1.92	3,045	2,593
Fair/poor health .....	2.30	3,025	3,096
Public, one person			
Good health .....	.49	1,978	659
Fair/poor health .....	.45	1,841	605
Public, two or more people			
Good health .....	.91	2,845	1,220
Fair/poor health .....	1.01	2,734	1,367

<sup>1</sup> MSI= Medical out-of-pocket expenses subtracted from income.

<sup>2</sup> MIT= Medical out-of-pocket expenses in the threshold.

SOURCE: 1998–2001 Current Expenditure Survey; 2001 Current Population

Survey; 1996 Medical Expenditure Panel Survey; and Jessica Banthin and others, "Medical Care Needs in Poverty Thresholds: Problems Posed by the Uninsured," Agency for Healthcare Research and Quality, American Economic Association meeting, January 2001.

## The influx of women into legal professions: an economic analysis

*Women are increasingly attracted to the field of law, possibly because of its favorable economic factors, such as relatively high earnings early in the career and ease of re-entry into the field after periods of nonparticipation in the labor force*

Joe G. Baker

The year 2001 was a watershed year in legal education. For the first time, female law school entrants outnumbered men.<sup>1</sup> This event is the culmination of a trend over the last half-century which saw the legal profession experience rapid increases in the number and percent of women receiving law degrees. At the same time, a large body of literature documented a “second class” professional status of women in the legal field. If women are treated so poorly in the legal profession, why do they find it an attractive career choice?

Previous examinations of the status of women in law have compared female to male law graduates. This research examines the proposition that the correct economic comparison, especially from an occupational choice standpoint, is not between genders within a profession but the relative desirability across professions for women. As such, this article compares the relative economic rewards to women of four professional degrees: law, medicine, M.B.A.s, and social science/psychology doctorates.

### Background and literature review

Chart 1 compares the relative share of degrees awarded to women from 1966 to 1996 (indexed to 100.0 in 1966) for five “reference” professions (law, medicine, M.B.A.s, social science Ph.D.s, and psychology Ph.D.s). Women have increased their share of total law degrees by almost twelve-

fold (in 1966, only 3.8 percent of law degrees were awarded to women; in 1996, this statistic was 43.5 percent).<sup>2</sup> In terms of the relative growth of women in the profession, law trails only M.B.A.s over this period but is substantially in excess of the other professional fields.<sup>3</sup> As stated by Professor Sherwin Rosen, “...the story of the legal profession (and, similarly, for the medical practice) in the 1970s and 1980s is the entry of women...”<sup>4</sup>

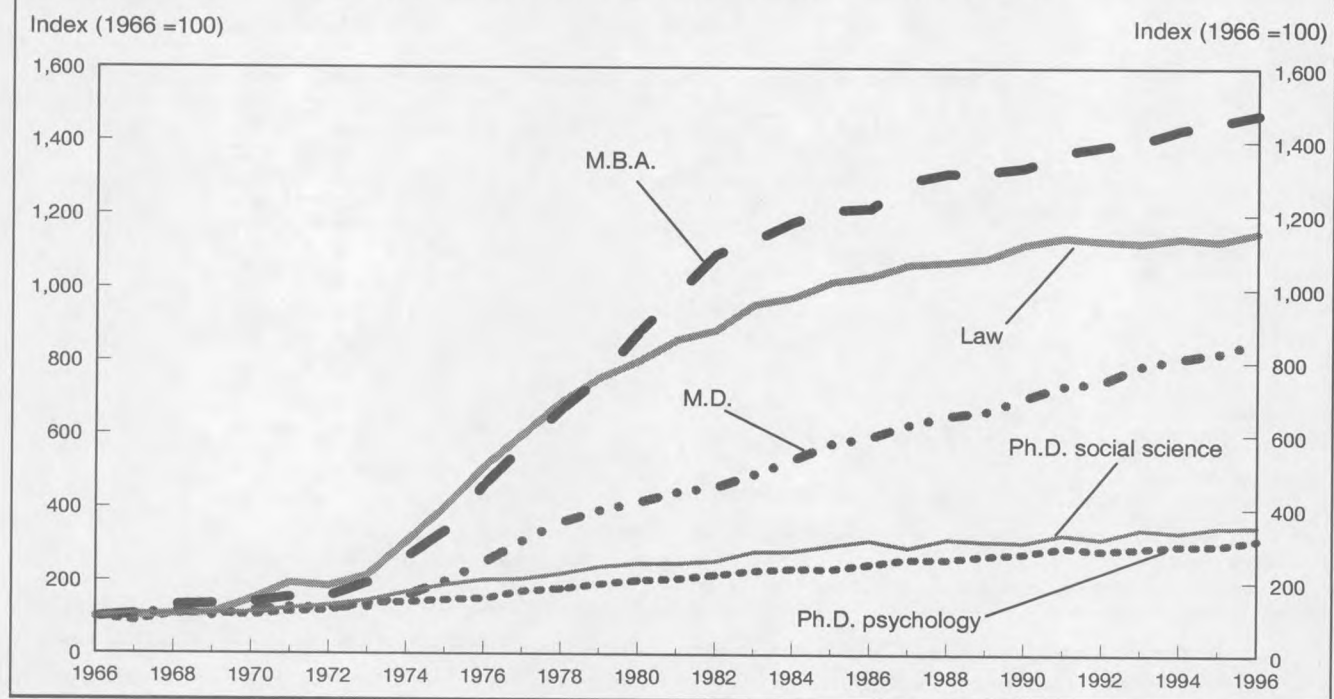
Part of the explanation for this growth in female lawyers has been the revolution in female participation in the labor force in general (overall female labor force participation rates grew to 58.9 percent from 39.8 percent for the January 1966–96 period).<sup>5</sup> Another explanation is the increased number of college degrees awarded to women, which grew to 55.2 percent of all bachelor degrees in 1996, up from 42.6 percent in 1966.<sup>6</sup> However, the “feminization rate” of the legal profession exceeds by several-fold these trends in labor force participation and degree awards.

The general conclusion of previous research into the status of women in the legal profession is that women are treated poorly. Wynn R. Huang found that “the earnings structure found in the law profession rewards men more than it does females.”<sup>7</sup> Huang also found that women receive lower benefits than men for attendance at a prestigious law school, and suffer earnings penalties after having families.<sup>8</sup> Paul W. Mattessich and Cheryl W. Heilman’s study of University of Min-

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Chart 1. Relative share of professional degrees awarded to women, 1966–96



nesota law graduates found that women in the legal profession earn less than men, and were discriminated against in the workplace.<sup>9</sup> Sherwin Rosen found that female lawyers earned significantly less than men.<sup>10</sup> Robert L. Nelson found that female lawyers worked in “less remunerative, if not lower status, positions.”<sup>11</sup> John Hagan and Fiona Kay’s 1995 study of Canadian lawyers found large gender differences, especially in earnings.<sup>12</sup> Robert G. Wood, Mary E. Corcoran, and Paul N. Courant’s study of University of Michigan Law School Graduates found that even after controlling for childcare, work history, school performance, and other variables, about one-fourth of the male-female wage gap remained unexplained.<sup>13</sup> These findings seem at odds with the rapid growth of female law graduates.

Richard H. Sander and E. Douglas Williams argue that the rapid feminization of the law was the result of three factors: 1) job opportunities in teaching, a traditionally female occupation, declined forcing women into other careers; 2) law was “disproportionately attractive” to women during the period of increasing female labor force participation, especially for women of upper- and upper-middle income families; and 3) high relative salaries of lawyers to bachelor-degree recipients.<sup>14</sup> (Sander and Williams did not compare salaries across professional degrees for women.) Sander and Williams compare the starting salaries of corporate lawyers to new bachelor-degree recipients over the 1961–85 period, and found

these data were consistent with waxing and waning law school enrollments.

### The data

The primary data for this analysis is the 1993 National Survey of College Graduates.<sup>15</sup> The survey sampled approximately 215,000 individuals, of which approximately 168,000 responded (78 percent response rate). The sample size varied based upon strata. For purposes of this analysis, individuals were classified into professional fields based upon their “most recent or highest degree.” Several individuals in the sample have more than one professional degree, for example, the physician who goes on to get a law degree. It is assumed that the most recent/highest degree is a good approximation of career interests, and was therefore used as the classification variable. Further, unless otherwise specified these statistics are for those under age 66 who received their “most recent or highest” degree within the last 10 years (that is, their career age is less than 11 years). This last restriction is necessary because most women in these professions have lower career age and experience than men; this biases the aggregate statistics. Because many occupational decisions are made on the basis of career characteristics as opposed to starting salaries, some of the comparisons that follow also ex-

**Table 1. Descriptive statistics of professional degree fields, 1993**

Characteristic	Law		M.B.A.		M.D.		Social Science Ph.D.		Psychology Ph.D.	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Number .....	633,175	241,228	489,629	157,645	610,078	154,711	69,354	21,956	65,575	53,243
Percentage of total .....	72.4	27.6	75.6	24.4	79.8	20.2	76.0	24.0	55.2	44.8
Disabled .....	2.5	2.0	2.0	1.2	2.7	2.4	2.8	2.9	3.1	4.4
Married .....	76.1	62.9	83.1	65.4	84.7	71.9	78.9	64.0	81.2	65.9
Divorced/separated .....	9.1	11.3	6.1	12.0	5.8	7.6	7.8	14.5	9.5	18.5
Not in labor force .....	4.9	11.2	5.6	9.7	5.2	9.9	6.0	9.3	4.0	6.7
With children at home .....	54.3	47.1	60.2	47.7	60.4	51.8	48.9	43.1	53.2	45.0
New graduate <sup>1</sup> .....	15.2	31.1	25.5	46.6	12.4	24.8	14.5	28.6	14.1	28.4
Working in degree field .....	86.0	86.3	51.1	56.3	96.9	95.5	76.5	78.1	87.5	84.7
Not a U.S. citizen (Visa) .....	1.0	1.8	4.0	4.5	5.8	10.9	11.2	6.3	4.0	3.9
Mean of number:										
Biological age (years) .....	41	36	41	35	42	36	46	43	45	43
Career age (years) <sup>2</sup> .....	17	10	13	7	19	12	17	12	15	11
Annual salary (median) .....	\$75,000	\$55,000	\$60,000	\$48,000	\$96,000	\$68,000	\$54,500	\$50,000	\$55,000	\$48,000
Full-time professional experience (years) .....	18	10	20	13	17	9	20	15	19	14
Average workweek (hours) <sup>3</sup> .....	46	38	46	41	49	42	46	42	46	41

<sup>1</sup> New graduates are individuals who received professional degree within 5 years or less.

<sup>2</sup> Includes all career ages. Career age is defined as years since receipt

of professional or graduate degree.

<sup>3</sup> Average workweek data for full-time workers only.

SOURCE: 1993 National Survey of College Graduates.

amine older career age cohorts. Table 1 contains descriptive statistics for the professional fields.

Law schools and business schools attract students with similar backgrounds. Almost two-thirds of law school graduates (62 percent) have bachelor degrees in social science (44.7 percent) or business (17.3 percent).<sup>16</sup> The same two bachelor fields make up 49.7 percent of M.B.A.s (with a bachelor degree in business at 37.2 percent); and 80.3 percent of social science doctorates (with a bachelor degree in social science at 74.7 percent).<sup>17</sup> Although not perfect substitutes, these professions do appear to be competing career choices for a large number of undergraduates who go on to professional school. Medicine was included in this article because of rapid growth in the participation of women that parallels the growth in law degrees among women, although the types of undergraduates who go into medicine are substantially different from those who enter the legal profession (health and life science bachelor degrees make up about 69.2 percent of M.D.s). (See chart 1.) Psychology is included because it is a profession that has historically been characterized by high levels of female participation. In 1966, 1 out of 5 psychology doctorates were awarded to women; and in 1996, 2 out of 3 were.

### Labor force participation

Following Gary S. Becker's pioneering model of the household production function, households allocate time among many work and nonwork activities.<sup>18</sup> Because household labor supply decisions are often made on the basis of more than

one worker, demographics and family structure can affect labor supply. For example, marriage or the presence of children, or both, require considerations of joint earnings and household division of labor. This may restrict job search or hours of work for one or both spouses. The presence of children increases the value of nonwork production and may result in one spouse completely dropping out of the labor force. In most two-earner households, male earning potential exceeds that of women.

Becker's model of household production predicts that the rational household would thus allocate most "home" production to the wife and allocate "market" production to the man.<sup>19</sup> The value of "home" production also rises with the presence of children; therefore, female participation tends to drop during child-rearing years for married women.

National labor force participation data are consistent with this prediction: female participation rates are less than men's, and drop during the peak childbearing years. Thus, at least for married mothers, the ability to exit and re-enter a profession is an attractive attribute.<sup>20</sup> In addition, professional field attractiveness would be related to job opportunity, that is, unemployment rates. Table 2 contains labor force participation rates and unemployment rates for female professionals in the four comparison fields. Law has the lowest female labor force participation rates of the comparison fields; it also ranks second behind only M.B.A.s in terms of unemployment rates.

At first glance, these attributes would appear to make law less attractive than the comparison fields. However, if labor force exit is by choice, then the labor force participation rates reflect voluntary decisions. Table 3 contains data on why

**Table 2. Labor force participation by professional degree**

Characteristic	Law		M.B.A.		M.D.		Ph.D.	
	Male	Female	Male	Female	Male	Female	Male	Female
Total .....	191,283	143,413	220,550	115,726	171,341	84,573	40,365	38,565
Working .....	178,778	121,352	209,484	101,965	164,176	75,011	38,069	36,268
Unemployed .....	4,874	4,747	6,223	4,688	803	540	1216	239
Not in labor force .....	7,631	17,314	4,843	9,073	6,362	9,022	1,080	2,058
Percent distribution								
Working .....	93.5	84.6	95.0	88.1	95.8	88.7	94.3	94.0
Unemployed .....	2.5	3.3	2.8	4.1	.5	.6	3.0	.6
Not in labor force .....	4.0	12.1	2.2	7.8	3.7	10.7	2.7	5.3
Unemployment rate .....	2.7	3.8	2.9	4.4	.5	.7	3.1	.7
Labor force participation rate .....	96.0	87.9	97.8	92.2	96.3	89.3	97.3	94.7

NOTE: This table restricts the population to those with a career age of less than 11 years (that is, those received their most recent or highest degree within the last 10 years).

SOURCE: 1993 National Survey of College Graduates.

**Table 3. Reasons for not being in the labor force, by professional degree**

[In percent]

Characteristic	Law		M.B.A.		M.D.		Ph.D.	
	Male	Female	Male	Female	Male	Female	Male	Female
Total not in labor force .....	7,631	17,314	4,843	9,073	6,362	9,022	1,080	2,058
Retired .....	4.7	11.2	21.7	.0	2.3	.0	5.0	.0
On layoff .....	11.4	3.4	1.4	1.6	.0	.0	.0	.0
Student .....	41.8	23.5	62.4	8.0	87.1	56.3	44.2	5.2
Family responsibilities .....	2.4	56.3	.0	72.3	1.8	24.2	22.6	61.1
Illness/disability .....	7.6	2.0	5.5	.8	4.6	4.4	.3	18.0
No suitable job .....	6.6	3.6	7.4	.0	.0	2.4	16.4	8.6
Did not want work .....	11.4	23.7	1.4	17.2	.0	5.9	.0	15.7
Other .....	19.5	15.3	3.5	11.0	2.8	19.7	6.2	28.1

NOTE: This table restricts the population to those with a career age of less than 11 years (that is, those received their most recent or highest degree within the last 10 years).

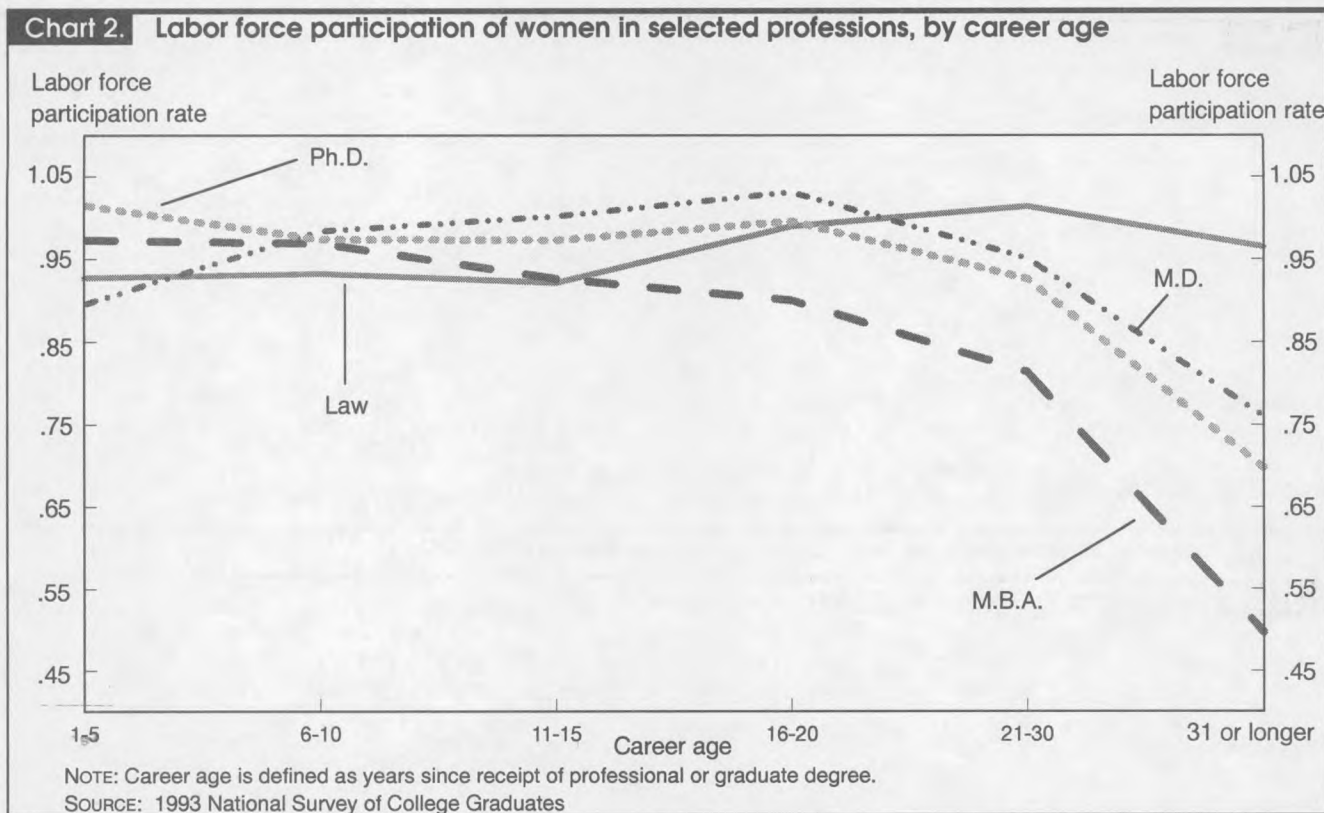
SOURCE: 1993 National Survey of College Graduates.

professional degree holders were not in the labor force (percentages can add to more than 100 percent because respondents were asked to check all the applied). Compared with the other professional fields, law ranks very high in terms of "voluntary" female labor force exit—retired (11.2 percent, a higher percentage retired than other female professionals); student (23.5 percent, second only to M.D.s, of which a large percentage were most likely still doing post-degree specialty training); and "did not want to work" (23.7 percent, first). "Family responsibilities" were more important reasons for M.B.A.s and doctorates to not participate in the labor force. Female law graduates do fare poorly in terms of "layoff from job" (first) and "no suitable job" (second), although these percentages are small.

Another characteristic that would make law attractive to women is the ability to maintain high rates of labor force participation over a career. This is especially important in professions with high training costs, so that one can recover the costs of this training through higher earnings.

Women in law have comparable participation rates with other professions early in their careers, but are able to maintain high levels of participation later in the career. (See chart 2.) The other professions all show steep declines in "late-career" participation.

Finally, the ability to exit and re-enter the workforce is an attractive job attribute for married women, especially those with children. Table 4 contains data on re-entry rates for female professionals over the 5-year, 1988–93 period by career age. When one examines only re-entry into any job, law does not compare favorably with the other professions in early career but has high rates of re-entry in middle and late career (periods in which careers are likely to be interrupted for family reasons). Law becomes even more attractive to women when one restricts the re-entry data to jobs closely related to degree. These data suggest that skill obsolescence and lack of employment opportunity appear to be lower barriers for female law graduates to re-enter the workforce, especially late in their careers.



**Salaries**

In its most abstract form, economic theory distills occupational choice into comparison shopping for the highest wage. Table 5 contains median earnings data for full-time professionals who have had their professional degree 10 years or less.<sup>21</sup> Median earnings for early career female law school graduates exceed all other professions. Overall, female law graduates make 92.3 percent of male law graduate earnings; this percentage is surpassed only by female Ph.D.s.<sup>22</sup>

When one examines earnings by employer type, a mixed picture emerges. Female law graduates have comparable earnings to men in the private sector (for-profit and not-for-profit), substantially less in State Government employment, and exceed male earnings by 20 percent in the U.S. Government sector.

Data on the workforce in general indicates that men work a longer workweek than women, and this trend holds also for professionals.<sup>23</sup> Table 5 contains data on median hours worked per week.<sup>24</sup> Using these data, annual median salaries are adjusted to conform to a 40-hour workweek. These adjusted totals indicate that most of the difference between male and female law school graduate earnings can be explained by workweek length. Further, after this adjustment, law only trails Ph.D.s in terms of relative earnings of women to men.

Why do female professionals in general work fewer hours than men? Although data are not available to answer this question, the National Survey of College Graduates did query respondents on reasons why they were working part time; these responses provide some insight into decisions regarding quantity of labor supplied. As can be seen in table 6, the majority of women work part time by choice (family reasons, student, and did not want to work).

**Table 4. Re-entry rates for female professionals, 1988-93**

[In percent]

Career age in 1988	Percent of total not working in 1988 moving to employed in 1993			
	Professional degree field			
	Law	M.B.A.	M.D.	Ph.D.
Re-entry into any job:				
1-10 years .....	48.0	73.7	73.8	45.4
11-20 years .....	69.5	28.2	70.7	21.8
21 and older .....	80.5	.0	10.3	13.9
Re-entry into job closely related to degree:				
1-10 years .....	29.9	37.3	64.3	24.9
11-20 years .....	65.5	7.3	58.3	.0
21 and older .....	40.3	.0	6.5	5.7

NOTE: Includes all career ages. Career age is defined as years since receipt of professional or graduate degree.

SOURCE: 1993 National Survey of College Graduates.

**Table 5. Median salaries of full-time professionals, 1993**

Employer type	Law		M.B.A.		M.D.		Ph.D.	
	Male	Female	Male	Female	Male	Female	Male	Female
Private, for-profit .....	\$61,000	\$60,000	\$56,000	\$46,800	\$90,000	\$60,000	\$60,000	\$44,720
Private, not-for-profit .....	32,000	33,956	53,000	45,968	57,000	72,000	44,000	42,000
Self employed .....	55,000	48,000	36,000	39,600	86,400	75,000	72,000	60,000
Local government .....	41,000	37,416	44,770	45,916	40,000	70,000	41,600	47,500
State government .....	39,000	36,664	41,616	42,000	89,000	( <sup>1</sup> )	45,000	41,600
U.S. Government .....	50,000	60,000	48,200	45,000	55,000	( <sup>1</sup> )	63,000	55,450
Educational institution .....	50,000	43,700	35,000	40,000	33,333	32,000	40,000	38,600
Total .....	54,000	48,000	54,000	45,916	60,000	45,000	44,720	43,100
Median workweek (hours) .....	50	42	45	40	50	50	45	40
Adjusted total <sup>2</sup> .....	\$43,200	\$45,714	\$48,000	\$45,916	\$48,000	\$36,000	\$39,751	\$43,100

<sup>1</sup> Small number of observations.

<sup>2</sup> Adjusted total salary assumes a 40-hour workweek.

NOTE: This table restricts the population to those with a career age of less than 11 years.

SOURCE: 1993 National Survey of College Graduates.

**Table 6. Reasons for working part time, professional employees, 1993**

[In percent]

Reason	Law		M.B.A.		M.D.		Ph.D.	
	Male	Female	Male	Female	Male	Female	Male	Female
Total, professionals working part time .....	7,225	17,431	5,789	7,173	3,535	11,162	2,654	7,370
Retired .....	.7	.8	29.0	( <sup>1</sup> )	1.6	( <sup>1</sup> )	4.6	4.7
Student .....	47.7	14.9	24.5	8.6	24.5	3.4	28.3	8.5
Family responsibilities .....	2.4	61.2	14.6	61.6	( <sup>1</sup> )	54.7	8.5	49.1
Illness/disability .....	( <sup>1</sup> )	1.0	( <sup>1</sup> )	1.3	5.2	13.2	2.0	( <sup>1</sup> )
No suitable job .....	39.1	10.6	40.8	9.2	21.9	8.9	35.8	20.1
Did not want full-time work .....	8.0	31.1	22.7	42.2	40.5	36.7	28.3	28.3
Other .....	14.8	12.0	6.2	28.9	26.4	10.0	22.8	9.9

<sup>1</sup> Small number of observations.

the last 10 years).

NOTE: This table restricts the population to those with a career age of less than 11 years (that is, those received their most recent or highest degree within

SOURCE: 1993 National Survey of College Graduates.

**Table 7. Age-earnings profiles of full-time professionals**

Characteristic	Median earnings							
	Law		M.B.A.		M.D.		Ph.D.	
	Male	Female	Male	Female	Male	Female	Male	Female
Career age:								
1-5 years .....	\$46,000	\$40,000	\$50,500	\$44,400	\$36,000	\$32,500	\$40,000	\$40,000
6-10 years .....	61,600	59,000	60,000	50,900	86,000	75,000	49,100	46,634
11-15 years .....	73,900	55,416	61,700	52,000	104,000	86,400	54,000	52,896
16-20 years .....	85,000	76,000	65,000	49,000	116,200	90,000	60,000	54,000
21-30 years .....	97,000	79,437	70,000	48,000	110,000	90,000	60,000	65,000
More than 30 years .....	90,000	90,000	90,000	( <sup>1</sup> )	100,000	84,000	70,000	52,000
Estimated lifetime earnings (in millions) <sup>2</sup>								
Total .....	3.203	2.846	2.786	1.942	3.811	3.160	2.316	2.138
Present value .....	1.225	1.071	1.086	.831	1.465	1.224	.908	.866
(5 percent discount rate)								

<sup>1</sup> Small number of observations.

<sup>2</sup> Full-time workers only. Lifetime earnings assumes 40-year worklife and \$48,000 for female M.B.A.s over career age 30.

NOTE: Data are for full-time workers only. Career age is defined as years since receipt of professional or graduate degree.

SOURCE: 1993 National Survey of College Graduates.

Earnings early in one's career are important, but lifetime earnings are the basis for undertaking the large investments of time and money for professional school. Table 7 contains data on median earnings by career age. Although these data are cross-sectional, one can infer lifetime age-earnings profiles from them. One interesting attribute of female law graduate earnings is the relatively "steep" age-earnings profile compared with other female professionals save M.D.s. (See chart 3.) This implies two things regarding female law graduates: 1) there is little skill obsolescence and penalty for workforce exit and re-entry (consistent with the labor force re-entry data in table 4); and 2), law has high returns to experience.<sup>25</sup>

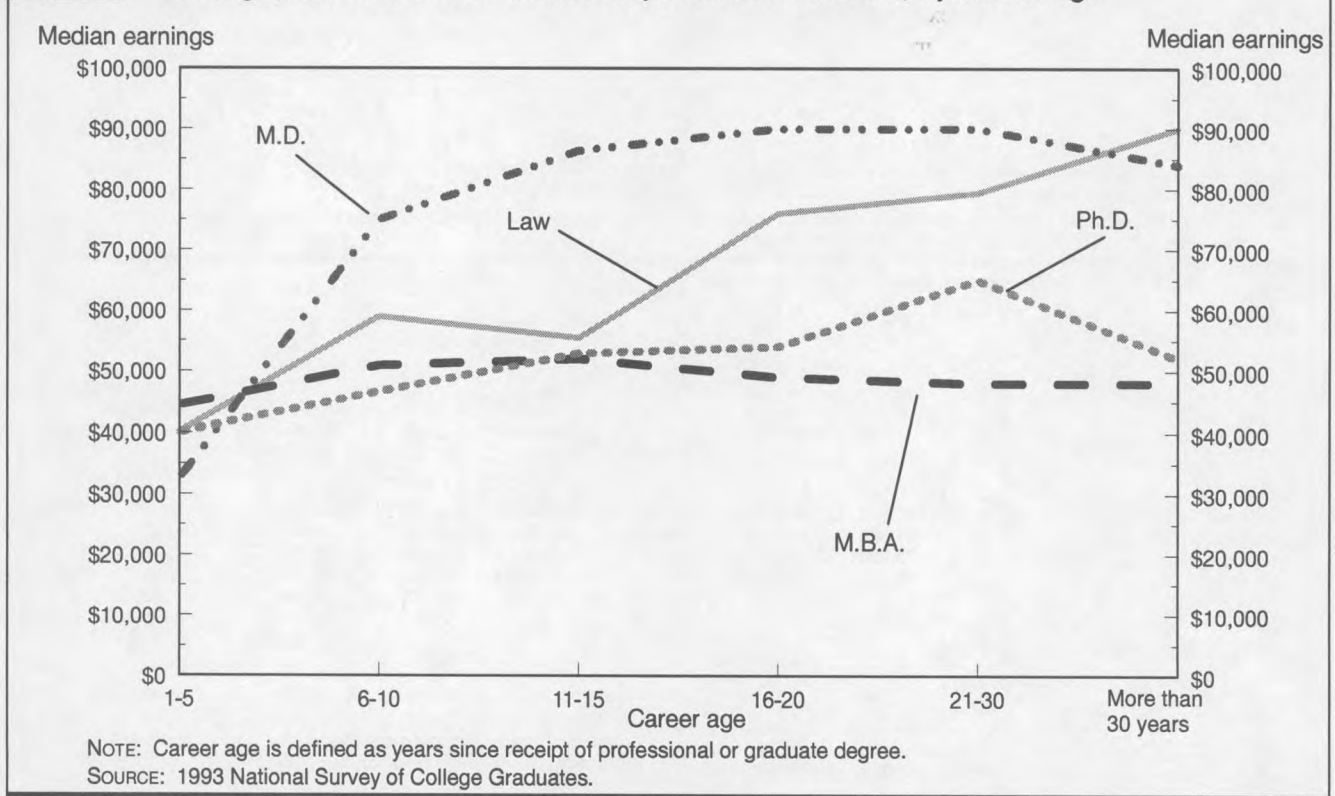
What are the expected lifetime earnings of female professionals? Lifetime earnings can be estimated from the career age-earnings cross-section in table 7. Using the assumption of a 40-year working life, a 1993 male law graduate would expect to earn \$3.2 million—and a female graduate \$2.8 million—over their lifetime.<sup>26</sup> Female lifetime law graduate earnings are exceeded only by female M.D.s. Discounting this future earnings stream to present value does not change these rankings.

### Returns to schooling

While information regarding salaries and lifetime earnings provide information about the relative economic benefits of a career, they have no cost component. Occupational choice theory is grounded in the concept of human capital, which views education as an investment that results in higher future income. A rational individual would thus compare the costs and benefits of alternative careers in order to make a career choice.

The benefits of professional school are the increased earnings associated with a professional career, *ceteris paribus*. A female M.D. expects to make about \$3.2 million over her working life, compared with the lifetime earnings of \$2.8 million for a female law graduate. (See table 7.) However, these earnings are gross benefits, and the decision to undertake a professional career is based upon the increased (or net) earnings one would make over not attending professional school. Thus, one must consider what one's earnings profile would be without a professional degree compared to one with a degree. This is further complicated by the different earnings profiles that men and women have; lifetime earnings also vary with bachelor-degree field.

**Chart 3. Earnings profiles of female workers in professional careers, by career age**



Costs of professional school are composed of direct costs (tuition, fees, books and so forth); opportunity costs of foregone earnings while in school; and psychic costs associated with the stress and difficulty of professional school (the "paper chase"). The largest component is usually the opportunity costs of lost income while in school; this would vary by individual based upon such characteristics as race, sex, age, baccalaureate institution, and bachelor-degree field.

To compare the returns to professional school training for women, table 8 estimates costs and benefits within this human capital framework:

1. Average annual direct costs. There are two components to direct costs: tuition, and books and other fees. The annual tuition data are for 1993 and are from the National Center for Education Statistics. These tuition data are the average of all private and public institutions (in-state tuition) weighted by number of degrees granted. To cover books and other fees, \$1,000 was added annually to these figures. These data were available for law, graduate school (used for doctorates in table 8), and medical school. Estimates for tuition costs for M.B.A. programs were made based upon tuition figures from *Peterson's Guide to Professional Schools* (1999).<sup>27</sup> Student support, with the exception of doctoral education, was ignored. In graduate school, a large number of students receive some support that re-

duces the direct costs of education. Although data on the average level of support are not available, the National Science Foundation estimates that 57 percent of graduate students in the social and behavioral sciences receive some sort of support. As a crude adjustment to the direct costs of graduate school, it was assumed that the net direct costs, on average, were therefore reduced by 57 percent.<sup>28</sup>

2. Foregone earnings (opportunity costs). These costs are based upon the salaries individuals would have earned had they not been in professional school. These salaries are thus based on sex, undergraduate degree, and also length of training period. Using the NSCG data, average bachelor-degree salaries by sex, field of study, and career age were calculated (for example, median starting full-time salary for a woman with a political science bachelor degree; median second-year salary for the same individual). These median salaries were then weighted by the mix of undergraduate degrees held by those attending professional schools. For example, baccalaureate origins for law school graduates were 40 percent social science/history degrees; 16.9 percent business degrees; and 2.4 percent engineering degrees. Thus the average annual forgone earnings for women and men differ for law school because earnings vary by sex and undergraduate study field.

**Table 8. Estimated rates of return to professional degrees by gender**

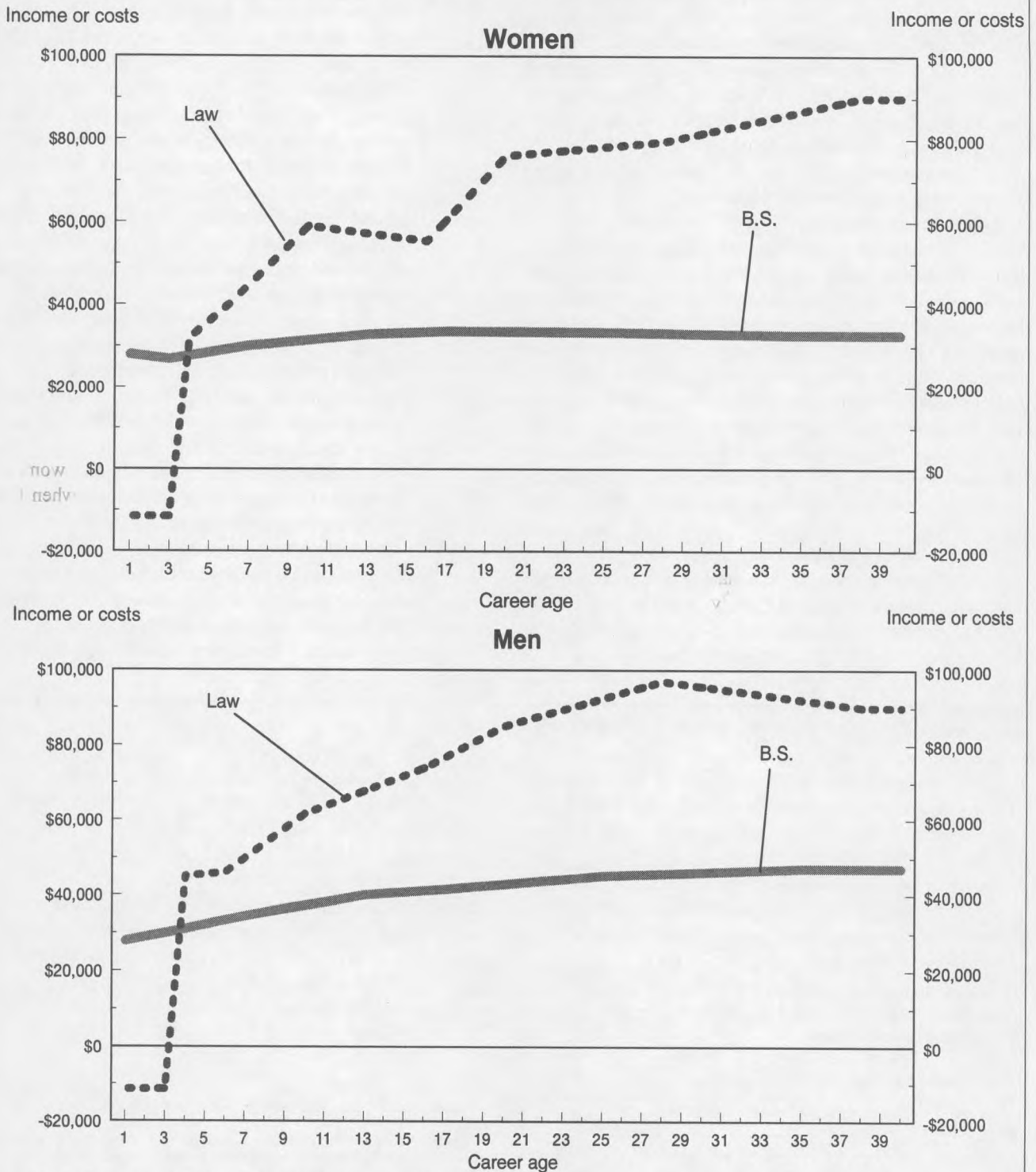
Employer type	Law		M.B.A.		M.D.		Social Science/Psychology Ph.D.	
	Male	Female	Male	Female	Male	Female	Male	Female
<b>Costs of training:</b>								
Average annual direct costs .....	\$11,460	\$11,460	\$7,044	\$7,044	\$13,265	\$13,265	\$2,771	\$2,771
Average annual foregone earnings .....	28,908	27,390	37,097	33,987	31,600	30,134	31,641	28,502
Total .....	40,368	38,850	44,141	41,031	44,865	43,399	34,412	31,273
Training period (years) .....	3	3	2	2	4	4	8	8
Total training costs .....	\$121,104	\$116,550	\$88,282	\$82,062	\$179,460	\$173,596	\$275,296	\$250,184
<b>Lifetime benefits to training:</b>								
Total Bachelor's earnings .....	\$1,568,070	\$1,200,394	\$1,825,805	\$1,355,509	\$1,556,777	\$1,271,354	\$1,401,662	\$1,054,546
Total professional earnings .....	2,941,000	2,586,013	2,617,000	1,850,700	3,438,700	2,845,500	1,773,500	1,708,250
Net lifetime benefits to training .....	1,372,931	1,385,620	791,196	495,191	1,881,923	1,574,147	371,838	653,704
<b>Internal rate of return to training</b>								
(percent) .....	15.8	14.8	14.0	12.5	13.6	12.6	1.3	4.6
Degree completion median age (years) ..	26	27	28	28	27	25	36	37

NOTE: Career age is defined as years since receipt of professional or graduate degree.

SOURCES: Estimated by the author using data from the following sources: Data on earnings and completion age from the 1993 National Survey of College Graduates. Direct training costs from U.S. Department of Education, "Digest of Education Statistics" (Washington, DC: Department of Education, 1998), table

314 and the authors estimates for M.B.A. degrees. Time to degree for Ph.D.s from the National Science Foundation Computer Aided Science and Policy Analysis Research database. Direct costs for Ph.D.s assumes average student receives 57 percent support; this estimate is based upon the National Science Foundation publication "Graduate Students and Postdoctorates in Science and Engineering Fall 1997" (Washington, DC: National Science Foundation, 1999), table 23.

**Chart 4. Returns to schooling for female and male law graduates, 1993**



NOTE: Career age is defined as years since receipt of professional degree.

SOURCE: 1993 National Survey of College Graduates.



3. Lifetime benefits to training. To calculate the net benefits to professional school attendance, lifetime earnings for bachelor-degree only and for professional degrees were calculated using data from the NSCG. The earnings stream for the bachelor-degree only was based upon baccalaureate mix of those who attend a given professional school by sex. All data assumed full-time employment for a 40-year career life.<sup>29</sup>

*Results.* Table 8 contains the results of this analysis. For women attending law school, the total investment for the law degree is estimated at \$116,550 in 1993. The majority of this cost is composed of the average annual full-time earnings that would be given up for the 3-year training period (average of \$27,390 per year). On the benefit side, a female bachelor-degree holder would expect to earn approximately \$1.2 million over her working life; a female law graduate, \$2.6 million. The net benefits (\$1.4 million) of law school thus represent an internal rate of return of 14.8 percent per year on the initial investment of \$116,550. These data are summarized in chart 4; this chart also summarizes the data for male law school graduates.

Male age-earnings profiles are much steeper than those of women's. Over their career life, a male law school graduate's expected earnings are approximately 14 percent more than women. However, when one examines rates of return, this difference is mitigated because women have lower costs of training and also lower bachelor-degree earnings. As a result, female net lifetime earnings exceed that of men's. However, because most of these net benefits accrue in late career, the internal rate of return on professional school investment is lower for women (14.8 percent) than men (15.8 percent). Part of this difference is driven by mid-career decline in law school graduate earnings for women. This decline occurs at career age 10–13 (biological age “thirty-something”), and is likely the result of labor force interruptions for family reasons (this is consistent with the labor force participation data in chart 2). Overall, the rate of return to a female law degree exceeds female professionals in other fields.

Doctorate degrees in social science and psychology have the highest training costs and lowest rates of return of any of

the professional degrees. These statistics are primarily driven by the long time it takes to earn a Ph.D., averaging 8 years in 1993 for these disciplines. In addition, there is considerable risk involved in pursuing these degrees—data indicate that approximately half of all doctoral students in these fields fail to complete degrees.<sup>30</sup>

Why has an explosion occurred in the number of female law graduates beginning in the 1970s? The analysis in this article finds that the legal profession is very attractive to women compared with other professional fields in terms of labor force participation, career re-entry, earnings, and returns to schooling.

In terms of labor force participation, female law graduate participation rates are not higher than the other professional fields in early career. However, a law degree appears to allow for greater ease in re-entry into the field after periods of nonparticipation, especially for jobs that are closely related to the degree field. Also, the rates of labor force participation over a working career are very high for female law graduates versus the other professional fields.

When one compares early career earnings of women in different professions, law ranks first. Further, when these median salaries are adjusted to reflect length of workweek, female law graduate earnings exceed that of male law graduates. Finally, female law graduate earnings have a relatively steep profile over the working life compared with other professional fields that show decline in earnings, especially in later career. Expected lifetime earnings of female law graduates are exceeded only by female M.D.s.

When one considers both the costs and benefits of professional school attendance, an even stronger economic case for law school emerges. Using a human capital analysis, the internal rate of return on a law school education averaged a 14.8-percent annual rate for women, which exceeded returns to female human capital investment in the comparison fields.

There are substantial economic reasons why women have been attracted to law during the last three decades. As female participation in higher education grew, law appears to have been able to attract a disproportionate share of these new professional school entrants based upon favorable economic factors compared with other professional fields. □

## Notes

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<sup>1</sup> Marjorie Williams, “A Women’s Place is at the Bar,” *The Washington Post*, April 4, 2001, p. A23.

<sup>2</sup> These data are from the National Center for Education Statistics, as reported on the National Science Foundation CASPAR Web site [www.nsf.gov/sbe/srs/stats.htm](http://www.nsf.gov/sbe/srs/stats.htm).

<sup>3</sup> In 1966, social science (10.9 percent female) and psychology (20.9 percent female) doctorates are fields that already had high percentages

of women; this high rate of feminization in the base year limits the potential growth in the index number.

<sup>4</sup> Sherwin Rosen, "The Market for Lawyers," *Journal of Law and Economics*, October 1992, p. 218.

<sup>5</sup> See the Current Population Survey, Bureau of Labor Statistics, on the Internet at <http://data.bls.gov/servlet/SurveyOutputServlet>

<sup>6</sup> These data are from the National Center for Education Statistics, as reported on the National Science Foundation CASPAR Web site [www.nsf.gov/sbe/srs/stats.htm](http://www.nsf.gov/sbe/srs/stats.htm).

<sup>7</sup> Wynn R. Huang, "Gender Differences in the Earnings of Lawyers," *Columbia Journal of Law & Social Problems*, vol. 30, 1997, p. 267.

<sup>8</sup> *Ibid.*

<sup>9</sup> Paul W. Mattessich and Cheryl W. Heilman, "The Career Paths of Minnesota Law School Graduates: Does Gender Make a Difference?" *University of Minnesota Law Review*, vol. 9, 1990, p. 59.

<sup>10</sup> Rosen, *Journal of Law and Economics*.

<sup>11</sup> Robert L. Nelson, "The Futures of American Lawyers; A Demographic Profile of a Changing Profession in a Changing Society," *Case Western Reserve Law Review*, vol. 44, 1994, p. 379.

<sup>12</sup> John Hagan and Fiona Kay, *Gender in Practice* (New York, Oxford University Press, 1995.)

<sup>13</sup> Robert G. Wood, Mary E. Corcoran, and Paul N. Courant, "Pay Differences Among the Highly Paid: The Male-Female Earnings Gap in Lawyers' Salaries," *Journal of Labor Economics*, vol. 11, 1993, p. 417.

<sup>14</sup> Richard H. Sander and E. Douglas Williams, "Why Are There So Many Lawyers? Perspectives on a Turbulent Market," *Law & Social Inquiry*, vol. 14, 1989, p. 431.

<sup>15</sup> The NSCG is a re-survey of 1990 Census recipients who reported a bachelor degree or higher from any source. More information about the NSCG survey methodology can be found on the Internet at <http://www.nsf.gov/sbe/srs/snscg/cgmeth.htm>

<sup>16</sup> 1993 National Survey of College Graduates.

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

<sup>18</sup> Gary S. Becker, "A Theory of the Allocation of Time," *Economic Journal*, vol. 75, 1965.

<sup>19</sup> *Ibid.*, p. 493.

<sup>20</sup> "Married with children" composes the following percentages of women by professional degree (all career ages): law, 40.9 percent; M.B.A., 42.9 percent; M.D., 47.6 percent; and Ph.D., 38 percent.

<sup>21</sup> It should be noted that many M.D.s are still in residency during early career and have relatively low earnings.

<sup>22</sup> This finding is very close to Wood et al. (1993), who found that 5 years after graduation female Michigan Law graduates earned 90 percent of males.

<sup>23</sup> The Bureau of Labor Statistics estimates that the average workweek for all professionals in 1997 was 45.7 hours for men and 43.3 hours for women. See *Employment and Earnings*, vol. 45 (Bureau of Labor Statistics, January 1998), table 23.

<sup>24</sup> These data are from the 1990 census.

<sup>25</sup> Wood et al. (1993) found little earnings penalty to female law graduates who took time off to care for children. However, they found that part-time work had a "permanent, and sizeable reduction in earnings capacity" for women.

<sup>26</sup> Women on average have shorter working lives than men. 1994 data indicate that at age 25, female college graduates have an expected working life of 31.8 years compared to 35.8 years for men. See Ronald G. Ehrenberg and Robert S. Smith, *Modern Labor Economics* (New York, Addison-Wesley, 2000), table 9.2.

<sup>27</sup> *Peterson's Graduate Programs in Business, Health, Information Studies, Law, and Social Work*, (Princeton, NJ: Peterson's Guides, 1999). These tuition data were deflated to 1993 values and weighted by private and public enrollment in M.B.A. programs for 1993.

<sup>28</sup> It should be noted that the results are not very sensitive to this assumption for two reasons: first, direct costs are less than 10 percent of costs of training; and second, the returns to investment are very low for graduate and professional school, and relatively insensitive to direct costs estimates.

<sup>29</sup> Not all career working lives are the same, and data show that women have shorter careers to recover human capital investments than men (see endnote 26). However, discounting reduces the present value of earnings beyond 35 years to such small amounts that this assumption is not critical.

<sup>30</sup> Ronald G. Ehrenberg, "The Flow of New Doctorates," *Journal of Economic Literature*, vol. 30, 1992, table 2.3.

# Employment restructuring during China's economic transition

*As in developed countries, China's service sector has become the main job creator, the country's labor force is better educated, and the average age of the employed is rising; driving those phenomena are a fast-paced employment restructuring and a growing private enterprise at the expense of State and collective ownership*

Ming Lu,  
Jianyong Fan,  
Shejian Liu,  
and  
Yan Yan

**D**uring the 1980s and 1990s, China underwent considerable employment restructuring as a result of economic development and institutional reform. In particular, employment growth was rapid in the country's secondary and tertiary industries. The private sector became the main job creator, while employment in the State sector shrank. Before the restructuring, China already had shared some features with Western economies. For example, the Chinese labor force is reasonably well educated, women's share of the labor force rose with the growth of the tertiary industry, and the average age of the labor force is increasing. This article examines the causes and consequences of employment restructuring in China and its relation to economic and social development.

### Changes in industrial employment

Although China has a large population, employment managed to increase by an average rate of 2.63 percent each year during the last two decades. Certainly, this high growth in employment should be attributed chiefly to the country's rapid economic growth during reform. At the same time, the Government still forbade the free dismissal of redundant labor in State-owned enterprises. Accordingly, employment growth in the booming private sector was partly cancelled by the effects of labor separation in those enterprises.

Chart 1 shows the transformation of the Chinese economy from 1978 to 2000 from an economy domi-

nated by primary industries to one in which secondary and tertiary industries now make up half of employment.<sup>1</sup> The employment share of primary industries dropped radically, from almost 71 percent in 1978 to 50 percent in 2000. Over the same period, the employment share of secondary industries climbed from just over 17 percent to almost 23 percent, and that of tertiary industries rose from slightly more than 12 percent to almost 28 percent. The increases are attributable to industrialization, as well as the ongoing changeover from a State-dominated economy to one in which private industry plays an ever-increasing role. The tertiary industries averaged about 6.5-percent growth each year, while the primary and secondary industries posted 1-percent and 4-percent growth, respectively.<sup>2</sup>

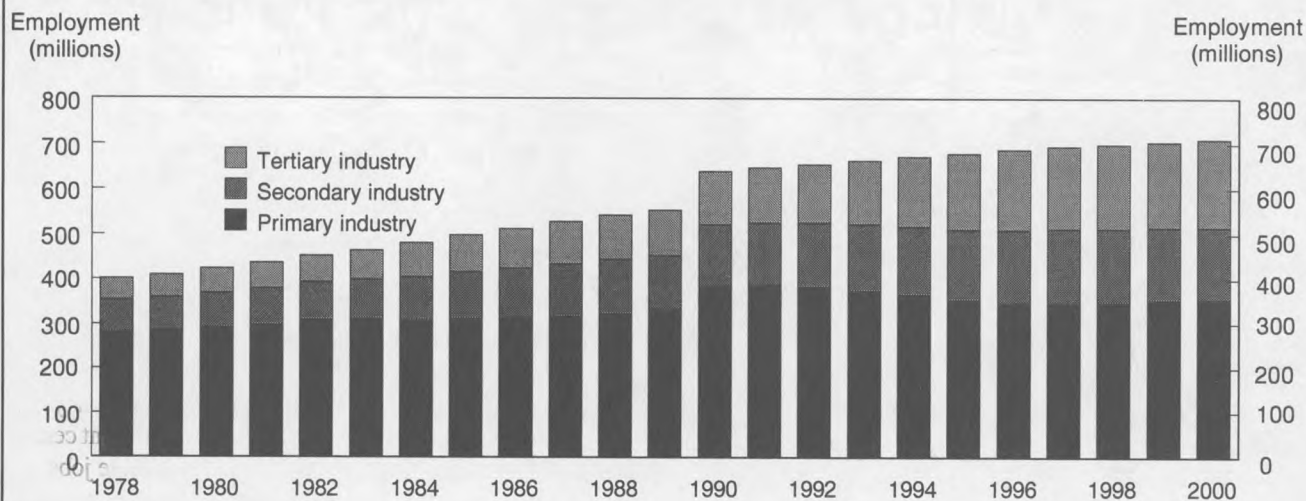
The employment elasticity of gross domestic product (GDP) enables us to compare the labor absorption of the three types of industry. Evidently, the tertiary industry has always been the strongest in absorbing labor, while the other two industries performed weakly in job creation in the 1990s. (See chart 2.) Since 1997, the secondary industry has seen negative employment elasticity of GDP, attributable to a fast contraction of employment in the industry due to reform of the system, especially during recent years.

### Employment by sector

An analysis of the employment structure by sector aids in identifying the sectors that have been

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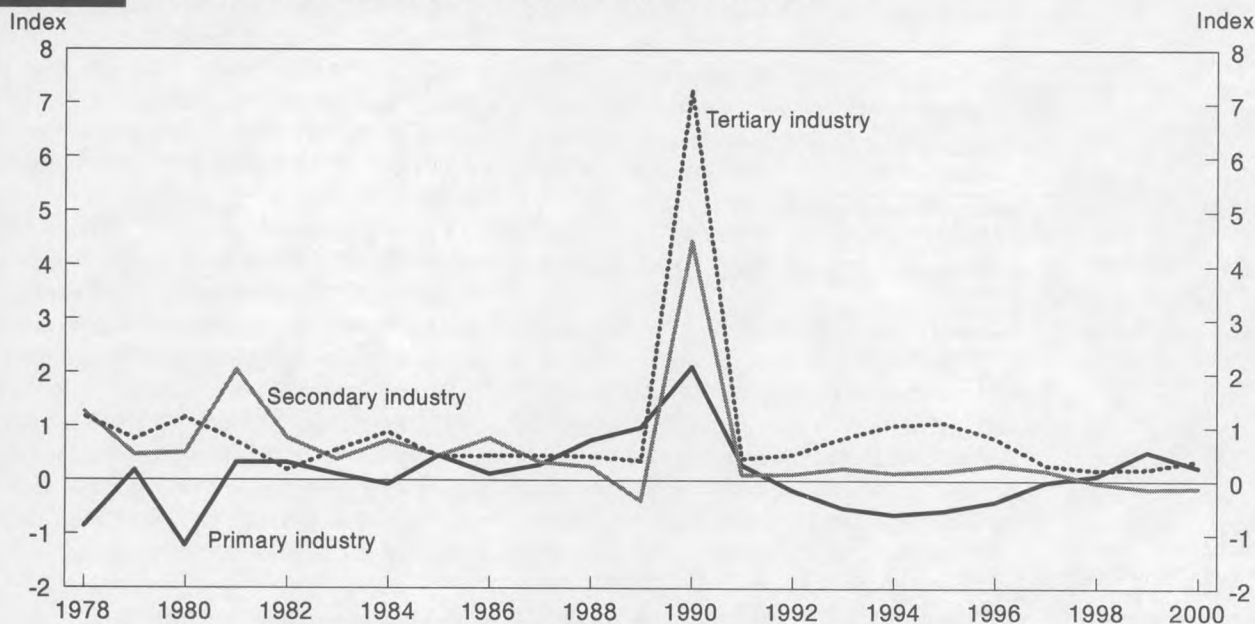
**Chart 1. Changes in employment by industry, 1978-2000**



NOTE: Data from 1990 onward are not comparable to data before 1990, because only since 1990 are working 15-year-olds included among employed persons.

SOURCE: *China Statistical Yearbook, 2000; Summary of China Statistics, 2001.*

**Chart 2. Employment elasticity of GDP by industry, 1978-2000**



NOTE: Employment elasticities were at a high peak in 1990 because that was the year that working 15-year-olds were first included among employed persons.

SOURCE: Authors' calculations based on data from *China Statistical Yearbook, 2000* and *Summary of China Statistics, 2001.*

the main job creators during China's period of economic development and restructuring. Table 1 shows that the employment share of the manufacturing industry reached its peak at the end of the 1980s and declined thereafter. The selected sectors in the tertiary industry—especially wholesale and retail trade and catering services, as well as social services—had rapid growth in their employment share. The service sec-

tor not only created a large number of jobs from 1978 to 2000, but also is most able to absorb labor, due to its higher employment elasticity of GDP. In contrast, with a negative employment elasticity, the manufacturing sector is now losing excess labor. (See table 2.)

## State and private employment

As the Chinese economy shifted from essentially complete ownership of the means of production by the State to increasing levels of private ownership, the private economy became a more and more important source of job creation. With its freer policies, greater efficiency, and less socially encumbered outlook, the private sector is developing faster and faster, while the State's share of employment and production is declining.

*Employment in the State sector.* Chart 3 plainly shows the decline in the employment share of State units over the 1978–2000 period, although the numbers of employed persons began to decline—somewhat sharply—only in recent years. Since 1996, the Government has set up reemployment centers to deal with “excess” workers separated from State jobs, the main component of the unemployed in the State sector.

Because it is easier for private firms to enter those sectors of the market which require only a small-scale investment, the State's share of employment is declining most in sectors such as wholesale and retail trade and catering services. However, in sectors such as finance and insurance, where large investments are the norm, State units still hold a large share of employment. (See table 3.)

*Employment in urban collective-owned units.* A collective-owned unit is just that: an enterprise owned by a collective—for example, the workers of the enterprise or the residents of the community in which the enterprise is located. Like State units, urban collective-owned units experienced a decline in their employment share, but more sharply. In addition, the number of employed persons in urban collective-owned units began to fall in 1992, earlier than that in State units. The employment share of urban collective-owned units dropped in each of the four selected sectors shown in table 4, although much more slowly in finance and insurance. (Under the regulations governing entry into the finance and insurance industry, private firms cannot freely open businesses.)

*Employment in township and village enterprises.* A township or village enterprise is registered as owned by residents of a rural community or a township or village government. In China's rural areas, employment in township and village enterprises is growing faster, as a percentage of employment, than rural employment as a whole. The share of township and village enterprises' employment out of total rural employment

**Table 1.** Share of employment in Chinese economy, main sectors, 1978–2000

[In percent]

Year	Manufacturing	Wholesale and retail trade and catering services	Banking and insurance	Social services
1978 .....	13.3	2.8	0.2	0.4
1979 .....	13.5	3.0	.2	.5
1980 .....	13.9	3.2	.2	.7
1981 .....	14.0	3.4	.2	.7
1982 .....	14.0	3.5	.3	.7
1983 .....	14.0	3.7	.3	.8
1984 .....	14.6	4.1	.3	.9
1985 .....	14.9	4.6	.3	.8
1986 .....	15.6	4.7	.3	.9
1987 .....	15.8	4.9	.3	1.0
1988 .....	15.9	5.1	.4	1.0
1989 .....	15.5	5.0	.4	1.0
1990 .....	13.5	4.4	.3	.9
1991 .....	13.6	4.6	.4	.9
1992 .....	13.9	4.9	.4	1.0
1993 .....	14.0	5.2	.4	.8
1994 .....	14.3	5.8	.4	.9
1995 .....	14.4	6.3	.4	1.0
1996 .....	14.2	6.6	.4	1.1
1997 .....	13.8	6.9	.4	1.2
1998 .....	11.9	6.6	.5	1.2
1999 .....	11.5	6.7	.5	1.3
2000 .....	11.3	6.6	.5	1.3

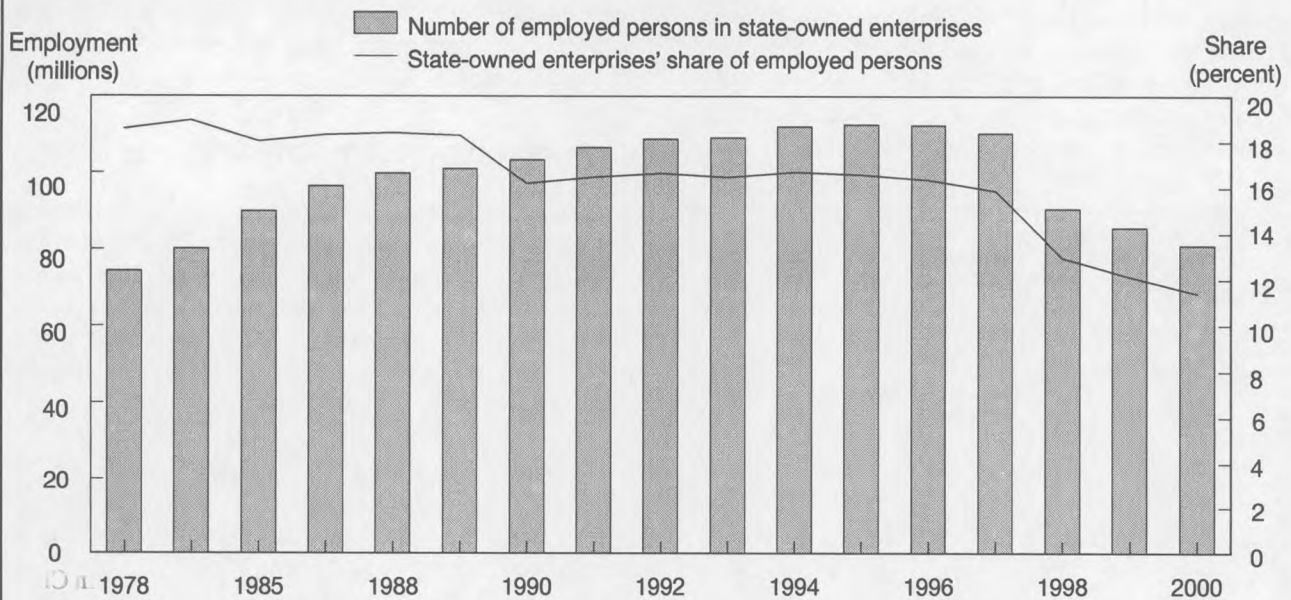
SOURCE: *China Statistical Yearbook, 2000* (Beijing, China Statistical Publishing House, 2000); *Summary of China Statistics, 2001* (Beijing, China Statistical Publishing House, 2001). Data published in the yearbooks are based on labor force surveys and cover all of mainland China except Hong Kong and Macau.

**Table 2.** Employment elasticity of gross domestic product, main sectors of Chinese economy, 1991–98

Year	Manufacturing	Wholesale and retail trade and catering services	Banking and insurance	Social services
1991 .....	0.3	0.6	0.8	0.2
1992 .....	.2	.5	.4	.5
1993 .....	.2	.6	.7	-1.2
1994 .....	.3	1.1	-.2	1.2
1995 .....	.2	.9	.4	1.2
1996 .....	-.0	.5	.6	.7
1997 .....	-.2	.7	.6	1.0
1998 .....	-1.7	-.4	.3	.9

SOURCE: By authors' calculation based on data from *China Statistical Yearbook, 2000* (Beijing, China Statistical Publishing House, 2000); and *Summary of China Statistics, 2001* (China Statistical Publishing House, 2001). Data published in the yearbooks are based on labor force surveys and cover all of mainland China except Hong Kong and Macau.

**Chart 3. Employment in state-owned enterprises, 1978–2000**



NOTE: Data from 1990 onward are not comparable to data before 1990, because only since 1990 are working 15-year-olds included among employed persons.

SOURCE: *China Statistical Yearbook, 2000.*

and, indeed, out of the employment of the whole country grew rapidly over the 1978–99 period, but during the 1990s, the growth rate declined somewhat. (See table 5.) Table 6 shows the share of employment held by township and village enterprises, by sector, from 1978 to 1998. It is plain that township and village enterprises' share of employment in transportation and in commerce and catering services grew faster than did manufacturing's and construction's shares, but manufacturing still accounts for the major part of township and village enterprises' employment. The faster growth of township and village enterprises' share of employment in tertiary industry is not unexpected, because of the ongoing urbanization of rural areas of China.

*Employment in individual and private enterprises.* Since the 1990s, employment among both the self-employed and private enterprises in general has registered a high growth rate. (See table 7.) In particular, private enterprises have contributed greatly to job creation. Meanwhile, the employment elasticity of GDP of the self-employed and of private enterprises in general is considerably higher than that of enterprises of different ownership. (See table 8.) It appears that, lacking funds and technology, self-employed individuals and private enterprises prefer labor-intensive production.

*Distribution of urban first-time workers, by ownership.* An

examination of the distribution of urban first-time workers, by type of ownership, shown in the following tabulation, reveals

**Table 3. State-owned enterprises' share of employment in main sectors of Chinese economy, 1978, 1980, and 1985–99**

[In percent]

Year	Manufacturing	Wholesale and retail trade and catering services	Banking and insurance	Social Services
1978 .....	45.9	79.6	55.3	59.8
1980 .....	44.1	73.7	63.6	47.1
1985 .....	40.1	34.7	67.4	45.1
1986 .....	38.6	34.2	66.5	41.4
1987 .....	38.4	33.0	66.5	40.5
1988 .....	38.5	32.8	66.0	40.1
1989 .....	39.1	33.3	66.3	40.2
1990 .....	39.4	33.4	66.5	39.7
1991 .....	39.4	33.1	65.8	41.6
1992 .....	38.7	32.3	66.9	41.8
1993 .....	37.1	29.3	67.4	54.0
1994 .....	34.6	26.9	74.2	49.2
1995 .....	34.0	24.7	73.6	44.8
1996 .....	33.0	23.4	71.2	44.0
1997 .....	31.3	21.6	68.2	42.6
1998 .....	22.6	14.9	66.2	37.1
1999 .....	20.3	12.8	62.5	34.6

SOURCE: *China Statistical Yearbook, 2000* (Beijing, China Statistical Publishing House, 2000). Data published in the yearbook are based on labor force surveys and cover all of mainland China except Hong Kong and Macau.

**Table 4. Urban collective-owned enterprises' share of employment in main sectors of Chinese economy, 1978, 1980, and 1985-99**

[In percent]				
Year	Manufacturing	Wholesale and retail trade and catering services	Banking and insurance	Social Services
1978	21.5	15.1	30.3	33.0
1980	22.8	17.2	26.3	31.9
1985	21.7	31.1	23.9	21.7
1986	21.0	29.8	24.3	19.5
1987	20.6	28.0	24.1	18.6
1988	20.2	26.9	23.2	17.6
1989	20.5	27.0	23.9	17.1
1990	20.6	26.8	23.4	15.7
1991	20.2	26.2	23.1	16.2
1992	19.2	24.8	23.0	14.9
1993	17.2	21.5	20.4	18.6
1994	15.8	18.3	23.5	16.3
1995	14.5	16.2	24.3	13.4
1996	13.8	14.8	25.0	11.5
1997	12.9	13.3	24.4	10.7
1998	8.9	8.9	22.6	7.8
1999	7.7	7.3	21.3	7.0

SOURCE: *China Statistical Yearbook, 2000* (Beijing, China Statistical Publishing House, 2000). Data published in the yearbook are based on labor force surveys and cover all of mainland China except Hong Kong and Macau.

**Table 5. Township and village enterprises' employment and employment shares in Chinese economy, 1978, 1980, 1985, and 1987-99**

Year	Township and village enterprises' employment (millions)	Rural employment (millions)	Township and village enterprises' share in rural employment (percent)	Township and village enterprises' share in total employment (percent)
1978	28.3	306.4	9.2	7.0
1980	30.0	318.4	9.4	7.1
1985	69.8	370.7	18.8	14.0
1987	88.1	390.0	22.6	16.7
1988	95.5	400.7	23.8	17.6
1989	93.7	409.4	22.9	16.9
1990	92.7	472.9	19.6	14.5
1991	96.1	478.2	20.1	14.8
1992	106.3	483.1	22.0	16.2
1993	123.5	487.8	25.3	18.6
1994	120.2	487.9	24.6	17.9
1995	128.6	488.5	26.3	18.9
1996	135.1	490.4	27.6	19.6
1997	130.5	493.9	26.4	18.8
1998	125.4	492.8	25.4	17.9
1999	127.0	495.7	25.6	18.0
Annual growth (percent) .....	7.4	2.32	—	—

NOTE: Dash indicated not calculated.

SOURCE: *China Statistical Yearbook*, various years (Beijing, China Statistical Publishing House). Data published in the yearbooks are based on labor force surveys and cover all of mainland China except Hong Kong and Macau.

that State-owned and collective-owned units are providing fewer and fewer jobs for such individuals:<sup>3</sup>

Type of ownership	Millions of workers		
	1990	1995	1997
State-owned establishments	4.75	2.60	2.26
Collective-owned establishments	2.35	1.70	1.28
Establishments under other types of ownership	.35	1.55	1.92
Self-employed	.40	1.35	1.64

In contrast, an increasing number of first-time workers are employed in privately owned firms or are self-employed.

### Composition of employment

Compared with developed countries, and even some developing countries, the labor force of China is less educated. However, things are changing. From 1996 to 1999, those in the labor force with less than a junior middle school (grades 7-9) education saw their numbers decrease by 4 percent. During the same period, the number of employed persons with higher education increased by 1 percent. The following tabulation presents the composition of employed person in China, by highest education level attained:<sup>4</sup>

Education level	Percent			
	1996	1997	1998	1999
Total	100.0	100.0	100.0	100.0
No schooling	13.0	11.6	11.5	11.0
Primary school (grades 1-6)	35.3	34.8	34.2	33.3
Junior middle school (grades 7-9)	37.5	37.9	38.9	39.9
Senior middle school (grades 10-12)	11.3	12.1	11.9	11.9
Higher education (college or university)	2.8	3.5	3.5	3.8

Compared with their share in 1996, the share of employed persons aged 15 to 34 years was smaller in 1998. This might be partly because more youths postponed their entry into the labor market in 1998 and undertook a college education instead. The change in the structure of employed persons by age from 1996 to 1998 is also attributable to the aging of the Chinese population. Table 9 shows the structure of employment in China, by age, in 1996 and 1998.

The composition of employment by sex in China is also of interest. From 1978 to 1998, the proportion of women workers in State-owned enterprises, as well as the proportion in other enterprises, was consistently lower than that of men. Over the period, though, the proportion of women workers in State-owned enterprises increased steadily, while the proportion in other enterprises rose and then fell. (See table 10.) As in developed countries, the expansion of the tertiary industry may have caused an increase in the number of women in the labor market, chiefly because more jobs became available for women, but also because the growth of the service sector freed more women to work.

**Table 6.** Township and village enterprises' share of employment in main sectors of Chinese economy, 1978, 1980-92, 1994, 1996, and 1998

[In percent]

Year	Agriculture	Manufacturing	Construction	Transportation	Commerce and catering services
1978 .....	21.5	61.4	8.3	3.7	5.1
1980 .....	15.2	64.8	11.1	3.8	5.1
1981 .....	12.8	66.7	11.8	3.6	5.1
1982 .....	11.1	66.6	13.5	3.6	5.2
1983 .....	9.6	67.0	14.9	3.4	5.1
1984 .....	5.5	70.2	13.1	2.5	8.7
1985 .....	3.6	59.3	16.8	6.4	13.9
1986 .....	3.0	60.0	16.0	6.8	14.2
1987 .....	—	59.8	15.6	7.1	14.7
1988 .....	2.6	59.7	15.6	7.2	17.9
1989 .....	2.6	60.0	15.6	7.5	14.9
1990 .....	2.5	60.1	14.5	7.7	15.1
1991 .....	2.5	60.5	14.4	7.6	15.0
1992 .....	2.5	59.6	14.6	7.5	15.8
1994 .....	2.3	61.4	14.3	—	17.0
1996 .....	2.5	58.2	14.4	7.9	17.0
1998 .....	2.2	58.5	13.0	7.1	19.2
Growth rate .....	-3.9	7.5	10.2	11.3	15.1
Employment elasticity .....	-.3	.3	.4	.4	.5

NOTE: Dash indicates data not available.

SOURCE: *China's TVE Yearbook*, various years (Beijing, Agriculture Press).**Table 7.** Number of establishments, employment, and employment share for self-employed individuals and private enterprises in China, 1989-98

Year	Private establishments	Characterized as self-employed (millions)	Employment (millions)		Employment share (percent)	
			Private establishments	Self-employed	Private establishments	Self-employed
1989 .....	90,581	12.5	1.6	19.4	0.3	3.5
1990 .....	98,141	13.3	1.7	21.1	.3	3.3
1991 .....	107,843	14.2	1.8	23.1	.3	3.6
1992 .....	139,633	15.3	2.3	24.7	.4	3.8
1993 .....	237,919	17.7	3.7	29.4	.6	4.4
1994 .....	432,240	21.9	6.5	37.8	1.0	5.6
1995 .....	654,531	25.3	9.6	46.1	1.4	6.8
1996 .....	819,252	27.0	117.1	50.8	1.7	7.3
1997 .....	960,726	28.5	135.0	54.4	1.9	7.8
1998 .....	1,200,978	31.2	171.0	61.1	2.4	8.7

NOTE: Number of establishments characterized as self-employed differs from number of self-employed persons because some self-employed establishments have more than one self-employed person.

SOURCE: Houyi Zhang and Lizhi Ming, *Report on the Development of China's Private Enterprises, 1999* (Beijing, Social Sciences Documentation Publishing House, 2000).**Table 8.** Employment elasticity of GDP of private enterprises and self-employed individuals in China, 1990-98

Year	Employment growth (percent)		Production growth (percent)		Employment elasticity	
	Private establishments	Self-employed	Private establishments	Self-employed	Private establishments	Self-employed
1990 .....	3.7	8.5	23.4	14.8	0.2	0.6
1991 .....	8.2	9.6	17.6	21.8	.5	.4
1992 .....	26.1	6.9	34.1	18.4	.8	.4
1993 .....	60.8	19.1	92.7	49.8	.7	.4
1994 .....	73.7	28.4	148.4	18.1	.5	1.6
1995 .....	47.5	22.2	86.5	70.4	.6	.3
1996 .....	22.5	8.7	34.5	26.8	.7	.3
1997 .....	15.3	8.5	20.8	28.7	.7	.3
1998 .....	26.7	12.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> Combined production growth for private establishments and self-employed individuals was 51.8 percent.<sup>2</sup> Combined production growth for private establishments and self-employed individuals was .5 percent.

NOTE: Data on production are deflated by consumer price indexes, with 1989 as the base year.

SOURCE: Houyi Zhang and Lizhi Ming, *Report on the Development of China's Private Enterprises, 1999* (Beijing, Social Sciences Documentation Publishing House, 2000); *China Statistical Yearbook*, various years (Beijing, China Statistical Publishing House). Data published in the yearbooks are based on labor force surveys and cover all of mainland China except Hong Kong and Macau.



**Table 9. Structure of employed persons in China, by age, 1996 and 1998**

[In percent]

Age group	1996	1998
Total .....	100.0	100.0
16-19 .....	6.0	5.8
20-24 .....	13.0	11.1
25-29 .....	16.6	15.9
30-34 .....	16.2	16.0
35-39 .....	10.5	11.5
40-44 .....	12.3	12.3
45-49 .....	9.0	10.0
50-54 .....	6.2	6.7
55-59 .....	4.6	4.5
60-64 .....	3.1	3.1
65 or older .....	2.7	3.0

NOTE: Data earlier than 1996 are not comparable to data listed.

SOURCE: *China Statistical Yearbook, 1997, 1999* (Beijing, China Statistical Publishing House, 1997, 1999). Data published in the yearbooks are based on labor force surveys and cover all of mainland China except Hong Kong and Macau.

**Table 10. Proportion of women workers in China, 1978, 1980, and 1985-98**

Year	Percent of workforce	Percent in State-owned enterprises	Percent in other enterprises
1978 .....	32.9	28.5	—
1980 .....	35.4	30.8	—
1985 .....	36.4	32.4	45.5
1986 .....	36.6	32.8	47.3
1987 .....	36.8	33.2	48.6
1988 .....	37.0	33.4	49.5
1989 .....	37.4	33.9	50.8
1990 .....	37.7	34.2	51.2
1991 .....	37.8	34.5	52.3
1992 .....	37.8	34.7	52.1
1993 .....	37.3	35.1	47.6
1994 .....	38.0	35.5	47.9
1995 .....	38.6	36.1	48.3
1996 .....	38.7	36.4	47.5
1997 .....	38.8	36.5	47.2
1998 .....	37.9	36.1	43.0

NOTE: Dash indicates data not available.

SOURCE: *China Labor and Social Security Yearbook, 1999* (Beijing, China Statistical Publishing House, 1999).

THIS ARTICLE HAS EXAMINED THE STRUCTURE OF employment in China and its evolution over the past couple of decades, after

market reform was introduced into the country. Employment restructuring in China shares some common characteristics with that in developed countries. First, the tertiary industry—especially the service sector—has become the main job creator. Second, the labor force has become better educated as higher level skills and more knowledge played an increasingly important role in the economic transition. Third, the average age of the employed has risen, partly because youths are furthering their education and, consequently, entering the labor market later. Finally, women's share of the labor force is lower than that of men, although their proportion in State-owned units has risen.

China's economy also has its distinctive features. The country's rapid economic development has required its industrial structure to adjust to the quickly changing conditions, and the adjustment has not often been easy. Moreover, the composition of employed persons by type of ownership has changed greatly over the reform period. The proportion of employment in State-owned and collective-owned units has declined sharply, especially in sectors, such as manufacturing and services, that private establishments find it relatively easy to enter. In the meantime, private enterprises have become the major job creators for both those already employed and those just entering the marketplace. Part of the ability of private enterprises to create jobs stems from the labor-intensive technology that those enterprises have adopted, which requires more workers and thus holds out more promise of absorbing labor. □

## Notes

<sup>1</sup> Primary industries include forestry, animal husbandry, and fishing; mining and quarrying, manufacturing, and construction are classified as secondary industries; and banking and insurance, wholesale and retail trade and catering services, and social services are considered tertiary industries.

<sup>2</sup> The employment growth figures presented are the authors' calculations, based on employment data from *China Statistical Yearbook, 2000* (Beijing, China Statistical Publishing House, 2000).

<sup>3</sup> *China Statistical Yearbook, 1998* (Beijing, China Statistical Publishing House, 1998).

<sup>4</sup> *Ibid.*, various years.

## Inequality update

Earnings, income, and wealth are unequally distributed among American households and, according to Santiago Budria Rodriguez, Javier Diaz-Gimenez, Vincenzo Quadrini, and Jose-Victor Rios-Rull writing in the Federal Reserve Bank of Minneapolis *Quarterly Review*, the basic facts about those inequalities did not change much in the 1990s.

Wealth is the most concentrated of the three variables in 1998. Statistics such as the Gini index show that labor earnings are somewhat more concentrated than income in aggregate, but there is a twist to these distributions at the top of the scale. The authors write, "The Lorenz curve for earnings lies below the Lorenz curve for income in the bottom part of the distribution, and these roles are reversed after approximately the 87th percentile. This implies that income is more equally distributed than earnings except in the top tail of the distribution." They attribute this to income transfers to lower income households.

To measure changes in concentration, Rodriguez and his colleagues compared the 1998 results of the 1998 Survey of Consumer Finances (SCF) to those of the 1992 SCF, adjusting the latter for changes in variable definition. They found small changes between the two surveys. Earnings inequality, as measured by the Gini index, edged down from 0.629 in 1992 to 0.611 in 1998. Over the same interval, the Gini index for income decreased from 0.574 to 0.533, while the Gini index for wealth inched up from 0.791 to 0.803.

Using these distributions of inequality, Rodriguez and his colleagues define rich and poor subgroups in terms of wealth, income, and earnings. They found, "The rich tend to be rich in all three dimensions. This is not the case for the poor." Specifically, the earnings-poor had a fair amount of wealth. Part was accounted for by the presence in the lower earnings group of retired households with some accumulated

wealth and business owners with negative labor earnings due to financial distress in the business, but significant wealth and capital income. Conversely, the wealth-poor, who tended to be young and single, were often reasonably well off in terms of earnings and income.

## Telecommuting and home life

Wide-scale working from home with the support of computers and telecommunications tolls has been forecast as next year's big thing for the past couple of decades. "Yet," writes British sociologist Susan Baines in the journal *New Technology, Work and Employment*, "the uptake of telework has persistently lagged behind expectations."

One of the barriers to its adoption Baines examines is the stress that results from blurring the boundaries between work and home. In general, the discomfort involved trying to fit work into the physical and, more importantly, the emotional space of a worker's home has been under-recognized. Several teleworkers interviewed by Baines reported feeling either physically cramped by the additional paraphernalia of an at-home workspace or emotionally stressed from domestic conflict over the use of space, or both.

Some of this tension may reflect the fact that the study was conducted in Great Britain and Baines cites other papers that suggest that housing there is poorly designed for working in. However, Baines' point that "the home can be an awkward and inflexible place to work, a place where space is often not adequate for the competing demands of domestic life and work," may well be more universal. See, for a complementary example, the Stanford University study which characterized telework as "invading" the home and intruding into many other aspects of life as well. (The Précis in the March 2000 *Review* summarized this report.)

## Economic importance of good schools

"There is," according to Eric A. Hanushek in a recent *NBER Working Paper*, "mounting evidence that quality [of schooling]—generally measured by test scores—is positively related to individual earnings, productivity, and economic growth." Early studies of education and wages focused on the return to an undifferentiated year of schooling and suggested little effect of differences in cognitive ability if quantity of education was held constant. More recent studies surveyed by Hanushek indicate that higher quality of education, as measured by standard tests, is linked to individual productivity and earnings. Also, higher individual achievement scores are correlated with the probability of continued school attendance—a sort of quality-leads-to-quantity effect.

## Consumer confidence post-September 11

The events of September 11th had significant effects on the U.S. economy beyond the loss of human life and destruction of property. According to C. Alan Garner, in the Federal Reserve Bank of Kansas City *Economic Review*, consumer confidence, which many expected to be hugely impacted in the aftermath of the attacks, proved to be "surprisingly resilient."

Both major private surveys of consumers (one by the Conference Board and one by the University of Michigan) fell sharply in the autumn of 2001. Garner's research, however, shows that some decline occurred before September 11 and that the impacts of the terrorist attacks were not statistically significant once already deteriorating conditions were taken into account. By the end of 2001, both indexes of consumer attitudes had started to recover and seemed to be maintaining their usual relationships to other economic indicators. □

### Lessons in co-management

*Learning from Saturn: Possibilities for Corporate Governance and Employee Relations.* By Saul A. Rubinstein and Thomas A. Kochan. Ithaca, NY, Cornell University Press, 2001. 156 pp. \$25.

In the early 1950s, United Auto Workers revered president Walter Reuther suggested to the big three domestic auto manufacturers that the union might entertain some contract changes if the industry considered manufacturing a small car to compete with some of the imports beginning to trickle into the U.S. marketplace. Increased production, Reuther believed, would create more jobs for his membership and was not really a concession but a positive gain. General Motors, in particular, bluntly informed Reuther that his job was to negotiate benefits for the workers and that production strategies were management prerogatives. Not until the late 1970s did American auto manufacturers see the benefits of Reuther's suggestion after small Japanese, Korean, and German car makers began to carve out large chunks of the U.S. auto market. Like the powerful Saturn rockets that propelled astronauts into outer space, a stellar experiment in this process was GM's subsidiary in Spring Hill, Tennessee.

Saturn was by no means the only business entity to produce a low-cost experiment using a philosophy of labor-management cooperation in the 1980s and early 90s, but it was the benchmark by which other similar experiments were measured. As the authors clearly illustrate, "From 1992 to 1998, Saturn produced and marketed cars that achieved word-class quality and customer satisfaction unsurpassed by any other vehicle manufactured in the United States....only the Infiniti and the Lexus, two high-priced luxury cars selling for three to five times as much as the Saturn, received higher customer satisfaction ratings." Many publications, includ-

ing several produced by the U.S. Department of Labor's Office of the American Workplace, echoed similar feelings about the Saturn process. One of the most highly touted monographs analyzing labor relations in the 1990s and beyond, *Negotiating for the Future* by father-and-son team Irving and Barry Bluestone, devoted an entire chapter to Saturn and anointed the organizational structure at the facility as the model for the future. Co-author Rubinstein focused on Saturn for his Ph.D. dissertation, and probably spent as much time in Spring Hill as the employees at the facility's modules.

Saturn was a nontraditional manufacturing system where co-management, involved in the organizational Manufacturing Action Councils and Strategic Action Councils at Saturn, pervaded all aspects of the company, from design and engineering to sales and marketing. As the 1990s drew to a close, the U.S. economy had rebounded from its moribund state in the 1970s and 80s. Long lines of automobiles waiting at gasoline stations became recent but fading memories, and consumer tastes began to sway back toward larger gasoline consumptive vehicles. Unions that made concessions to management during the previous economic slump now wanted a share of the new prosperity. Some of the experiments in labor-management cooperation, most visibly at Eastern Airlines where a strike—despite the existence of employee stock ownership and union representation on the board of directors—drove the self-acclaimed "Wings of Man" into liquidation.

Saturn, again as the authors note, was never fully accepted by many officials at both General Motors and the United Auto Workers. In 1999, the members of UAW Local 1853 deposed long-time president Mike Bennett and replaced him with Ron Hankins, who supported partnership but was not as wedded to the cooperative process as his successor. When GM closed its Wilmington, Delaware, production facility and reopened

it as a Saturn plant, UAW President Steve Yokich insisted that the workers have a traditional UAW-GM contract. As early as at the 1986 UAW Constitutional Convention, one of the union's pioneers—Victor Reuther, brother of the late Walter—vowed not to allow "Saturnization of the auto industry."

Rubenstein and Kochan succinctly note that despite pressure and obstacles in Saturn's procedural way, "The net effect of the governance and co-management structure at Saturn is that union members and leaders serve in a wider variety of roles than their counterparts in other locals." At Spring Hill, more than 400 jointly selected union members have partnership roles in the unique organizational structure at the site. The contrast, they add, between Local 1853 and other UAW local is important for three reasons: first, the multitude of opportunities local leaders have to represent member interests in management decisions; second, the distinct differences in resource allocations between Saturn and other plants; and third, union leaders take on more active co-management responsibilities. Combined, this gave the auto manufacturer the presence of quality, cost-effectiveness, and consumer satisfaction.

Therefore, despite the gloom and doom of many industry analysts, the authors remain ardent fans of Saturn and its promise for the future. They highlight the opinion of former Saturn-GM President Skip LeFauve that the bottom line is that Saturn involves the people in the factory, at the dealership level and with suppliers. While many older "brown-site" GM facilities are downsizing or closing, Saturn has increased employment, providing 8,300 jobs in Spring Hill and the administrative and research operation in Troy, Michigan. An additional 6,000 jobs in related or influenced operations can be added to that total. In conclusion, both the distinguished MIT professor, Kochan, and Rutgers faculty member Rubenstein are optimistic about Saturn's future. Saturn, however, is at a

consumer crossroad. They have expanded production for new models, including a sport utility vehicle line, the most popular sales item in the auto consumer marketplace. If one can draw an analogy with the car's namesake, the Saturn rocket faced many obstacles and had less than a total success rate before depositing Neil Armstrong and crew on the moon.

*Learning From Saturn* is a very nice and concise account of the Saturn process. In about 150 pages, the story of Saturn, for both professional analysis and personal interest, is nicely packaged. Much of the early sections of the book have been analyzed in great detail prior to this publication. As noted, a great deal of it was culled from Rubenstein's Ph.D. dissertation. Kochan has done considerable research into the breakdown of the "social contract" in labor-management relations, and it is encouraging to read both authors' optimism that the opposite is the case with Saturn. Labor relations policymakers, both in the private and public sectors, should read this book. Partnership experiments may have waned in the late 1990s, but they are far from dead. Saturn, as the authors note, continues to run rings around the competition.

—Henry P. Guzda

U.S. Department of Labor

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### Economic and social statistics

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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 past experience. 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, 16-17, 43, and 47. Seasonally adjusted labor force data in tables 1 and 4-9 were revised in the February 2002 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12-14 and 16-17 were revised in the July 2002 *Review* and reflect the experience through March 2002. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 49 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:

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

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

<http://www.bls.gov/ces/>

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

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

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

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

<http://www.bls.gov/lpc/>

For additional information on international comparisons data, see *International*

*Comparisons of Unemployment*, BLS 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-to-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 compensa-



tion 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; 4-24)

### 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*.

Labor force data in tables 1 and 4-9 are seasonally adjusted. Since January 1980, national labor force data have been seasonally adjusted with a procedure called X-11 ARIMA which was developed at Statistics Canada as an extension of the standard X-11 method previously used by BLS. A detailed description of the procedure appears in the X-11 *ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum (Statistics Canada, Catalogue No. 12-564E, January 1983).

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 300,000 establishments representing all industries except agriculture. Industries are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual*. 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 manufacturing include working supervisors and nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11-16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups 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 exclud-

ing 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. Data are centered within the span. Table 17 provides an index on private nonfarm employment based on 356 industries, and a manufacturing index based on 139 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 latest adjustment, which incorporated March 2001 benchmarks, was made with the release of May 2002 data, published in the July issue of the *Review*. Coincident with the benchmark adjustment, historical seasonally adjusted data were revised to reflect updated seasonal factors. Unadjusted data from April 2000 forward and seasonally adjusted data from January 1997 forward were revised with the release of the May 2002 data.

In addition to the routine benchmark revisions and updated seasonal factors introduced with the release of the May 2002 data, the first estimates for the transportation and public utilities; retail trade; and finance, insurance, and real estate industries were published from a new probability-based sample design. These industries are the third group to convert to a probability-based sample under a 4-year phase-in plan of a sample redesign project. The completion of the phase-in for the redesign, in June 2003 for the services industry, will coincide with the conversion of national establishment survey series from industry coding based on the 1987 Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS). For additional

information, see the the June 2002 issue of *Employment and Earnings*.

Revisions in State data (table 11) occurred with the publication of January 2002 data.

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. Thus, 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).

### Covered employment and wage data (ES-202)

#### Description of the series

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

The Covered Employment and Wages 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, ES-202 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 four-digit SIC codes.

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 em-

ployees. 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 wages** 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 pay** 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

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.

The 1999 county data used to calculate the 1999–2000 changes were adjusted for changes in industry and county classification to make them comparable to data for 2000. As a result, the adjusted 1999 data differ to some extent from the data available on the Internet at:

<http://www.bls.gov/cew/home.htm>.

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).

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

## Compensation and Wage Data

(Tables 1-3; 25-31)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

## Employment Cost Index

### Description of the series

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

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

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

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

### Definitions

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

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

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

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

### Notes on the data

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

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

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

691-6199.

## Employee Benefits Survey

### Description of the series

**Employee benefits** data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 9,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 25 for medium and large private establishments and in table 26 for small private establishments and State and local government.

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

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

### Definitions

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

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

**Defined benefit pension plans** use pre-

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

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

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

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

## Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

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

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Office of Compensation Levels and Trends on the Internet: <http://www.bls.gov/ebs/>

## Work stoppages

### Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts

(involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 27.

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

## Definitions

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

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

**Number of days idle:** The aggregate number of workdays lost by workers involved in the stoppages.

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

## Notes on the data

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

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

<http://www.bls.gov/cba/>

## Price Data

(Tables 2; 32–42)

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—1982 = 100 for many Producer Price Indexes, 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

## Consumer Price Indexes

### Description of the series

The **Consumer Price Index (CPI)** is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households

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

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

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 33. 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 home-ownership 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 on consumer prices, contact the Division of Consumer Prices and Price Indexes: (202) 691-7000.

## Producer Price Indexes

### Description of the series

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

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 on producer prices, 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 Industrial Classification (SIC), 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 on international prices, contact the Division of International Prices: (202) 691-7155.

## Productivity Data

(Tables 2; 43-46)

### Business sector 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, non-energy materials, and purchased business services.

**Compensation per hour** is total compensation divided by hours at work. Total

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

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

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

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

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

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

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

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

## Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value

of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 43–46 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 data supplement the measures for the business economy and major sectors with annual measures of labor productivity for selected industries at the three- and four-digit levels of the Standard Industrial Classification system. In addition to labor productivity, the industry data also include annual measures of compensation and unit labor costs for three-digit industries and measures of multifactor productivity for three-digit manufacturing industries and railroad transportation. The industry

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

## Definitions

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

The **labor input** series consist of the hours of all employees (production workers and nonproduction workers), the hours of all persons (paid employees, partners, proprietors, and unpaid family workers), or the number of employees, depending upon the industry.

**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 the combined inputs consumed in producing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** used 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 Bureau of the Census, with additional data supplied by other government agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some trade and services industries, indexes of output per hour of all persons (including self-employed) are

constructed. For some transportation industries, only indexes of output per employee are prepared.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691-5618.

## International Comparisons

(Tables 47-49)

### Labor force and unemployment

#### Description of the series

Tables 47 and 48 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and several European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. 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.

#### 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 adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and older. Therefore, the adjusted statistics relate to the population aged 16 and older in France, Sweden, and the United Kingdom; 15 and older in Australia, Japan, Germany, Italy from 1993 onward, and the Netherlands; and 14 and older in Italy prior to 1993. An exception to this rule is that the Canadian statistics for 1976 onward are adjusted to cover ages 16 and older,

whereas the age at which compulsory schooling ends remains at 15. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their jobs are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8-11.

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

There are breaks in the data series for the United States (1990, 1994, 1997, 1998, 1999, 2000), Canada (1976) France (1992), Germany (1991), Italy (1991, 1993), the Netherlands (1988), and Sweden (1987).

For the United States, the break in series reflects a major redesign of the labor force survey questionnaire and collection methodology introduced in January 1994. Revised population estimates based on the 1990 census, adjusted for the estimated undercount, also were incorporated. In 1996, previously published data for the 1990-93 period were revised to reflect the 1990 census-based population controls, adjusted for the undercount. In 1997, revised population controls were introduced into the household survey. Therefore, the data are not strictly comparable with prior years. In 1998, new composite estimation procedures and minor revisions in population controls were introduced into the household survey. Therefore, the data are not strictly comparable with data for 1997 and earlier years. See the Notes section on Employment and Unemployment Data of this *Review*.

BLS recently introduced a new adjusted series for Canada. Beginning with the data for 1976, Canadian data are adjusted to more closely approximate U.S. concepts. Adjustments are made to the unemployed and labor force to exclude: (1) 15-year-olds; (2) passive jobseekers (persons only reading newspaper ads as their method of job search); (3) persons waiting to start a new job who did not seek work in the past 4 weeks; and (4) persons unavailable for work due to personal or family responsibilities. An adjustment is

made to include full-time students looking for full-time work. The impact of the adjustments was to lower the annual average unemployment rate by 0.1-0.4 percentage point in the 1980s and 0.4-1.0 percentage point in the 1990s.

For France, the 1992 break reflects the substitution of standardized European Union Statistical Office (EUROSTAT) unemployment statistics for the unemployment data estimated according to the International Labor Office (ILO) definition and published in the Organization for Economic Cooperation and Development (OECD) annual yearbook and quarterly update. This change was made because the EUROSTAT data are more up-to-date than the OECD figures. Also, since 1992, the EUROSTAT definitions are closer to the U.S. definitions than they were in prior years. The impact of this revision was to lower the unemployment rate by 0.1 percentage point in 1992 and 1993, by 0.4 percentage point in 1994, and 0.5 percentage point in 1995.

For Germany, the data for 1991 onward refer to unified Germany. Data prior to 1991 relate to the former West Germany. The impact of including the former East Germany was to increase the unemployment rate from 4.3 to 5.6 percent in 1991.

For Italy, the 1991 break reflects a revision in the method of weighting sample data. The impact was to increase the unemployment rate by approximately 0.3 percentage point, from 6.6 to 6.9 percent in 1991.

In October 1992, the survey methodology was revised and the definition of unemployment was changed to include only those who were actively looking for a job within the 30 days preceding the survey and who were available for work. In addition, the lower age limit for the labor force was raised from 14 to 15 years. (Prior to these changes, BLS adjusted Italy's published unemployment rate downward by excluding from the unemployed those persons who had not actively sought work in the past 30 days.) The break in the series also reflects the incorporation of the 1991 population census results. The impact of these changes was to raise Italy's adjusted unemployment rate by approximately 1.2 percentage points, from 8.3 to 9.5 percent in fourth-quarter 1992. These changes did not affect employment significantly, except in 1993. Estimates by the Italian Statistical Office indicate that employment declined by about 3 percent in 1993, rather than the nearly 4 percent indicated by the data shown in table 44. This difference is attributable mainly to the incorporation of the 1991 population benchmarks in the 1993 data. Data for earlier years have not been adjusted to incorporate the 1991 census results.



For the Netherlands, a new survey questionnaire was introduced in 1992 that allowed for a closer application of ILO guidelines. EUROSTAT has revised the Dutch series back to 1988 based on the 1992 changes. The 1988 revised unemployment rate is 7.6 percent; the previous estimate for the same year was 9.3 percent.

There have been two breaks in series in the Swedish labor force survey, in 1987 and 1993. Adjustments have been made for the 1993 break back to 1987. In 1987, a new questionnaire was introduced. Questions regarding current availability were added and the period of active workseeking was reduced from 60 days to 4 weeks. These changes lowered Sweden's 1987 unemployment rate by 0.4 percentage point, from 2.3 to 1.9 percent. In 1993, the measurement period for the labor force survey was changed to represent all 52 weeks of the year rather than one week each month and a new adjustment for population totals was introduced. The impact was to raise the unemployment rate by approximately 0.5 percentage point, from 7.6 to 8.1 percent. Statistics Sweden revised its labor force survey data for 1987–92 to take into account the break in 1993. The adjustment raised the Swedish unemployment rate by 0.2 percentage point in 1987 and gradually rose to 0.5 percentage point in 1992.

Beginning with 1987, BLS has adjusted the Swedish data to classify students who also sought work as unemployed. The impact of this change was to increase the adjusted unemployment rate by 0.1 percentage point in 1987 and by 1.8 percentage points in 1994, when unemployment was higher. In 1998, the adjusted unemployment rate had risen from 6.5 to 8.4 percent due to the adjustment to include students.

The net effect of the 1987 and 1993 changes and the BLS adjustment for students seeking work lowered Sweden's 1987 unemployment rate from 2.3 to 2.2 percent.

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

## Manufacturing productivity and labor costs

### Description of the series

Table 49 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European

countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

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

### Definitions

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

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

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

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 43 and 45 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

**Total labor hours** refers to hours worked

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

Denmark has not published estimates of average hours for 1994–97; therefore, the BLS measure of labor input for Denmark ends in 1993.

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

### Notes on the data

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

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

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

## Occupational Injury and Illness Data

(Tables 50–51)

### 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 dis-

continued beginning with the 1993 survey. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked, such as a Federal holiday, even though able to work.

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

#### Notes on the data

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

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

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

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

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

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

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

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

<http://www.bls.gov/iip/>

### Census of Fatal Occupational Injuries

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

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

#### Definition

**A fatal work injury** is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy,

such as heat or electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

### Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after

the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

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

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### LABSTAT available via World Wide Web

LABSTAT, the Bureau of Labor Statistics public database, provides current and historical data for many BLS surveys as well as numerous news releases.

LABSTAT Public Access has introduced a new production Internet service over the World Wide Web. BLS and regional offices programs are described using hypertext pages. Access to LABSTAT data and news releases is provided by a link to the BLS gopher server. The URL is:

<http://www.bls.gov/blshome.html>

If you have questions or comments regarding the LABSTAT system on the Internet, address e-mail to: [labstat.helpdesk@bls.gov](mailto:labstat.helpdesk@bls.gov)

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1. Labor market indicators

Selected indicators	2000	2001	2000			2001				2002	
			II	III	IV	I	II	III	IV	I	II
<b>Employment data</b>											
Employment status of the civilian noninstitutionalized population (household survey): <sup>1</sup>											
Labor force participation rate.....	67.2	66.9	67.3	67.0	67.1	67.2	66.9	66.8	66.9	66.5	66.7
Employment-population ratio.....	64.5	63.8	64.6	64.3	64.4	64.4	63.9	63.6	63.1	62.8	62.8
Unemployment rate.....	4.0	4.8	4.0	4.1	4.0	4.2	4.5	4.8	5.6	5.6	5.9
Men.....	3.9	4.8	3.9	3.9	4.0	4.2	4.6	4.9	5.7	5.7	6.0
16 to 24 years.....	9.7	11.4	9.7	9.8	9.6	10.6	11.2	11.5	12.7	12.9	12.8
25 years and over.....	2.8	3.6	2.8	2.8	2.9	3.1	3.4	3.7	4.4	4.5	4.9
Women.....	4.1	4.7	4.1	4.2	4.0	4.1	4.3	4.8	5.5	5.5	5.8
16 to 24 years.....	8.9	9.7	9.0	8.5	8.4	8.7	9.2	10.0	10.6	11.0	11.2
25 years and over.....	3.2	3.7	3.2	3.3	3.0	3.3	3.4	3.7	4.4	4.4	4.8
Employment, nonfarm (payroll data), in thousands: <sup>1</sup>											
Total.....	131,720	131,922	131,819	131,876	132,185	132,559	132,193	131,943	131,130	130,759	130,706
Private sector.....	111,018	110,989	110,860	111,219	111,551	111,687	111,332	110,939	110,035	109,594	109,505
Goods-producing.....	25,649	24,949	25,690	25,681	25,626	25,493	25,136	24,786	24,375	24,049	23,879
Manufacturing.....	18,473	17,695	18,510	18,494	18,400	18,196	17,872	17,538	17,174	16,883	16,776
Service-producing.....	106,051	106,978	106,129	106,195	106,559	106,941	107,057	107,157	106,755	106,711	106,827
Average hours:											
Private sector.....	34.5	34.2	34.4	34.4	34.3	34.3	34.2	34.1	34.1	34.2	34.2
Manufacturing.....	41.6	40.7	41.8	41.5	41.1	41.0	40.8	40.7	40.5	40.8	41.0
Overtime.....	4.6	3.9	4.7	4.5	4.4	4.1	3.9	3.9	3.8	4.0	4.2
<b>Employment Cost Index<sup>2</sup></b>											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers).....	4.1	4.1	1.0	1.0	.7	1.3	.9	1.2	.8	1.0	.9
Private industry workers.....	4.4	4.2	1.2	.9	.7	1.4	1.0	.9	.8	1.1	1.1
Goods-producing <sup>3</sup> .....	4.4	3.8	1.2	.9	.6	1.3	.9	.7	.8	1.2	.9
Service-producing <sup>3</sup> .....	4.4	4.3	1.2	1.0	.7	1.4	1.0	1.0	.8	1.1	1.2
State and local government workers.....	3.0	4.2	.3	1.3	.7	.9	.6	2.1	.6	.6	.4
Workers by bargaining status (private industry):											
Union.....	4.0	4.2	1.0	1.2	.5	.7	1.1	1.0	1.4	1.1	1.0
Nonunion.....	4.4	4.1	1.2	1.0	.7	1.5	1.0	.9	.7	1.1	1.1

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

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

Selected measures	2000	2001	2000			2001				2002	
			II	III	IV	I	II	III	IV	I	II
<b>Compensation data<sup>1,2</sup></b>											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm.....	4.1	4.1	1.0	1.0	0.7	1.3	0.9	1.2	0.8	1.0	0.9
Private nonfarm.....	4.4	4.2	1.2	.9	.7	1.4	1.0	.9	.8	1.1	1.1
Employment Cost Index—wages and salaries:											
Civilian nonfarm.....	3.8	3.7	1.0	1.1	.6	1.1	.9	1.0	.7	.9	.8
Private nonfarm.....	3.9	3.8	1.0	1.0	.6	1.2	1.0	.8	.8	.9	1.0
<b>Price data<sup>1</sup></b>											
Consumer Price Index (All Urban Consumers): All Items.....	1.6	3.4	.7	.8	.2	1.3	1.0	.2	-.9	.7	.5
Producer Price Index:											
Finished goods.....	3.5	-1.8	1.8	.6	.4	.9	.8	-.3	-3.2	1.1	.2
Finished consumer goods.....	4.3	-2.4	1.3	.8	.1	1.2	1.0	-.3	-4.3	1.5	.4
Capital equipment.....	1.2	1.0	.1	-7.2	1.1	-1	-7.1	-1	.1	2.9	-.3
Intermediate materials, supplies, and components.....	4.0	-2	1.4	1.0	-.3	.2	.6	-1.0	-3.6	.9	1.1
Crude materials.....	31.1	-8.8	-6.0	2.1	9.4	-3.5	-6.6	-12.0	-12.2	8.0	37.1
<b>Productivity data<sup>3</sup></b>											
Output per hour of all persons:											
Business sector.....	3.0	1.1	6.7	.4	2.1	-1.5	-.2	1.8	7.6	8.3	1.7
Nonfarm business sector.....	2.9	1.1	6.0	.6	1.7	-1.5	-.1	2.1	7.3	8.6	1.5
Nonfinancial corporations <sup>4</sup> .....	2.1	1.0	.3	2.6	-.7	-2.6	2.3	3.2	10.8	5.1	5.0

<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> Annual rates of change are computed by comparing annual averages. Quarterly per-

cent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

<sup>4</sup> Output per hour of all employees.

## 3. Alternative measures of wage and compensation changes

Components	Quarterly average					Four quarters ending					
	2001			2002		2001				2002	
	II	III	IV	I	II	I	II	III	IV	I	II
Average hourly compensation: <sup>1</sup>											
All persons, business sector.....	0.5	0.9	1.4	3.8	4.0	4.5	3.9	2.0	1.5	1.6	2.5
All persons, nonfarm business sector.....	.1	1.0	1.5	3.6	3.7	4.2	3.6	1.8	1.4	1.6	2.4
Employment Cost Index—compensation:											
Civilian nonfarm <sup>2</sup> .....	.9	1.2	.8	1.0	.9	4.1	3.9	4.1	4.1	3.9	4.0
Private nonfarm.....	1.0	.9	.8	1.1	1.1	4.2	4.0	4.0	4.2	3.9	4.0
Union.....	1.1	1.0	1.4	1.1	1.0	3.4	3.5	3.4	4.2	4.7	4.5
Nonunion.....	1.0	.9	.7	1.1	1.1	4.3	4.2	4.1	4.1	3.8	3.9
State and local governments.....	.6	2.1	.6	.6	.4	3.3	3.6	4.4	4.2	3.9	3.6
Employment Cost Index—wages and salaries:											
Civilian nonfarm <sup>2</sup> .....	.9	1.0	.7	.9	.8	3.8	3.7	3.6	3.7	3.5	3.5
Private nonfarm.....	1.0	.8	.8	.9	1.0	3.8	3.8	3.6	3.8	3.5	3.6
Union.....	1.1	1.0	1.6	.7	.9	3.6	3.8	3.6	4.4	4.4	4.2
Nonunion.....	.9	.8	.7	1.0	1.0	3.9	3.7	3.6	3.6	3.4	3.5
State and local governments.....	.5	1.9	.5	.5	.3	3.5	3.7	3.9	3.6	3.4	3.2

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

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











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

State	May 2001	Apr. 2002 <sup>P</sup>	May 2002 <sup>P</sup>	State	May 2001	Apr. 2002 <sup>P</sup>	May 2002 <sup>P</sup>
Alabama.....	5.0	5.6	5.7	Missouri.....	4.5	5.2	4.8
Alaska.....	6.3	6.6	6.0	Montana.....	4.6	4.6	4.1
Arizona.....	4.4	5.7	5.7	Nebraska.....	3.1	3.9	3.7
Arkansas.....	5.1	5.3	5.3	Nevada.....	4.8	5.5	5.5
California.....	5.1	6.5	6.3	New Hampshire.....	3.2	4.0	4.2
Colorado.....	3.3	5.3	5.2	New Jersey.....	4.1	5.6	5.4
Connecticut.....	3.1	3.8	3.7	New Mexico.....	4.7	6.0	6.0
Delaware.....	3.4	4.2	4.1	New York.....	4.6	6.1	6.1
District of Columbia.....	6.5	6.4	6.5	North Carolina.....	5.4	6.9	6.8
Florida.....	4.5	5.3	5.1	North Dakota.....	2.7	3.6	3.5
Georgia.....	3.9	4.6	4.7	Ohio.....	4.2	5.8	5.8
Hawaii.....	4.3	4.3	4.2	Oklahoma.....	3.4	4.4	4.5
Idaho.....	4.9	5.2	5.0	Oregon.....	6.0	7.5	7.3
Illinois.....	5.2	6.4	6.3	Pennsylvania.....	4.6	5.4	5.7
Indiana.....	4.0	5.1	5.0	Rhode Island.....	4.7	4.6	4.7
Iowa.....	3.3	3.6	3.5	South Carolina.....	5.3	5.8	5.5
Kansas.....	4.2	4.5	4.3	South Dakota.....	3.2	3.4	3.0
Kentucky.....	5.3	5.3	5.3	Tennessee.....	4.4	5.3	4.9
Louisiana.....	5.8	5.8	6.5	Texas.....	4.6	6.2	6.2
Maine.....	4.0	4.0	3.7	Utah.....	4.1	5.8	5.3
Maryland.....	4.0	5.4	4.7	Vermont.....	3.5	3.9	4.0
Massachusetts.....	3.5	4.7	4.4	Virginia.....	3.2	4.6	4.1
Michigan.....	5.1	6.1	6.2	Washington.....	6.1	7.2	7.1
Minnesota.....	3.7	4.3	4.2	West Virginia.....	5.1	6.0	6.2
Mississippi.....	5.1	7.1	6.6	Wisconsin.....	4.4	5.4	4.8
				Wyoming.....	3.9	4.4	4.3

<sup>P</sup> = preliminary

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

[In thousands]

State	May 2001	Apr. 2002 <sup>P</sup>	May 2002 <sup>P</sup>	State	May 2001	Apr. 2002 <sup>P</sup>	May 2002 <sup>P</sup>
Alabama.....	1,915.1	1,899.1	1,900.2	Missouri.....	2,743.9	2,691.1	2,687.6
Alaska.....	288.6	290.6	291.0	Montana.....	392.7	393.2	393.6
Arizona.....	2,268.7	2,243.4	2,239.6	Nebraska.....	909.4	911.8	912.4
Arkansas.....	1,158.5	1,152.8	1,156.8	Nevada.....	1,057.3	1,068.6	1,073.0
California.....	14,709.7	14,667.7	14,658.7	New Hampshire.....	628.2	627.4	627.1
Colorado.....	2,241.2	2,195.6	2,198.7	New Jersey.....	4,031.5	4,010.7	4,007.1
Connecticut.....	1,687.0	1,673.6	1,679.3	New Mexico.....	757.4	760.9	760.5
Delaware.....	421.0	416.0	417.4	New York.....	8,661.9	8,534.5	8,538.0
District of Columbia.....	649.6	651.6	652.5	North Carolina.....	3,894.2	3,877.2	3,879.4
Florida.....	7,214.1	7,191.6	7,193.6	North Dakota.....	330.7	329.6	331.5
Georgia.....	3,976.6	3,889.4	3,893.9	Ohio.....	5,567.7	5,520.9	5,516.1
Hawaii.....	554.7	544.8	551.0	Oklahoma.....	1,509.2	1,520.6	1,519.8
Idaho.....	571.1	569.8	567.3	Oregon.....	1,604.2	1,576.6	1,581.2
Illinois.....	6,028.4	5,916.3	5,931.4	Pennsylvania.....	5,714.1	5,645.1	5,647.4
Indiana.....	2,941.8	2,902.6	2,896.1	Rhode Island.....	479.2	483.3	484.8
Iowa.....	1,471.4	1,461.4	1,463.1	South Carolina.....	1,832.1	1,828.6	1,829.2
Kansas.....	1,353.7	1,358.1	1,363.8	South Dakota.....	379.9	378.1	380.8
Kentucky.....	1,812.9	1,823.6	1,827.4	Tennessee.....	2,709.2	2,707.5	2,706.0
Louisiana.....	1,928.7	1,930.4	1,929.7	Texas.....	9,551.3	9,458.7	9,459.5
Maine.....	609.3	609.9	611.7	Utah.....	1,085.2	1,069.2	1,067.0
Maryland.....	2,468.8	2,454.2	2,454.0	Vermont.....	299.0	295.6	296.6
Massachusetts.....	3,348.9	3,299.2	3,294.3	Virginia.....	3,537.4	3,494.8	3,504.1
Michigan.....	4,591.8	4,554.4	4,543.1	Washington.....	2,711.3	2,648.3	2,650.5
Minnesota.....	2,685.9	2,655.7	2,659.9	West Virginia.....	736.6	734.2	730.9
Mississippi.....	1,132.0	1,131.4	1,125.4	Wisconsin.....	2,831.9	2,821.8	2,827.5
				Wyoming.....	245.1	247.2	249.4

<sup>P</sup> = preliminary.

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





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

Industry	Annual average		2001							2002					
	2000	2001	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>
<b>PRIVATE SECTOR</b> .....	34.5	34.2	34.2	34.2	34.1	34.1	34.0	34.1	34.1	34.1	34.2	34.2	34.2	34.2	34.3
<b>GOODS-PRODUCING</b> .....	41.0	40.4	40.4	40.4	40.3	40.3	40.1	40.2	40.2	40.3	40.4	40.5	40.4	40.3	40.5
<b>MINING</b> .....	43.1	43.5	43.5	43.4	43.5	43.6	43.0	43.5	43.8	43.0	43.4	43.3	42.4	43.0	43.3
<b>MANUFACTURING</b> .....	41.6	40.7	40.7	40.8	40.7	40.6	40.5	40.4	40.8	40.6	40.7	41.0	40.9	40.9	41.1
Overtime hours.....	4.6	3.9	3.9	3.9	4.0	3.9	3.8	3.8	3.8	3.9	3.9	4.1	4.2	4.2	4.3
<b>Durable goods</b> .....	42.1	41.0	41.0	41.1	41.0	40.9	40.7	40.6	40.9	41.0	41.1	41.3	41.4	41.3	41.5
Overtime hours.....	4.7	3.9	3.9	3.9	3.8	3.7	3.7	3.8	3.9	3.9	4.1	4.1	4.1	4.1	4.2
Lumber and wood products.....	41.0	40.6	40.5	40.9	40.8	41.2	30.7	40.7	41.0	40.5	40.9	41.1	40.8	40.8	41.0
Furniture and fixtures.....	40.0	39.0	38.5	39.7	39.7	39.1	38.6	38.8	39.2	40.1	40.3	40.6	40.8	40.4	40.2
Stone, clay, and glass products.....	43.1	43.6	43.9	43.8	43.7	43.9	43.6	43.6	43.4	43.8	44.1	43.6	43.8	43.4	43.7
Primary metal industries.....	44.9	43.6	43.7	43.8	43.6	43.7	43.4	43.0	43.7	43.6	43.8	44.4	44.3	44.1	44.6
Blast furnaces and basic steel products.....	46.0	44.6	44.8	44.6	44.6	45.3	44.5	43.9	44.4	44.5	44.8	45.5	45.1	45.6	46.1
Fabricated metal products.....	42.6	41.4	41.3	41.5	41.4	41.2	41.1	41.0	41.3	41.3	41.6	41.7	41.6	41.9	42.0
Industrial machinery and equipment.....	42.2	40.6	40.5	40.6	40.3	40.3	40.2	39.9	40.1	40.1	40.1	40.5	40.6	40.7	40.9
Electronic and other electrical equipment.....	41.1	39.4	39.3	39.1	39.1	39.1	39.0	39.0	39.4	38.7	38.9	39.4	39.5	39.4	39.4
Transportation equipment.....	43.4	41.9	42.0	42.1	42.2	41.5	41.5	41.6	41.9	42.7	42.3	42.4	42.6	42.3	43.5
Motor vehicles and equipment.....	44.4	42.7	42.9	42.9	43.6	42.4	42.4	42.5	43.2	44.3	43.7	43.9	44.4	44.2	44.1
Instruments and related products.....	41.3	40.9	40.9	40.8	40.6	41.1	40.7	40.6	40.6	40.5	40.4	40.6	40.4	40.4	40.9
Miscellaneous manufacturing.....	39.0	37.9	38.3	38.2	38.1	37.7	37.3	37.4	38.0	38.2	38.4	38.8	38.8	38.8	39.6
<b>Nondurable goods</b> .....	40.8	40.3	40.3	40.3	40.2	40.2	40.1	40.1	40.1	40.0	40.2	40.4	40.3	40.4	40.6
Overtime hours.....	4.4	4.0	4.0	4.0	4.1	4.1	4.0	3.9	3.9	4.0	3.9	4.2	4.3	4.3	4.3
Food and kindred products.....	41.7	41.1	41.1	40.9	41.1	41.0	41.2	41.0	40.9	41.0	41.0	41.4	41.2	41.2	41.6
Textile mill products.....	41.2	39.9	40.1	39.7	39.8	39.8	39.4	39.3	40.0	40.2	40.9	41.4	41.5	41.4	41.5
Apparel and other textile products.....	37.8	37.3	37.4	37.4	37.1	36.9	36.6	36.9	36.9	36.7	36.7	37.4	37.1	37.0	37.0
Paper and allied products.....	42.5	41.6	41.7	41.8	41.3	41.7	41.4	41.3	41.3	41.1	41.5	41.5	41.6	41.9	41.6
Printing and publishing.....	38.3	38.1	38.0	38.3	38.0	38.0	37.9	37.8	37.8	37.3	37.4	37.5	37.2	37.5	37.7
Chemicals and allied products.....	42.5	42.3	42.2	42.5	42.2	42.1	42.0	41.9	41.9	41.9	41.9	42.0	41.8	42.3	42.5
Rubber and miscellaneous plastics products.....	41.4	40.7	40.7	40.7	40.6	40.8	40.5	40.7	40.8	40.5	40.9	41.1	41.6	41.2	41.3
Leather and leather products.....	37.5	36.3	36.3	36.0	36.3	36.4	36.2	36.6	36.9	37.0	37.2	37.3	37.5	36.7	36.8
<b>SERVICE-PRODUCING</b> .....	32.8	32.7	32.7	32.7	32.7	32.7	32.6	32.6	32.7	32.7	32.7	32.8	32.7	32.8	32.8
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	38.6	38.2	38.2	38.1	38.1	37.9	38.0	38.9	38.2	38.1	38.2	38.2	38.3	38.4	38.3
<b>WHOLESALE TRADE</b> .....	38.5	38.2	38.2	38.2	38.3	38.3	38.0	38.2	38.3	38.2	38.3	38.4	38.3	38.3	38.6
<b>RETAIL TRADE</b> .....	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	29.0	29.1	29.0	29.1	29.1

<sup>P</sup> = preliminary.

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

**14. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry, seasonally adjusted**

Industry	Annual average		2001							2002					
	2000	2001	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. <sup>P</sup>	May <sup>P</sup>	June <sup>P</sup>
<b>PRIVATE SECTOR (in current dollars)</b> ..	\$13.75	\$14.32	\$14.29	\$14.33	\$14.38	\$14.43	\$14.46	\$14.52	\$14.56	\$14.59	\$14.62	\$14.65	\$14.68	\$14.70	\$14.75
<b>Goods-producing</b> .....	15.40	15.92	15.89	15.92	15.99	16.02	16.05	16.11	16.18	16.24	16.28	16.29	16.32	16.35	16.39
Mining.....	17.24	17.56	17.62	17.63	17.62	17.62	17.70	17.68	17.51	17.69	17.66	17.72	17.63	17.87	17.70
Construction.....	17.88	18.34	18.30	18.29	18.37	18.39	18.40	18.47	18.60	18.65	18.68	18.74	18.83	18.77	18.81
Manufacturing.....	14.38	14.83	14.81	14.86	14.91	14.95	14.99	15.03	15.08	15.13	15.17	15.19	15.19	15.27	15.31
Excluding overtime.....	13.62	14.15	14.13	14.19	14.22	14.28	14.31	14.36	14.39	14.42	14.46	14.45	14.43	14.53	14.56
<b>Service-producing</b> .....	13.24	13.85	13.82	13.86	13.91	13.97	14.00	14.06	14.10	14.11	14.14	14.18	14.21	14.24	14.29
Transportation and public utilities.....	16.22	16.79	16.77	16.81	16.81	16.87	16.96	17.03	17.09	17.13	17.16	17.26	17.26	17.31	17.37
Wholesale trade.....	15.20	15.86	15.89	15.87	15.88	15.99	15.97	15.98	16.07	16.10	16.19	16.23	16.11	16.12	16.14
Retail trade.....	9.46	9.77	9.75	9.77	9.79	9.81	9.84	9.90	9.89	9.90	9.92	9.95	9.97	9.99	10.06
Finance, insurance, and real estate....	15.07	15.80	15.78	15.85	15.88	15.93	15.97	16.00	16.00	16.06	16.08	16.14	16.18	16.17	16.27
Services.....	13.91	14.67	14.61	14.68	14.76	14.83	14.88	14.94	14.98	15.01	15.04	15.08	15.13	15.16	15.19
<b>PRIVATE SECTOR (in constant (1982) dollars)</b> .....	7.86	8.00	7.94	7.99	8.02	8.01	8.06	8.10	8.14	8.14	8.14	8.13	8.10	8.12	8.14

<sup>P</sup> = preliminary. Dash indicates data not available.

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

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

Industry	Annual average		2001							2002					
	2000	2001	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>
<b>PRIVATE SECTOR</b> .....	\$13.76	\$14.32	\$14.20	\$14.26	\$14.26	\$14.50	\$14.49	\$14.54	\$14.62	\$14.65	\$14.67	\$14.67	\$14.69	\$14.67	\$14.68
<b>MINING</b> .....	17.22	17.56	17.53	17.61	17.47	17.61	17.72	17.61	17.58	17.89	17.76	17.73	17.70	17.74	17.65
<b>CONSTRUCTION</b> .....	17.88	18.34	18.22	18.33	18.44	18.51	18.57	18.54	18.69	18.56	18.62	18.66	18.70	18.67	18.74
<b>MANUFACTURING</b> .....	14.37	14.83	14.79	14.84	14.89	15.01	14.97	15.07	15.17	15.15	15.16	15.16	15.20	15.23	15.28
<b>Durable goods</b> .....	14.82	15.28	15.24	15.26	15.38	15.49	15.46	15.55	15.66	15.61	15.63	15.63	15.66	15.68	15.74
Lumber and wood products.....	11.94	12.26	12.19	12.32	12.37	12.44	12.37	12.40	12.42	12.38	12.39	12.35	12.33	12.43	12.53
Furniture and fixtures.....	11.74	12.24	12.19	12.27	12.33	12.39	12.42	12.45	12.56	12.61	12.59	12.57	12.54	12.59	12.62
Stone, clay, and glass products.....	14.53	15.00	15.11	15.10	15.16	15.21	15.09	15.13	15.10	15.12	15.17	15.12	15.35	15.43	15.48
Primary metal industries.....	16.41	16.92	16.93	17.07	17.02	17.23	17.08	17.24	17.19	17.15	17.15	17.20	17.25	17.36	17.46
Blast furnaces and basic steel products.....	19.82	20.41	20.39	20.48	20.62	20.90	20.52	20.66	20.53	20.53	20.63	20.66	20.69	20.81	20.92
Fabricated metal products.....	13.87	14.25	14.25	14.26	14.34	14.42	14.33	14.42	14.56	14.57	14.51	14.60	14.66	14.64	14.71
Industrial machinery and equipment.....	15.55	15.89	15.79	15.88	15.93	16.01	16.07	16.16	16.23	16.31	16.33	16.31	16.30	16.35	16.36
Electronic and other electrical equipment.....	13.79	14.51	14.49	14.56	14.70	14.82	14.78	14.88	14.97	14.86	14.90	14.93	14.87	14.91	15.04
Transportation equipment.....	18.46	19.06	18.96	18.85	19.13	19.36	19.41	19.54	19.71	19.57	19.69	19.65	19.68	19.65	19.75
Motor vehicles and equipment.....	18.80	19.40	19.31	19.09	19.43	19.73	19.83	19.96	20.19	19.99	20.05	20.09	20.22	20.17	20.36
Instruments and related products.....	14.41	14.81	14.74	14.91	14.93	15.00	14.97	14.98	15.09	15.09	15.10	15.12	15.11	15.11	15.14
Miscellaneous manufacturing.....	11.63	12.16	12.07	12.12	12.23	12.38	12.24	12.35	12.39	12.46	12.42	12.39	12.36	12.37	12.28
<b>Nondurable goods</b> .....	13.68	14.16	14.11	14.21	14.16	14.30	14.26	14.36	14.45	14.47	14.47	14.46	14.53	14.55	14.60
Food and kindred products.....	12.51	12.89	12.89	12.95	12.89	12.97	12.89	13.10	13.17	13.14	13.08	13.10	13.18	13.25	13.29
Tobacco products.....	21.34	21.50	22.59	22.97	20.97	20.71	20.71	21.46	31.37	21.21	21.71	22.47	22.80	23.09	23.26
Textile mill products.....	11.16	11.35	11.32	11.37	11.39	11.40	11.34	11.40	11.53	11.66	11.64	11.65	11.65	11.73	11.69
Apparel and other textile products.....	9.29	9.43	9.42	9.38	9.41	9.54	9.44	9.49	9.60	9.72	9.77	9.82	9.93	9.93	9.95
Paper and allied products.....	16.25	16.87	16.89	16.98	16.87	17.11	17.14	17.19	17.26	17.19	17.17	17.25	17.33	17.51	17.53
Printing and publishing.....	14.40	14.82	14.75	14.84	14.88	15.01	14.93	14.91	15.04	15.01	15.06	15.12	15.11	15.05	15.11
Chemicals and allied products.....	18.15	18.61	18.55	18.68	18.54	18.85	18.74	18.83	18.88	18.87	18.95	18.93	19.01	18.96	19.14
Petroleum and coal products.....	21.99	22.08	21.77	22.01	22.19	22.24	22.23	22.38	22.19	22.10	22.45	22.39	22.39	22.02	22.15
Rubber and miscellaneous plastics products.....	12.85	13.39	13.29	13.37	13.43	13.50	13.53	13.57	13.69	13.71	13.65	13.61	13.68	13.69	13.66
Leather and leather products.....	10.17	10.31	10.27	10.24	10.33	10.24	10.24	10.20	10.29	10.31	10.35	10.40	10.39	10.43	10.27
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	16.21	16.79	16.69	16.81	16.78	16.91	16.98	17.05	17.11	17.18	17.18	17.24	17.31	17.24	17.29
<b>WHOLESALE TRADE</b> .....	15.22	15.86	15.81	15.92	15.80	16.08	15.95	15.96	16.21	16.11	16.21	16.13	16.11	16.12	16.13
<b>RETAIL TRADE</b> .....	9.46	9.77	9.70	9.70	9.71	9.86	9.87	9.91	9.89	9.96	9.95	9.98	10.00	9.98	10.00
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	15.14	15.80	15.68	15.82	15.77	15.96	15.91	15.97	16.14	16.07	16.13	16.17	16.23	16.18	16.27
<b>SERVICES</b> .....	13.93	14.67	14.45	14.52	14.52	14.85	14.87	14.99	15.15	15.14	15.17	15.16	15.16	15.12	15.08

<sup>P</sup> = preliminary.

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





## 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, 356 industries												
Over 1-month span:												
1998.....	62.4	57.5	59.1	60.2	57.5	56.8	54.6	59.1	57.2	53.0	57.9	56.8
1999.....	55.3	58.6	53.6	58.4	55.5	57.8	57.1	54.8	57.1	57.2	60.4	58.1
2000.....	55.9	57.5	57.9	51.2	50.1	55.8	57.8	51.4	52.4	52.4	53.2	52.7
2001.....	49.4	45.7	50.3	42.4	47.3	43.2	44.5	42.5	42.4	40.5	39.3	44.1
2002.....	47.3	41.4	49.7	47.8	50.4	49.1	-	-	-	-	-	-
Over 3-month span:												
1998.....	65.3	66.3	65.3	65.9	62.7	58.2	58.9	59.1	59.8	57.9	57.1	58.8
1999.....	59.2	57.6	59.5	55.2	60.2	57.2	59.4	59.2	59.7	58.9	61.2	60.7
2000.....	60.4	61.4	59.4	53.2	52.4	55.5	56.6	56.2	51.2	51.0	53.2	51.6
2001.....	45.5	46.1	40.8	43.4	37.8	43.2	39.3	38.0	35.3	33.7	36.3	38.9
2002.....	40.1	43.2	42.5	47.4	48.7	-	-	-	-	-	-	-
Over 6-month span:												
1998.....	70.4	67.4	65.0	62.5	63.6	60.5	59.2	58.6	57.5	60.2	59.2	58.4
1999.....	59.8	59.8	58.2	60.3	56.7	59.2	61.8	60.8	62.7	61.8	61.2	62.8
2000.....	63.5	60.6	62.6	63.7	61.5	55.5	56.1	58.6	52.4	48.7	45.7	46.5
2001.....	52.0	50.6	48.6	45.3	44.1	38.5	37.1	35.6	34.3	33.1	34.1	35.6
2002.....	37.0	41.8	42.9	-	-	-	-	-	-	-	-	-
Over 12-month span:												
1998.....	69.7	67.6	67.4	66.0	64.0	62.7	61.9	62.0	60.8	59.4	60.8	58.9
1999.....	61.2	60.2	58.2	60.8	60.8	61.6	62.2	61.3	63.8	62.2	59.7	60.5
2000.....	62.5	63.0	61.8	59.5	58.4	56.8	55.7	56.5	47.7	45.2	44.5	42.9
2001.....	49.6	47.7	45.0	43.1	40.5	39.8	38.4	36.8	34.4	34.3	32.9	-
2002.....	-	-	-	-	-	-	-	-	-	-	-	-
Manufacturing payrolls, 139 industries												
Over 1-month span:												
1998.....	57.0	52.6	52.2	52.9	44.9	47.4	38.2	52.9	44.9	38.6	42.3	41.5
1999.....	47.4	41.2	42.6	46.0	46.3	43.4	50.0	42.6	46.0	45.6	51.5	49.3
2000.....	44.9	52.2	49.3	46.0	49.3	50.7	57.4	36.8	39.0	42.3	47.1	40.8
2001.....	34.9	26.8	38.2	29.0	28.3	30.5	34.9	25.7	31.6	31.3	25.0	30.9
2002.....	35.3	37.9	40.4	47.1	46.7	41.9	-	-	-	-	-	-
Over 3-month span:												
1998.....	59.2	57.0	54.8	51.8	48.2	38.2	41.9	43.0	43.0	38.2	32.7	40.4
1999.....	39.3	39.3	39.7	40.1	41.2	43.8	44.1	46.3	42.3	44.1	47.8	45.2
2000.....	48.2	48.9	48.9	44.5	46.7	52.2	46.0	38.6	29.0	34.2	39.0	36.0
2001.....	21.3	21.3	18.4	23.5	19.9	23.2	17.3	19.1	16.2	18.0	18.4	18.0
2002.....	24.6	30.1	37.1	39.3	40.8	-	-	-	-	-	-	-
Over 6-month span:												
1998.....	60.7	54.4	49.3	40.1	45.2	39.0	39.0	38.2	34.6	41.2	35.7	33.1
1999.....	36.4	36.0	37.5	40.4	37.5	43.0	43.0	44.5	48.2	43.0	44.5	47.4
2000.....	47.6	45.2	44.5	50.0	41.9	36.0	36.0	35.3	32.4	26.1	21.3	21.7
2001.....	20.2	16.9	14.0	16.2	16.5	14.7	14.7	11.8	14.0	13.2	17.6	16.5
2002.....	19.9	26.8	27.9	-	-	-	-	-	-	-	-	-
Over 12-month span:												
1998.....	54.8	52.2	51.8	46.7	40.4	38.2	38.2	37.5	36.4	34.6	35.7	34.2
1999.....	38.5	34.6	32.4	36.0	37.9	44.5	40.1	40.4	44.5	44.5	43.4	44.5
2000.....	49.3	44.1	41.2	36.8	35.3	35.3	33.8	28.7	22.1	19.1	17.6	14.0
2001.....	13.6	13.6	14.7	15.4	12.1	11.8	11.0	11.0	12.9	13.6	13.6	-
2002.....	-	-	-	-	-	-	-	-	-	-	-	-

Dash indicates data not available.

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.

Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

## 18. Establishment size and employment covered under UI, private ownership, by major industry division, first quarter 2000

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 .....	7,531,330	4,413,181	1,302,488	850,411	590,662	206,415	119,172	31,311	11,713	5,977
Employment, March .....	108,195,174	6,831,146	8,615,974	11,471,927	17,878,154	14,212,796	17,895,603	10,658,780	7,965,372	12,665,422
<b>Agriculture, forestry, and fishing</b>										
Establishments, first quarter .....	200,289	123,880	37,646	22,736	11,179	2,875	1,473	370	106	24
Employment, March .....	1,702,493	179,158	248,989	302,599	326,510	196,681	216,628	126,181	69,476	36,271
<b>Mining</b>										
Establishments, first quarter .....	27,284	14,102	4,323	3,728	3,202	1,023	591	214	76	25
Employment, March .....	524,514	22,082	28,959	51,183	97,241	69,762	89,714	74,836	52,916	37,821
<b>Construction</b>										
Establishments, first quarter .....	747,563	477,549	126,844	76,253	46,543	13,242	5,748	1,053	272	59
Employment, March .....	6,310,456	703,310	831,405	1,024,819	1,389,870	898,785	846,893	347,400	182,357	85,617
<b>Manufacturing</b>										
Establishments, first quarter .....	405,838	147,029	67,385	61,150	61,487	30,568	24,264	8,646	3,598	1,711
Employment, March .....	18,433,795	251,154	453,397	842,691	1,922,360	2,144,676	3,739,308	2,977,743	2,446,323	3,656,143
<b>Transportation and public utilities</b>										
Establishments, first quarter .....	315,413	174,645	49,173	36,475	30,720	12,952	7,913	2,127	892	516
Employment, March .....	6,678,516	272,380	325,334	498,572	945,800	895,012	1,190,459	726,615	618,630	1,205,714
<b>Wholesale trade</b>										
Establishments, first quarter .....	664,094	400,335	110,091	77,321	52,153	15,187	7,019	1,478	414	96
Employment, March .....	6,947,770	621,924	729,753	1,046,983	1,565,359	1,035,060	1,035,170	496,350	274,988	142,183
<b>Retail trade</b>										
Establishments, first quarter .....	1,458,626	623,529	329,260	235,941	179,053	57,988	26,380	4,982	1,169	324
Employment, March .....	22,807,395	1,154,942	2,204,569	3,190,042	5,437,335	3,943,391	3,880,016	1,659,975	764,056	573,069
<b>Finance, insurance, and real estate</b>										
Establishments, first quarter .....	671,294	438,402	114,349	62,141	35,549	11,618	6,025	1,799	898	513
Employment, March .....	7,379,831	714,292	751,197	826,817	1,065,116	797,168	912,396	621,570	615,246	1,076,029
<b>Services</b>										
Establishments, first quarter .....	2,890,313	1,879,338	451,715	271,168	169,867	60,864	39,727	10,640	4,286	2,708
Employment, March .....	37,110,557	2,772,133	2,967,673	3,643,823	5,102,854	4,225,937	5,980,102	3,627,319	2,939,641	5,851,075

<sup>1</sup> Includes establishments that reported no workers in March 2000.

NOTE: Detail may not add to totals due to rounding.

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

19. Annual data: establishments, employment, and wages covered under UI and UCFE by ownership

Year	Average establishments	Average annual employment	Total annual wages (in thousands)	Average annual wages per employee	Average weekly wage
<b>Total covered (UI and UCFE)</b>					
1991	6,382,523	106,884,831	\$2,626,972,030	\$24,578	\$473
1992	6,532,608	107,413,728	2,781,676,477	25,897	498
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
<b>UI covered</b>					
1991	6,336,151	103,755,832	\$2,524,937,018	\$24,335	\$468
1992	6,485,473	104,288,324	2,672,081,827	25,622	493
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
<b>Private industry covered</b>					
1991	6,162,684	89,007,096	\$2,152,021,705	\$24,178	\$465
1992	6,308,719	89,349,803	2,282,598,431	25,547	491
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
<b>State government covered</b>					
1991	58,499	4,005,321	\$108,672,127	\$27,132	\$522
1992	58,801	4,044,914	112,405,340	27,789	534
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
<b>Local government covered</b>					
1991	114,936	10,742,558	\$264,215,610	\$24,595	\$473
1992	117,923	10,892,697	277,045,557	25,434	489
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
<b>Federal Government covered (UCFE)</b>					
1991	46,372	3,128,999	\$102,035,012	\$32,609	\$627
1992	47,136	3,125,404	109,594,650	35,066	674
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

NOTE: Detail may not add to totals due to rounding.

## 20. Annual data: establishments, employment, and wages covered under UI and UCFE, by State

State	Average establishments		Average annual employment		Total annual wages (in thousands)		Average weekly wage	
	2000	1999-2000 change	2000	1999-2000 change	2000	1999-2000 change	2000	1999-2000 change
Total United States .....	7,879,116	58,256	129,877,063	2,834,781	\$4,587,708,584	\$352,129,380	\$679	\$38
Alabama .....	112,328	454	1,877,963	6,911	54,538,027	1,970,401	558	18
Alaska .....	18,820	32	275,607	6,674	9,685,341	532,709	676	22
Arizona .....	115,171	2,589	2,220,712	70,174	72,417,033	6,772,271	627	40
Arkansas .....	72,240	406	1,130,891	17,750	29,761,939	1,520,062	506	18
California .....	1,026,568	-33,271	14,867,006	472,932	612,318,313	71,430,084	792	69
Colorado .....	148,479	6,278	2,186,656	81,404	81,273,035	9,292,033	715	57
Connecticut .....	107,787	1,696	1,674,728	22,363	76,176,856	5,650,414	875	54
Delaware .....	24,751	584	406,350	4,210	14,845,185	707,255	703	27
District of Columbia .....	28,409	1,474	637,292	21,588	33,753,742	2,423,907	1,019	40
Florida .....	444,731	9,134	7,060,986	216,337	215,780,400	17,731,492	588	32
Georgia .....	225,040	6,628	3,883,005	88,250	132,853,189	10,161,751	658	36
Hawaii .....	34,027	1,564	553,185	15,440	16,942,944	921,218	589	16
Idaho .....	45,399	1,128	563,193	20,785	15,600,825	1,474,196	533	32
Illinois .....	322,324	2,721	5,940,772	90,253	226,012,936	13,664,320	732	34
Indiana .....	152,846	-1,089	2,936,634	29,778	91,086,141	3,800,930	596	19
Iowa .....	97,091	2,479	1,443,394	12,412	40,312,331	1,743,623	537	19
Kansas .....	80,477	1,036	1,313,742	14,945	38,571,763	2,164,568	565	26
Kentucky .....	107,740	2,403	1,762,949	31,482	50,774,667	2,669,580	554	20
Louisiana .....	118,216	1,549	1,869,219	21,317	52,131,235	1,838,194	536	13
Maine .....	44,865	956	590,818	17,005	16,344,365	916,386	532	15
Maryland .....	146,559	1,117	2,405,510	58,631	87,548,876	6,606,334	700	37
Massachusetts .....	187,391	344	3,275,135	83,493	145,184,150	16,396,342	852	76
Michigan .....	260,885	2,244	4,585,211	82,445	169,702,272	8,726,750	712	24
Minnesota .....	155,711	4,932	2,608,543	57,751	92,377,120	6,959,859	681	37
Mississippi .....	63,970	229	1,137,304	-1,880	28,665,889	879,567	485	16
Missouri .....	163,080	2,303	2,677,110	31,687	84,020,093	4,745,993	604	28
Montana .....	38,349	1,585	379,094	7,855	9,202,211	567,364	467	20
Nebraska .....	51,838	4	882,918	16,308	24,449,709	1,370,028	533	21
Nevada .....	48,126	194	1,017,902	41,975	32,853,744	2,392,271	621	21
New Hampshire .....	45,924	494	606,543	15,318	21,069,920	2,067,493	668	50
New Jersey .....	270,384	-15,337	3,877,572	85,195	169,355,641	13,725,235	840	51
New Mexico .....	47,987	693	717,243	16,339	19,722,105	1,311,285	529	24
New York .....	529,103	4,797	8,471,416	178,874	384,241,451	34,472,229	872	61
North Carolina .....	222,234	7,270	3,862,782	58,413	120,007,446	7,922,007	597	30
North Dakota .....	23,297	240	309,223	3,263	7,632,602	365,713	475	18
Ohio .....	280,988	1,073	5,513,217	62,090	179,218,763	8,080,924	625	21
Oklahoma .....	89,298	1,368	1,452,166	29,357	39,191,626	2,464,854	519	23
Oregon .....	109,050	-1,296	1,608,069	32,067	52,703,467	4,049,166	630	36
Pennsylvania .....	315,284	13,267	5,558,076	98,602	189,058,210	10,557,733	654	25
Rhode Island .....	33,327	621	467,602	10,766	15,250,760	1,011,495	627	28
South Carolina .....	109,370	-1,993	1,820,138	27,993	51,289,516	2,664,765	542	20
South Dakota .....	27,145	437	364,119	8,334	9,030,727	574,920	477	20
Tennessee .....	125,247	-51	2,667,230	40,186	81,495,110	4,055,765	588	21
Texas .....	489,795	8,425	9,289,286	272,645	324,579,638	27,952,132	672	39
Utah .....	66,144	2,282	1,044,143	26,519	30,518,822	2,131,853	562	26
Vermont .....	23,870	805	296,462	8,473	8,571,976	624,326	556	25
Virginia .....	192,745	3,212	3,427,954	100,832	120,567,926	10,689,950	676	41
Washington .....	221,150	9,010	2,706,462	62,732	100,381,521	5,904,038	713	26
West Virginia .....	46,830	21	686,622	6,014	18,461,154	752,890	517	17
Wisconsin .....	145,871	977	2,736,054	44,603	83,980,263	4,294,806	590	21
Wyoming .....	20,861	238	230,857	5,892	6,195,607	425,897	516	23
Puerto Rico .....	52,371	202	1,026,175	23,785	19,306,364	709,126	362	5
Virgin Islands .....	3,255	32	42,349	1,411	1,173,955	104,996	533	31

NOTE: Detail may not add to totals due to rounding.

21. Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 316 largest U.S. counties

County <sup>1</sup>	Employment			Average annual pay	
	2000	Percent change, 1999-2000 <sup>2</sup>	Ranked by percent change, 1999-2000 <sup>3</sup>	2000	Percent change, 1999-2000 <sup>2</sup>
United States <sup>4</sup> .....	129,877,063	2.2	-	35,323	5.9
Jefferson, AL .....	384,662	.6	256	34,026	3.9
Madison, AL .....	154,356	1.7	186	35,837	5.0
Mobile, AL .....	169,469	-.1	291	28,623	2.4
Montgomery, AL .....	131,988	.2	285	28,894	3.2
Tuscaloosa, AL .....	76,499	.8	244	29,064	2.5
Anchorage, AK .....	129,700	2.0	164	36,659	2.7
Maricopa, AZ .....	1,544,971	3.6	48	35,110	7.8
Pima, AZ .....	328,426	3.1	77	29,194	3.5
Pulaski, AR .....	243,157	.4	272	30,799	3.8
Sebastian, AR .....	75,197	1.1	228	27,011	4.8
Washington, AR .....	80,045	3.3	61	26,408	3.8
Alameda, CA .....	696,242	3.0	84	45,091	9.8
Contra Costa, CA .....	336,691	3.1	78	42,318	3.7
Fresno, CA .....	322,759	1.9	169	26,162	4.8
Kern, CA .....	238,250	2.1	153	28,572	5.7
Los Angeles, CA .....	4,098,154	1.7	187	39,651	4.9
Marin, CA .....	111,645	2.1	154	42,600	8.5
Monterey, CA .....	164,646	2.5	118	29,962	5.1
Orange, CA .....	1,394,414	3.6	49	39,247	4.8
Placer, CA .....	107,182	8.9	3	33,386	5.3
Riverside, CA .....	469,467	5.3	12	29,136	4.7
Sacramento, CA .....	573,942	2.6	107	37,732	7.2
San Bernardino, CA .....	528,437	3.0	85	29,901	3.8
San Diego, CA .....	1,195,116	3.0	86	37,535	8.1
San Francisco, CA .....	609,138	3.7	43	57,532	12.0
San Joaquin, CA .....	201,070	3.1	79	29,237	4.7
San Luis Obispo, CA .....	94,883	3.6	50	28,096	6.2
San Mateo, CA .....	378,494	5.3	13	67,051	30.4
Santa Barbara, CA .....	176,901	3.0	87	32,566	8.2
Santa Clara, CA .....	1,030,633	6.1	9	76,213	24.7
Santa Cruz, CA .....	101,833	3.3	62	35,819	15.5
Solano, CA .....	117,217	3.7	44	31,670	8.4
Sonoma, CA .....	190,946	3.1	80	35,715	11.3
Stanislaus, CA .....	160,948	1.7	188	28,201	4.4
Tulare, CA .....	132,986	3.6	51	23,750	4.6
Ventura, CA .....	287,611	3.4	57	37,069	9.1
Yolo, CA .....	84,565	1.5	201	33,438	3.3
Adams, CO .....	144,806	3.6	52	33,428	4.8
Arapahoe, CO .....	284,236	3.9	38	46,254	7.8
Boulder, CO .....	179,719	8.2	4	45,564	13.9
Denver, CO .....	469,137	3.2	69	44,343	11.6
El Paso, CO .....	237,739	3.4	58	33,039	7.7
Jefferson, CO .....	210,519	2.6	108	36,195	5.2
Larimer, CO .....	119,155	5.1	16	32,394	7.9
Fairfield, CT .....	427,557	1.1	229	61,156	8.5
Hartford, CT .....	501,562	1.1	230	43,656	6.2
New Haven, CT .....	367,343	1.1	231	38,355	5.4
New London, CT .....	123,039	.6	257	36,757	3.8
New Castle, DE .....	281,920	-.7	301	40,491	4.5
Washington, DC .....	637,292	3.5	54	52,964	4.1
Alachua, FL .....	117,658	2.5	119	26,155	3.9
Brevard, FL .....	181,314	3.3	63	32,101	7.2
Broward, FL .....	644,192	3.3	64	33,234	6.5
Collier, FL .....	103,264	6.9	6	29,962	6.9
Duval, FL .....	434,219	4.1	32	32,777	4.6
Escambia, FL .....	125,666	1.0	235	26,709	4.5
Hillsborough, FL .....	588,792	2.5	120	31,707	4.8
Lee, FL .....	162,304	4.4	25	28,148	6.4
Leon, FL .....	141,978	2.2	142	29,249	4.1
Manatee, FL .....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Marion, FL .....	83,319	1.7	189	24,953	3.3
Miami-Dade, FL .....	980,394	2.3	135	33,333	3.9
Orange, FL .....	611,469	3.2	70	31,123	4.6
Palm Beach, FL .....	481,395	4.1	33	35,233	7.3
Pinellas, FL .....	436,390	4.2	29	31,263	5.4
Polk, FL .....	183,222	2.6	109	27,881	3.5
Sarasota, FL .....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Seminole, FL .....	139,610	4.6	23	30,835	6.9
Volusia, FL .....	141,652	1.4	207	25,079	5.5
Bibb, GA .....	88,790	-1.2	308	29,299	3.2
Chatham, GA .....	122,785	1.3	214	29,650	1.9
Clayton, GA .....	116,368	-6	296	36,774	6.7
Cobb, GA .....	301,183	1.3	215	38,792	5.4

See footnotes at end of table.

**21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 316 largest U.S. counties**

County <sup>1</sup>	Employment			Average annual pay	
	2000	Percent change, 1999-2000 <sup>2</sup>	Ranked by percent change, 1999-2000 <sup>3</sup>	2000	Percent change, 1999-2000 <sup>2</sup>
Dekalb, GA .....	310,659	-6	297	38,614	4.9
Fulton, GA .....	754,368	2.7	103	47,060	8.5
Gwinnett, GA .....	281,654	4.1	34	39,051	6.0
Muscogee, GA .....	98,315	-1	292	27,744	3.7
Richmond, GA .....	106,260	-6	298	28,592	3.6
Honolulu, HI .....	407,935	2.6	110	31,874	2.8
Ada, ID .....	177,741	6.5	8	34,460	10.0
Champaign, IL .....	90,429	2.8	96	29,183	4.2
Cook, IL .....	2,687,795	1.3	216	42,898	5.8
Du Page, IL .....	582,352	1.7	190	42,570	3.6
Kane, IL .....	193,410	2.9	91	32,173	.1
Lake, IL .....	310,689	3.1	81	42,620	6.7
McHenry, IL .....	87,258	1.9	170	32,007	2.0
McLean, IL .....	84,324	.6	258	34,254	4.1
Madison, IL .....	94,550	.4	273	28,974	2.9
Peoria, IL .....	102,801	.1	287	31,387	1.6
Rock Island, IL .....	80,273	.8	245	33,525	4.5
St. Clair, IL .....	89,963	2.2	143	26,878	2.6
Sangamon, IL .....	144,286	4.4	26	34,764	1.7
Will, IL .....	142,355	3.5	55	32,313	2.1
Winnebago, IL .....	143,760	.5	265	31,499	2.0
Allen, IN .....	189,425	.3	281	32,279	3.0
Elkhart, IN .....	122,468	.6	259	30,339	2.3
Hamilton, IN .....	77,452	3.0	88	37,931	7.9
Lake, IN .....	199,421	-6	299	31,564	4.0
Marion, IN .....	605,903	1.6	194	36,473	3.2
St. Joseph, IN .....	129,558	.5	266	29,657	3.5
Tippecanoe, IN .....	77,377	1.1	232	31,083	4.0
Vanderburgh, IN .....	109,904	.7	251	29,569	3.2
Linn, IA .....	121,968	2.1	155	34,097	4.9
Polk, IA .....	263,940	1.3	217	33,666	2.5
Scott, IA .....	87,113	-4	295	29,067	3.9
Johnson, KS .....	287,797	2.8	97	37,247	6.7
Sedgwick, KS .....	249,846	.0	289	32,696	2.9
Shawnee, KS .....	100,223	2.4	130	29,375	3.2
Wyandotte, KS .....	79,746	1.8	177	34,592	2.9
Fayette, KY .....	172,031	1.8	178	30,713	3.8
Jefferson, KY .....	439,103	1.4	208	33,334	3.9
Caddo, LA .....	119,449	.3	282	28,767	3.2
Calcasieu, LA .....	83,976	.1	288	28,226	.9
East Baton Rouge, LA .....	246,434	2.7	104	29,257	1.6
Jefferson, LA .....	214,680	-7	302	28,051	2.1
Lafayette, LA .....	114,059	2.3	136	29,911	5.5
Orleans, LA .....	263,551	1.9	171	31,694	1.3
Cumberland, ME .....	166,757	3.7	45	30,752	1.1
Anne Arundel, MD .....	194,018	5.3	14	35,461	7.3
Baltimore, MD .....	358,117	1.2	222	34,119	4.7
Frederick, MD .....	77,323	4.9	22	30,847	5.9
Howard, MD .....	128,678	3.2	71	37,897	5.1
Montgomery, MD .....	447,314	5.0	20	43,708	5.8
Prince Georges, MD .....	303,262	3.3	65	37,060	6.9
Baltimore City, MD .....	386,411	.8	246	38,579	4.5
Barnstable, MA .....	88,589	3.7	46	29,726	.0
Bristol, MA .....	221,539	1.3	218	30,785	4.6
Essex, MA .....	305,382	2.5	121	39,154	8.8
Hampden, MA .....	204,303	1.9	172	32,220	4.8
Middlesex, MA .....	846,931	3.1	82	52,091	11.8
Norfolk, MA .....	325,018	2.4	131	43,368	10.4
Plymouth, MA .....	166,482	1.3	219	33,931	6.3
Suffolk, MA .....	608,285	3.3	66	56,699	11.6
Worcester, MA .....	321,131	2.5	122	37,657	10.8
Genesee, MI .....	165,297	-1.4	313	36,324	1.4
Ingham, MI .....	174,315	2.0	165	34,963	5.6
Kalamazoo, MI .....	118,342	-1	293	32,675	2.3
Kent, MI .....	347,707	1.6	195	33,996	2.6
Macomb, MI .....	337,504	.3	283	40,904	3.5
Oakland, MI .....	768,629	1.0	236	44,500	4.2
Ottawa, MI .....	118,711	1.8	179	31,947	3.5
Saginaw, MI .....	95,474	-8	304	34,672	2.5
Washtenaw, MI .....	195,624	.5	267	40,182	5.3
Wayne, MI .....	866,282	1.2	223	42,440	3.5
Anoka, MN .....	108,989	3.8	40	33,928	4.5
Dakota, MN .....	153,364	2.6	111	34,362	4.7
Hennepin, MN .....	874,693	2.1	156	43,816	7.1
Olmsted, MN .....	82,670	3.9	39	36,104	3.1

See footnotes at end of table.

21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 316 largest U.S. counties

County <sup>1</sup>	Employment			Average annual pay	
	2000	Percent change, 1999-2000 <sup>2</sup>	Ranked by percent change, 1999-2000 <sup>3</sup>	2000	Percent change, 1999-2000 <sup>2</sup>
Ramsey, MN .....	332,929	1.6	196	39,069	5.8
St. Louis, MN .....	94,926	1.4	209	28,903	4.6
Stearns, MN .....	76,292	3.1	83	27,584	4.2
Harrison, MS .....	89,745	.4	274	25,442	4.8
Hinds, MS .....	136,949	-1.2	309	30,578	4.6
Boone, MO .....	75,785	2.8	98	27,361	3.1
Clay, MO .....	84,159	.0	290	32,207	6.4
Greene, MO .....	142,508	2.4	132	26,971	3.2
Jackson, MO .....	393,761	.4	275	36,056	6.2
St. Charles, MO .....	95,799	3.2	72	29,515	3.8
St. Louis, MO .....	646,858	.8	247	38,145	5.6
St. Louis City, MO .....	250,878	.4	276	38,612	4.1
Douglas, NE .....	330,128	2.1	157	32,356	4.1
Lancaster, NE .....	146,433	1.8	180	28,511	3.9
Clark, NV .....	697,575	5.3	15	32,131	3.4
Washoe, NV .....	189,102	3.2	73	32,748	4.4
Hillsborough, NH .....	193,796	2.7	105	39,212	9.1
Rockingham, NH .....	129,494	4.1	35	35,823	9.8
Atlantic, NJ .....	140,141	-.2	294	31,068	3.4
Bergen, NJ .....	448,513	.5	268	46,306	7.0
Burlington, NJ .....	180,165	.8	248	37,597	4.7
Camden, NJ .....	199,768	-1.1	307	35,130	3.2
Essex, NJ .....	363,942	1.6	197	44,653	3.5
Gloucester, NJ .....	86,667	.7	252	32,055	2.8
Hudson, NJ .....	238,388	3.4	59	47,427	10.2
Mercer, NJ .....	210,031	3.3	67	44,658	5.2
Middlesex, NJ .....	392,427	.6	260	46,487	5.8
Monmouth, NJ .....	233,285	2.5	123	39,695	5.4
Morris, NJ .....	275,499	2.8	99	60,487	19.0
Ocean, NJ .....	129,093	2.5	124	30,447	4.6
Passaic, NJ .....	177,364	.6	261	37,759	2.0
Somerset, NJ .....	173,571	4.1	36	54,781	5.1
Union, NJ .....	237,176	2.2	144	45,282	4.9
Bernalillo, NM .....	307,705	2.6	112	30,184	4.1
Albany, NY .....	230,962	1.4	210	35,795	6.1
Bronx, NY .....	212,982	2.2	145	32,850	2.7
Broome, NY .....	99,613	1.2	224	29,658	3.6
Dutchess, NY .....	109,949	1.9	173	36,065	2.2
Erie, NY .....	459,828	1.0	237	31,489	3.0
Kings, NY .....	441,916	2.3	137	30,760	3.7
Monroe, NY .....	399,602	.9	242	35,423	1.8
Nassau, NY .....	598,538	1.6	198	40,023	4.4
New York, NY .....	2,382,175	3.2	74	72,572	10.3
Niagara, NY .....	78,186	.2	286	31,112	3.7
Oneida, NY .....	110,684	1.4	211	27,300	3.4
Onondaga, NY .....	252,476	.7	253	32,499	3.4
Orange, NY .....	119,571	1.6	199	29,357	4.6
Queens, NY .....	480,676	1.3	220	34,986	4.4
Richmond, NY .....	88,245	1.9	174	32,149	4.2
Rockland, NY .....	106,361	1.4	212	37,264	4.3
Suffolk, NY .....	578,401	2.3	138	37,862	6.6
Westchester, NY .....	405,440	2.3	139	47,066	8.3
Buncombe, NC .....	106,036	.5	269	27,652	3.8
Catawba, NC .....	101,321	2.6	113	28,210	4.0
Cumberland, NC .....	109,858	1.2	225	26,112	3.9
Durham, NC .....	167,191	2.9	92	49,359	12.6
Forsyth, NC .....	181,619	1.8	181	34,011	6.3
Gaston, NC .....	77,176	-3.6	314	28,335	4.0
Guilford, NC .....	279,889	.6	262	32,216	2.5
Mecklenburg, NC .....	514,223	3.8	41	40,538	5.4
New Hanover, NC .....	87,019	.4	277	28,560	4.3
Wake, NC .....	383,705	3.3	68	35,377	7.4
Cass, ND .....	81,823	2.2	146	27,801	4.1
Butler, OH .....	126,189	2.6	114	31,502	1.7
Cuyahoga, OH .....	817,572	.9	243	36,520	4.2
Franklin, OH .....	701,913	2.2	147	34,970	4.6
Hamilton, OH .....	566,965	.8	249	37,598	3.9
Lake, OH .....	102,320	1.5	202	30,735	2.1
Lorain, OH .....	105,988	2.3	140	32,013	1.9
Lucas, OH .....	238,450	.6	263	32,255	2.3
Mahoning, OH .....	112,531	-.6	300	25,966	3.0
Montgomery, OH .....	303,352	.4	278	34,532	2.6
Stark, OH .....	175,535	1.7	191	28,505	2.1
Summit, OH .....	266,001	.4	279	32,735	4.2

See footnotes at end of table.

**21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 316 largest U.S. counties**

County <sup>1</sup>	Employment			Average annual pay	
	2000	Percent change, 1999-2000 <sup>2</sup>	Ranked by percent change, 1999-2000 <sup>3</sup>	2000	Percent change, 1999-2000 <sup>2</sup>
Trumbull, OH .....	94,382	-1.3	311	32,785	1.0
Oklahoma, OK .....	414,239	2.9	93	29,216	4.6
Tulsa, OK .....	340,671	2.5	125	31,157	3.7
Clackamas, OR .....	133,065	2.2	148	32,482	4.0
Lane, OR .....	139,710	1.1	233	27,877	3.5
Marion, OR .....	127,558	2.0	166	28,116	2.9
Multnomah, OR .....	453,274	2.1	158	36,796	6.2
Washington, OR .....	224,033	4.3	27	44,459	13.4
Allegheny, PA .....	711,068	1.2	226	36,727	2.5
Berks, PA .....	168,068	1.8	182	32,007	3.3
Bucks, PA .....	244,317	2.5	126	34,059	3.4
Chester, PA .....	216,777	2.5	127	43,762	6.9
Cumberland, PA .....	123,998	-1.3	312	32,811	3.2
Dauphin, PA .....	172,465	2.1	159	33,680	2.2
Delaware, PA .....	212,540	1.0	238	36,828	5.5
Erie, PA .....	131,700	2.5	128	28,368	1.8
Lackawanna, PA .....	98,383	-.7	303	27,663	7.5
Lancaster, PA .....	218,280	1.8	183	30,809	4.6
Lehigh, PA .....	171,175	2.0	167	35,274	2.5
Luzerne, PA .....	143,066	2.2	149	27,855	2.7
Montgomery, PA .....	481,011	2.3	141	43,810	6.5
Northampton, PA .....	87,846	3.0	89	30,767	3.1
Philadelphia, PA .....	668,793	1.5	203	39,700	4.5
Westmoreland, PA .....	134,436	1.0	239	27,992	1.3
York, PA .....	167,757	2.2	150	30,926	3.3
Providence, RI .....	290,809	1.7	192	33,410	4.0
Charleston, SC .....	182,793	1.3	221	27,680	4.8
Greenville, SC .....	233,062	2.6	115	31,281	4.0
Horry, SC .....	99,124	1.7	193	22,883	5.4
Lexington, SC .....	81,341	2.0	168	27,505	3.5
Richland, SC .....	207,508	.6	264	29,627	4.1
Spartanburg, SC .....	119,791	.5	270	30,596	3.4
Minnehaha, SD .....	105,837	3.2	75	28,212	3.7
Davidson, TN .....	434,901	1.5	204	34,863	5.4
Hamilton, TN .....	188,161	1.8	184	30,574	4.0
Knox, TN .....	202,688	3.4	60	30,090	4.1
Rutherford, TN .....	76,993	2.5	129	31,132	3.6
Shelby, TN .....	500,255	1.0	240	34,357	2.5
Bell, TX .....	87,850	2.1	160	25,193	4.1
Bexar, TX .....	648,942	2.2	151	29,923	5.2
Brazoria, TX .....	75,417	2.8	100	34,367	3.3
Cameron, TX .....	109,115	5.4	11	21,553	2.6
Collin, TX .....	167,956	5.9	10	40,509	5.8
Dallas, TX .....	1,567,626	4.2	30	44,381	7.7
Denton, TX .....	119,722	3.7	47	29,298	4.0
El Paso, TX .....	251,557	1.5	205	25,069	3.2
Fort Bend, TX .....	87,763	2.4	133	35,801	5.1
Galveston, TX .....	86,844	-1.0	306	29,518	4.0
Harris, TX .....	1,840,442	2.8	101	41,869	7.7
Hidalgo, TX .....	163,443	7.1	5	21,671	2.7
Jefferson, TX .....	120,815	1.1	234	31,277	.8
Lubbock, TX .....	115,422	1.9	175	26,297	6.3
Mc Lennan, TX .....	98,076	1.0	241	27,034	2.1
Montgomery, TX .....	76,865	5.0	21	32,119	9.7
Nueces, TX .....	142,309	.8	250	28,187	4.7
Potter, TX .....	75,572	.7	254	26,552	2.8
Smith, TX .....	83,353	2.8	102	29,509	3.6
Tarrant, TX .....	703,025	3.5	56	35,438	5.0
Travis, TX .....	538,193	5.1	17	41,332	7.0
Williamson, TX .....	76,588	9.5	2	50,415	-4.5
Davis, UT .....	84,640	3.2	76	27,711	7.2
Salt Lake, UT .....	531,240	2.6	116	32,192	5.0
Utah, UT .....	142,369	4.5	24	27,891	5.0
Weber, UT .....	86,404	.4	280	26,644	2.5
Chittenden, VT .....	95,343	5.1	18	34,288	4.2
Arlington, VA .....	157,906	4.1	37	52,846	7.1
Chesterfield, VA .....	107,932	2.1	161	31,880	3.5
Fairfax, VA .....	537,647	6.7	7	51,576	10.3
Henrico, VA .....	165,617	2.4	134	36,138	5.8
Loudoun, VA .....	87,265	11.9	1	54,141	3.6
Prince William, VA .....	78,209	4.3	28	28,986	5.5
Alexandria, VA .....	91,818	5.1	19	42,101	6.1
Chesapeake, VA .....	81,294	2.1	162	26,069	4.2
Newport News, VA .....	93,607	1.8	185	30,261	5.4
Norfolk, VA .....	145,197	.3	284	32,179	4.9

See footnotes at end of table.



**21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 316 largest U.S. counties**

County <sup>1</sup>	Employment			Average annual pay	
	2000	Percent change, 1999-2000 <sup>2</sup>	Ranked by percent change, 1999-2000 <sup>3</sup>	2000	Percent change, 1999-2000 <sup>2</sup>
Richmond, VA .....	166,923	1.4	213	38,635	5.1
Roanoke City, VA .....	75,894	3.0	90	29,487	4.6
Virginia Beach, VA .....	165,610	3.6	53	25,414	4.4
Clark, WA .....	113,910	1.5	206	32,163	6.0
King, WA .....	1,162,290	2.7	106	47,459	3.0
Pierce, WA .....	241,654	4.2	31	29,854	4.2
Snohomish, WA .....	209,557	-1.2	310	35,091	3.6
Spokane, WA .....	188,843	2.9	94	29,760	7.9
Thurston, WA .....	84,277	1.6	200	31,745	6.9
Yakima, WA .....	94,233	1.9	176	23,237	3.7
Kanawha, WV .....	112,920	.7	255	30,156	3.1
Brown, WI .....	142,359	2.1	163	31,538	2.9
Dane, WI .....	274,353	2.6	117	32,817	5.5
Milwaukee, WI .....	528,837	.5	271	34,744	3.1
Outagamie, WI .....	94,364	2.9	95	30,769	4.4
Racine, WI .....	79,160	-9	305	32,536	-6
Waukesha, WI .....	222,877	1.2	227	35,767	5.2
Winnebago, WI .....	90,256	2.2	152	33,622	2.7
San Juan, PR .....	327,187	3.8	42	21,312	3.5

<sup>1</sup> Includes areas not officially designated as counties. See Notes on Current Labor Statistics.

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

<sup>3</sup> Rankings for percent change in employment are based on the 314 counties that are comparable over the year.

<sup>4</sup> Totals for the United States do not include data for Puerto Rico.

<sup>5</sup> Data are not available for release.

Note: Data pertain to workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. The 315 U.S. counties comprise 70.8 percent of the total covered workers in the United States

**22. Annual data: Employment status of the population**

[Numbers in thousands]

Employment status	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Civilian noninstitutional population.....	192,805	194,838	196,814	198,584	200,591	203,133	205,220	207,753	209,699	211,864
Civilian labor force.....	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368	140,863	141,815
Labor force participation rate.....	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.2	66.9
Employed.....	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488	135,208	135,073
Employment-population ratio.....	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.5	63.8
Agriculture.....	3,247	3,115	3,409	3,440	3,443	3,399	3,378	3,281	3,305	3,144
Nonagricultural industries.....	115,245	117,144	119,651	121,460	123,264	126,159	128,085	130,207	131,903	131,929
Unemployed.....	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,655	6,742
Unemployment rate.....	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.8
Not in the labor force.....	64,700	65,638	65,758	66,280	66,647	66,837	67,547	68,385	68,836	70,505





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

[June 1989 = 100]

Series	2000			2001				2002		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3	12
										months	months
										ended	ended
										June 2002	
Finance, insurance, and real estate.....	153.1	155.2	155.7	157.9	159.5	160.9	161.3	165.2	167.3	1.3	4.9
Excluding sales occupations.....	155.5	157.4	158.4	161.2	163.1	164.7	165.0	169.8	171.3	.9	5.0
Banking, savings and loan, and other credit agencies.....	164.2	165.8	166.5	170.8	172.7	175.4	174.5	182.1	184.2	1.2	6.7
Insurance.....	151.3	154.8	155.2	157.6	159.3	159.9	161.3	164.0	166.1	1.3	4.3
Services.....	151.2	152.9	154.1	156.5	157.8	160.0	161.0	162.6	163.7	.7	3.7
Business services.....	156.3	157.5	158.4	160.5	163.0	165.2	166.2	166.3	166.6	.2	2.2
Health services.....	147.5	149.0	150.6	152.7	154.7	156.8	158.4	160.6	162.0	.9	4.7
Hospitals.....	147.5	149.2	151.1	153.5	155.9	158.4	160.3	162.8	164.5	1.0	5.5
Educational services.....	154.9	158.8	159.9	162.3	162.6	166.4	167.6	168.5	169.0	.3	3.9
Colleges and universities.....	155.5	158.6	159.2	162.2	162.6	166.2	167.5	168.1	168.4	.2	3.6
Nonmanufacturing.....	148.4	150.0	151.1	153.1	154.7	156.3	157.6	159.3	161.1	1.1	4.1
White-collar workers.....	151.0	152.6	153.7	155.8	157.5	159.0	160.5	162.2	164.1	1.2	4.2
Excluding sales occupations.....	152.0	153.8	155.1	157.5	159.1	160.9	162.3	164.2	165.7	.9	4.1
Blue-collar occupations.....	142.3	143.9	144.8	146.9	148.1	150.2	150.6	152.2	154.0	1.2	4.0
Service occupations.....	145.1	146.3	147.8	149.5	150.7	152.1	154.1	155.9	156.9	.6	4.1
<b>State and local government workers.....</b>	<b>145.9</b>	<b>147.8</b>	<b>148.9</b>	<b>150.3</b>	<b>151.2</b>	<b>154.3</b>	<b>155.2</b>	<b>156.1</b>	<b>156.7</b>	<b>.4</b>	<b>3.6</b>
Workers, by occupational group:											
White-collar workers.....	145.3	147.3	148.3	149.5	150.4	153.7	154.4	155.2	155.7	.3	3.5
Professional specialty and technical.....	144.5	146.6	147.4	148.4	149.2	152.8	153.2	153.6	154.1	.3	3.3
Executive, administrative, and managerial.....	147.2	149.2	150.7	152.4	153.7	156.4	157.6	159.5	159.6	.2	4.0
Administrative support, including clerical.....	146.5	148.3	149.4	150.7	151.6	154.2	155.6	156.9	158.0	.7	4.2
Blue-collar workers.....	144.2	145.9	147.2	148.6	149.0	151.5	153.2	154.0	154.7	.5	3.8
Workers, by industry division:											
Services.....	145.5	148.0	148.9	149.9	150.6	154.4	154.9	155.5	155.9	.3	3.5
Services excluding schools <sup>5</sup> .....	145.8	147.6	148.8	150.1	151.9	154.5	156.1	157.9	158.7	.5	4.5
Health services.....	147.9	150.0	151.6	152.1	154.4	157.1	158.5	160.4	161.4	.6	4.5
Hospitals.....	148.4	150.7	152.0	152.2	154.7	157.4	159.1	160.7	161.8	.7	4.6
Educational services.....	145.2	147.9	148.7	149.6	150.1	154.1	154.5	154.8	155.1	.2	3.3
Schools.....	145.5	148.2	149.0	149.9	150.5	154.4	154.8	155.1	155.4	.2	3.3
Elementary and secondary.....	144.7	147.3	148.1	148.5	149.0	152.8	153.1	153.4	153.6	.1	3.1
Colleges and universities.....	147.6	150.5	151.7	153.7	154.3	153.8	159.6	160.0	160.4	.3	4.0
Public administration <sup>3</sup> .....	146.1	146.9	148.3	150.6	151.9	151.9	155.2	156.5	157.9	.6	3.7

<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.

<sup>4</sup> This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

<sup>5</sup> Includes, for example, library, social, and health services.





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

[June 1989 = 100]

Series	2000			2001			2002			Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3	12
										months	months
										ended	ended
										June 2002	
<b>COMPENSATION</b>											
<b>Workers, by bargaining status<sup>1</sup></b>											
Union.....	144.4	146.1	146.9	147.9	149.5	151.0	153.1	154.8	156.3	1.0	4.5
Goods-producing.....	144.8	146.8	147.3	147.9	149.3	150.6	151.6	153.4	154.7	.8	3.6
Service-producing.....	143.9	145.2	146.4	147.6	149.5	151.2	154.2	156.0	157.6	1.0	5.4
Manufacturing.....	145.4	147.1	147.4	147.9	148.8	149.9	151.4	153.4	154.6	.8	3.9
Nonmanufacturing.....	143.4	145.0	146.2	147.3	149.4	151.1	153.5	155.0	156.6	1.0	4.8
Nonunion.....	149.1	150.6	151.6	153.8	155.3	156.7	157.8	159.6	161.4	1.1	3.9
Goods-producing.....	147.2	148.4	149.3	151.6	153.1	154.0	155.3	157.2	158.6	.9	3.6
Service-producing.....	149.6	151.2	152.3	154.4	155.9	157.5	158.6	160.3	162.2	1.2	4.0
Manufacturing.....	148.2	149.2	149.9	152.4	153.7	154.4	155.5	157.6	159.1	1.0	3.5
Nonmanufacturing.....	149.1	150.7	151.8	153.9	155.4	157.0	158.2	159.9	161.7	1.1	4.1
<b>Workers, by region<sup>1</sup></b>											
Northeast.....	147.6	149.3	150.3	151.6	153.7	155.2	156.3	158.3	159.9	1.0	4.0
South.....	146.7	147.6	148.6	151.1	152.3	153.5	154.6	156.2	157.6	.9	3.5
Midwest (formerly North Central).....	150.7	152.2	153.3	154.8	156.0	157.4	158.6	161.1	162.2	.9	4.2
West.....	148.8	150.8	151.8	154.3	156.0	157.6	159.4	160.4	162.9	1.6	4.4
<b>Workers, by area size<sup>1</sup></b>											
Metropolitan areas.....	148.6	150.1	151.0	153.1	154.6	156.0	157.4	159.1	160.9	1.1	4.1
Other areas.....	147.7	148.8	150.3	152.1	153.7	154.8	155.6	157.5	158.5	.6	3.1
<b>WAGES AND SALARIES</b>											
<b>Workers, by bargaining status<sup>1</sup></b>											
Union.....	138.5	140.0	141.2	142.1	143.7	145.1	147.4	148.4	149.8	.9	4.2
Goods-producing.....	138.4	140.2	141.3	142.4	144.2	145.3	146.3	147.2	158.6	1.0	3.1
Service-producing.....	138.9	140.1	141.5	142.2	143.7	145.4	148.9	150.0	151.4	.9	5.4
Manufacturing.....	139.7	141.4	142.6	143.9	145.5	146.7	148.0	149.0	150.2	.8	3.2
Nonmanufacturing.....	137.8	139.2	140.4	141.1	142.7	144.3	147.1	148.1	149.6	1.0	4.8
Nonunion.....	146.7	148.1	149.0	150.8	152.2	153.4	154.4	155.9	157.5	1.0	3.5
Goods-producing.....	144.7	145.8	146.8	148.8	150.3	151.1	152.1	153.5	154.8	.8	3.0
Service-producing.....	147.3	148.7	149.6	151.4	152.7	154.1	155.1	156.7	158.3	1.0	3.7
Manufacturing.....	146.1	147.2	148.0	150.1	151.6	152.2	153.1	154.7	156.1	.9	3.0
Nonmanufacturing.....	146.6	148.0	148.9	150.7	152.0	153.3	154.4	155.9	157.5	1.0	3.6
<b>Workers, by region<sup>1</sup></b>											
Northeast.....	143.7	145.3	146.0	147.3	149.2	150.6	151.7	153.5	154.9	.9	3.8
South.....	144.6	145.3	146.3	148.3	149.3	150.2	151.2	152.5	153.6	.7	2.9
Midwest (formerly North Central).....	147.1	148.6	149.6	150.9	152.3	153.6	154.7	157.1	158.5	.9	4.1
West.....	146.3	148.2	149.2	151.3	152.9	154.3	156.0	156.4	158.7	1.5	3.8
<b>Workers, by area size<sup>1</sup></b>											
Metropolitan areas.....	145.7	147.1	148.0	149.8	151.2	152.4	153.7	155.1	156.7	1.0	3.6
Other areas.....	143.7	144.7	146.0	147.4	148.8	149.7	150.5	151.7	152.6	.6	2.6

<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.

**29. 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	28	26	-	-
Paid funeral leave.....	-	-	-	88	85	84	80	83	80	81
Average days per occurrence.....	-	-	-	3.2	3.2	3.3	3.3	3.0	3.3	3.7
Paid holidays.....	99	99	99	99	96	97	92	91	89	89
Average days per year.....	10.1	10.0	9.8	10.0	9.4	9.2	10.2	9.4	9.1	9.3
Paid personal leave.....	20	24	23	25	24	22	21	21	22	20
Average days per year.....	-	3.8	3.6	3.7	3.3	3.1	3.3	3.1	3.3	3.5
Paid vacations.....	100	99	99	100	97	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	98	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.



**30. 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.

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

Measure	Annual totals		2001							2002 <sup>P</sup>					
	2000	2001	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan	Feb	Mar	Apr	May	June
Number of stoppages:															
Beginning in period.....	39	29	3	2	3	2	1	0	2	0	1	1	2	3	1
In effect during period.....	40	30	5	3	4	3	4	1	2	1	2	1	3	5	3
Workers involved:															
Beginning in period (in thousands)....	394	99	4.7	2.2	5.8	3.0	24.9	.0	6.0	.0	1.5	2.9	4.1	5.1	1.5
In effect during period (in thousands).	397	102	9.0	3.3	6.9	4.1	29.0	1.6	6.0	1.0	2.5	2.9	7.0	9.2	5.3
Days idle:															
Number (in thousands).....	20,419	1,151	73.2	62.1	71.5	55.7	316.4	11.2	55.0	21.0	9.0	43.5	80.7	138.2	36.0
Percent of estimated working time <sup>1</sup> ....	.06	.00	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	.01	( <sup>2</sup> )	( <sup>2</sup> )	.00	.00	.00	.00	.00	.00

<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.

<sup>P</sup> = preliminary.

NOTE: Dash indicates data not available.







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

[1982-84 = 100, unless otherwise indicated]

	Pricing sched- ule <sup>1</sup>	All Urban Consumers						Urban Wage Earners					
		2002						2002					
		Jan.	Feb.	Mar.	Apr.	May	June	Jan.	Feb.	Mar.	Apr.	May	June
U.S. city average.....	M	177.1	177.8	178.8	179.9	179.8	179.9	173.2	173.7	174.7	175.8	175.8	175.9
<b>Region and area size<sup>2</sup></b>													
Northeast urban.....	M	184.9	186.1	187.0	187.8	187.7	187.8	181.4	182.3	183.1	184.2	184.1	184.2
Size A—More than 1,500,000.....	M	186.2	187.8	188.6	189.3	189.2	189.5	181.6	182.8	183.6	184.5	184.3	184.6
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	110.5	110.5	111.2	111.9	112.0	111.6	110.1	110.1	110.8	111.7	111.7	111.4
Midwest urban <sup>4</sup> .....	M	172.1	172.5	173.6	174.7	174.8	175.3	167.7	168.1	169.1	170.3	170.3	170.7
Size A—More than 1,500,000.....	M	174.1	174.7	176.0	177.3	177.2	177.7	168.8	169.4	170.6	172.2	172.0	172.3
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	109.5	109.6	110.2	110.7	110.8	111.2	109.2	109.2	109.7	110.2	110.7	110.7
Size D—Nonmetropolitan (less than 50,000).....	M	166.2	166.6	167.1	168.1	168.2	168.9	163.9	164.3	164.8	166.0	166.1	166.7
South urban.....	M	170.6	171.0	172.1	173.1	173.2	173.5	168.3	168.6	169.6	170.8	170.8	171.1
Size A—More than 1,500,000.....	M	171.7	172.4	173.3	172.4	174.6	174.9	169.0	169.5	170.5	171.7	171.9	172.3
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	109.2	109.3	110.0	110.8	110.7	110.9	108.6	108.7	109.3	110.2	110.1	110.2
Size D—Nonmetropolitan (less than 50,000).....	M	168.6	168.6	169.9	170.5	170.6	171.6	169.2	168.9	170.2	171.2	171.1	171.8
West urban.....	M	182.4	183.2	184.0	185.1	184.8	184.5	177.4	178.1	179.0	180.0	180.0	179.7
Size A—More than 1,500,000.....	M	111.9	185.4	186.2	187.2	187.5	187.2	177.7	178.6	179.5	180.5	180.0	180.7
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	111.9	112.4	112.8	113.7	112.5	112.2	111.4	111.8	112.2	112.9	112.3	112.0
<b>Size classes:</b>													
A <sup>5</sup> .....	M	161.6	162.5	163.4	164.2	164.3	164.5	159.7	160.5	161.3	162.4	162.5	162.6
B/C <sup>3</sup> .....	M	109.9	110.1	110.7	111.4	111.2	111.3	109.9	109.5	110.1	110.9	110.7	110.7
D.....	M	170.5	170.7	171.5	172.4	172.4	173.0	169.7	169.3	170.2	171.3	171.1	171.7
<b>Selected local areas<sup>6</sup></b>													
Chicago—Gary—Kenosha, IL—IN—WI.....	M	177.9	178.7	179.8	180.9	181.4	182.1	171.6	172.4	173.5	174.8	175.3	175.9
Los Angeles—Riverside—Orange County, CA.....	M	178.9	180.1	181.1	182.2	182.6	181.9	171.5	172.8	173.8	174.8	175.4	174.7
New York, NY—Northern NJ—Long Island, NY—NJ—CT—PA.....	M	188.5	189.9	191.1	191.8	191.4	191.5	183.5	184.7	185.6	186.6	186.4	186.5
Boston—Brockton—Nashua, MA—NH—ME—CT.....	1	192.9	—	194.7	—	194.8	—	191.8	—	193.2	—	193.3	—
Cleveland—Akron, OH.....	1	171.4	—	173.7	—	173.0	—	162.8	—	164.1	—	164.0	—
Dallas—Ft. Worth, TX.....	1	170.6	—	172.1	—	172.9	—	170.0	—	171.4	—	172.5	—
Washington—Baltimore, DC—MD—VA—WV <sup>7</sup> .....	1	110.9	—	111.9	—	112.8	—	110.5	—	111.4	—	112.4	—
Atlanta, GA.....	2	—	176.1	—	178.6	—	179.1	—	173.2	—	175.5	—	176.5
Detroit—Ann Arbor—Flint, MI.....	2	—	176.2	—	179.0	—	179.0	—	170.5	—	173.4	—	173.2
Houston—Galveston—Brazoria, TX.....	2	—	156.6	—	158.8	—	158.3	—	154.3	—	156.8	—	156.7
Miami—Ft. Lauderdale, FL.....	2	—	175.0	—	175.0	—	174.4	—	172.3	—	172.5	—	172.0
Philadelphia—Wilmington—Atlantic City, PA—NJ—DE—MD.....	2	—	182.0	—	183.1	—	186.3	—	181.4	—	182.3	—	184.7
San Francisco—Oakland—San Jose, CA.....	2	—	191.3	—	193.0	—	193.2	—	186.8	—	188.8	—	189.1
Seattle—Tacoma—Bremerton, WA.....	2	—	187.6	—	188.8	—	189.4	—	182.5	—	183.6	—	184.1

<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—Hamilton, OH—KY—IN; Denver—Boulder—Greeley, CO; Honolulu, HI;

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.

Dash indicates data not available.

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.

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

[1982-84 = 100]

Series	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Consumer Price Index for All Urban Consumers:										
All items:										
Index.....	140.3	144.5	148.2	152.4	156.9	160.5	163.0	166.6	172.2	177.1
Percent change.....	3.0	3.0	2.6	2.8	3.0	2.3	1.6	2.2	3.4	2.8
Food and beverages:										
Index.....	138.7	141.6	144.9	148.9	153.7	157.7	161.1	164.6	168.4	173.6
Percent change.....	1.4	2.1	2.3	2.8	3.2	2.6	2.2	2.2	2.3	3.1
Housing:										
Index.....	137.5	141.2	144.8	148.5	152.8	156.8	160.4	163.9	169.6	176.4
Percent change.....	2.9	2.7	2.5	2.6	2.9	2.6	2.3	2.2	3.5	4.0
Apparel:										
Index.....	131.9	133.7	133.4	132.0	131.7	132.9	133.0	131.3	129.6	127.3
Percent change.....	2.5	1.4	-2	-1.0	-2	.9	.1	-1.3	-1.3	-1.8
Transportation:										
Index.....	126.5	130.4	134.3	139.1	143.0	144.3	141.6	144.4	153.3	154.3
Percent change.....	2.2	3.1	3.0	3.6	2.8	0.9	-1.9	2.0	6.2	0.7
Medical care:										
Index.....	190.1	201.4	211.0	220.5	228.2	234.6	242.1	250.6	260.8	272.8
Percent change.....	7.4	5.9	4.8	4.5	3.5	2.8	3.2	3.5	4.1	4.6
Other goods and services:										
Index.....	183.3	192.9	198.5	206.9	215.4	224.8	237.7	258.3	271.1	282.6
Percent change.....	6.8	5.2	2.9	4.2	4.1	4.4	5.7	8.7	5.0	4.2
Consumer Price Index for Urban Wage Earners and Clerical Workers:										
All items:										
Index.....	138.2	142.1	145.6	149.8	154.1	157.6	159.7	163.2	168.9	173.5
Percent change.....	2.9	2.8	2.5	2.9	2.9	2.3	1.3	2.2	3.5	2.7







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

[1982 = 100]

Index	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Finished goods</b>										
Total.....	123.2	124.7	125.5	127.9	131.3	131.8	130.7	133.0	138.0	140.7
Foods.....	123.3	125.7	126.8	129.0	133.6	134.5	134.3	135.1	137.2	141.3
Energy.....	77.8	78.0	77.0	78.1	83.2	83.4	75.1	78.8	94.1	96.8
Other.....	134.2	135.8	137.1	140.0	142.0	142.4	143.7	146.1	148.0	150.0
<b>Intermediate materials, supplies, and components</b>										
Total.....	114.7	116.2	118.5	124.9	125.7	125.6	123.0	123.2	129.2	129.7
Foods.....	113.9	115.6	118.5	119.5	125.3	123.2	123.2	120.8	119.2	124.3
Energy.....	84.3	84.6	83.0	84.1	89.8	89.0	80.8	84.3	101.7	104.1
Other.....	122.0	123.8	127.1	135.2	134.0	134.2	133.5	133.1	136.6	136.4
<b>Crude materials for further processing</b>										
Total.....	100.4	102.4	101.8	102.7	113.8	111.1	96.8	98.2	120.6	121.3
Foods.....	105.1	108.4	106.5	105.8	121.5	112.2	103.9	98.7	100.2	106.2
Energy.....	78.8	76.7	72.1	69.4	85.0	87.3	68.6	78.5	122.1	122.8
Other.....	94.2	94.1	97.0	105.8	105.7	103.5	84.5	91.1	118.0	101.8

### 38. U.S. export price indexes by Standard International Trade Classification

[2000 = 100]

SITC Rev. 3	Industry	2001							2002					
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
0	<b>Food and live animals.....</b>	101.1	101.8	102.6	103.3	102.7	100.9	101.2	102.7	100.0	100.3	100.6	99.7	99.8
01	Meat and meat preparations.....	106.1	105.7	106.4	107.8	107.8	99.2	97.8	93.1	91.3	93.2	92.0	91.6	90.0
04	Cereals and cereal preparations.....	102.6	102.2	104.5	106.4	103.9	105.2	107.2	108.4	106.0	105.4	105.2	103.8	106.5
05	Vegetables, fruit, and nuts, prepared fresh or dry.....	98.6	101.7	102.4	100.8	102.1	99.7	100.6	110.5	102.4	102.5	103.7	103.8	99.0
2	<b>Crude materials, inedible, except fuels.....</b>	92.6	92.4	91.1	89.5	87.1	86.3	87.1	87.1	86.9	87.7	89.7	90.9	95.3
22	Oilseeds and oleaginous fruits.....	95.6	102.5	104.3	99.0	89.8	89.1	90.9	91.6	89.4	92.0	93.8	95.1	102.9
24	Cork and wood.....	92.8	93.4	92.9	90.2	89.7	88.7	88.0	88.1	87.6	87.2	87.3	87.4	87.1
25	Pulp and waste paper.....	80.6	78.2	76.6	77.3	77.7	77.4	77.2	75.8	73.9	74.1	77.1	81.0	89.3
26	Textile fibers and their waste.....	90.9	90.4	89.3	87.7	84.5	82.0	84.0	85.3	86.6	86.2	86.8	84.9	88.6
28	Metalliferous ores and metal scrap.....	91.0	87.8	86.2	85.1	82.7	81.4	81.3	84.9	87.0	87.3	91.7	98.9	100.4
3	<b>Mineral fuels, lubricants, and related products.....</b>	106.9	96.7	97.5	103.3	93.4	88.3	82.4	87.1	84.3	89.8	99.7	95.4	93.9
32	Coal, coke, and briquettes.....	106.9	106.8	107.9	108.8	108.9	108.9	108.8	109.5	109.7	110.8	111.4	111.4	110.9
33	Petroleum, petroleum products, and related materials.....	101.8	93.7	95.2	103.6	88.4	80.9	74.6	80.1	76.5	83.6	95.8	90.2	87.9
5	<b>Chemicals and related products, n.e.s. ....</b>	96.2	94.9	94.1	93.8	93.8	93.6	92.8	92.2	92.3	93.2	94.8	95.1	95.4
54	Medicinal and pharmaceutical products.....	99.5	100.2	100.8	101.1	100.9	100.9	100.9	101.1	100.8	100.5	100.3	100.2	100.4
55	Essential oils; polishing and cleaning preparations.....	99.7	99.1	99.0	99.1	99.0	98.9	98.8	97.5	97.1	97.6	97.5	97.1	97.3
57	Plastics in primary forms.....	93.9	91.2	90.0	88.6	89.2	88.5	86.5	85.4	85.8	87.6	90.5	92.2	92.5
58	Plastics in nonprimary forms.....	97.4	98.0	96.9	97.2	95.9	95.8	95.8	95.9	95.7	95.8	95.3	95.6	96.0
59	Chemical materials and products, n.e.s. ....	99.1	98.7	98.7	99.0	98.6	98.7	97.6	98.1	97.6	98.0	97.4	97.4	97.5
6	<b>Manufactured goods classified chiefly by materials.....</b>	99.5	99.1	98.4	98.2	97.3	96.6	96.7	97.3	97.2	96.7	97.4	97.4	98.0
62	Rubber manufactures, n.e.s. ....	99.8	100.5	101.0	101.0	100.6	100.5	100.9	100.4	100.4	100.8	101.1	101.5	101.5
64	Paper, paperboard, and articles of paper, pulp, and paperboard.....	97.4	95.1	95.1	95.6	95.1	95.2	95.2	95.3	94.1	92.5	92.9	93.1	94.8
66	Nonmetallic mineral manufactures, n.e.s. ....	100.8	100.8	101.0	101.1	101.1	101.4	102.1	101.7	101.4	102.1	101.9	102.0	102.2
68	Nonferrous metals.....	98.0	97.0	93.0	90.2	86.9	81.8	83.1	85.3	85.9	85.1	86.5	86.5	85.3
7	<b>Machinery and transport equipment.....</b>	100.3	100.2	100.0	100.0	99.7	99.7	99.6	99.3	99.3	99.5	99.5	99.3	98.9
71	Power generating machinery and equipment.....	102.3	102.4	102.8	103.0	103.1	104.1	104.0	104.6	104.4	104.6	104.6	104.6	104.5
72	Machinery specialized for particular industries.....	100.3	99.6	99.5	99.5	100.6	100.5	100.5	100.7	100.8	101.1	101.4	102.0	101.8
74	General industrial machines and parts, n.e.s., and machine parts.....	101.3	101.8	101.8	101.9	101.8	101.9	101.7	102.1	102.0	102.2	100.1	99.7	99.9
75	Computer equipment and office machines.....	95.9	95.6	94.8	94.8	94.6	94.2	92.9	92.5	92.9	93.1	92.5	91.7	90.3
76	Telecommunications and sound recording and reproducing apparatus and equipment.....	99.8	99.8	98.7	98.5	98.0	98.0	97.7	97.9	97.5	97.5	97.8	97.8	97.7
77	Electrical machinery and equipment.....	98.3	97.8	97.7	97.6	95.9	95.9	95.9	94.8	94.6	94.7	94.8	94.6	93.8
78	Road vehicles.....	100.2	100.3	100.2	100.2	100.3	100.2	100.3	100.1	100.2	100.3	100.3	100.4	100.3
87	<b>Professional, scientific, and controlling instruments and apparatus.....</b>	100.9	100.8	100.8	100.9	101.0	100.9	100.9	100.8	101.1	101.2	101.3	101.3	101.3





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

[1992 = 100]

Item	1999			2000				2001				2002	
	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>Business</b>													
Output per hour of all persons.....	112.5	113.6	115.2	115.3	117.2	117.3	117.9	117.5	117.4	117.9	120.1	122.5	123.0
Compensation per hour.....	124.3	123.4	127.0	131.4	132.4	135.0	136.8	137.3	137.5	137.8	138.3	139.6	140.9
Real compensation per hour.....	107.1	107.3	107.8	110.5	110.5	111.7	111.9	111.8	111.0	111.1	111.6	112.2	112.4
Unit labor costs.....	110.5	110.4	110.2	114.0	113.0	115.1	115.6	116.9	117.1	116.8	115.1	113.9	114.9
Unit nonlabor payments.....	113.2	114.1	115.3	110.7	114.1	111.2	112.0	112.3	113.6	115.5	117.2	119.6	118.9
Implicit price deflator.....	111.5	111.8	112.1	112.8	113.4	113.7	114.3	115.2	115.8	116.4	115.9	116.0	116.1
<b>Nonfarm business</b>													
Output per hour of all persons.....	111.9	112.9	114.7	114.7	116.4	116.6	117.1	116.7	116.6	117.2	119.3	121.8	122.3
Compensation per hour.....	123.4	124.5	126.3	130.8	131.5	134.5	135.3	136.3	136.3	136.7	137.2	138.4	139.7
Real compensation per hour.....	106.3	106.6	107.2	110.2	109.8	111.1	111.2	110.9	110.1	110.2	110.7	111.3	111.3
Unit labor costs.....	110.3	110.3	110.1	113.0	113.0	115.2	115.6	116.8	116.9	116.6	115.0	113.6	114.2
Unit nonlabor payments.....	113.8	115.8	117.0	112.3	115.6	112.8	113.4	113.8	115.3	117.2	119.2	121.3	121.3
Implicit price deflator.....	111.9	112.3	112.6	223.4	113.9	114.3	114.8	115.7	116.3	116.8	116.5	116.4	116.8
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	114.5	114.6	115.2	116.7	116.8	117.6	117.3	116.6	117.3	118.2	121.3	122.8	124.3
Compensation per hour.....	120.4	121.2	122.7	126.9	127.8	130.4	132.7	131.3	131.9	132.7	133.6	134.9	136.3
Real compensation per hour.....	103.8	103.7	104.1	106.7	106.6	107.9	108.2	106.9	106.5	107.0	107.8	108.5	108.7
Total unit costs.....	104.5	105.4	106.1	107.8	108.9	110.4	111.9	112.9	113.3	113.7	111.8	111.6	111.5
Unit labor costs.....	105.2	105.7	106.5	108.7	109.4	110.9	112.2	112.6	12.5	112.3	110.2	109.9	109.7
Unit nonlabor costs.....	102.6	104.6	105.1	105.4	107.7	108.9	111.0	113.7	115.6	117.6	116.2	116.0	116.5
Unit profits.....	135.5	127.8	126.5	120.5	120.4	111.4	110.4	94.9	97.2	99.7	109.6	109.4	108.4
Unit nonlabor payments.....	111.0	110.5	110.6	109.3	110.9	109.5	108.3	108.9	110.9	113.1	114.5	114.3	114.4
Implicit price deflator.....	107.1	107.3	107.8	108.9	209.9	110.5	110.9	111.4	112.0	112.5	111.6	111.4	111.3
<b>Manufacturing</b>													
Output per hour of all persons.....	128.8	129.8	132.1	133.6	134.9	135.4	135.9	135.4	135.4	136.4	137.6	140.9	142.3
Compensation per hour.....	120.9	122.6	124.2	131.4	129.3	132.2	131.5	132.0	133.0	133.3	134.3	136.5	137.5
Real compensation per hour.....	104.2	104.9	105.4	110.5	107.9	109.4	108.0	107.4	107.4	107.5	108.3	109.8	109.7
Unit labor costs.....	93.9	94.4	94.0	98.4	95.9	97.7	96.7	97.5	98.2	97.8	97.6	96.9	96.6

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

[1996 = 100, unless otherwise indicated]

Item	1960	1970	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Private business</b>													
Productivity:													
Output per hour of all persons.....	45.6	63.0	75.8	90.2	91.3	94.8	95.4	96.6	97.3	100.0	102.0	104.8	104.8
Output per unit of capital services.....	110.4	111.1	101.5	99.3	96.1	97.7	98.5	100.3	99.7	100.0	100.5	100.1	100.1
Multifactor productivity.....	65.2	80.0	88.3	95.3	94.4	96.6	97.1	98.1	98.4	100.0	101.1	102.6	102.6
Output.....	27.5	42.0	59.4	83.6	82.6	85.7	88.5	92.8	95.8	100.0	105.2	110.6	110.6
Inputs:													
Labor input.....	54.0	61.0	71.9	89.4	88.3	89.3	91.8	95.6	98.0	100.0	103.7	106.4	106.4
Capital services.....	24.9	37.8	58.6	84.2	86.0	87.7	89.8	92.6	96.0	100.0	104.7	110.4	110.4
Combined units of labor and capital input.....	42.3	52.4	67.3	87.7	87.5	88.8	91.1	94.6	97.3	100.0	104.0	107.7	107.7
Capital per hour of all persons.....	41.3	56.7	74.7	90.8	95.0	97.0	96.8	96.3	97.6	100.0	101.5	104.7	104.7
<b>Private nonfarm business</b>													
Productivity:													
Output per hour of all persons.....	48.7	64.9	77.3	90.3	91.4	94.8	95.3	96.5	97.5	100.0	101.7	104.5	104.5
Output per unit of capital services.....	120.1	118.3	105.7	100.0	96.6	97.9	98.8	100.3	99.9	100.0	100.2	99.8	99.8
Multifactor productivity.....	69.1	82.6	90.5	95.6	94.7	96.6	97.1	98.1	98.6	100.0	100.9	102.4	102.4
Output.....	27.2	41.9	59.6	83.5	82.5	85.5	88.4	92.6	95.8	100.0	105.1	110.6	110.6
Inputs:													
Labor input.....	50.1	59.3	70.7	89.2	88.0	89.0	91.8	95.4	97.8	100.0	103.8	106.6	106.6
Capital services.....	22.6	35.5	56.4	83.5	85.4	87.3	89.5	92.3	95.9	100.0	104.9	110.8	110.8
Combined units of labor and capital input.....	39.3	50.7	65.9	87.3	87.1	88.4	91.0	94.4	97.2	100.0	104.2	108.0	108.0
Capital per hour of all persons.....	40.5	54.8	73.1	90.3	94.7	96.8	96.5	96.3	97.6	100.0	101.5	104.7	104.7
<b>Manufacturing (1992 = 100)</b>													
Productivity:													
Output per hour of all persons.....	41.8	54.2	70.1	92.8	95.0	100.0	101.9	105.0	109.0	112.8	117.1	124.3	124.3
Output per unit of capital services.....	124.3	116.5	100.9	101.6	97.5	100.0	101.1	104.0	105.0	104.5	105.6	106.5	106.5
Multifactor productivity.....	72.7	84.4	86.6	99.3	98.3	100.0	100.4	102.6	105.0	106.1	109.8	113.2	113.2
Output.....	38.5	56.5	75.3	97.3	95.4	100.0	103.3	108.7	113.4	116.9	123.5	130.7	130.7
Inputs:													
Hours of all persons.....	92.0	104.2	107.5	104.8	100.4	100.0	101.4	103.6	104.0	103.7	105.5	105.2	105.2
Capital services.....	30.9	48.5	74.7	95.8	97.9	100.0	102.2	104.5	108.0	111.9	116.9	122.8	122.8
Energy.....	51.3	85.4	92.5	99.9	100.1	100.0	103.7	107.3	109.5	107.0	103.9	109.2	109.2
Nonenergy materials.....	38.2	44.8	75.0	92.5	93.6	100.0	105.7	111.3	112.8	120.4	120.4	127.2	127.2
Purchased business services.....	28.2	48.8	73.7	92.5	92.1	100.0	103.0	105.1	110.0	108.9	114.2	116.8	116.8
Combined units of all factor inputs.....	52.9	67.0	87.0	98.0	97.0	100.0	102.9	106.0	107.9	110.2	112.5	115.5	115.5

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

[1992 = 100]

Item	1960	1970	1980	1990	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Business</b>													
Output per hour of all persons.....	48.8	67.0	80.4	95.2	100.5	101.9	102.6	105.4	107.8	110.6	113.5	116.9	118.2
Compensation per hour.....	13.7	23.5	54.2	90.7	102.5	104.5	106.7	110.1	113.5	119.7	125.2	133.8	137.7
Real compensation per hour.....	59.8	78.6	89.2	96.3	100.0	99.9	99.6	100.1	101.0	105.0	107.6	111.2	111.4
Unit labor costs.....	28.0	35.1	67.4	95.3	101.9	102.6	104.1	104.5	105.3	108.2	110.3	114.4	116.5
Unit nonlabor payments.....	25.2	31.6	61.5	93.9	102.5	106.4	109.4	113.3	117.1	114.5	113.9	112.0	114.7
Implicit price deflator.....	27.0	33.9	65.2	94.8	102.2	104.0	106.0	107.7	109.7	110.6	111.8	1113.5	115.8
<b>Nonfarm business</b>													
Output per hour of all persons.....	51.9	68.9	82.0	95.3	100.5	101.8	102.8	105.4	107.5	110.3	112.9	116.2	117.5
Compensation per hour.....	14.3	23.7	54.6	90.5	102.2	104.3	106.6	109.8	113.1	119.1	124.3	133.0	136.6
Real compensation per hour.....	62.6	79.2	89.8	96.2	99.7	99.7	99.4	99.8	100.6	104.5	106.8	110.6	110.5
Unit labor costs.....	27.5	34.4	66.5	95.0	101.7	102.5	103.7	104.2	105.2	108.0	110.1	114.4	116.3
Unit nonlabor payments.....	24.6	31.3	60.5	93.6	103.0	106.9	110.4	113.5	118.0	115.7	115.5	113.5	116.4
Implicit price deflator.....	26.5	33.3	64.3	94.5	102.2	104.1	106.1	107.6	109.8	110.8	112.1	114.1	116.3
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	55.4	70.4	81.1	95.4	100.7	103.1	104.2	107.5	108.4	111.7	114.7	117.1	118.3
Compensation per hour.....	15.6	25.3	56.4	90.8	102.0	104.2	106.2	109.0	110.3	116.0	121.1	129.2	132.4
Real compensation per hour.....	68.1	84.4	92.9	96.5	99.6	99.6	99.0	99.0	98.1	101.7	104.1	107.4	107.0
Total unit costs.....	26.8	34.8	68.4	95.9	101.0	101.1	102.0	101.2	101.5	103.3	105.1	109.8	112.9
Unit labor costs.....	28.1	35.9	69.6	95.2	101.3	101.0	101.9	101.4	101.8	103.8	105.6	110.3	111.9
Unit nonlabor costs.....	23.3	31.9	65.1	98.0	100.2	101.3	102.2	100.6	100.9	102.2	103.5	108.3	115.8
Unit profits.....	50.2	44.4	68.8	94.3	113.2	131.7	139.0	152.2	156.9	141.7	131.7	113.2	100.5
Unit nonlabor payments.....	30.2	35.1	66.0	97.1	103.5	109.0	111.6	113.8	115.2	112.3	110.7	109.5	111.8
Implicit price deflator.....	28.8	35.6	68.4	95.8	102.1	103.7	105.1	105.5	106.2	106.6	107.3	110.0	111.9
<b>Manufacturing</b>													
Output per hour of all persons.....	41.8	54.2	70.1	92.9	101.9	105.0	109.0	112.8	117.6	123.3	129.7	134.9	136.2
Compensation per hour.....	14.9	23.7	55.6	90.8	102.7	105.6	107.9	109.4	111.5	117.4	122.1	131.1	133.1
Real compensation per hour.....	65.0	79.2	91.4	96.4	100.2	101.0	100.6	99.4	99.1	103.0	104.9	109.0	107.7
Unit labor costs.....	35.6	43.8	79.3	97.8	100.8	100.7	99.0	96.9	94.8	95.2	94.1	97.2	97.8
Unit nonlabor payments.....	26.8	29.3	80.2	99.8	100.9	102.8	106.9	109.9	110.0	103.7	104.9	107.0	-
Implicit price deflator.....	30.2	35.0	79.9	99.0	100.9	102.0	103.9	104.8	104.1	100.4	100.7	103.2	-

Dash indicates data not available.









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

Country	Annual average		2000				2001			
	2000	2001	I	II	III	IV	I	II	III	IV
United States.....	4.0	4.8	4.0	4.0	4.1	4.0	4.2	4.5	4.8	5.6
Canada.....	6.1	6.4	6.1	6.1	6.1	6.1	6.2	6.3	6.4	6.8
Australia.....	6.3	6.7	6.5	6.4	6.1	6.2	6.5	6.9	6.8	6.8
Japan <sup>1</sup> .....	4.8	5.1	4.8	4.7	4.7	4.8	4.8	4.9	5.2	5.5
France <sup>1</sup> .....	9.4	8.7	9.9	9.5	9.3	9.0	8.6	8.5	8.7	8.9
Germany <sup>1</sup> .....	8.1	8.0	8.3	8.1	8.0	7.8	7.9	8.0	8.0	8.1
Italy <sup>1,2</sup> .....	10.7	9.6	11.2	10.9	10.5	10.1	10.0	9.7	9.5	9.3
Sweden <sup>1</sup> .....	5.8	5.0	6.6	6.0	5.6	5.2	5.1	5.0	5.0	5.1
United Kingdom <sup>1</sup> .....	5.5	—	5.8	5.5	5.4	5.3	5.1	5.0	5.1	—

<sup>1</sup> Preliminary for 2001 for Japan, France, Germany, Italy, Sweden, and the United Kingdom.

<sup>2</sup> Quarterly rates are for the first month of the quarter.

NOTE: Quarterly figures for France and Germany are calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures.

See "Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1959-2001* (Bureau of Labor Statistics, Mar. 25, 2002), on the Internet at <http://www.bls.gov/fls/home.htm>

Monthly and quarterly unemployment rates, updated monthly, are also on this site. Dash indicates data not available.











51. Fatal occupational injuries by event or exposure, 1994-2000

Event or exposure <sup>1</sup>	Fatalities			
	1994-98	1999 <sup>2</sup>	2000	
	Average	Number	Number	Percent
Total.....	6,280	6,054	5,915	100
<b>Transportation incidents.....</b>	<b>2,640</b>	<b>2,618</b>	<b>2,571</b>	<b>43</b>
Highway incident.....	1,374	1,496	1,363	23
Collision between vehicles, mobile equipment.....	662	714	694	12
Moving in same direction.....	113	129	136	2
Moving in opposite directions, oncoming.....	240	270	243	4
Moving in intersection.....	136	161	153	3
Vehicle struck stationary object or equipment.....	272	334	279	5
Noncollision incident.....	368	390	356	6
Jackknifed or overturned—no collision.....	280	322	304	5
Nonhighway (farm, industrial premises) incident.....	387	352	399	7
Overturned.....	215	206	213	4
Aircraft.....	304	228	280	5
Worker struck by a vehicle.....	382	377	370	6
Water vehicle incident.....	104	102	84	1
Railway.....	78	56	71	1
<b>Assaults and violent acts.....</b>	<b>1,168</b>	<b>909</b>	<b>929</b>	<b>16</b>
Homicides.....	923	651	677	11
Shooting.....	748	509	533	9
Stabbing.....	68	62	66	1
Other, including bombing.....	107	80	78	1
Self-inflicted injuries.....	215	218	220	4
<b>Contact with objects and equipment.....</b>	<b>984</b>	<b>1,030</b>	<b>1,005</b>	<b>17</b>
Struck by object.....	564	585	570	10
Struck by falling object.....	364	358	357	6
Struck by flying object.....	60	55	61	1
Caught in or compressed by equipment or objects.....	281	302	294	5
Caught in running equipment or machinery.....	148	163	157	3
Caught in or crushed in collapsing materials.....	124	129	123	2
Falls.....	686	721	734	12
Fall to lower level.....	609	634	659	11
Fall from ladder.....	101	96	110	2
Fall from roof.....	146	153	150	3
Fall from scaffold, staging.....	89	92	85	2
Fall on same level.....	53	70	56	1
<b>Exposure to harmful substances or environments.....</b>	<b>583</b>	<b>533</b>	<b>480</b>	<b>8</b>
Contact with electric current.....	322	280	256	4
Contact with overhead power lines.....	136	125	128	2
Contact with temperature extremes.....	45	51	29	—
Exposure to caustic, noxious, or allergenic substances.....	118	108	100	2
Inhalation of substances.....	66	55	48	1
Oxygen deficiency.....	96	92	93	2
Drowning, submersion.....	77	75	74	1
<b>Fires and explosions.....</b>	<b>199</b>	<b>216</b>	<b>177</b>	<b>3</b>
<b>Other events or exposures<sup>3</sup>.....</b>	<b>21</b>	<b>27</b>	<b>19</b>	<b>—</b>

<sup>1</sup> Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

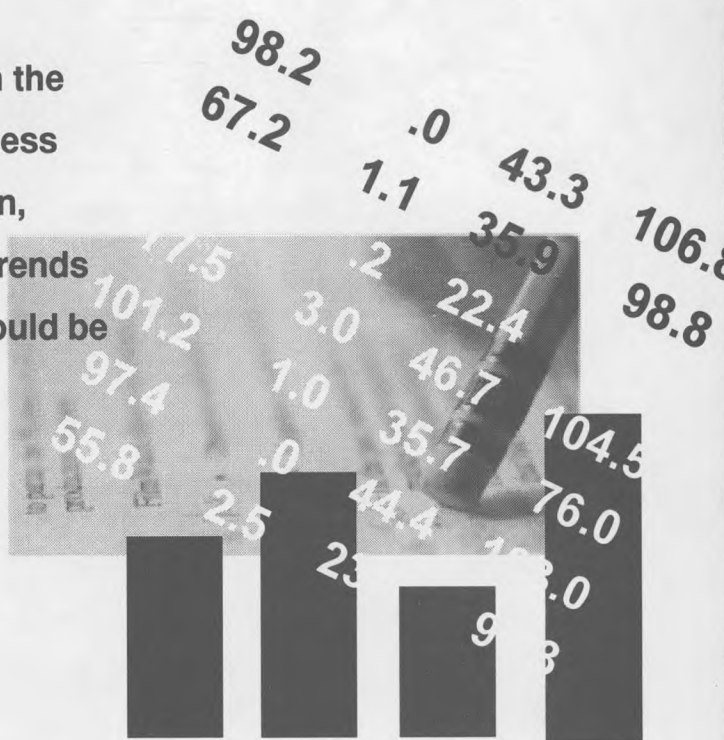
<sup>2</sup> The BLS news release issued August 17, 2000, reported a total of 6,023 fatal work injuries for calendar year 1999. Since then, an additional 31 job-related fatalities were identified, bringing the total job-related fatality count for 1999 to 6,054.

<sup>3</sup> Includes the category "Bodily reaction and exertion."

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

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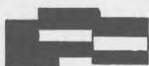
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<b>Prices and living conditions</b> Consumer price indexes Producer price indexes) Import and export price indexes Consumer expenditures	<a href="http://www.bls.gov/cpi/">http://www.bls.gov/cpi/</a> <a href="http://www.bls.gov/ppi/">http://www.bls.gov/ppi/</a> <a href="http://www.bls.gov/mxp/">http://www.bls.gov/mxp/</a> <a href="http://www.bls.gov/cex/">http://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>
<b>Compensation and working conditions</b> National Compensation Survey: Employee benefits Employment cost trends Occupational compensation Occupational illnesses, injuries Fatal occupational injuries Collective bargaining	<a href="http://www.bls.gov/ncs/">http://www.bls.gov/ncs/</a> <a href="http://www.bls.gov/ebs/">http://www.bls.gov/ebs/</a> <a href="http://www.bls.gov/ect/">http://www.bls.gov/ect/</a> <a href="http://www.bls.gov/ncs/">http://www.bls.gov/ncs/</a> <a href="http://www.bls.gov/iif/">http://www.bls.gov/iif/</a> <a href="http://stats.bls.gov/iif/">http://stats.bls.gov/iif/</a> <a href="http://www.bls.gov/cba/">http://www.bls.gov/cba/</a>	<a href="mailto:ocltinfo@bls.gov">ocltinfo@bls.gov</a> <a href="mailto:ocltinfo@bls.gov">ocltinfo@bls.gov</a> <a href="mailto:ocltinfo@bls.gov">ocltinfo@bls.gov</a> <a href="mailto:ocltinfo@bls.gov">ocltinfo@bls.gov</a> <a href="mailto:oshstaff@bls.gov">oshstaff@bls.gov</a> <a href="mailto:cfoistaff@bls.gov">cfoistaff@bls.gov</a> <a href="mailto:cbainfo@bls.gov">cbainfo@bls.gov</a>
<b>Productivity</b> Labor Industry Multifactor	<a href="http://www.bls.gov/lpc/">http://www.bls.gov/lpc/</a> <a href="http://www.bls.gov/lpc/">http://www.bls.gov/lpc/</a> <a href="http://www.bls.gov/mfp/">http://www.bls.gov/mfp/</a>	<a href="mailto:dprweb@bls.gov">dprweb@bls.gov</a> <a href="mailto:dipsweb@bls.gov">dipsweb@bls.gov</a> <a href="mailto:dprweb@bls.gov">dprweb@bls.gov</a>
<b>Projections</b> Employment Occupation	<a href="http://www.bls.gov/emp/">http://www.bls.gov/emp/</a> <a href="http://www.bls.gov/oco/">http://www.bls.gov/oco/</a>	<a href="mailto:oohinfor@bls.gov">oohinfor@bls.gov</a> <a href="mailto:oohinfor@bls.gov">oohinfor@bls.gov</a>
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**Schedule of release dates for BLS statistical series**

Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	August 2	July	September 6	August	October 4	September	1; 4-24
U.S. Import and Export Price Indexes	August 7	July	September 12	August	October 10	September	38-42
Producer Price Indexes	August 8	July	September 13	August	October 11	September	2; 35-37
Consumer Price indexes	August 16	July	September 18	August	October 18	September	2; 32-34
Real earnings	August 16	July	September 18	August	October 18	September	14, 16
Employment Cost Indexes					October 31	3rd quarter	1-3; 25-28
Productivity and costs	August 9	2nd quarter	September 5	2nd quarter			2; 43-46