



# Monthly Labor Review

U.S. Department of Labor  
Bureau of Labor Statistics  
March 1990



A special issue  
on the family



U.S. Department of Labor  
Elizabeth Dole, *Secretary*

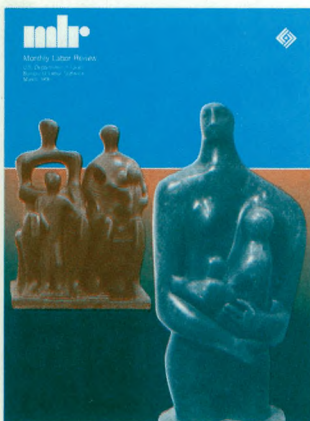
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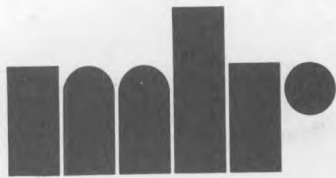
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## Monthly Labor Review

March 1990  
Volume 113, Number 3

Henry Lowenstern, *Editor-in-Chief*  
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### SPECIAL ISSUE ON THE FAMILY

#### Articles

- 4 **American families: 75 years of change**  
Changes were particularly pronounced during the 1960's and 1970's, as the baby-boom generation reached adulthood  
*James R. Wetzel*
- 14 **Family members in the work force**  
Family work patterns have become so diverse that there no longer is a "typical" family  
*Howard V. Hayghe*
- 20 **How family spending has changed in the U.S.**  
The proportion of expenditures for food dropped by half over 75 years; the incidence of homeownership doubled  
*Eva Jacobs and Stephanie Shipp*
- 28 **Family-related benefits in the workplace**  
Emerging and expanding employer-provided benefits are fueled by the changing needs of employees and their families  
*William J. Wiatrowski*
- 34 **Work and family: the impact of legislation**  
Laws to protect women and children, set workplace standards, and establish social insurance programs have been enacted over the past 75 years  
*Sar A. Levitan and Frank Gallo*
- 41 **The changing family in international perspective**  
Scandinavian countries are pacesetters in nontraditional family living, but the U.S. has highest incidence of divorce and of single-parent families  
*Constance Sorrentino*

#### Departments

- 59 Significant decisions in labor cases  
62 Major agreements expiring next month  
63 Developments in industrial relations  
67 Book reviews  
71 Current labor statistics

# The American Family

**A**mong the many changes we have seen in this century, none are more dramatic than those that have taken place in the American family. The *Monthly Labor Review* has chronicled these changes since it began publication in 1915. So it is appropriate for the *Review*, during its 75th anniversary year, to look at the American family in this century. Five articles in this issue examine the demographic, economic, and worklife changes in the United States. A final article compares what has happened in the United States with the experience of other industrial nations.

## *Family demographics*

The first article discusses the dramatic secular changes in family structure and orientation since the turn of the century, giving special attention to the most important of these trends:

1. The decline of the traditional nuclear family due to widowhood, divorce, and delayed marriage;
2. The tendency of women to have fewer children, and to do so later in life; and
3. The shifting of economic roles within the family, with particular attention to increased labor force activity of wives.

## *Family work patterns*

Delving more deeply into the changes in the division of labor within American families over the past three-quarters of a century, the second article traces the developments in work-family patterns from the time when a "typical" family consisted of a working husband, a nonworking wife, and their children. The traditional family is now far from being the majority, but no other work-family structure has taken its place. Instead, family composition has become increasingly diverse as the labor force roles of members have changed, and the proportions of families maintained by divorced, widowed, separated, or single persons have grown. In other words, there is no longer a "typical" American family.

## *Family expenditures*

Using data from BLS Consumer Expenditure Surveys, the third article examines the changes in family spending patterns that have accompanied the unprecedented demographic, social, economic, and technological developments of this century. Among the findings: Food expenditures as a share of the family budget have declined sharply, and both the composition of the diet and family eating habits have changed dramatically. The incidence of homeownership has doubled since the turn of the century, reflecting rising real incomes and the availability of quick, reliable transportation between home and the workplace. Transportation—chiefly in the form of the automobile—has revolutionized family life in other ways as well, so that today it accounts for about one-fourth of family expenditures.

The article also examines changes in health-related expenditures that resulted from the availability of more and better medical care, and increased demand for recreational goods and services by a population with more disposable income and leisure time.



# During the 20th Century

## *Employer-provided benefits*

The incidence and types of fringe benefits offered by employers to their workers over the past 75 years are reviewed in the fourth article, which points out that trends in benefits have followed the shift in American family structure from a large, extended group to a smaller, individualized network of families with widely varying characteristics. Thus, employers have progressed from providing no benefits, to providing a standard package of benefits designed for a male-supported family, to providing innovative and flexible benefits to meet contemporary needs.

## *Legislated benefits*

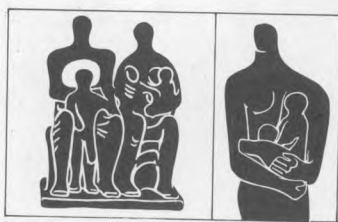
Governmental policies that have shaped and been shaped by changes in the American family are the subject of the fifth article, which traces the development since the turn of the century of government programs to reduce working time, address concerns of working parents, and alleviate poverty and examines three periods of greatest legislative activity.

## *International overview*

The final article examines three decades of major transformations in work-family patterns in industrialized nations and finds that the United States has been in the forefront of some trends and a follower in others. For example, Scandinavian countries have been the pacesetters in developing nontraditional forms of family living, but the United States has the highest incidence of divorce and single-parent households. Japan has been the most conservative of the developed nations in terms of family structure and roles, but even in that country, the traditional nuclear family appears to be losing ground.

Planning and editing of this special issue was coordinated by Mary Kay Rieg, who, together with Anna Hill and Brian Baker, edited the articles. The editors thank the authors and organizations whose special efforts made this issue possible.





## American families: 75 years of change

*American families have changed in many ways in this century, as our population adapted to evolving technologies, economic conditions, and social trends; changes were particularly pronounced during the 1960's and 1970's, as the baby-boom generation reached adulthood*

James R. Wetzel

Families are the quintessential institution of our Nation, providing both biological and social continuity as they simultaneously shape, and are shaped by, the larger society. Families also are the locus of consumption, savings, and some production activities that are vital to our overall economic well-being, and they bear special responsibilities for nurturing and educating the Nation's future work force, a critical function that is not well-served by the deterioration of the nuclear family over the past 25 or more years.

Each of us has a concept of the typical family and how it has changed over time. Being rooted in our own family experience and community, our views are seldom, if ever, an accurate depiction of the typical family. Indeed, it is fair to say that there is no such thing as a "typical" family. In a nation as heterogeneous as the United States, the characteristics of families vary dramatically by race and ethnicity; education, age, and income of the adult members of the family; religious affiliation; region of the country; and by the interplay of these and other demographic, social, and economic factors. However, over the 75 years since first publication of the *Monthly Labor Review*, there have been dramatic secular changes that are observable in most subgroups of the Nation's population. Among the most visible of those changes:

- Today, relatively fewer of us are living in family households, and particularly in "traditional" nuclear families, than did so earlier in the 20th century. The trend toward living in nonfamily households (usually alone) is associated with widowhood at older ages, the increased incidence of divorce among adults of all ages, and delayed marriage among young adults.

- Women in the United States are bearing fewer children during their lives, and they are doing so later in their reproductive years. Consequently, the average size of families today is smaller than it has ever been before. The Nation's total fertility rate—the number of children the average woman would be expected to bear in her lifetime—has been below the replacement level since 1972.

- Those who live in family households—still a very substantial majority of the population—live in less stable, more heterogeneous families than did earlier generations. Kinship networks now often include former spouses and former in-laws, stepchildren, and, with increased life expectancy, more generations than was typical earlier in this century.

- Finally, economic roles within the family have shifted significantly in the post-World War II years. In particular, regardless of the presence

James R. Wetzel, a former assistant commissioner of the Bureau of Labor Statistics, now directs the work of the Center for Demographic Studies at the U.S. Bureau of the Census.

of children, including infants, wives now are more likely to work outside the home than to work solely as homemakers. (See Howard V. Hayghe, "Family members in the work force," pp. 14–19.)

### Long-term trends

Because data on families are sparse for the period before World War II, we have to base our prewar assessments on decennial census data that focus on households.<sup>1</sup> A household, of course, is any separate living unit occupied by one or more persons. As shown in chart 1, the number of households in the United States grew rather steadily from 20.3 million in 1910 to 43.6 million in 1950, and to 92.8 million in 1989.<sup>2</sup>

Households may be subdivided into non-family (one householder living alone or with unrelated persons) and family households (a householder with at least one additional person in the household who is related by blood, marriage, or adoption). Family households may be of several types, including, predominantly, husband-wife families with or without children, single-parent families with children, and a small number of adult child/parent, multiple sibling, or other relative combinations (grandparent, aunt, uncle, and the like). Data are not available on family and nonfamily households for the pre-World War II years, but we do have decennial census information on married couples that indicated whether they had their own household or lived in another household. The total number of married couples more than doubled from 17.2 million in 1910 to 34.1 million in 1950, and then rose much more slowly than the number of households to 52.9 million by 1989.<sup>3</sup>

Before the 1950's, the number of married couples with their own household and the total number of households tended to grow in tandem. Thus about 4 out of 5 households were occupied by married couples in 1910, 1930, and 1950. After 1950, however, nonfamily living arrangements became much more common. The ratio of married couples with their own household to total households dropped gradually from 78 percent in 1950 to 74 percent by 1965. After 1965, the ratio fell more rapidly, declining to 64 percent by 1977 and 56 percent by 1989.

Relatively slow growth in the number of married-couple families was accompanied by large increases in the number of family households maintained by a person with no spouse present—for the most part, divorced, separated, and, more recently, never-married women with children. Family households maintained by women (with no spouse present) rose more than 50 percent, from 3.6 million in 1950 to 5.5

million in 1970, while married-couple households increased 31 percent to 44.7 million in 1970. After 1970, the rise in married-couple households slowed; the 52.1 million such households in 1989 represented an increase of only 16 percent over the 1970 level. Over the same period, the number of family households maintained by men more than doubled, to 2.8 million, and those maintained by women soared 98 percent to 10.9 million by 1989. (See table 1.)

In 1989, 16.5 percent of all family households were maintained by women, compared with 9.2 percent in 1950. In addition, 1.9 million mother-child subfamilies lived in someone else's household, most often the home of the mother's parents.<sup>4</sup> Until the late 1940's, an important contributor to the number of female-maintained families was widowhood (about 30 percent of the total in 1950). By 1989, the percentage of family households maintained by widows had shrunk to 7 percent of the total, while the proportion maintained by divorced, separated, or never-married women had risen from about 70 percent in 1950 to 93 percent.

In a particularly dramatic shift away from traditional nuclear family living, families maintained by never-married women increased tenfold over the past two decades, rising from 248,000 in 1970 to 2.7 million in 1988.<sup>5</sup> These changes in the distribution of households by family and nonfamily status and by type of family household are driven by changing preferences and behaviors of individuals that, on balance, empirically demonstrate a substantially reduced commitment to the traditional nuclear family and to married life as the preferred status. As a consequence, family life cycles have changed dramatically.

### Changes in the family life cycle

In 1915, when the first *Monthly Labor Review* was published, most Americans could expect to spend most of their lives playing a succession of four primary family-life roles—as a dependent child in the home of one's biological parents, as a spouse, as a parent, and as a grandparent. At that time, more than half of the Nation's 100 million residents lived in rural areas, and persons were likely to fulfill family-life roles within the same small geographic area, often in an overlapping fashion. That is, young adult children seldom left the parental home to live alone prior to marriage, and indeed, more than 5 percent shared a household—usually with parents or other relatives—at least temporarily after marriage.<sup>6</sup> Similarly, it was much more common for widowed parents or other relatives

*After 1950, nonfamily living arrangements became much more common.*

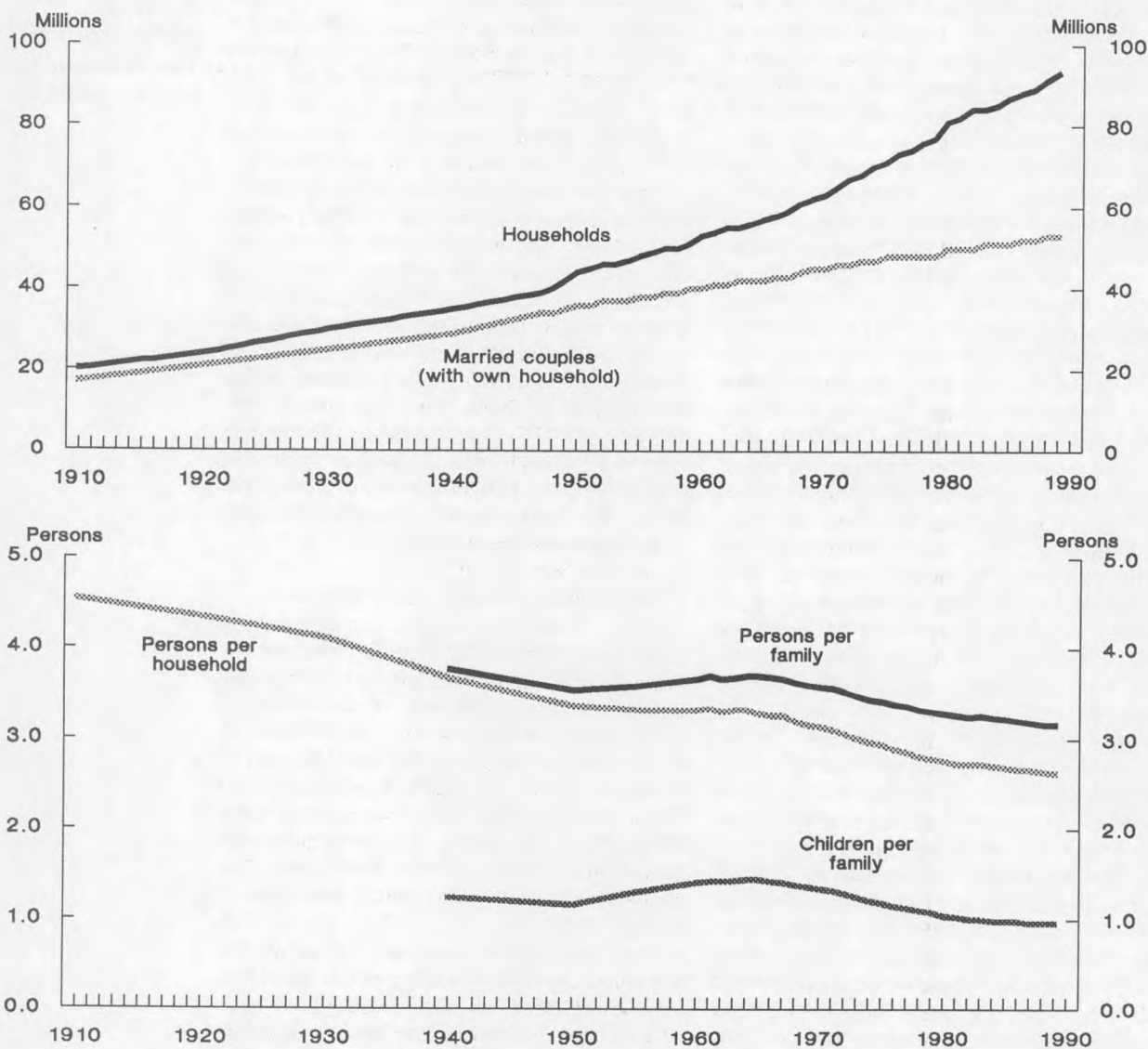
*Change in American Families*

to share the homes of grown children. Divorce was uncommon, affecting less than 1 percent of the at-risk population, while the marriage rate was nearly 10 for every 100 unmarried women over age 14. Single-person households were rare, accounting for only 1 of every 20 households at the turn of the century.

In 1915, we were nearing the end of a period of intense immigration from Europe. About 10 million immigrants entered the United States between 1905 and 1914, compared with fewer than 4 million from 1915 to 1924. In those days,

about 6 of every 10 immigrants were men. As a result, men outnumbered women by a significant margin (2.6 million in 1915), a circumstance that would persist until the early 1940's despite the greater life expectancy of women of all ages. Families were the order of the day early in the 20th century, and large families were common. Indeed, more than 1 of every 5 households included seven or more persons. We were a youthful Nation in 1915—less than half of our population was at least 25 years old, and 11 percent was under 5 years of age. Today, by

**Chart 1. Numbers of households, married couples, and persons per household, 1910-89**





contrast, almost half our population is 33 or more years of age, and only about 7.5 percent is under age 5.<sup>7</sup>

American families have changed in many ways over the past 75 years as our population adapted to evolving technologies, economic conditions, and social trends. In particular, family and nonfamily living arrangements have greatly multiplied. Based on patterns of the last decade, it appears that 6 of 10 of today's children will live for some length of time with a single parent.<sup>8</sup> Indeed, about 24 percent are doing so at this moment. Subsequently, many live with a step-parent; in 1985, for example, almost 1 in 5 married-couple families with children still at home had a stepchild living in the household.<sup>9</sup> With recent delays to later ages at first marriage, many young adults now live in nonfamily households, sometimes as couples or with other nonrelatives, but often alone. After marriage, many Americans experience divorce. The latest annual figures show almost 1 divorce for every 2 marriages since the mid-1970's. With extended life expectancy, a significant minority of Americans can look forward to being great-grandparents, but primarily because of gender differences in longevity, many elderly women experience periods of widowhood, often living alone for many years.

### Family formation

In general, marriages are the primary source of family formation.<sup>10</sup> But demographic, economic, and social trends have an important bearing on marriage and childbearing decisions, and therefore on family formation rates. Demographically, for example, a surplus of young men brought about by heavy immigration between 1905 and 1914 meant a steady demand for marriageable women. Marriages averaged about 1.2 million annually from 1920 to the late 1930's. Economically, the adverse conditions of the Depression years reduced the marriage rate (for example, there were only about 1 million marriages annually in 1931-33), but the comparatively prosperous conditions and pro-family social attitudes of the post-World War II period stimulated earlier marriages and a sharp, albeit temporary, upturn in childbearing.

By the late 1950's, the median age at first marriage had fallen to 20.1 years for women and 22.5 for men. From 1950 through the early 1960's, the number of marriages averaged about 1.5 million annually. Since then, as illustrated in chart 2, the median age at first marriage has trended steadily upward, reaching highs of 23.6 years for women and almost 26 years for men in the late 1980's. And, despite a huge rise in the

Table 1. Households, by type, in the United States, selected years, 1950-89

Type of household	Households (in thousands)			Percent increase	
	1950	1970	1989	1950-70	1970-89
Total .....	43,554	63,401	92,830	46	46
Family:					
Married couples .....	34,075	44,728	52,100	31	16
Female householder, no spouse present .....	3,594	5,500	10,890	53	98
Male householder, no spouse present .....	1,169	1,228	2,847	5	132
Nonfamily:					
Single person .....	3,954	10,851	22,708	174	109
Multiple persons .....	762	1,094	4,286	44	292
Unmarried couples .....	(1)	523	2,588	(1)	395

<sup>1</sup> Data not available.

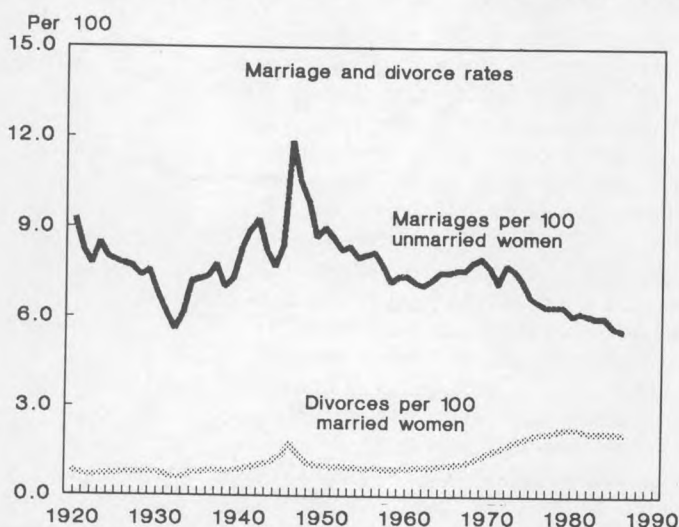
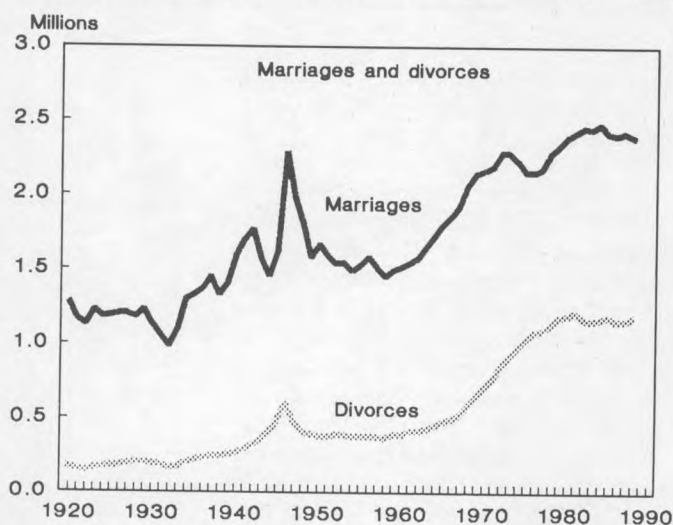
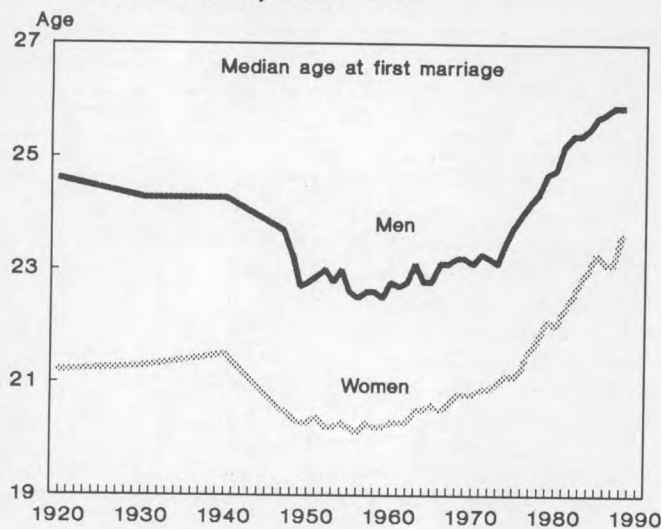
SOURCE: *Households, Families, Marital Status, and Living Arrangements: March 1989, Current Population Reports, Series P-20, No. 441* (Bureau of the Census, 1989), pp. 6-9.

young adult population as the baby-boom generation moved through the prime marriage ages, the number of marriages rose relatively slowly and leveled off at about 2.4 million annually after 1980. At its latest reading—in 1987—the rate of marriages per 100 unmarried women age 15 and over was only 5.6. This matched the all-time low of the Depression years and represents a decline of about two-fifths from the average for the 1950's. At the same time, the divorce rate is almost triple the rates of the 1920's and 1930's, and easily double the rates from 1950 through 1965. Thus, today's population is marrying as late as ever recorded in our history and, once married, is much more likely to divorce than were their peers of both the pre- and post-World War II periods.

Rising age at first marriage is a profound behavioral change with major implications for initial and lifetime fertility and perhaps for marriage dissolution rates in the 1990's and beyond, because older ages at first marriage are associated with lower divorce rates.<sup>11</sup> Delayed marriage has roughly paralleled major increases in the educational attainment and rising labor force participation of women. Similar trends are observable in most of the developed nations. (See Constance Sorrentino, "The changing family in international perspective," pp. 41-58.)

Later marriage also increases the period during which a young woman is at risk of out-of-wedlock childbearing. During the 1980's, out-of-wedlock childbearing apparently was the second most common source of new family formation. During 1987, 933,000 births (24.5 per-

**Chart 2. Selected marriage and divorce indicators, 1920-89**



cent of all births) were to unmarried women (includes those never-married, divorced, and widowed.).<sup>12</sup> Because many of these infants were borne by women who had other children, their births did not result in additional family formation. However, the number of households maintained by never-married women with children of their own stood at 1.75 million in 1988 and included more than 2.9 million children under 18 years of age. There were an additional 1.1 million never-married, usually quite young women with children under 18 years of age who lived in someone else's household, generally that of the mother's parents.<sup>13</sup>

### Childbearing

From 1790, when there were an estimated 55 births per 1,000 population in the United States, until the late 1930's, the basic trend in reproduction rates was down. Still, by today's standards, childbearing in 1915, at a rate of about 29 per 1,000 population, might reasonably be described as high. In the ensuing years, the rate declined sharply—by 1934, it had fallen to a Depression low of 18.4 per 1,000. During World War II, it rose gradually, then even faster amid the postwar prosperity, reaching a peak of 25.3 per 1,000 in 1957 at the apex of the baby boom. During the 1960's and 1970's, childbearing resumed a downward trend, reaching a low of 14.6 per 1,000 in 1975-76. Since then, there has been a slight rise to 15.9 per 1,000, brought about by a large increase in the number of women in the prime childbearing ages.<sup>14</sup>

A better measure of basic fertility—births per 1,000 women in the childbearing range of 15 to 44 years of age—is presented in chart 3. As indicated, the general fertility rate trended decisively downward in the 1920's, falling more than 35 percent (from almost 121 births per 1,000 women of childbearing age in 1921 to about 89 per 1,000 in 1930), and another 17 percent to a Depression low of 75.8 per 1,000 in 1936. Despite continued severe economic conditions, fertility edged up somewhat late in the Depression years and accelerated very sharply after World War II, to a peak of almost 123 per 1,000 by 1957. During the 1960's and early 1970's, the general fertility rate nosedived to 68 per 1,000 by 1974. Since then, the fertility rate has essentially stabilized between 65 and 68 per 1,000 women of childbearing age.<sup>15</sup>

The total fertility rate measures the number of children the average woman would have during her lifetime if her reproductive experience matched the population's fertility rates by single years of age in any particular year. As shown in chart 3, the total fertility rate stood at 3.7 chil-

dren per woman in 1957, at the peak of the baby boom. By the early 1970's, the total fertility rate had fallen below the replacement level (2.1 children) necessary to offset mortality in the population, and it has remained below that figure since then. Whether the underlying factors are economic or social, we are, on average, choosing to have fewer children and to have them later in life. As a result, the average American family is smaller today than ever before in our history. With fewer children, increased divorce, and increased life expectancy that has sustained more married couples in family households after their children have grown to adulthood and left home, the average family contained 3.16 persons in 1989, down from 3.67 in 1960 and 3.76 in 1940 (chart 1). The bulk of the net reduction since 1960 occurred among children, whose average number per family fell from 1.41 in 1960 to 0.96 in 1989.

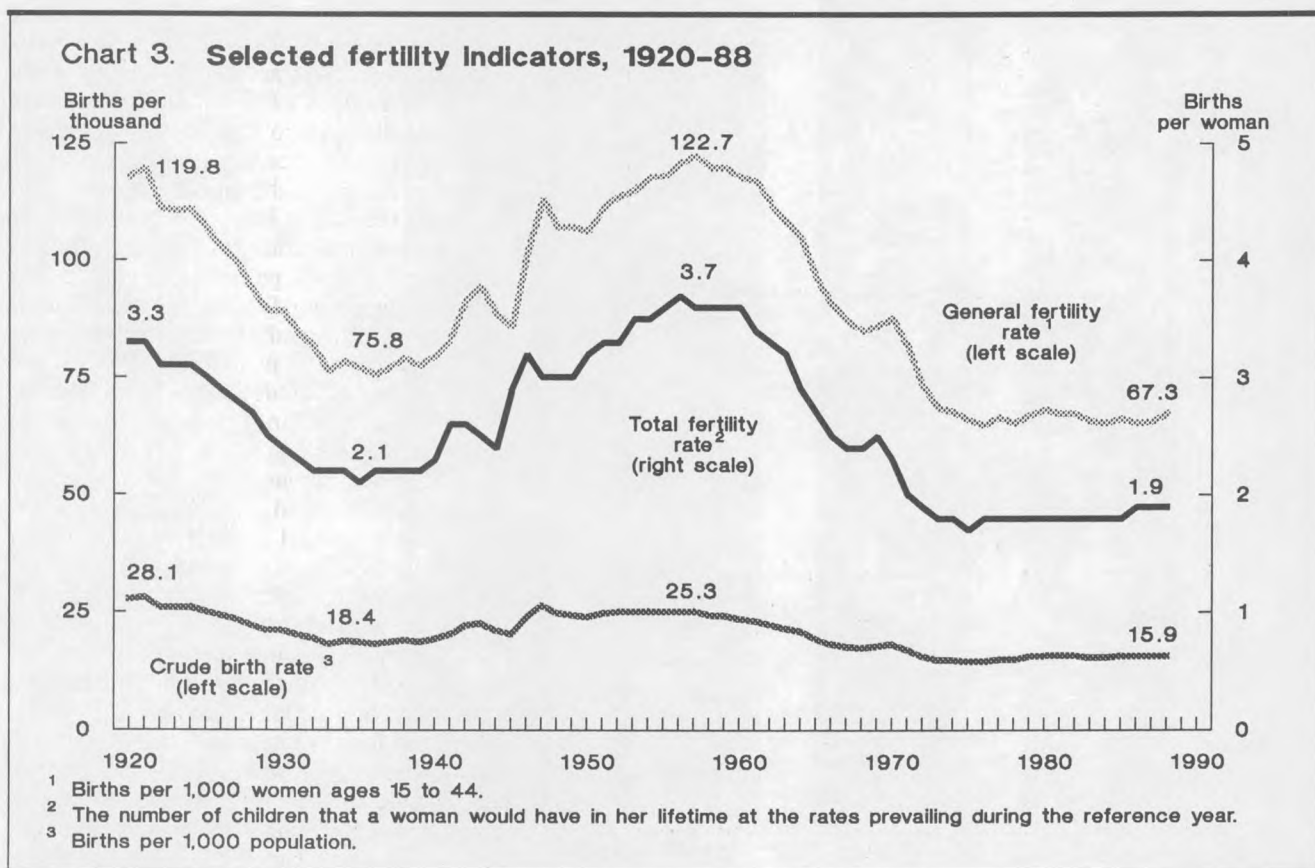
### Family dissolution

The divorce rate in the United States moved unevenly higher for most of the period from 1915 to 1975 and then leveled off at a high rate. As illustrated in chart 2, the average rate has

shown little change since the mid-1970's; but over the years that followed, it was about twice its average for the 1950-65 period, and about triple the average of the 1920's and 1930's. There were 14 million currently divorced persons in the United States in 1988, up from 2.4 million in 1950. Almost 9 percent of the population age 25 and over is currently divorced, up from an estimated 2.6 percent in 1950.<sup>16</sup>

Current patterns suggest that more than half of all marriages contracted during the 1970's will end in divorce, about double the ratio of the 1950's.<sup>17</sup> Because many divorces involve children and because of the rise in out-of-wedlock childbearing, almost one-fourth (15.3 million) of the Nation's children (under 18) lived with only one parent in the late 1980's. That compares with only 9 percent (5.8 million) in 1960 and 12 percent (8.2 million) in 1970.<sup>18</sup> Almost 9 out of every 10 children living with a single parent live with their mothers, who often have lower-than-average incomes.

Death of a spouse is the second leading reason for dissolution of married-couple family households. In 1988, there were 13.5 million widowed persons (7.2 percent of the population age 15 or older), compared with 5.7 million (7.7



*Change in American Families*

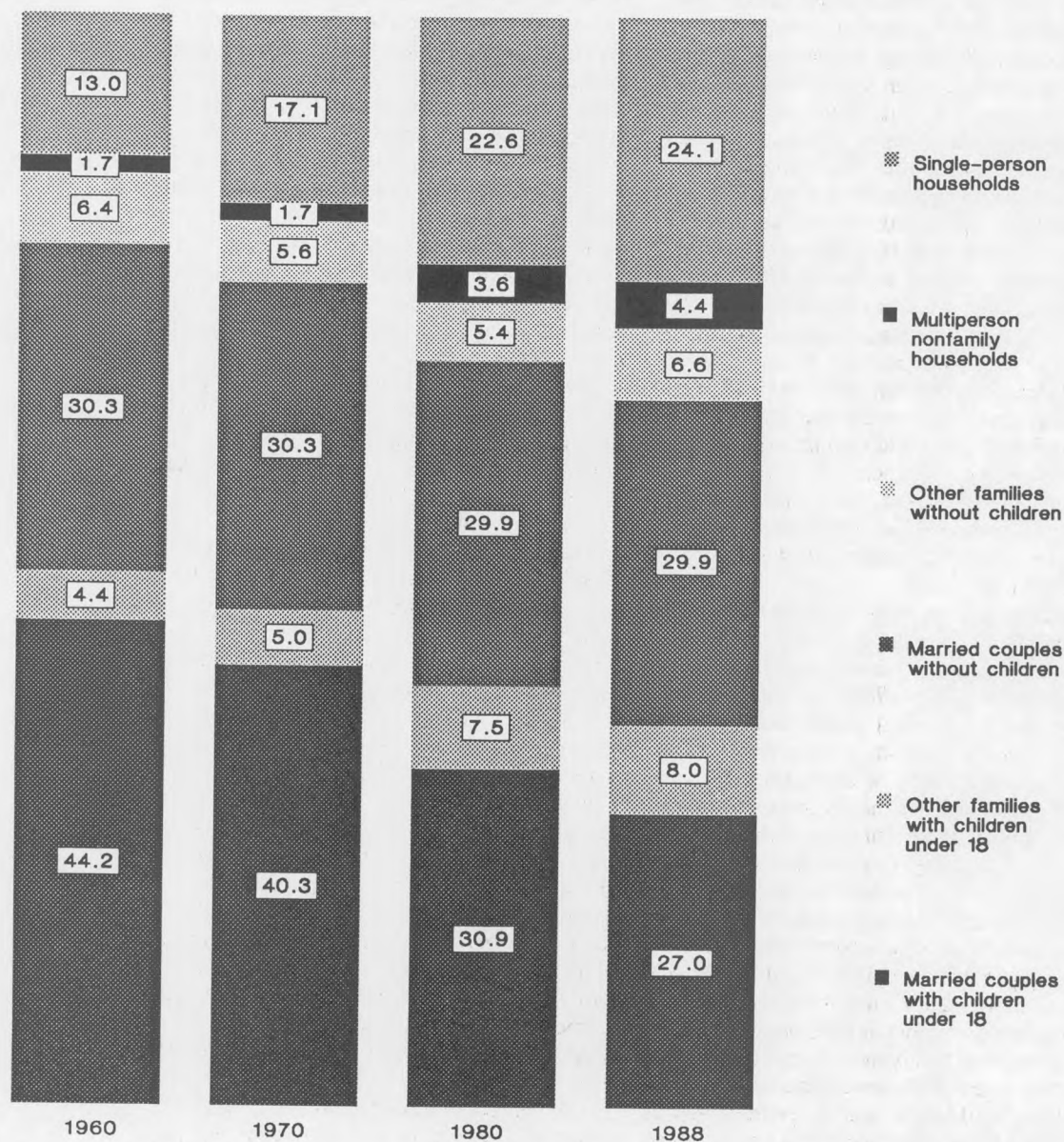
percent) in 1920. Almost 89 percent of the widowed were age 55 or older in 1988, and 83 percent were women.<sup>19</sup> Most widowed persons live alone in their own households, and the proportion doing so has risen over time.

**Changing family composition**

While comprising an ever-shrinking share of all households, family households also have been undergoing progressive alterations in character. In 1950, married-couple households made up almost 88 percent of all family households, 9.3

percent were family households maintained by a woman (with no husband present), and 2.7 percent were family households maintained by a man (no wife present). By 1989, married-couple households were only 79 percent of all family households, and there had been a dramatic rise in the percentages of family households maintained by women with no husband present (16.5 percent) and by men with no wife present (4.3 percent). As chart 4 shows, the proportion of married-couple households with children present has declined dramatically—falling from 44.2 percent of all households in

**Chart 4. Composition of American households, selected years, 1960–88**



1960 to 27.0 percent in 1988, and the overall percentage of households with children present has fallen from almost half in 1960 to just over one-third in 1989.

Reflecting underlying changes in social attitudes and behavior, many more of today's new mothers are unmarried at the time their children are born than was the case in earlier generations. The annual out-of-wedlock birth rate rose from 7.1 per 1,000 unmarried women ages 15 to 44 years in 1940 to 19.3 per 1,000 in 1955, 26.4 per 1,000 in 1970, and 36.1 per 1,000 in 1987. In 1960, slightly more than 5 percent of all births were to unmarried women, but by 1987, the rate had risen to almost 25 percent.<sup>20</sup> Much of the change in distribution of births between married and unmarried women arises from steep declines in childbearing rates of married women, especially young married women.

Bearing and raising an out-of-wedlock child creates a family unit; this trend, coupled with higher divorce rates, means that an increasing percentage of our children are living in single-parent homes. Today, almost one-fourth of family households with children are maintained by a single parent, 9 out of 10 of whom are women. This is double the percentage in 1970 and almost triple the proportion during the late 1940's. Comparable data are not available for the prewar years, but the circumstances leading to single parenthood then were more likely to result from death of a spouse than from divorce or out-of-wedlock childbearing. As late as 1960, when only 9.1 percent of all children lived with a single parent, more than one-fourth of those children lived with a widowed parent. By contrast, only 6.3 percent lived with a widowed parent in 1988.<sup>21</sup>

A basic societal problem of single parenthood is that children of single parents are much more likely than children in intact marriages to be living in poverty. In 1988, for example, the poverty rate for married-couple families with children was 7.2 percent, but the rate for like families maintained by women was 44.7 percent. In large part, this means more children in poverty; almost 20 percent of all children—1 of every 5—were living in poverty during 1988, compared with 10.7 percent for persons 18 or more years of age.<sup>22</sup> A large share of these poor children were in single-parent homes. The poverty gap between children and adults has increased significantly since the early 1970's, a trend that is inexorably linked to out-of-wedlock childbearing and to divorce. Social science research has repeatedly shown that, among other difficulties, children raised in poverty are at higher risk of low educational attainment, more frequent involvement with the criminal justice

system, and out-of-wedlock childbearing themselves.<sup>23</sup> These risks are closely correlated with unsuccessful worklife patterns, and do not bode well for the quality of the new-entrant labor supply in the next century.

### Growth of nonfamily households

There has been a decisive upward trend in living in nonfamily households—those not consisting of persons related by blood, marriage, adoption, or other legal arrangement—in the United States. In 1940, there were about 2.7 million nonfamily households, about 7.7 percent of all households. By 1989, the number of nonfamily households had risen almost tenfold to nearly 27 million, or 29.1 percent of the total. More than four-fifths of all nonfamily households are occupied by a person living alone. Three trends contribute to the sharp rise in nonfamily households: Since the 1960's, young adults have increasingly deferred first marriages to older ages and often live away from the parental home, either alone or with others; among those who have married, divorce is more frequent, often creating two households, of which one is usually a nonfamily household; and, finally, there has been a sharp rise in the number of widows and widowers who maintain independent nonfamily households.

The number and percentage of single-person households has risen dramatically over this century, reaching 21.9 million, or 24 percent of all households, in 1989. Half again as many women (13.1 million) live alone as do men (8.8 million). The entire excess of women living alone occurs among those age 55 or older and is closely associated with widowhood. Between the ages of 15 and 55, both never-married and divorced men are somewhat more likely to be living alone than are their female counterparts. The two latter categories often are transitional—as of March 1989, more than 93 percent of Americans were or had been married at least once by their early 40's, and, on average, 60 percent of divorced persons remarry. Because unmarried (widowed, divorced, and never-married) women in their 60's and older outnumber unmarried men by a huge margin, older women are particularly unlikely to marry and form a married-couple family. In part because of income maintenance programs like Social Security, however, currently unmarried older women are much more likely to be living independently in their own household than were their predecessors.

The number of multiperson nonfamily households also has grown rapidly over the post-World War II period, rising from 762,000 in

*Families were the order of the day early in the 20th century; large families were common.*

1950 to 5.1 million in 1989. Just over half of these households (about 2.6 million) are maintained by unmarried couples who share living quarters, a quadrupling of such arrangements since 1970. In many instances, such couples behave like families—indeed, there are children under age 15 present in about 800,000 of the unmarried-couple households.<sup>24</sup> More than half of the partners in unmarried-couple households have not been married, and more than 60 percent are less than 35 years of age. According to research conducted at the University of Wisconsin, within 2 years such living arrangements among young adults were a precursor to marriage (and therefore formation of a family household) for 37 percent of the couples studied, to disestablishment of the household for 23 percent of the couples, or to continuation as an unmarried-couple household for 40 percent.<sup>25</sup>

### Where are we tending?

The past 75 years brought momentous changes in family life patterns of Americans as we adapted to dynamic economic, social, and demographic developments. Changes in family living arrangements and preferences were particularly pronounced from the early 1960's to the late 1970's, about the time of the transition of the baby-boom generation from adolescence to adulthood. During the 1980's, average family living arrangements and family size exhibited comparative stability, fertility stabilized at a rate just below the replacement level, and the divorce rate leveled off just below the 1979 peak.

During the 1990's, all of the Nation's net population growth will occur among persons age 35 and older, with the bulk of the increase in the prime childrearing and working years, from the mid-30's to the mid-50's. The young adult population will be smaller in 2000 than it is now. This general aging of the population augurs well for a period of comparative stability, if not a slight drift back toward a traditional family orientation. That is, with delayed marriage, the divorce rate may continue to edge lower, reducing family dissolution somewhat. Childbearing patterns and data on birth expectations suggest a continuation of small families.<sup>26</sup> Over the last decade, young adults have shown an increased tendency to remain in the parental home during their 20's, damping one source of nonfamily-household formation. However, barring drastic changes in either personal tastes or Social Security and pension arrangements, it appears likely that there will be continuing growth in the number and proportion of elderly persons living alone in nonfamily households.

Even with comparative stability, areas of particular societal concern require attention. In part because of the continuing rise in out-of-wedlock childbearing, more than half of all children are likely to experience a period of living with a single parent during the 1990's, usually in reduced economic circumstances. For as many as 1 in 5, that means living in poverty—some for many years—with all the adverse implications for obtaining an adequate education and the opportunity to develop an effective working and family life as adults. □

### Footnotes

<sup>1</sup> Household-based definitions leave much to be desired in describing familial economic and social support networks. For example, almost 1 of every 25 Americans provides some financial support for a person living outside his or her household. During 1985, \$18.9 billion was transferred from individuals, largely to relatives living elsewhere. Such transfers include child support payments and former-spouse support payments, and significant sums flow from parents to adult children and vice versa. See *Who's Helping Out: Support Networks Among American Families*, Series P-70, No. 13 (Bureau of the Census, 1988), pp. 1, 11.

<sup>2</sup> *Historical Statistics of the United States: Colonial Times to 1970, Part 1* (Bureau of the Census, 1975), p. 41; and *Households, Families, Marital Status, and Living Arrangements: March 1989, Current Population Reports*, Series P-20, No. 441 (Bureau of the Census, 1989), pp. 4-9.

<sup>3</sup> *Ibid.*

<sup>4</sup> Steve W. Rawlings, "Single Parents and Their Children," in *Studies of Marriage and the Family, Current Population Reports*, Series P-23, No. 162 (Bureau of the Census, 1989), p. 13.

<sup>5</sup> *Ibid.*, p. 16.

<sup>6</sup> All data in this and the following paragraph are drawn

from *Historical Statistics*, pp. 15, 20-21, 41-42, 49-56, 64, 105, 112, 117, and 133-34.

<sup>7</sup> *Ibid.*, pp. 41-42; and *State Population and Household Estimates With Age, Sex, and Components of Change, 1981 to 1988, Current Population Reports*, Series P-25, No. 1044 (Bureau of the Census, 1989), p. 18.

<sup>8</sup> Arthur J. Norton and Paul Glick, "One Parent Families: A Social and Economic Profile," *Family Relations*, January 1986, pp. 9-17.

<sup>9</sup> Louisa F. Miller and Jeanne E. Moorman, "Married-Couple Families With Children," in *Studies of Marriage and the Family*, p. 31.

<sup>10</sup> Donald J. Hernandez, "Components of Longitudinal Household Change for 1984-85," SIPP Working Papers 89-22, November 1989, pp. 1-28.

<sup>11</sup> Arthur J. Norton and Jeanne E. Moorman, "Current Trends In Marriage and Divorce Among American Women," *Journal of Marriage and the Family*, February 1987, pp. 3-14.

<sup>12</sup> National Center for Health Statistics, "Advance Report of Final Natality Statistics, 1987" (and various earlier years), *Monthly Vital Statistics Report*, vol. 38, no. 3, suppl. (Hyattsville, MD, Public Health Service, 1989),

pp. 32–34; and *Historical Statistics*, pp. 49–56.

<sup>13</sup> *Household and Family Characteristics: March 1988, Current Population Reports*, Series P-20, No. 437 (Bureau of the Census, 1989), pp. 79, 83.

<sup>14</sup> National Center for Health Statistics, “Advance Report of Final Natality Statistics,” p. 15.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Marital Status and Living Arrangements: March 1988, Current Population Reports*, Series P-20, No. 433 (Bureau of the Census, 1989), p. 3; and *Historical Statistics*, p. 20.

<sup>17</sup> Overall marital disruption appears likely to be even larger. See Teresa C. Martin and Larry L. Bumpass, “Recent Trends in Marital Disruption,” *Demography*, February 1989, pp. 37–52.

<sup>18</sup> *Marital Status and Living Arrangements: March 1988*, p. 62.

<sup>19</sup> *Ibid.*, pp. 3–8; and *Historical Statistics*, pp. 20–21.

<sup>20</sup> National Center for Health Statistics, “Advance Report

of Final Natality Statistics,” pp. 32–34; and *Historical Statistics*, p. 52.

<sup>21</sup> *Marital Status and Living Arrangements: March 1988*, p. 42.

<sup>22</sup> *Money Income and Poverty Status: 1988, Current Population Reports*, Series P-60, No. 166 (Bureau of the Census, 1989), pp. 60, 62.

<sup>23</sup> Susan Hofferth, “The Children of Teenage Childbearers,” in National Academy of Sciences, *Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing*, vol. II (Washington, National Academy Press, 1987), pp. 174–206.

<sup>24</sup> *Marital Status and Living Arrangements: March 1988*, p. 63.

<sup>25</sup> Andrew Thornton, “Cohabitation and Marriage in the 1980’s,” *Demography*, November 1988, pp. 497–508.

<sup>26</sup> *Fertility of American Women: June 1988, Current Population Reports*, Series P-20, No. 436 (Bureau of the Census, 1989), pp. 1–11.

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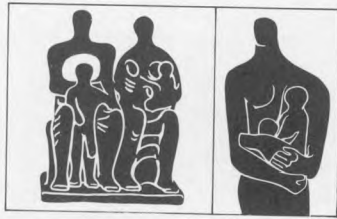
### Tradeoffs in parental leave

While attention is focused largely on mothers, there is growing evidence of a greater desire for involvement in childbearing from fathers. According to Joseph Pleck of Wheaton College, former director of the National Fatherhood Project, “Because they do not understand or accept the idea of child care leave, many employers find the concept of paternity leave incomprehensible or frivolous.” As a result, the policy is offered in about one-third of major corporations and rarely used by fathers. Pleck also found that when asked what they did when their wives had babies, men indicated that they pieced together various time-off policies, such as sick leave and vacations, in order to take off about three weeks. Fathers were reluctant to refer to this as “paternity leave.”

—Dana E. Friedman and Wendy B. Gray

“A Life Cycle Approach to Family Benefits and Policies,”  
*Perspectives*, No. 19 (The Conference Board, Inc., 1989), p. 11.

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# Family members in the work force

*Work patterns of families  
have become so diverse in recent decades  
that a specific family type  
can no longer be identified as "typical"*

Howard V. Hayghe

As a social and economic institution, the American family has undergone some profound changes in recent decades. One of the most talked about changes has been the substantial increase since the 1940's in married-couple families in which both spouses are in the labor force, or "dual-worker families." As the number of dual-worker couples increased, the number of families in which only the husband is in the labor force, or "traditional families," dwindled. Simultaneously, the number of unmarried men and women in the labor force who maintained families grew, as divorce and separation became increasingly common. But, perhaps the most overlooked development has been the steady increase in the proportion of families in which neither the husband nor the person maintaining the household is in the labor force, or "other families."

The traditional family group is now far from being in the majority. Yet, no other group has taken its place. Instead, the composition of the family has become increasingly diverse, as the labor force roles of members have changed, and the proportions of "other families" and families maintained by divorced, widowed, separated, or single persons have grown. In other words, there is no longer a "typical" family.

This article traces the changing labor force characteristics of families over the years since the *Monthly Labor Review* began publication. It looks back to the pre-World War II era to pro-

vide a picture of family labor force characteristics during the early decades of this century, and traces the broad trends from 1940 to the present, focusing on the current situation.

The analysis is based on data from a variety of sources. Information on pre-1940 developments is drawn from studies based on the decennial censuses, as well as some other smaller studies. Data for the post-1940 period are from the decennial censuses and the Current Population Survey.<sup>1</sup>

## Pre-World War II trends

Today, there is a standard definition of what constitutes a family—namely, a group of two persons or more related by birth, marriage, or adoption and residing together.<sup>2</sup> Prior to 1940, however, the concept was not as clearly defined. As a result, information from these earlier periods is not always comparable to today's data. Fortunately, historical data on the labor force participation of women are available from which a fairly good picture of the family work patterns of those early decades can be constructed. (See table 1.)

Between 1900 and 1920, decennial census data show that the number of women in the labor force grew by about two-thirds, from about 5 million to 8.3 million. The proportion of these women who were married also grew fairly rapidly, rising from 15 percent of the women in the labor force to 24 percent.

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The information on labor force participation of wives, together with data on households, can be used to derive estimates that are indicative of family labor force patterns prior to World War II. Overall, there were about 24.4 million households in 1920. A breakdown of these households by type is not available because the collection and tabulation of such data were inconsistent before World War II. However, calculations based on the 1910 and 1930 censuses indicate that in 1920, roughly 85 percent—or around 20 million—of the households consisted of married couples.<sup>3</sup> And, because most of the approximately 1.9 million wives in the labor force had husbands who also were in the labor force (92 percent of the husbands were participants),<sup>4</sup> dual-worker families would have constituted around 9 percent of all families.

Estimates of the proportion of families maintained by women in the labor force are equally difficult to determine. Information based on data collected in the 1920 decennial census from an 11-city sample indicates that about 15 percent of employed women maintained households in which no husband was present.<sup>5</sup> Thus, by extrapolation, there were about 1.3 million women in the labor force nationwide maintaining their own households without husbands.

The number of wives who were working or looking for work continued growing from 1920 through 1940. (See table 1.) This was a remarkable feat, considering the social, cultural, and, indeed, technological barriers confronting wives who worked for pay outside the home. While poor, black, or immigrant women often had to work, the cultural and social mores of the time—unlike those of today—discouraged a breadwinning role for wives. For example, Gallup polls conducted in the 1930's found that about 80 percent of the population felt that wives should not work.<sup>6</sup> But, it should be noted that these polls were conducted during the Depression, and public opinion might have been affected by the notion that women would take some of the shrinking number of available jobs away from men. (There was as little foundation to this reasoning in the 1930's as there is today. Then, as now, women tended to be employed in service sector jobs which are relatively unaffected by economic downturns, whereas men tended to be employed in goods-producing industries that typically bear the brunt of recession.)

In addition, 50 years ago, household technology was relatively primitive and families were larger. Consequently, housework required far more physical labor and time than it does today. Not only was present-day technology unavailable to wives, so were modern time-savers such

Table 1. Women in the labor force by marital status, selected years, 1900–40

Year	Total women		Married women <sup>1</sup>	
	Number in labor force (thousands)	As percent of all women	Number in labor force (thousands)	Percent of all women in labor force
1900 .....	4,997	20.6	769	15.4
1910 .....	7,640	25.4	1,891	24.7
1920 .....	8,347	23.7	1,920	23.0
1930 .....	10,632	24.8	3,071	28.9
1940 .....	13,007	25.8	4,675	35.9

<sup>1</sup> Includes small number not living with their husbands.

SOURCE: *Historical Statistics of the United States, Colonial Times to 1970*, Series D 49–62 (Bureau of the Census, 1975), p. 133.

as prepared foods, fast-food outlets, and supermarkets where an entire week's worth of groceries can be purchased at one stop.

Given these daunting social and physical obstacles, why did some wives work? The answer then is similar to the response frequently given today—economic necessity. In a study conducted in 1920, wives gave various reasons for working outside the home, such as the need to support large families, the inadequacy of their husbands' wages, inflation, providing for their children's education, and saving for old age.<sup>7</sup> In a later survey, 80 percent of wives who were job applicants said they were looking for work out of necessity.<sup>8</sup>

### Trends since 1940

In a sense, 1940 was a watershed year for statistics on the family. This was the first time that concepts of the family and of the labor force that are still in use today were incorporated into a decennial census. Thus, 1940 is a natural starting point for an examination of trends in family labor force characteristics.

By 1940, the employment picture for women had changed somewhat from its pre-World War II trend. About 13 million women, or 26 percent of all women, were in the labor force.<sup>9</sup> Approximately 30 percent of them were married and living with their husbands, while 16 percent maintained their own families with no husband present. But the largest group of women in the labor force—about 6.7 million, or nearly half the total—were single (had never been married).

This was still the era when a wife's primary occupation was homemaking. Thus, families in which the husband, but not the wife, was in the labor force accounted for nearly 7 of 10 of the 32.2 million U.S. families. There were barely 3

## Family Members in the Work Force

million dual-worker couples, only 9 percent of all families. (See chart 1.)

There were also 5.2 million families—almost 1 of 6—in which the householder, whether a woman or a man, had no spouse present. Relatively few of these householders, especially the women, participated in the labor force. Families maintained by a man or a woman who was in the labor force each made up about 8 percent of all families.

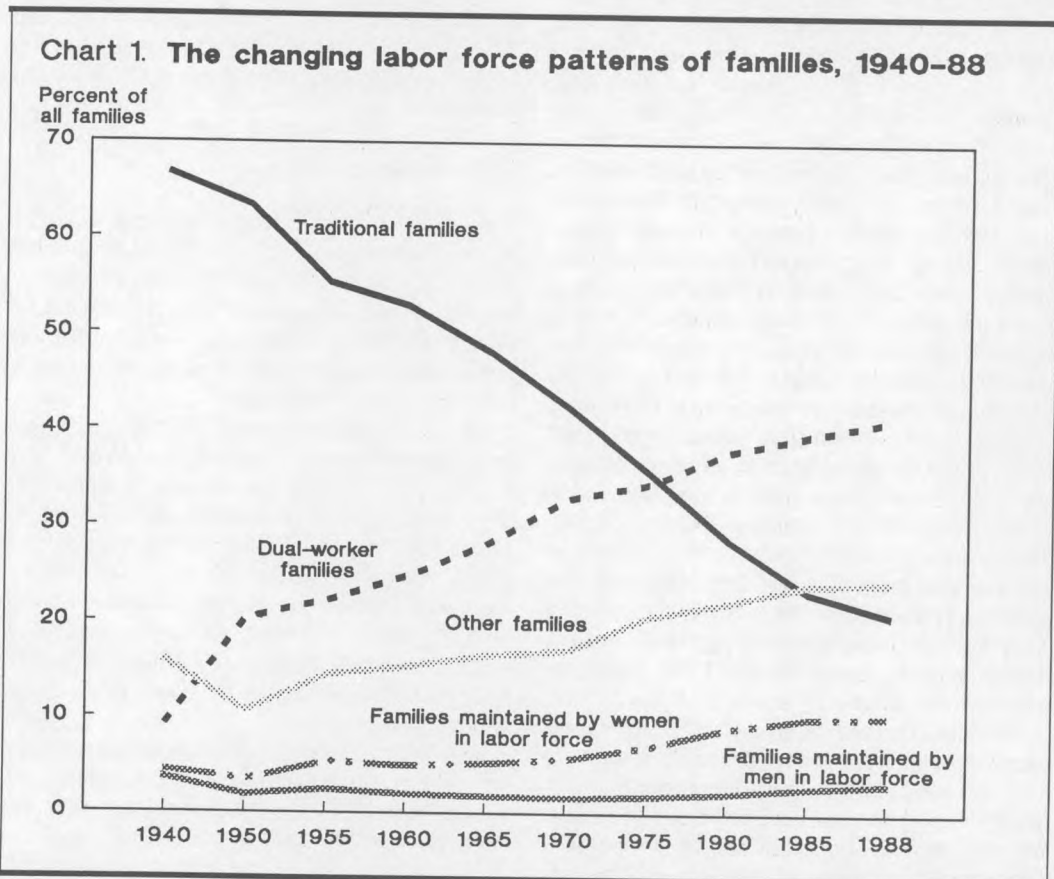
During World War II, wives helped supply the additional labor required by industry to meet the demands for war materiel and to fill the jobs of the men called to serve in the Armed Forces. Consequently, between 1940 and 1944, the number of married women who were working or looking for work grew by about 2 million, and their labor force participation rate shot up from 14 percent to nearly 22 percent. Immediately after the war, many wives left the labor force. However, within a few years, they started reentering, and, by 1948, their participation rate had returned to its 1944 level; by 1950, about 24 percent of wives were working or looking for work.

This postwar increase in wives' labor force participation—coupled with a surge in marriages—is reflected in the sharp jump, between

1940 and 1950, in the proportion of families composed of dual-worker couples. Over the next 15 years, the number of wives in the labor force continued to grow, expanding by nearly 400,000 a year. Consequently, the proportion of "traditional" families declined gradually, although such families remained the majority for about half of the 1940–88 period. After 1965, the number of wives in the labor force grew very sharply, by an average 700,000 a year, and the decline of the traditional family accelerated. By 1988, the traditional family accounted for only about a fifth of the total families, compared with more than three-fifths in 1940.

In addition to the rise in dual-worker couples, there were other changes in the labor force behavior of families that have become increasingly significant over time. For example, the number of single-parent families maintained by women in the labor force grew from about 5 percent of all families in 1965 to around 10 percent in 1988. By contrast, the increase among those families maintained by men in the labor force was almost negligible.

"Other families" group. Also significant was the growth in the proportion of the other families group. This group is quite heteroge-



neous, but its members all share a common factor—the person who maintains the household is not in the labor force. This group includes retired couples; couples where the wife, but not the husband, is in the labor force; and families maintained by unmarried householders who are not labor force participants.

Between 1940 and 1988, the number of other families increased by 11.2 million, from 4.8 million to 16 million. Over the same period, the number that were in the married-couple category increased to such an extent that this category became the overwhelming majority of the other families group. The number of other families that were maintained by men or women who were not in the labor force grew as well, although not so rapidly as the married-couple group. (See table 2.)

The increase in the proportion of the married-couple category of the other families group was probably spurred by a growing tendency during this period—especially from 1955 to about 1986—for husbands to retire and leave the labor force at a relatively early age.<sup>10</sup> Somewhat surprisingly, however, the proportion of the couples where the wife was a labor force participant but the husband was not was about 3 times greater in 1988 than in 1940—14.8 percent and 4.5 percent. (See table 2.) In contrast, the number of families in which neither spouse was in the labor force grew at a slower pace.

## Today

*The children.* Children are being raised in a wider variety of family situations today than ever before. Half a century ago, the overwhelming majority of children lived in traditional families with the husband in the labor force and the wife at home. As times changed, this scenario became the exception rather than the rule; more, and younger, wives entered the labor force, and the incidence of marital breakup and out-of-wedlock births increased. Indeed, to the degree that households dissolve and are reestablished, children may live in several different family situations before reaching adulthood.

Comprehensive data on the living arrangements of children by the labor force status of their parent(s) and family type first became available on a regular basis in 1975. However, even in the relatively short time since then, some dramatic changes in the children's family situations have occurred. (See table 3.)

Since 1975, the proportion of married couples with children has declined from 84 percent of all families with children to 76 percent. Moreover, as wives and mothers increasingly

**Table 2. Trends in the composition of "other families," by type, March of selected years, 1940–88**

Other families type	1940 <sup>1</sup>	1950 <sup>1</sup>	1960	1980	1988
Total:					
In thousands .....	4,788	5,584	6,883	13,314	15,974
In percent .....	100.0	100.0	100.0	100.0	100.0
Married-couple families .....	46.2	51.2	62.5	69.3	69.3
Wife in labor force, not husband .....	4.5	9.3	11.8	14.6	14.8
Neither wife nor husband in labor force .....	42.2	41.9	50.7	54.7	54.5
Families maintained by women not in labor force (no spouse present) .....	45.5	40.9	32.8	27.3	26.5
Families maintained by men not in labor force (no spouse present) .....	8.3	7.8	4.7	3.4	4.3

<sup>1</sup> Data are from *Historical Statistics of the United States, Colonial Times to 1970*, Series A 288–319 (Bureau of the Census, 1975), p. 41; and *Current Population Reports*, Series P-50, Nos. 5 and 29, and Series P-S, No. 20 (Bureau of the Census, May 1948, May 1951, and March 1947, respectively).

**Table 3. Trends in labor force activity of families with children under age 18, by type of family, March of selected years, 1975–88**

[Numbers in thousands]

Family type	1975	1980	1985	1988
Total families with children .....	30,375	31,325	31,496	32,347
Married-couple families:				
Number .....	25,400	24,974	24,225	24,611
Percent of total families with children .....	84.0	79.7	76.9	76.1
Percent with—				
Father in labor force .....	96.0	95.7	95.7	95.6
Father only .....	52.6	43.2	36.6	32.7
Father and mother .....	43.4	52.5	59.1	63.0
Mother only in labor force .....	1.6	1.8	1.9	2.2
Neither parent in labor force .....	2.4	2.5	2.4	2.2
Families maintained by women (no spouse present):				
Number .....	4,461	5,718	6,345	6,666
Percent of total families with children .....	14.6	18.3	20.1	20.6
Percent with—				
Mother in labor force .....	59.9	67.4	67.8	67.2
Mother not in labor force .....	40.1	32.6	32.2	32.8
Families maintained by men (no spouse present):				
Number .....	454	633	926	1,070
Percent of total families with children .....	1.4	2.0	2.9	3.3
Percent with—				
Father in labor force .....	87.0	88.6	90.0	90.2
Father not in labor force .....	13.0	11.5	9.9	9.8

NOTE: Children are "born" children and include sons, daughters, stepchildren, and adopted children. Not included are other related children, such as nieces, nephews, and grandchildren and unrelated children.

entered the labor force, fewer families with children fit the old model of "father in labor force, mother at home." In 1975, 53 percent of the married-couple families with children consisted of traditional families, while 43 percent fell into the dual-worker category; by 1988, the proportions were 33 percent and 63 percent.

As the proportion of families consisting of

**Table 4. Families, by type, labor force status of husbands, wives, and persons maintaining families, and presence and age of youngest child, March 1988**

Family type	Total	With no own children under age 18	With own children under age 18		
			Total	Ages 6 to 17, none younger	Under age 6
<b>Number (in thousands)</b>					
All families .....	65,670	33,323	32,347	17,486	14,860
Married-couple families .....	51,847	27,236	24,611	12,688	11,924
Husband only in labor force .....	13,744	5,708	8,036	3,156	4,880
Husband and wife in labor force .....	27,037	11,544	15,493	8,839	6,654
Wife only in labor force .....	2,364	1,821	543	360	184
Neither husband nor wife in labor force .....	8,702	8,163	539	333	206
Families maintained by women (no spouse present) .....	11,061	4,395	6,666	4,086	2,580
Householder in labor force .....	6,834	2,353	4,481	3,088	1,393
Householder not in labor force .....	4,227	2,042	2,185	998	1,187
Families maintained by men (no spouse present) .....	2,762	1,692	1,070	713	357
Householder in labor force .....	2,079	1,114	965	641	325
Householder not in labor force .....	682	577	105	73	32
<b>Percent</b>					
All families .....	100.0	50.7	49.3	26.6	22.6
Married-couple families .....	79.0	41.5	37.5	19.3	18.2
Husband only in labor force .....	20.9	8.7	12.2	4.8	7.4
Husband and wife in labor force .....	41.2	17.6	23.6	13.5	10.1
Wife only in labor force .....	3.6	2.8	.8	.5	.3
Neither husband nor wife in labor force .....	13.3	12.4	.8	.5	.3
Families maintained by women (no spouse present) .....	16.8	6.7	10.2	6.2	3.9
Householder in labor force .....	10.4	3.6	6.8	4.7	2.1
Householder not in labor force .....	6.4	3.1	3.3	1.5	1.8
Families maintained by men (no spouse present) .....	4.2	2.6	1.6	1.1	.5
Householder in labor force .....	3.2	1.7	1.5	1.0	.5
Householder not in labor force .....	1.0	.9	.2	.1	( <sup>1</sup> )

<sup>1</sup> Less than 0.05 percent.

NOTE: Children are "born" children and include sons, daughters,

stepchildren, and adopted children. Not included are other related children, such as nieces, nephews, and grandchildren and unrelated children.

two parents declined, the proportion maintained by a single parent rose. In 1975, about 15 percent of the families with children were maintained by a single-parent mother, and 1 percent by a single-parent father. By 1988, the proportions had increased to 21 percent and 3 percent, respectively. It is important to note that a parent was in the labor force in about 7 of 10 of the single-parent families maintained by women, compared with nearly 9 of 10 of the families maintained by single-parent fathers and virtually all (98 percent) of the two-parent families.

Very few families with children are in the other families group, largely because most of the parents are relatively young and do not have the resources that would allow them (especially the married fathers) to leave the labor force. Overall, a little more than 10 percent of families with children fell into the other family group in March 1988, slightly more than in 1975, and the majority were maintained by single mothers.

*The families.* For families, trends since 1940 have led away from the "married couple with only the husband in labor force" paradigm. But, instead of reorganizing around one particular household model, such as the dual-worker household, families appear to be moving away from any modal category. The adjective "diverse" best describes the family scene today. Table 4 shows why.

Of the 65.7 million families in the United States in March 1988, about 41 percent consisted of married couples in which both husband and wife were in the labor force. In an additional 21 percent, the husband, but not the wife, was in the labor force; in 13 percent, neither spouse was in the labor force; and about 14 percent were maintained by a man or a woman who was in the labor force, but with no spouse present in the household.

When the presence and age of children are taken into account along with the labor force

status of family members, the complexity grows. For instance, dual-worker families with no children compose 18 percent of all families, while those with children are about 24 percent of the total. Single-parent families maintained by women in the labor force account for 7 percent of all families, and families maintained by women in the labor force with no children represent 4 percent.

This perspective on family types provides insights into today's debates regarding national family policy. For instance, although dual-worker families with preschool children number 6.7 million, this group makes up only 10 percent of all American families. Moreover, while 7 percent of the families consist of a single mother who is in the labor force and her children, about 2 percent of families (1.4 million) are maintained by a single mother with children under age 6.

Of course, these numbers and proportions are based on information about the family situation at one point in time and do not reflect the changes families inevitably undergo over time. For instance, many of the two-parent

families in which both parents are in the labor force may join the traditional family category at some time in the future, or a divorce can change a married-couple family into a single-parent family.

THIS CENTURY HAS SEEN MARKED CHANGES in the composition of families and in the labor force patterns of family members. About 50 years ago, most wives had the exclusive role of homemaker and childraiser. Today, the reality is that, more often than not, she also works outside the home. Families are far more dynamic today: added to the changes that inevitably occur over time (for example, as families go from raising children to being "empty nests") are other changes that stem from the frequent breakup of families through separation and divorce and the reestablishment of families through subsequent remarriage. The result is that the majority of families no longer fit into a single category that can be termed "typical." Instead, there are numerous work-family patterns with none of them as dominating as the "traditional" family was 50 years ago. □

## Footnotes

<sup>1</sup> The Current Population Survey is a monthly survey of (currently) about 60,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics to obtain statistics on the employment status of the population. Information collected in March of each year is specially processed to produce employment estimates by family status and characteristics.

<sup>2</sup> See, for example, *Marital Status and Living Arrangements: March 1987, Current Population Reports, Series P-20, No. 60* (Bureau of the Census, 1988), p. 60.

<sup>3</sup> *Historical Statistics of the United States, Colonial Times to 1970, Part 1, Bicentennial Edition* (Bureau of the Census, 1975), Series A 288-319, p. 41.

<sup>4</sup> J. A. Hill, *Women in Gainful Occupations, 1879 to 1920, Census Monograph IX* (Washington, D.C., Government Printing Office, 1929), p. 153.

<sup>5</sup> Hill, *Women in Gainful Occupations*, p. 128.

<sup>6</sup> Ruth Shallcross, "Shall Married Women Work?" Na-

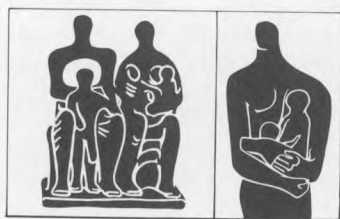
tional Federation of Business and Professional Women's Clubs, Public Affairs Pamphlet No. 48, reprinted in R. Baxandal, L. Gordon and S. Reverby, eds., *America's Working Women* (New York, Random House, 1976).

<sup>7</sup> See *Women's Wages in Kansas*, Bulletin of the Women's Bureau, No. 10 (Washington, D.C., Government Printing Office, 1921).

<sup>8</sup> See Emily C. Brown, *A Study of Two Groups of Denver Married Women Applying for Jobs*, Bulletin of the Women's Bureau No. 77 (Washington, D.C., Government Printing Office, 1929).

<sup>9</sup> *Historical Statistics of the United States, Colonial Times to 1970, Series D 49-62* (Bureau of the Census, 1975), p. 133.

<sup>10</sup> For a discussion of the labor force participation trends of husbands, see Howard V. Hayghe and Steven E. Haugen, "Profile of husbands in today's labor market," *Monthly Labor Review*, October 1987, pp. 3-11.



## How family spending has changed in the U.S.

*Since the Monthly Labor Review began, the proportion of family expenditures allocated for food has dropped by half, the incidence of homeownership has doubled, and spending for transportation, medical care, and recreation has increased significantly*

Eva Jacobs  
and  
Stephanie Shipp

Over the decades since the *Monthly Labor Review* was first published in 1915, significant changes have taken place in the economy and in the demographic composition of the U.S. population. Wars, the Great Depression, recessions, booms, and energy crises have in turn affected the economic status of the American family. Over the same period, the population shifted both by age composition and geographically. By the 1980's, the baby-boomers of the post-World War II period were themselves entering the family formation years at the same time that a larger proportion of the population was entering retirement years. These changes were accompanied by increases in the numbers of women—including mothers of small children—in the labor force; increased frequency of single parenthood and one-person households; and a decline in family size.

This article examines the changing consumption and income patterns of the American family that resulted from these movements as well as from change in tastes and preferences and technological and cultural developments. Two earlier studies, *How American Buying Habits Change*,<sup>1</sup> and *Study of Consumer Expenditures, Incomes and Savings*,<sup>2</sup> which provide excellent documentations of consumer expenditure data through 1950 greatly aided in the development of our analysis.

### Expenditure surveys: some background

Because expenditure surveys undertaken by the Bureau of Labor Statistics date back to the late 19th century, they are a particularly rich source of information for this anniversary study of changes in the American household. The current, ongoing survey has evolved from a long tradition of these surveys, which have differed in specific purpose and design but were all based on the assumption that factual information on family income, expenditures, and characteristics is important for understanding social and economic conditions. The earliest expenditure studies in the United States were concerned with the welfare of families at a time of rapid social and economic change. During the 1870's, the Massachusetts Bureau of Labor Statistics carried out the first such studies, which sought to evaluate the welfare of the worker's family after immigration to this country, as well as to evaluate their relative welfare once integrated into the community.

The early surveys were concerned with the cost of living of the "working" man and his family, that is the amount of dollars a family needed to live. Expenditure surveys have been broadened over the years to collect data on more than just expenditures. We now ask numerous questions about income, family characteristics,

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ownership of durable goods, assets and liabilities, and other nonexpenditure data. In addition, the scope of the surveys has been expanded to include everyone—not only the working man but also retired persons; not only families but also single persons; not only city dwellers but also inhabitants of rural areas. In addition to describing consumption patterns of different segments of the population, the expenditure data have also served the very important purpose of providing the weights for Federal indexes of retail prices—from the 1901 survey of retail food prices, to the 1917–19 cost-of-living index, to the 1934–36 Consumer Price Index, similar to the CPI that is published today.

Over time, the consumer expenditure surveys were expanded to reflect the increasing population and the growth in available goods and services. Each survey collected data from the “typical” urban family of the period. In 1901, data were collected for a family of two or more persons including boarders, lodgers, and servants. A “normal” family was limited to white renter families consisting of an employed husband, a wife, and not more than five children (the oldest of whom could not be more than 14 years of age), and having no other household members. In the 1917–19 survey, a distinction was made between a “household” and a “family.” Data were collected for urban wage earners and clerical workers. In 1950, the currently used term “consumer unit” was introduced. The 1950 survey was the first to collect data for single consumers, but was still limited to the urban population. Beginning in 1960 and continuing today, expenditure surveys relate to the entire urban and rural population. Although references will be made throughout this article to “American” families, these units are more precisely defined as families living in the United States, including recent immigrants.

To maintain consistent comparisons with earlier studies, the data presented in the tables relate to urban workers who are wage earners and clerical or sales employees. This restriction yields the longest data series for similarly defined households. These families accounted for 82 percent of the population in 1901 and fewer than one-third in 1986–87. However, a review of expenditure survey data for the total population from 1960–61 to 1987 shows that the trends discussed here are applicable to the total population. (See table 1.)

Historically, times of crisis, either war or depression, influenced the timing of expenditure surveys. As was the custom, the early reports presented a massive array of tables displaying data in the most minute detail for different types of families. For example, in 1901, detailed ex-

**Table 1. Consumption expenditures for all consumer units, 1960–61 to 1986–87**

Item	1960–61	1972–73	1986–87
Consumption expenditures .....	\$5,054	\$8,271	\$19,576
Percent distribution ..	100.0	100.0	100.0
Food and alcoholic beverages .....	26.0	21.6	18.8
Shelter .....	13.1	16.6	20.6
Transportation ....	15.2	20.7	23.7
Health care .....	6.7	6.4	5.2
Recreation and reading .....	4.9	5.5	6.0

penditures are presented by the country of birth of respondents by State. There were no statistical standards of reliability and, at lower levels of detail, data were shown even if they represented only one family. Furthermore, the estimates of average expenditures were sample means, and were not weighted to represent the total population until 1950.

Despite some lack of comparability of the detail and the methodology and coverage in expenditure surveys over time, broad trends in spending patterns can be compared. The following discussion summarizes the most important changes in the spending patterns of families from 1901 through 1987. Data on expenditures (in dollars of each period), the distribution of expenditures, and selected demographic characteristics for the same period are shown in table 2. (Note that the first expenditure survey described here—conducted in 1901—predates the publication of the first issue of the *Review* in 1915. The earlier survey was chosen as the beginning point for this analysis because the next survey was conducted in 1917–19, a period considered atypical because of the Nation’s involvement in World War I.)

### Expenditure trends

The distribution of the expenditures in table 2 gives the best picture of the changes that have taken place since the turn of the century. Food as a percent of total expenditures has declined from 46 percent in 1901 to 19 percent of total current consumption. Within the food budget, however, spending for food away from home has increased. Homeownership has increased dramatically, as have outlays associated with owning a home. Data from the 1901 survey show that only 19 percent of the workers’ families owned a home, compared with 44 percent in 1950 and 56 percent in 1986–87. The

## Changes in Family Spending

invention of the automobile has contributed dramatically to changes in the lifestyle of the American family. Outlays for transportation now account for 26 percent of current consumption—a significant rise from 1901, when they were included in the “other purposes” (miscellaneous) category. Advances in health care have had a revolutionary effect on households. The 1901 survey indicated that families allocated 3 percent of their spending to “sickness and death,” that is, medical care and funeral expenses. Even as family size has declined over time, health care expenditures for workers’ families have increased. Finally, the budget share allocated for entertainment and reading has increased as the workday and workweek

became shorter and recreational activities became more accessible to more people. The following sections describe in more detail the major changes in the economy and the society and their effects on the spending patterns of working families.

**Food expenditures.** The increasing command of purchasing power of the urban wage earners served a dual function that led to generally improved diets. People were able to buy more and better foods. Too, increased purchasing power supported the development of low-cost mass production techniques and the marketing of new and better foods, many of them fully processed. As a result, the percent of expenditure allocated

**Table 2. Consumption expenditures of urban wage earner and clerical consumer units, 1901 to 1986–87**

Item	1901	1917–19	1934–36	1950	1960–61	1972–73	1986–87
Income before taxes <sup>1</sup> .....	\$827	\$1,505	\$1,518	—	\$6,678	\$12,771	\$27,576
Income after taxes <sup>1</sup> .....	—	—	—	\$3,923	\$5,912	\$11,054	\$24,986
Average family size .....	5.3	4.9	3.6	3.4	3.2	3.2	2.9
Percent homeowner .....	19	27	30	44	56	57	56
<b>Current consumption expenditures .....</b>	<b>\$791</b>	<b>\$1,353</b>	<b>\$1,463</b>	<b>\$3,925</b>	<b>\$5,431</b>	<b>\$8,601</b>	<b>\$20,226</b>
Food and alcoholic beverages .....	340	556	508	1,275	1,414	1,948	3,914
Shelter .....	111	187	259	415	753	1,411	4,085
Utilities, fuels, and public services .....	41	74	108	163	330	597	1,654
Household operations .....	—	37	58	155	226	103	291
Household furnishings and equipment .....	26	62	60	278	280	414	797
Apparel and services .....	107	238	160	453	559	722	1,061
Vehicle expenses .....	—	16	87	472	728	1,968	5,003
Public transportation .....	—	26	38	69	90	99	194
Health care .....	21	64	59	200	357	401	819
Entertainment and reading .....	21	44	53	211	268	445	1,172
Personal care .....	—	14	30	91	156	108	214
Education .....	—	7	7	17	58	96	205
Miscellaneous (sundries) .....	124	27	36	126	212	285	816
<b>Percent of current consumption .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Food and alcoholic beverages .....	46.4	41.1	34.7	32.5	26.0	22.6	19.4
Shelter .....	15.1	13.9	17.7	10.7	13.7	16.4	20.2
Utilities, fuels, and public services .....	5.6	5.6	7.4	4.3	6.1	6.9	8.2
Household operations .....	—	2.7	4.0	3.9	4.2	1.2	1.4
Household furnishings and equipment .....	3.5	4.6	4.1	7.1	5.2	4.8	3.9
Apparel and services .....	14.7	17.6	10.9	11.6	10.3	8.4	5.2
Vehicle expenses .....	—	1.2	5.9	12.0	13.4	22.9	24.7
Public transportation .....	—	1.9	2.6	1.8	1.7	1.2	1.0
Health care .....	2.9	4.7	4.0	5.1	6.6	4.7	4.0
Entertainment and reading .....	2.7	4.5	5.6	7.1	6.7	7.2	7.3
Personal care .....	—	1.0	2.1	2.3	2.9	1.3	1.1
Education .....	—	.5	.5	.4	1.1	1.1	1.0
Miscellaneous (sundries) .....	9.0	2.0	2.5	1.2	4.5	3.3	4.1

<sup>1</sup> Income values are derived from data for complete income reporters—consumer units that provided usable data on household income.

NOTE: Dash indicates data not available.

SOURCE: *Eighteenth Annual Report of the Commissioner of Labor: Cost of Living and Retail Prices of Food* (U.S. Department of Labor, 1903), pp. 20, 84, and 581; *Cost of Living in the United States*, Bulletin 357 (U.S. Department of Labor, 1924), pp. 4, 5, 333; *Consumer Expenditures and Income, Cross Classification of Family Characteristics, Urban United States, 1960–61*, Supple-

ment 2—Part A to Report 237–38 (Bureau of Labor Statistics, July 1964) (Data for this article were computed from the 1960–61 Consumer Expenditure Survey general purpose public use tape.); *Consumer Expenditure Survey: Integrated Diary and Interview Survey Data, 1972–73*, Bulletin 1992 (Bureau of Labor Statistics, 1978), pp. 72–77 (Data for this article were computed from the 1972–73 Interview public use tape.); *Consumer Expenditure Surveys: Integrated Data, 1984–86* (Bureau of Labor Statistics, August 1989); and “Comprehensive Picture of Spending Released by Bureau of Labor Statistics,” USDL 89–330 (Bureau of Labor Statistics, July 6, 1989) (Data for this article were computed from internal files.).



for food and beverages declined from 43 percent in 1901 to 19 percent in 1986–87. The shrinking share allocated for the food budget vividly confirms early studies, which found that the share of expenditures for food declines as income increases.<sup>3</sup>

For the working man and his family in the early 1900's, diets were monotonous. Said one writer about the customary winter diet: "We never thought of having fresh fruit or green vegetables and could not have got them if we had."<sup>4</sup> Today's diet includes more meat, poultry, fruits, vegetables, and milk. Improvements in the food distribution system have freed cities from depending on produce and meats from local farms. High-speed refrigerated transportation has increased the variety and reduced the cost of purchasing food. Another aspect of the increasing availability of foods since the early 1900's is the "revolution in retailing." Chain grocery stores began to appear early in the century. The supermarket combined into one establishment the butcher, produce vendor, bakery, and other specialty stores. The supermarkets purchased directly from the food producers, thus reducing the costs of distribution through large-scale operations. The spread of ownership of refrigerators allowed families to reduce the number of food shopping trips. The availability of foods that are partially or fully prepared continues to increase to accommodate dual-earner families and the busier lifestyles of families today.<sup>5</sup>

Another important trend has been the increasing share of the food budget allocated for food away from home. Data from a 1909 report (the earliest such information available),<sup>6</sup> show that only 3 percent of the food budget went for food away from home. This share has grown steadily to 29 percent today. (See chart 1.) Even this increase probably understates the increase in the number of meals eaten away from home because of the changing nature of the eating-away-from-home activity. In 1909 or 1920 or even 1950, a meal away from home was taken in a restaurant, but the proliferation over the last three decades of fast-food establishments, with relatively low prices for a "meal," has changed the eating-out habits of the population. More recently, the increase in the use of "carry-out" prepared foods is further altering food purchasing habits and obscuring the distinction between at-home and away-from-home food consumption.

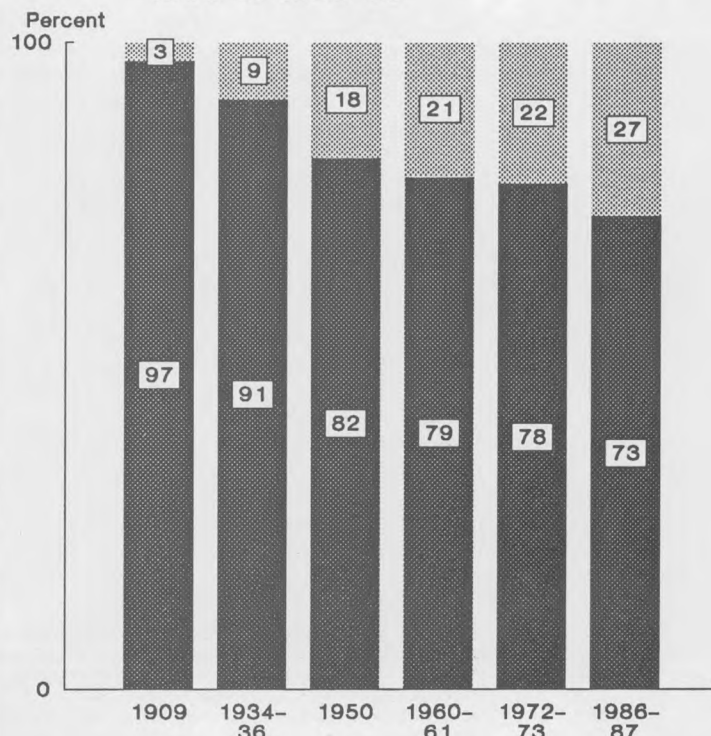
*Shelter.* Rising incomes and technological change have also allowed for the improvement in housing conditions and the growth in homeownership. The 1901 expenditure survey found

that only 19 percent of worker families owned a home.

Limited income was one of the reasons for low rates of homeownership in the early years. The difficulty of borrowing money and the high cost of financing made owning a home virtually impossible for many families. Long workdays (6-day weeks of 9 or 10 hours per day were normal), lack of good but affordable transportation, and the need to spend a large share of income on food also contributed to the incidence of poor, crowded living quarters. Subsequently, however, increasing incomes, the shorter workweek, the spread of auto ownership and the development of a paved highway system, and the availability of less expensive land in the suburbs led to the expansion of the population and workplaces into areas where homeownership was more feasible.

By 1917–19, homeownership was enjoyed by 27 percent of all families, and the share of the family budget spent on housing had declined from 18 percent in 1901 to 14 percent in 1917–18—the only period under study for which such a decline occurred. However, private building was virtually suspended during World War I due to government wartime restrictions. Housing shortages occurred, and even though income

Chart 1. Percent distribution of the family food budget between food at home and away, 1909 to 1986–87



## Changes in Family Spending

was high, workers found it hard to improve their housing conditions. The average number of rooms per family during the war years was 5—the same as in 1901. However, more than half of these families now had full bathrooms.

By the early 1920's, home construction began to recover. Row houses, walkup apartments and single-family houses were built in sufficient quantity to meet demand by the higher paid industrial workers. The net effect was that the low-wage factory workers could "move up" to the old housing vacated by the higher income families. The 1934–36 consumer expenditure survey indicates the progress that was made during the 1920's. Even though the depression caused many people to lose their houses, among the families surveyed in 1934–36, 30 percent were homeowners, compared with 27 percent of those interviewed in 1917–19. "The home of the typical wage earner or clerical family with an annual income above \$500 had a bathroom with inside flush toilet and hot running water. It had electric lights and gas or electricity for cooking." Among all the renter families, 98 percent had running water, 90 percent had bathrooms, and 96 percent had inside flush toilets. The average number of rooms in rental homes, however, was 4 to 4.5—the same as in

1917–19. Homeowners had larger homes—an average of 6.4 rooms, compared with 5 in 1917–19.<sup>7</sup>

Legislation within the depression environment of the early 1930's dealt with the financing aspects of homeownership. The creation of the Federal Housing Administration "to encourage improvement in housing standards and conditions, and to provide a system of mutual mortgage insurance,"<sup>8</sup> resulted in changes in residential loan practices that stimulated the construction of medium priced housing. By 1950, the incidence of homeownership had increased to 44 percent for urban worker families. Homeownership continued its rapid rise through the 1960's and 1970's—reaching 56 percent in 1960 and staying at about that level for worker families through 1986–87.

The rise in homeownership slowed during the late 1970's and early 1980's for the population as a whole because of changing demographics and soaring house prices and mortgage interest rates. Even so, the incidence of homeownership continued to grow among married couples, as favorable tax treatment and the advantages of having a fixed mortgage in times of inflation made buying a house a good investment.<sup>9</sup> The estimated market value of homes rose faster

### Historical overview of expenditure survey methodology

The first national expenditure survey was conducted from 1888 to 1891 as a result of tariff negotiations between the United States and European countries. Comprehensive surveys were conducted in 1901 and 1917–19 in response to concern over the effects of rapidly rising prices on living costs during those periods. It was from information obtained in the 1917–19 survey, which focused on wage earners and salaried workers living in urban areas, that the Bureau of Labor Statistics developed its first cost-of-living index, which evolved into the Consumer Price Index (CPI).

Studies in the late 1920's and early 1930's showed that consumption patterns of American consumers had changed markedly since the 1917–19 survey. These changes, combined with the needs of public policy planners underscored the necessity for new information on consumption patterns. Hence, the 1934–36 survey was used for revision of the CPI and the selection of a new list of items to be priced in the index. It covered only the urban population.

Many statistical improvements were incorporated in the expenditure survey of

1950. It was the first BLS survey in which the entire sample population was chosen using scientific sampling methods. The 1960–61 survey, more ambitious than any of its predecessors, covered all urban and rural families and single consumers. Data were collected in interviews in which respondents were asked to recall the previous year's expenditures. Detail on food expenditures was obtained from respondents' recall of purchases over the 7 days preceding the interview. The release of a general-purpose public use computer tape containing findings from the 1960–61 survey marked the first time microdata had been released on tape by BLS.

Unlike previous surveys, the 1972–73 survey was carried out by the U.S. Bureau of the Census under contract to BLS. It was the first BLS expenditure survey consisting of two separate components: a Quarterly Interview panel survey and a Diary survey. The decision to adopt the diary/interview format was based on extensive testing of collection methodology. These tests revealed that data of high quality could be obtained if questionnaires were tailored so that information on larger, more

easily recalled expenditures was collected by periodic recall in a quarterly interview, while that for small, less expensive items was obtained through day-to-day record-keeping in a diary.

It had been apparent for a long time that there was a need for more timely consumption data for different kinds of families than could be supplied by surveys conducted every decade. The rapidly changing economic conditions of the 1970's intensified this need. As a result of concerns of policymakers, a new Continuing Consumer Expenditure Survey was initiated in 1980, extending the BLS tradition of providing data about the consumption behavior of American families.

While the continuing survey and the 1972–73 survey are similar in many respects, there are differences between them. One major difference is the ongoing nature of the new survey, with rotating panels of respondents interviewed on a continuous basis. Also, in the new survey, students living in college- or university-regulated housing report their own expenditures separately, rather than as members of their parents' households.

than the Consumer Price Index during this time, adding to the incentive to invest in homeownership.

The share of expenditures allocated for shelter, which includes rent as well as payments on owned homes, has fluctuated, but the overall trend has been upward. Working families allocated 14.6 percent of their outlays for shelter in 1960, 16.4 percent in 1972-73, and 20.2 percent in 1986-87. Homes have continued to increase in size as well. According to the U.S. Bureau of the Census, the median owner-occupied home surveyed in 1985 had 6 rooms, compared with 5.6 rooms in 1970. Homes today also have many amenities unheard of in the earlier years. For example, in 1988, 79 percent of all new homes had a garage, up from 64 percent 10 years earlier; three-fourths had central air-conditioning, an almost 50-percent increase; and 42 percent had more than 2.5 bathrooms, almost double the number in 1978.<sup>10</sup>

*Transportation.* In 1909, a forecaster concluded that it was "nothing less than feeble-mindedness to expect anything to come of the horseless carriage movement."<sup>11</sup> Despite this and other predictions to the contrary, automobiles have been one of the most significant contributors to the economy and to changes in the lifestyle of the American family. They have changed modes of travel, altered leisure time activities, and broadened the range of residential and employment opportunities for workers. Numerous new industries and jobs were created to produce and service vehicles. These developments in transportation since the early 1900's are mirrored in changes in family spending.

Transportation expenditures were collected as part of "other" goods and services in the 1901 survey and so cannot be identified separately for analysis, although other studies indicate that outlays ranged between 1.7 and 2.5 percent of average income.<sup>12</sup> In 1901, an average car cost \$1,000—well above the average family income of \$650. By 1910, the yearly production of cars had increased to 181,000 from 4,000 in 1900. As a result of the introduction of the assembly line, the price of the Ford Model-T fell from \$850 in 1908 to \$360 in 1916.<sup>13</sup>

Transportation expenditures had not increased much by 1917-19, however. Despite increases in the output of cars, only 1 out of 18 families in the 1917-19 consumer expenditure survey owned a car. On average, families allocated 3.1 percent of their expenditures for transportation. Only 10 percent reported expenditures on travel for pleasure or personal business. Expenditures for 1917-19 may have been low because of the transportation diffi-

**Table 3. Percent distribution of medical care expenditures by wage earner and clerical families, 1917-19 to 1986-87**

Item	1917-19	1934-36	1950	1960-61	1972-73	1986-87
Total medical care . . .	\$64	\$59	\$200	\$357	\$401	\$819
Percent distribution . .	100	100	100	100	100	100
Health insurance . . .	—	7	19	26	32	35
Medical services . . .	80	71	60	50	54	48
Drugs and supplies . . . . .	20	22	21	24	14	17

culties generated by World War I, which especially affected travel.

Ownership of cars increased dramatically during the 1920's, 1930's, and 1940's, stimulated by lower auto prices, advertising, the introduction of consumer credit, and generally rising incomes. By 1950, auto installment credit was 26 percent of total consumer (nonmortgage) credit outstanding, and increased to nearly 40 percent by 1987.<sup>14</sup> The 1934-36 expenditure survey found that 44 percent of working families owned a car and that 10 percent had purchased one during the survey years. This prompted one analyst to comment that "nowadays when the family has had a successful year, it is more apt to think of an automobile as a symbol of success rather than new clothes or furniture for the parlor."<sup>15</sup> Working families during the mid-1930's allotted 8.5 percent of their expenditures to transportation.

The purchase of automobiles continued to increase, as did the percent of total expenditures allocated for transportation, which rose from 8.5 percent in 1950 to 25.7 percent in 1986-87. During the 1970's and 1980's, other vehicles were added to the family's driveway—vans, trucks, recreational vehicles, and motorcycles. Data from the 1986-87 expenditure survey show that 91 percent of all worker households now own a vehicle and that the average number of vehicles per household is 2.2, for an average family size of 2.9 persons!

As vehicle ownership became widespread, related expenditures also increased dramatically. In 1986-87, an average household spent about as much to and maintain a car—that is, to pay for gasoline, insurance, repairs, and licenses—than it did to feed that household at home. In 1950, auto-related costs were only about 20 percent of the food bill.

The automobile has changed lifestyles in a dramatic way. It has given families freedom of choice of places to live, work, and travel but at a cost in terms of the family budget, commuting time, and the environment.

## Changes in Family Spending

**Health care.** Advances in medical research and health care have also had a revolutionary effect on families, although changing financing arrangements make the effect less apparent in the expenditure statistics. By the beginning of the 20th century, several of the most severe contagious diseases—for example, small pox, yellow fever, typhus, and cholera—had been brought under control. However, contaminated water, unpasteurized milk, and unsanitary home and work conditions still were responsible for a large number of deaths in the early 1900's. Medical services were few and a hospital was viewed as a place one went to die. In addition to these health problems, the industrial worker faced dangerous working conditions over which he or she had little control, and for which employers and the government accepted little responsibility.

During the 1920's and 1930's, changes in the health field began to occur. The number and quality of hospitals increased. Nonprofit organizations that provided services in free clinics were established. Private-sector firms began to offer inhouse medical care and provide health insurance for employees. Other medical advances, such as improved control of drugs and scientific breakthroughs, also have contributed to the lengthening of the lifespan from about 50 years in the early 1900's to more than 70 years by the 1980's. Longer life expectancy and improved health have increased the earning power of the worker. In addition, the emphasis placed on sanitation, nutrition, and recreation in health education programs has stimulated the demand for a variety of consumer goods and services.<sup>16</sup>

The 1901 detailed expenditure survey found that families spent 2.9 percent of their total outlays for products and services in the category "sickness and death," that is, medical care and funeral expenses. This share rose to 6.6 percent by 1960–61 as improved economic conditions,

education, and the availability of insurance led households to purchase more health care, and declined to 4 percent by 1986–87, as practices of financing health care changed.

In the 1920's and 1930's, unions played a role in providing much of the insurance coverage. Significant changes began to occur during the 1940's with the expansion of the concept of fringe benefits. By the late 1960's and extending into the early 1980's, the practice of employer-provided health insurance had spread. In 1987, 64 percent of individuals had employment-related health insurance, some or all of which was paid for by employers.<sup>17</sup> These programs reduced the out-of-pocket medical costs to households and the share of the household budget going for health care costs declined. Table 3 shows how urban worker families have allocated their medical care expenditures since the 1917–19 expenditure survey. (Little is known about the distribution of medical expenditures in the 1901 survey, other than that they included burial expenses.) Even though the data in the table are not strictly comparable from survey to survey, it is evident that an increasing share of the family medical budget is being spent on insurance and less on services and prescription drugs directly.

A 1903 report advised that "more attention be paid to the improvement of the conditions of the working class."<sup>18</sup> It took the attention of many individuals and organizations to achieve the advances that have taken place since the early 1900's. There are still issues to be faced, however, such as the fact that 37 million individuals currently have no health insurance coverage.<sup>19</sup>

**Recreation.** The increase in leisure time that resulted from the shortening of the workday to 8 hours and the workweek to 5 days is yet another improvement in the life of the American family. Unions began to argue for the 8-hour day late in the 19th century. However, it was rising productivity that ultimately made the 8-

**Table 4. Distribution of entertainment and reading expenditures, 1901 to 1986–87**

Item	1901	1917–19	1934–36	1950	1960–61	1972–73	1986–87
Entertainment and reading .....	\$17	\$44	\$53	\$211	\$269	\$455	\$1,172
Percent distribution .....	100	100	100	100	100	100	100
Entertainment:							
Televisions, radios, musical instruments .....	—	23	13	32	29	34	34
Admissions .....	59	20	36	22	22	24	23
Other <sup>1</sup> .....	—	32	23	30	30	33	33
Reading .....	41	25	28	16	19	9	10

<sup>1</sup> The "other" category is not entirely comparable for 1917–19 and subsequent periods. For the 1917–19 period, it includes travel expenditures, which are classified elsewhere in the later surveys.

hour day possible. In addition, it was recognized that time had to be left for the worker and his family to consume and enjoy the resulting products and services. In 1926, when Henry Ford announced the 5-day week for his company, he said: "The industry of this country could not exist long if factories generally went back to the 10-hour day, because people would not have the time to consume the goods produced."<sup>20</sup>

Increasing free time and incomes meant that families had more time for sports, once the exclusive province of the "idle rich," travel, and entertainment. The introduction of the motion picture and the nickelodeons after the turn of the century gave rise to yet another form of entertainment. The nickelodeons permitted workers to stop on their way home to enjoy a 15-minute film for 5 cents. Radios were introduced in the 1920's and televisions in the late 1940's. Today there are videocassette recorders, compact disc players, and new mechanical toys every day. And the popularity of participatory sports and spectator sports continues to grow.<sup>21</sup>

Although many leisure activities are free of cost, the expenditure surveys since 1901 do indicate that increasing amounts are being spent for recreation and for reading. The budget share spent for these items increased from 5.7 percent in 1917-19 to 8.3 percent in 1986-87. Table 4 shows the change over time in the distribution of expenditures for entertainment and reading items.

THIS ARTICLE has presented a brief history of changing consumption patterns of the American worker. Changes in consumption patterns occur as the result of trends in social and economic conditions, and demography. The last includes, among other factors, the age distribution of the population, and the number of children in families. All these are likely to change in the future. Some, like the age distribution of the population, can be projected under various assumptions; others, particularly changes in tastes, are unpredictable. It will be interesting to add to this history for the 100th anniversary of the *Monthly Labor Review*. □

## Footnotes

ACKNOWLEDGMENT: The authors thank Lavern James, William Passero, Geoffrey Paulin, and Julie Schaljo for their assistance in preparing the tables for this article.

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<sup>4</sup> Robert Lynd and Helen M. Lynd, *Middletown* (New York, Harcourt, Brace and Co., 1929), p. 156, as quoted in Richard Osborn Cummings, *An American and His Food* (Chicago, University of Chicago Press, 1940), p. 72.

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<sup>10</sup> U.S. Bureau of the Census, *Characteristics of New Housing: 1978 Construction Report*, C-25-78 (1979); and *Characteristics of New Housing: 1988 Construction Report*, C-25-88 (July 1989).

<sup>11</sup> H. P. Maxim, *Horseless Carriage Days* (New York, Harper, 1937).

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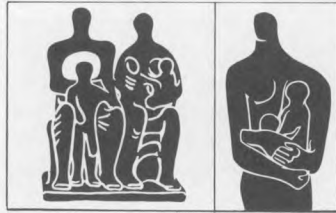
<sup>17</sup> *Uninsured Americans: A 1987 Profile* (Washington, U.S. Department of Health and Human Services, 1988), p. 12.

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<sup>19</sup> *Uninsured Americans*, p. 12.

<sup>20</sup> "The 5-Day Week in Ford Plants," *Monthly Labor Review*, December 1926, p. 1162.

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## Family-related benefits in the workplace

*The emergence and subsequent expansion of employer-provided benefits since 1915 have been fueled in part by the changing needs of employees and their families*

William J. Wiatrowski

One of the more striking developments in personnel administration over the past 75 years has been the growing complexity of employee compensation. Limited at the outbreak of World War I largely to straight-time pay for hours worked, compensation now includes a variety of employer-financed benefits, such as health and life insurance, retirement income, and paid time off. Although the details of each vary widely, these benefits are today standard components of the compensation package, and workers generally have come to expect them.

Because family members are often primary recipients of many employee benefits, it is appropriate to trace the evolution of benefit plans in this 75th anniversary issue of the *Monthly Labor Review*, which focuses on changes in the family from 1915 to 1990. While no consistent series of data exists over this period, the *Review* has reported on benefits throughout its history. Those reports form the basis for much of this retrospective.

One function of employee benefits is to protect workers and their families from financial burdens. Health care plans help soften the impact of medical expenses and, perhaps, encourage workers and their dependents to seek care that might otherwise be forgone. Retirement income plans allow older employees to stop working and maintain certain living standards. Similarly, disability benefits provide income to those unable to work, and survivor benefits pro-

tect against loss of earnings resulting from the death of a spouse or other relative.

Employers provide benefits to their employees for a variety of reasons. One theory suggests that employers have a legitimate "concern for the welfare of their employees" beyond any economic motive, and this "paternalism" is expressed through the offer of protection against economic hardship.<sup>1</sup> Employers may also offer protection that they feel employees are unable to provide for themselves. According to this theory, employers assume that employees will tend to favor current consumption over prudent savings, and will therefore be unprepared for emergencies.<sup>2</sup> Finally, employers may offer benefit plans to meet union demands in collective bargaining, to attract and keep good employees, or to remain competitive with other employers in the labor market.<sup>3</sup>

Besides employers, another source of benefits is the Government, which provides direct benefits such as Social Security, and mandates employers to provide protection such as workers' compensation. Over the past 75 years, the Government has increased its role in the area of employee benefits substantially. In 1915, workers' compensation laws were just being introduced in several States. Since then, nationwide programs such as Social Security and unemployment insurance have been developed, and discussions of mandatory employer-provided benefits such as health care and parental leave are periodically on the agenda of policymakers.

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The growth of employer-provided and Government-mandated benefits has changed the character of employee compensation: by 1989, benefits accounted for nearly 30 percent of the total cost of such compensation.<sup>4</sup> This article provides a look at the growth of benefits over the past three-quarters of a century, in 15-year intervals. The focus is on the response of employers and the Government to the changing needs of employees and their families.<sup>5</sup>

### 1915–29: war years, boom years

When the *Monthly Labor Review* was first published, the United States was an emerging world power. The Nation's strength became evident over the next 15 years—militarily, diplomatically, and economically. Employment in manufacturing increased rapidly, with a new industrial order replacing the primarily agrarian economy of the 19th century.<sup>6</sup> Workers received virtually all of their compensation in the form of wages and salaries.

Typically, employers did not respond to familial needs during this period. The average American family consisted of several generations and branches under one roof, with family members generally looking after and supporting one another.<sup>7</sup> Loss of income or unusual expenses were generally borne by the pooled resources of the family. The pioneer and agricultural traditions of this country had left a strong legacy of independence, and employers did not interfere.

Labor unions possessed similar ideas about interference in areas that were traditionally handled privately by individuals. Samuel Gompers, president of the American Federation of Labor, spoke out against compulsory benefits in 1917, arguing that such interference “weakens independence of spirit, delegates to outside authorities some of the powers and opportunities that rightfully belong to wage earners, and breaks down industrial freedom by exercising control over workers through a central bureaucracy.”<sup>8</sup>

While neither employer-provided nor Government-mandated benefits were widespread, benefits were available through labor unions and mutual aid societies. Labor unions typically provided lump-sum benefits to survivors upon the death of an employee, and weekly payments to disabled employees. These benefits were funded directly by union members through their dues; in 1916, the American Federation of Labor reported more than \$3 million in benefit payments.<sup>9</sup>

Mutual aid societies were generally worker-financed funds that collected dues and offered group benefits. One example was the Work-

men's Sick and Death Benefit Fund of the United States, which was started in 1884 by German and Austrian immigrants seeking the safety of a group to provide protection from lost income.<sup>10</sup> This fund, which was not limited to employees in any one firm, had more than 44,000 members in 1916, and offered weekly income benefits for up to 80 weeks to disabled employees and lump-sum payments to survivors. Similar organizations sponsored athletic, musical, and literary events and established savings plans for members, in addition to providing death and disability benefits.<sup>11</sup> In general, mutual aid societies encouraged camaraderie among workers and provided a modest source of protection against loss of income due to disability or death.

Retirement income benefits were not widespread between 1915 and 1929. Few States had pension plans for their employees by 1916, and while more than 150 local governments had such plans, they generally covered only limited numbers of workers, most commonly police and firefighters. Among private employers, the few pension plans that existed were most often found in utility and transportation firms.<sup>12</sup>

The need for retirement income may not have been as great in 1915 as it is today, however, because Americans did not live as long and typically did not expect to enjoy “retirement years.” Life expectancy in 1915 was 54.5 years (for men, only 52.5 years). In addition, the extended family usually cared for its elderly and met their financial needs.

### 1930–44: Great Depression, more war

The 15-year span from 1930 to 1944 was a time of great hardship and change in America, events that were reflected in labor practices. Severe economic conditions led to greater Government participation in compensation programs, most notably through the introduction of Social Security. Other legislative action formalized and strengthened the role of labor unions. By the end of the period, American involvement in World War II strengthened the economy, changed the focus of industry toward support of the war effort, and brought large numbers of women into the labor force.<sup>13</sup>

The era was marked by an expansion of retirement income benefits, particularly the establishment of Social Security. In addition, the Railroad Retirement System, a consolidation of several existing railroad industry pension plans under Government administration, was formed. Life expectancy rose to nearly 60 years by 1930 and to nearly 66 years by 1945, making it more likely than ever that workers would live past

*In the past 75 years, employers have progressed from providing no benefits, to providing a standard package of benefits designed for a male-supported family, to providing innovative and flexible benefits to meet differing family needs.*

## Family-Related Benefits

their working life. Social Security guaranteed a pension to retirees, although it was intended to be just one portion of a worker's total retirement income. Slowly, private firms began to offer retirement plans to supplement Social Security benefits.<sup>14</sup>

Another benefit that became more prevalent during this period was employer-provided life insurance. Mutual aid societies decreased in popularity and, where they did exist, concentrated largely on disability benefits. In their place, employers were purchasing group life insurance contracts for their employees.<sup>15</sup> Typical plans in the 1930's provided about \$1,500 in life insurance protection, and double-indemnity benefits for accidental death.<sup>16</sup> One study reported that 60 percent of establishments surveyed provided life insurance to their workers in 1936.<sup>17</sup>

While the depression years saw relatively few changes in benefit practices, the war years gave rise to a number of changes. Employment grew rapidly after America entered the war, and women entered the labor force in large numbers to support the war effort.<sup>18</sup> To stabilize prices, the War Labor Board restricted wage increases but was more lenient in allowing improvements in benefits. Employers responded by offering a variety of benefits in lieu of increased wages.<sup>19</sup>

Increases in compensation provided during the war period consisted largely of items that were considered "noninflationary," that is, items that did not increase cash wages and, therefore, boost demand. Time off with pay, limited medical care for employees and families, and pension benefits met this requirement. These benefits served the additional goals of giving families more time together and eliminating potential financial catastrophes.<sup>20</sup>

### 1945–59: return to prosperity

Following World War II, the country reverted to a largely male-dominated labor force, as the return of servicemen led to a boom in marriages and children. These traditional families had needs that employers could address through benefit programs, such as time off with pay, payment of medical expenses, and protection against loss of income. The period saw the widespread adoption of these practices into the compensation package.

Supporting this fundamental change in the compensation structure of American workers were two court rulings on the scope of the National Labor Relations Act of 1935 (the Wagner Act). The act, as amended by the Taft-Hartley Act of 1947, states that management must negotiate with labor organizations, elected to repre-

sent workers, on "wages, hours, and other terms and conditions of employment."<sup>21</sup> In 1948 and 1949, court rulings held that retirement and insurance benefits were "other terms and conditions of employment" and that management had to include these items in collective bargaining negotiations.<sup>22</sup>

One of the most notable benefits to emerge from the change in family structure and legal environment of the era was health care. Previously, some lost-income benefits were available during an illness or accident, and perhaps an informal arrangement existed for employees to receive medical care at a company clinic or other local facility, but formal medical insurance was uncommon. Needs had changed by the late 1940's and 1950's, however. Hospital admission rates stood at 120 per 1,000 people in 1945, more than double the 1931 rate. And the amount spent on health services and supplies topped \$10 billion in 1948. This amounted to \$68 per capita, considerably more than twice the 1929 figure.<sup>23</sup>

To meet this need, employers began providing formal health care plans to employees and their families, through either commercial insurers or Blue Cross/Blue Shield organizations. Typically, plans would pay for a limited number of hospital days and up to a specified maximum dollar amount for various medical services.<sup>24</sup> Such plans offered only basic medical protection, and looked very different from the extensive plans of the late 1980's.<sup>25</sup> One Bureau study showed that by 1960 about 80 percent of plant and office workers in metropolitan areas received a health care plan through their employer.<sup>26</sup>

### 1960–74: on the verge of change

While the years from 1960 to 1974 are considered turbulent in American history, in the history of benefits they were but a prelude to more dramatic changes. This era saw the U.S. Congress debate major pension reform for nearly 15 years. The result—the Employee Retirement Income Security Act—was signed into law on Labor Day 1974. Also on the verge of major change was the demographic makeup of the labor force: women of the baby-boom generation were going to college and preparing for future employment.

The era was not, however, one of stagnation in the area of employee benefits. Employers established and expanded upon typical benefit plans, such as paid leave, retirement income, health care, and survivor and disability insurance. More generous early retirement pension benefits and expanded survivor income

*Newly emerging benefits include parental leave, child care, and flexible work schedules.*



payments were among the provisions added to benefit plans during this time. Benefit packages were primarily geared toward a typical family, with a working husband, a nonworking wife, and school-age children.

Data on the incidence of benefits among office and plant workers are available throughout this period from the Bureau's Area Wage Surveys. All metropolitan area estimates from the Area Wage Surveys show that life insurance, health care, income protection during short-term disabilities, and retirement income plans generally became more widespread for both office and plant workers during this time. (See table 1.)

Health care plans were subject to the most dramatic changes during the period. In 1960, employees typically received coverage in full for hospitalization for a specified number of days (such as 120 days per confinement) and coverage for surgical expenses up to a maximum dollar amount per procedure. Less common was coverage for doctors' visits, x rays, and laboratory tests conducted outside of a hospital. Coverage for these items would become part of nearly all employee health packages by the end of the era.

Catastrophic medical coverage, or "major medical," provides protection beyond the limitations of the "basic" benefits just described. Typically, such plans pay a percent of charges incurred after a deductible is paid by the employee. The combination of basic and catastrophic coverage gives employees greatly expanded protection against financial hardship.

Between 1960 and 1975, the incidence of catastrophic medical coverage rose dramatically. The following tabulation shows the increasing percent of office and plant workers with catastrophic medical protection during this period:

Years	Percent of—	
	Office workers	Plant workers
1960-61	49	21
1965-66	73	40
1970-71	88	65
1975	94	77

Plant workers lagged behind office workers in receiving catastrophic protection, in part due to the lack of such protection in plans established through collective bargaining. Unions typically favored basic protection that offered full coverage of medical expenses without requiring employees to pay deductibles or a percent of the charges.

## 1975-89: plans for the "new" family

The period from 1975 to the present is an era dominated by two major trends: Substantial changes in the demographics of the labor force and sweeping Government regulation of benefits. During this period, women joined the labor force in large numbers, two-earner families became the norm, and employee needs changed from those of the traditional post-World War II family. As indicated earlier, the Employee Retirement Income Security Act of 1974 began a wave of benefits legislation that is still continuing. The new law set standards for pension plan provisions and funding, and established reporting and disclosure requirements aimed at keeping employees and the Government alert to the soundness of benefit plans.

In 1989, 57 percent of all women above age 16 were in the labor force, compared with 46 percent in 1975 and 37 percent in 1959. In addition, by 1987, both spouses were working in 57 percent of married-couple families. Furthermore, it has become less and less common for women to leave the labor force for any significant period following childbirth. These demographic changes suggest that traditional benefit packages may be redundant or inadequate for today's workers and families.<sup>27</sup>

The Employee Retirement Income Security Act was just the beginning of a series of tax and benefit laws that have led to sweeping changes

Table 1. Percent of full-time office and plant workers in all metropolitan areas offered employer-sponsored benefit plans,<sup>1</sup> selected years, 1960-75

Worker group and benefit type	1960-61	1965-66	1970-71	1975
<b>Office workers</b>				
Life insurance	93	96	97	97
Short-term disability coverage <sup>2</sup>	81	79	87	88
Retirement pension	77	82	85	86
Hospitalization	84	93	97	98
Surgical coverage	82	93	96	98
Medical coverage <sup>3</sup>	63	82	90	96
<b>Plant workers</b>				
Life insurance	90	92	93	93
Short-term disability coverage <sup>2</sup>	80	80	82	82
Retirement pension	67	73	78	78
Hospitalization	87	93	95	95
Surgical coverage	86	92	95	95
Medical coverage <sup>3</sup>	62	75	87	91

<sup>1</sup> An establishment is counted as offering a benefit to all office or plant workers if the majority of such workers are offered the benefit.

<sup>2</sup> Includes workers receiving either sick leave, or sickness and accident insurance, or both.

<sup>3</sup> Includes coverage for doctors' office visits, x rays, and laboratory tests.

## Family-Related Benefits

in benefit plans over the past 15 years. These laws have concentrated in large measure on improving and guaranteeing the provisions of existing benefits, rather than mandating new benefits. Pension provisions covering eligibility requirements, vesting, discrimination rules, and survivor benefits are among the items that have been institutionalized and strengthened during this period.<sup>28</sup>

The rising cost of providing benefits has led to changes in the character and scope of benefits in the past 15 years. Benefits accounted for 17 percent of compensation costs in 1966, but rose to 22 percent by 1974 and 27 percent by 1989.<sup>29</sup> To combat these rising expenditures, employers attempted to fix their benefit costs and shift some of the burden to employees. For example, defined benefit pension plans, which guarantee employees a specified level of future benefits at unknown future costs to employers, were available to 20 percent fewer employees in medium and large private firms in 1988 than in 1979.<sup>30</sup> In their place, defined contribution plans, which obligate employers only to an initial expense in the form of specified payments to a pension fund, have increased in incidence. As another example, employers have sought to reduce health care costs by increasing employee deductibles, requiring employees to share premium expenses, and instituting cost containment measures, such as mandatory second surgical opinions, aimed at reducing unnecessary medical expenses. In recent years, employers also have turned to managed care programs, such as health maintenance organizations and preferred provider organizations, to curb rising medical costs.

In recognition of the changing demographics of the labor force during this period, employers have provided several new benefits and offered employees more opportunities to choose benefits suited to their family needs. Examples of

newly emerging benefits include parental leave (time off for parents to care for newborn or adopted children), child care (employer-provided facilities or financial assistance), and flexible work schedules.<sup>31</sup> Benefit choices, among a variety of medical plans or among plans in multiple benefit areas, also attracted considerable attention as the typical family of the 1950's and 1960's became less prevalent and the needs of the varied family arrangements of the 1980's could no longer be satisfied by a fixed set of benefits.<sup>32</sup>

During the period 1975-89, the Bureau undertook its most comprehensive analysis of employee benefits, which has resulted in the documentation and tracking of significant changes in benefits. The Employee Benefits Survey, which began in 1979, details the incidence and provisions of benefits, while the Employment Cost Index has tracked changes in employer cost for compensation, including benefits, since 1980. In addition, the Area Wage Surveys continue to monitor the incidence of selected benefits in metropolitan areas, and the Industry Wage Surveys track the same data for selected industries.

THE 75 YEARS since the *Monthly Labor Review* was first published have seen the American family shift from a large, extended group to a smaller, individualized network of families with widely varying characteristics. During this same period, employers have progressed from providing no benefits, to providing a standard package of benefits designed for a male-supported family, to providing innovative and flexible benefits to meet differing family needs. While the future cannot be predicted, it is safe to assume that benefit plans will remain a major element of compensation and will continue to evolve to meet the needs of a changing labor force. □

## Footnotes

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<sup>2</sup> Everett T. Allen, Jr., "Designing Employee Benefit Plans," in Jerry S. Rosenbloom, ed., *The Handbook of Employee Benefits: Design, Funding, and Administration* (Homewood, IL, Dow Jones-Irwin, 1984), pp. 5-20.

<sup>3</sup> Rosenbloom and Hallman, *Employee Benefit Planning*, p. 16.

<sup>4</sup> *Employment Cost Indexes and Levels, 1975-89*, Bulletin 2339 (Bureau of Labor Statistics, October 1989), p. 9.

<sup>5</sup> In general, the discussion focuses on monetary benefits, such as income replacement and payment of medical expenses. Changes in work schedules and provisions for paid time off (for example, vacations, holidays, and sick leave)

are beyond the scope of the article.

<sup>6</sup> Data on employment by industry are from Stanley Lebergott, "Manpower in Economic Growth," in *Historical Statistics of the United States* (Bureau of the Census, September 1975), p. 139.

<sup>7</sup> The average household size was 4.54 persons in 1910, nearly double today's number, according to the Bureau of the Census.

<sup>8</sup> "Some Aspects of Health Insurance," *Monthly Labor Review*, May 1917, pp. 746-59.

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<sup>11</sup> "Employment Managers' Conference—Philadelphia," *Monthly Labor Review*, June 1917, pp. 890–900.

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<sup>13</sup> For more details on changing labor laws, see Alvin Bauman, "Measuring employee compensation in U.S. industry," *Monthly Labor Review*, October 1970, pp. 17–24; and Margaret H. Schoenfeld and Torleif Meloe, "American Labor—A 50-year Chronology," *Monthly Labor Review*, July 1950, pp. 79–86.

<sup>14</sup> "Supplementary-Pension Plan of United States Steel Corporation," *Monthly Labor Review*, October 1940, p. 888.

<sup>15</sup> "Analysis of Mutual-Benefit Association Plans," *Monthly Labor Review*, March 1930, pp. 72–73.

<sup>16</sup> "Group Insurance," *Monthly Labor Review*, July 1932, pp. 53–56. For more current details on accidental death benefits, see Cynthia Thompson, "Compensation for death and dismemberment," *Monthly Labor Review*, September 1989, pp. 13–17.

<sup>17</sup> "Industrial-Relations Policies in the United States," *Monthly Labor Review*, July 1936, pp. 88–91.

<sup>18</sup> Lebergott, *Historical Statistics*, p. 139.

<sup>19</sup> Bauman, "Measuring employee compensation," p. 19.

<sup>20</sup> Bauman, "Measuring employee compensation," p. 20.

<sup>21</sup> This language clarified somewhat the topics to be addressed in the collective bargaining process.

<sup>22</sup> See *Inland Steel Co. v. NLRB*, 170 F.2d 247 (1948); and *W. W. Cross & Co. v. NLRB*, 174 F.2d 875 (1949).

<sup>23</sup> Data are from the U.S. Social Security Administration and the U.S. Public Health Service in *Historical Statistics of the United States* (Bureau of the Census, September 1975), pp. 73–81.

<sup>24</sup> Evan Keith Rowe and Abraham Weiss, "Benefit Plans under Collective Bargaining," *Monthly Labor Review*, September 1948, pp. 229–34.

<sup>25</sup> See *Employee Benefits in Medium and Large Firms, 1988*, Bulletin 2336 (Bureau of Labor Statistics, August 1989), pp. 36–42.

<sup>26</sup> *Wage and Related Benefits, Metropolitan Areas, United States and Regional Summaries, 1960–61*, Bulletin 1285–84 (Bureau of Labor Statistics, August 1962).

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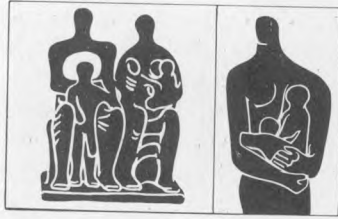
<sup>28</sup> For an example of how Federal legislation has affected pension plan design, see Avy D. Graham, "How has vesting changed since passage of Employee Retirement Income Security Act?" *Monthly Labor Review*, August 1988, pp. 20–25.

<sup>29</sup> See *Employee Compensation in the Private Nonfarm Economy, 1974*, Bulletin 1963 (Bureau of Labor Statistics, 1977); and *Employment Cost Indexes and Levels, 1975–89*.

<sup>30</sup> See *Employee Benefits in Industry: A Pilot Survey*, Report 615 (Bureau of Labor Statistics, July 1980), p. 4; and *Employee Benefits in Medium and Large Firms, 1988*, p. 3.

<sup>31</sup> Such programs recently have been the subject of considerable policy debate, and several legislative proposals for mandating parental leave and child care currently exist. For more details on parental leave, see Joseph R. Meisenheimer II, "Employer provisions for parental leave," *Monthly Labor Review*, October 1989, pp. 20–24.

<sup>32</sup> See Joseph R. Meisenheimer II and William J. Wiattowski, "Flexible benefit plans: employees who have a choice," *Monthly Labor Review*, December 1989, pp. 17–23.



# Work and family: the impact of legislation

*The past 75 years have seen the enactment of laws protecting women and children, setting workplace standards, and establishing social insurance programs*

Sar A. Levitan  
and  
Frank Gallo

**G**overnmental policies have both shaped and responded to radical changes in the work experiences of American families during the 75 years since the *Monthly Labor Review* began publication. Assessing the impact of governmental policies is an elusive endeavor because it is difficult to distinguish governmental actions from the myriad economic and social factors affecting employment decisions. It is even harder to separate the influence of governmental policies on families as opposed to individuals, because almost everyone lives in a family at some time.

Most governmental social programs in this country emerged during three brief periods: the Progressive Era between the turn of the century and World War I, the New Deal in the mid-1930's, and the Great Society in the 1960's. State initiatives dominated the first period, while the Federal Government led the succeeding movements. The Government primarily has sought to assist families beset by crises: unemployment, disability or death, old age, and poverty. (See exhibit 1.) The New Deal initiatives, the foundation of the modern welfare system, largely reflect attitudes formed by the Great Depression. Until that calamity knocked a fourth of the labor force out of work, the prevailing view was that individuals could control their destiny in the workplace and that adult joblessness and poverty among able-bodied persons reflected personal shortcomings.

## The government role

Shorter working lives and workweeks for men, the mass entrance of women into the paid work force, and decreased poverty among workers distinguish the work experience of the modern family from its early 20th century counterpart.

*Reduced working time.* The abolition of child labor, shorter workweeks, postsecondary schooling, and retirement benefits have dramatically reduced the proportion of time men spend working outside the home.<sup>1</sup> Increasing productivity, combined with governmental policies, has significantly influenced these developments.

The growth of child labor laws and of State legislation making school attendance compulsory worked hand in hand to transform children from laborers to students. Massachusetts enacted the first child labor and compulsory school attendance statutes in 1836 and 1852, respectively. Most States followed suit during the late 19th and the early 20th centuries, but these laws were riddled with exceptions, and enforcement was minimal.<sup>2</sup> Reflecting the prevalence of child labor, the decennial census included 10-year-olds in its count of gainfully employed persons until 1940. Some 43 percent of 14- and 15-year-old boys worked at the turn of the century, dropping to 23 percent two decades later. However, these figures may have understated the true extent of child labor be-

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cause, before 1930, fewer than half of all teenagers were enrolled in high school.<sup>3</sup>

Congress enacted minimum working age and maximum working hours laws for children in 1916 and 1919, but the U.S. Supreme Court struck down these statutes in 1918 and again in 1922. In 1924, Congress proposed a constitutional amendment allowing the Federal Government to regulate child labor, but by 1932 only 6 States had ratified it, and 35 had rejected it. However, fears that working children would further depress wages during the Great Depression sharply weakened opposition to child labor legislation. The 1938 Fair Labor Standards Act set a minimum age of 16 for most kinds of work, up from 14 years in most State laws. In 1948, 28 percent of 14- and 15-year-old boys were in the labor force, a proportion that declined to 17 percent by 1985.<sup>4</sup> Governmental policies probably played a significant role in reducing child labor, but solid evidence

is lacking.

Government led the way in promoting longer schooling, which often is viewed as an alternative to work. The 1944 GI bill made college affordable for millions of veterans. Federal education assistance for the disadvantaged, inaugurated in the 1960's, sought to enhance the achievement of students who lagged behind, a frequent cause of dropping out. Federal loans and grants expanded during the following decade, enabling many low- and moderate-income youth to obtain a postsecondary education. For their part, the States have raised the mandatory school enrollment age to 16 or higher over the years, and nearly all States have established postsecondary educational systems, including universities—one dating back to the 18th century. These State-supported institutions charge only a fraction of the tuition fees of private schools.

**Exhibit 1. Major work-related government programs with implications for families**

Program and year of enactment	1988 expenditure (billions)	Number benefiting (millions)	Family factors considered in—	
			Determining eligibility	Setting benefits
<b>Retirement:</b>				
Old Age and Survivors Insurance (1935) .....	\$197.2	34.6/month	no	yes
Tax exclusion for pensions (1942) .....	49.3	(1)	(1)	(1)
Old Age Assistance (1935)/Supplemental Security Income (1972) ...	2 5.7	2.0/month	yes	yes
<b>Disability:</b>				
Workers' compensation (first State, 1911) .....	327.4	(1)	no	in 11 States
Disability Insurance (1956) .....	22.4	4.1/month	no	yes
Veterans' compensation .....	11.3	2.2/year	no	yes
Aid to the Permanently and Totally Disabled (1950)/Supplemental Security Income (1972) .....	2 9.1	2.5/month	yes	no
Vocational rehabilitation (1921) .....	1.6	.9/year	no	no
<b>Education, employment, and training:</b>				
Postsecondary education .....	458.5	10.1 (fall)	for grants and loans	for grants and loans
Job Training Partnership Act (1982) .....	3.7	2.1/year	yes	no
Employment Service (1933) .....	.8	18.4/year	no	no
<b>Poverty:</b>				
Aid to Families with Dependent Children (1935) .....	19.0	10.9/month	yes	yes
Earned Income Tax Credit (1975) .....	4.9	27.7/year	yes	no
<b>Unemployment:</b>				
Unemployment insurance (1935) .....	13.2	6.8/year	no	in 10 States
<b>Child care:</b>				
Dependent Care Tax Credit (1976) .....	3.4	8.2 families/year	yes	yes
Head Start (1965) .....	1.5	.4/year	yes	no

<sup>1</sup> Not applicable or not available.

<sup>2</sup> Authors' estimate.

<sup>3</sup> Data relate to 1987.

<sup>4</sup> Data relate to 1986-87.

SOURCES: U.S. Social Security Administration; U.S. Congress, House Committee on Ways and Means; and U.S. Library of Congress, Congressional Research Service.

*Federal Civil War pensions represented the first broad governmental old-age retirement program.*

In 1840, President Martin Van Buren issued an Executive Order restricting daily labor in Federal navy yards to 10 hours, marking the first governmental attempt to limit working hours for adults. Seven years later, New Hampshire limited men's labor to 10 hours daily, but most States enacting hours limitations during the late 19th and early 20th centuries regulated women's worktime only. By 1920, 43 States had enacted maximum hours laws, but only 11 States used an 8-hour standard—typically for a 6-day workweek. Simultaneously, most States began to require that employees be given at least 1 day off a week, and time off for meals.<sup>5</sup> The U.S. Supreme Court in 1905 upheld a New York State law mandating a 10-hour workday, but reached the opposite conclusion regarding an Oregon law a dozen years later, without overruling the earlier decision. The 1938 Fair Labor Standards Act, which passed Supreme Court muster in 1941, required the payment of "time and one-half" for hours worked in excess of 40 during any week. Most jobs were covered by this provision.<sup>6</sup>

Because weekly working hours had been gradually dropping even before the Great Depression, the impact of the Fair Labor Standards Act remains uncertain. During the 1930's, worktime declined sharply, as employers cut hours to share the work among employees rather than lay them off. By 1938, the average workweek reached a low point of 36 hours for production workers in manufacturing. Ironically, the workweek lengthened following passage of the Fair Labor Standards Act, as the economy recovered and demand for labor soared during World War II. However, the statutory overtime rate probably discouraged employers from reinstating longer workweeks after the war.

Federal Civil War pensions represented the first broad governmental old-age retirement program. Due to increasingly liberalized eligibility rules, by the early 20th century, nearly two-thirds of older, white, native-born men in the North received a "veterans" pension.<sup>7</sup> In 1915, Alaska initiated welfare assistance for the aged, and by 1935, 29 States had followed suit.

Two cash assistance programs for the elderly, created by the 1935 Social Security Act, became instrumental in inducing widespread retirement: Old Age Insurance and Old Age Assistance (later substantially federalized under the Supplemental Security Income program in 1972). Congress broadened Old Age Insurance, and transformed it into a family program in 1939 by adding benefits for spouses and dependents, as well as for survivors of deceased workers. Subsequent liberalizations permitted early retirement at age 62, first for women

(1956) and then for men (1961), and then reduced the eligibility age to 60 for widows (1965) and widowers (1972). Rising Social Security benefits, outpacing the cost of living, further encouraged retirement. Average benefits as a proportion of the federally established poverty line increased dramatically between 1940 (when monthly benefits were first paid) and 1988:

	<i>Percent of poverty line</i>
1940:	
Retired men .....	41
Retired couples .....	50
1988:	
Retired men .....	114
Retired couples .....	136

During the 1940's, two governmental decisions spurred the growth of private pensions. In 1942, the Federal Government excluded from taxation contributions that private employers invest in pension funds. Seven years later, the Supreme Court ruled that private-sector pensions are subject to collective bargaining, and unions thereafter vigorously promoted the establishment of pension plans. These governmental actions stimulated widespread retirement. Before the New Deal, more than half of men age 65 and older were in the labor force, but as Old Age Insurance benefits increased and private-sector pensions became more common, the proportion dropped drastically, to 33 percent by 1960 and to 17 percent by 1989.

Society has embraced child labor restrictions, extended schooling, and shorter workweeks, but concerns over the financial solvency of Social Security in recent years have altered attitudes toward retirement. During the past decade, Congress has taken several steps to encourage more of the elderly to continue working. Barring changes in current law, within the next two decades the "normal" Old Age Insurance retirement age will increase from 65 to 67, the credit for delayed retirement will become more generous, early retiree benefits will be reduced, and beneficiaries will lose less of their benefits if they work.

*Women at work.* Governmental policy probably had little influence on the massive influx of women into the work force over the past half-century. In fact, Federal and State governments have at times actively discouraged women, especially wives and mothers, from working. With strong public approval, governments sought to deny jobs to wives during the 1930's because of concern that women would displace

male breadwinners. Many school districts did not hire wives, and fired women who married. The "marriage penalty" in the Federal income tax during the 1970's also put working couples at a disadvantage, compared with more traditional family arrangements.<sup>8</sup>

Governmental policies that encouraged women to work, including expanded educational opportunity, equal pay laws, and child care assistance, had some influence but were probably not determinative. More women than men have graduated from high school since at least 1870, and the earliest comprehensive data (1940) on educational attainment also indicate that women, on average, were already better educated than men at the beginning of this century. Nevertheless, women were far less likely to work outside the home. During World War II, however, the labor force participation rates of married women rose from 17 to 26 percent and, after a brief postwar drop, began to climb continuously.

Governmental child care assistance and the growing number of preschool facilities probably had more impact on women's labor force participation by making it easier for mothers to work. A limited, temporary child care program was established for working mothers during World War II, but further action did not occur until 1954, when the Federal Government provided a tax deduction for employment-related child care expenses. Congress gradually extended the deduction, and replaced it in 1976 with a more generous tax credit. Other major Federal initiatives supporting child care include Head Start (established in 1965), and the Social Services Block Grant (1974). The 1988 Family Support Act requires States to provide child care to parents receiving Aid to Families with Dependent Children who are enrolled in an educational, training, or work program. State and local governments have provided broader child care assistance to families by enrolling more preschoolers, directly establishing child care centers, and creating various State tax subsidies. In addition, 12 States have enacted maternal or parental leave laws.

However, public facilities and subsidies account for only a minor share of child care, most of which is provided by relatives and paid individuals.<sup>9</sup> Although the proportion of 3- to 5-year-olds in preprimary schools doubled from 27 to 54 percent between 1965 and 1988, the proportion of enrollees who attended public institutions dropped from 71 to 62 percent over the same period, indicating that governments were probably keeping up with, rather than leading, the trend. Moreover, until recent decades, relatively few women whose youngest

child was in elementary school worked outside the home, although elementary schools have long assumed custodial responsibilities for pupils.

*Work and poverty.* Another important work-related development is the remarkable decline in poverty among working families. In 1900, more than half of families were poor by today's standards, compared with 7.2 percent of families with at least one worker in 1988.<sup>10</sup> The paucity of information, of course, makes it difficult to fairly assess the role of government in this trend, but the record seems to be a mixed one.

Minimum wage legislation and the Earned Income Tax Credit (enacted in 1975) seek to boost the earnings of low-income workers. In 1912, Massachusetts enacted the first minimum wage law, and 16 more States had followed by 1923, when the Supreme Court ruled that such provisions violated the alleged constitutional right of employers and workers to enter contracts. The Great Depression prompted some States to reenact minimum wage laws, which the Supreme Court again struck down in 1936 before reversing itself the following year.<sup>11</sup>

In 1938, Congress enacted the first national minimum wage law—the Fair Labor Standards Act—which set a statutory hourly minimum of 25 cents. Since then, Congress has periodically raised the minimum wage, and expanded coverage to more than 90 percent of nonsupervisory workers. The minimum wage, if earned for a 40-hour workweek year round, paid wages equal to at least a poverty level income for a three-person family during most of the 1960's and 1970's. However, by 1989, the minimum wage yielded only an estimated 70.5 percent of a poverty level income—its lowest value since the 1940's—and Congress again increased the statutory minimum wage. The scheduled \$4.25 hourly rate in 1991 will yield, for full-time, year-round work, about four-fifths of a poverty line income for a family of three.

Congress introduced the Earned Income Tax Credit in 1975 to offset Social Security payroll taxes paid by low earners. If the amount of the credit exceeds tax liability, beneficiaries receive a tax rebate. The credit is restricted to working parents and, since 1987, its value has been automatically adjusted for inflation. The maximum allowable credit in 1989 was \$910. The proportions of either eligible families or poor families who actually receive the credit are not known.

Federal and State governments have enacted other laws to expand employment opportunities, protect employees from discrimination in the workplace, and boost the income of single parents. Starting in the 1930's, the Federal Govern-

*The Government has primarily sought to assist families beset by crises.*

ment began to take limited steps to prevent work-related discrimination against certain groups, and during the 1960's and 1970's, Federal and State governments banned discriminatory workplace practices relating to race, ethnic background, gender, age, disability, and religion. Enforcement of these bans expanded significantly until the late 1970's, but was curbed during the 1980's, most significantly by a series of 1989 Supreme Court decisions. Another family-related law, the 1988 Family Support Act, requires States to establish guidelines for child support payments. By 1994, such payments will be automatically deducted from the absent parent's wages, guaranteeing single parents a right to a share of absent parents' earnings.

Finally, the Federal Government has instituted a variety of programs to provide the poor or jobless with job search assistance, education or training, or jobs. The 1933 Wagner-Peyser Act established a network of public employment offices to match jobseekers with job openings. Separate public jobs projects hired some 20 to 30 percent of the unemployed during the New Deal.<sup>12</sup> These programs were dismantled when the Nation achieved full employment during World War II.

The Federal Government created a variety of training programs during the early 1960's. Funding of these programs grew steadily and, a decade later, Congress reintroduced public jobs programs. By 1978, the Federal Government spent \$23.4 billion (1989 dollars) for numerous employment and training programs, nearly half of which funded jobs in public and nonprofit organizations. However, Congress almost entirely abolished public service employment in 1981, and by 1989, total employment and training funding had declined by two-thirds, to \$8.0 billion.<sup>13</sup>

On the other hand, taxes reduce the income of low earning families, sometimes pushing them below the poverty threshold. Social Security payroll taxes are levied on the very first dollar of earned income, and the taxes paid jointly by employers and workers have increased from 1.0 percent to 15.3 percent of taxable earnings between 1936 and 1990. In the 1950's, Federal income taxes reached down to affect low income families, and by the mid-1980's, a family of four with poverty level earnings paid a combined income and payroll tax of 10.4 percent. The 1986 Tax Reform Act reduced, but did not completely eliminate, the tax burden on such families, which remains higher than the low points attained during the 1970's. Poor working individuals and families remain largely outside the system of governmental social programs, either because their incomes are sufficiently

high to render them ineligible or because their work responsibilities preclude their enrollment in educational, training, and other programs.

### Promoting or discouraging work?

Some work-related policies and programs, including Old Age Insurance and child labor and overtime laws, discourage work. Governments implemented such policies for humanitarian reasons or in the belief that discouraging some from working would enhance the employment opportunities of others. Of the major governmental initiatives, only income maintenance programs for the elderly and child labor and overtime restrictions deliberately discourage able-bodied individuals from working. However, the extent to which unemployment insurance, various programs designed to aid the disabled, and Aid to Families with Dependent Children unintentionally discourage work has been vigorously debated. These programs clearly have some work disincentive, because assisting those who are jobless or underemployed may encourage some individuals to opt for benefits rather than work. In addition, policies that raise the cost of hiring labor—the minimum wage, and payroll taxes that finance many social insurance programs—may diminish employment opportunities to some extent. In general, work disincentives probably decreased during the 1980's, as governments scaled back many programs.

*Unemployment insurance* may increase joblessness because workers are more likely to become unemployed and remain so if they have a cushion to fall back upon. Firms may be able to save money by temporarily laying off workers, who will not switch employers because unemployment insurance tides them over until they are recalled to work. The U.S. Congressional Budget Office has estimated that the availability of unemployment benefits increases the unemployment rate by roughly 10 to 15 percent during periods of low unemployment, and by about 5 percent during recessions.<sup>14</sup> Longer unemployment spells may have salutary effects in the long run, however, if the jobless are able to use the time to secure work that increases their satisfaction, productivity, and job tenure.

Whatever work disincentives unemployment insurance entails, they have undoubtedly diminished since the 1970's. Fewer than one-third of the currently unemployed receive benefits, a record low. Adjusted for inflation, the average weekly benefit has declined by 12 percent from its 1971 peak. Moreover, the maximum duration of benefits has been significantly reduced since the 1970's, and benefit payments—tax-

*Starting in the 1930's, the Federal Government began to take limited steps to prevent work-related discrimination.*



free until 1979—are now fully subject to Federal income taxes.<sup>15</sup>

Some analysts have attributed declining labor force participation rates among preretirement-age men to the expansion of *disability assistance*. Labor force participation rates of men 45 to 54 years old remained steady at around 95 to 96 percent from 1948 to 1969, then dropped to 91 percent by 1977 as disability programs grew dramatically, before stabilizing again.<sup>16</sup> More than half of severely disabled working-age individuals currently receive Disability Insurance, Supplemental Security Income, or both, and an unknown proportion of the remainder obtain assistance from other disability programs.

The expansion of programs aiding the disabled probably contributed to declining labor force participation rates among preretirement-age men, but the connection is far from unequivocal. Due to liberalized benefit rules, Disability Insurance beneficiaries could replace a high proportion of their previous earnings during the 1970's, and even receive more than the pay on their former job with the additional benefits paid to spouses and dependents. However, amendments in 1977 and 1980 significantly lowered these replacement rates.<sup>17</sup>

On the other hand, disability assistance had expanded greatly during the 1960's without a concomitant withdrawal from the labor force. Moreover, even rejected Disability Insurance applicants (who presumably are more healthy than beneficiaries) tend to have very limited subsequent work experience. Half of applicants rejected in 1984 were jobless 3 years later (most had not worked at all during the period), and half of those with jobs earned less—usually at least 25 percent less—than they did prior to becoming disabled. Some 43 percent of Disability Insurance beneficiaries are poor.<sup>18</sup>

The *Aid to Families with Dependent Children* (AFDC) program contains stronger work disincentives than other social programs, because (1) it assists many able-bodied individuals, (2) participants are not required to establish a work history, and (3) benefits may be provided for many years. Illinois and Missouri inaugurated “mothers’ pensions” for widows with children in 1911, and local governments in almost all States had such programs by 1935, when Congress augmented their efforts with Aid to Dependent Children.<sup>19</sup> The program probably assisted a third or less of those potentially eligible until the 1960's, but coverage rapidly escalated to nearly 90 percent of potential eligibles by 1976 before dropping to 80 percent or less in the 1980's.<sup>20</sup>

In 1989, AFDC and food stamps (which four-fifths of AFDC beneficiaries receive) yielded a

single mother with three children nearly 20 percent higher income, on the average, than she could earn from a full-time, year-round minimum wage job. Although the value of AFDC and food stamp benefits has eroded since 1970, the purchasing power of the minimum wage declined even more until 1990, increasing the gap between welfare benefits and income from low-wage work. The U.S. Congressional Research Service has estimated that in Pennsylvania (where AFDC benefits are about 10 percent higher than the national median), the disposable income of a single mother with two children on AFDC would barely change if she increased her earnings from \$2,000 to \$8,000 annually, and earnings above \$7,000 would eventually result in her losing health insurance through medicaid.<sup>21</sup> In the early 1970's, Congress required certain AFDC recipients to enroll in work programs, but because of limited funding and numerous exemptions, only a minority have done so. The 1988 Family Support Act mandates increased participation in educational, training, or work programs, but the impact of the legislation is still uncertain.

The *minimum wage* encourages work by rewarding it, but may also reduce employment by raising the cost of labor to prospective employers. The positive effect has not been measured, but the negative consequences have been heatedly debated. Attempting to estimate the employment loss associated with a higher minimum wage, the U.S. Minimum Wage Study Commission reported in 1981 that a 10-percent increase in the statutory minimum could reduce teenage employment by as much as 1 to 3 percent. However, because of declines in the teenage population and the value of the minimum wage, a recent estimate (made before the 1989 congressional amendment) using the commission's methodology suggested that the tradeoff would reduce teenage employment by only about 0.5 percent, and have no measurable impact on the employment of older individuals.<sup>22</sup>

There are no eternal verities to guide governments in devising work- and family-related policies and programs, because working behavior and societal preferences change continually. Policies enacted during the Great Depression to encourage the elderly to retire and discourage poor single mothers from working have been increasingly challenged in recent years. Economic factors play an extremely important, though not exclusive, role in fashioning governmental and family decisions concerning work. Rising productivity permits both additional affluence and leisure time. However, the divergence among different nations' working be-

*The extent to which various social programs unintentionally discourage work has been vigorously debated.*

havior and the social programs they have designed demonstrates the various factors that shape employment decisions and family structure. As in most democracies, U.S. governmental decisions have tended to reflect

the preferences of the populace. But just as today's choices would have appeared alien to past generations, what will be "normal" behavior in the next century might be equally disturbing to us. □

## Footnotes

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<sup>3</sup> *Twelfth Census of the U.S.: 1900, Volume 2, Population, Part II* (Bureau of the Census, 1902), p. 2; *Fifteenth Census of the U.S.: 1930, Population, Volume 5, General Report on Occupations* (Bureau of the Census, 1933), p. 114; and *Digest of Education Statistics, 1988* (Washington, U.S. Department of Education), p. 60.

<sup>4</sup> *Labor Force Statistics Derived from the Current Population Survey: A Databook, Volume 1* (Bureau of Labor Statistics, September 1982), p. 561 (updated).

<sup>5</sup> *Growth of Labor Law in the United States*, pp. 123-26, 130.

<sup>6</sup> Irving Bernstein, *A Caring Society* (Boston, Houghton Mifflin Co., 1985), pp. 124 and 144-45.

<sup>7</sup> Theda Skocpol and John Ikenberry, "The Political Formation of the American Welfare State in Historical and Comparative Perspective," in *Comparative Social Research: The Welfare State, 1883-1983*, vol. 6 (Greenwich, CT, JAI Press, 1983), p. 97.

<sup>8</sup> Sar Levitan, Richard Belous, and Frank Gallo, *What's Happening to the American Family?* (Baltimore, MD, Johns Hopkins University Press, 1988), pp. 182-83.

<sup>9</sup> Sar Levitan and Elizabeth Conway, *Families in Flux: Child, Elder and Health Care* (Washington, Bureau of National Affairs, forthcoming).

<sup>10</sup> Stanley Lebergott, *The Americans: An Economic Record* (New York, W.W. Norton & Co., 1984), p. 508; and *Money Income and Poverty Status in the United States: 1988, Current Population Reports, Series P-60, No. 166* (Bureau of the Census, October 1989), pp. 83-85.

<sup>11</sup> Sar Levitan and Richard Belous, *More Than Subsistence: Minimum Wages for the Working Poor* (Baltimore, MD, Johns Hopkins University Press, 1979), pp. 33-39.

<sup>12</sup> *A Caring Society*, p. 151.

<sup>13</sup> Sar A. Levitan, *Programs in Aid of the Poor* (Baltimore, MD, Johns Hopkins University Press, forthcoming 1990).

<sup>14</sup> U.S. Congressional Budget Office, *Promoting Employment and Maintaining Incomes with Unemployment Insurance* (Washington, U.S. Congressional Budget Office, March 1985), pp. 21-22.

<sup>15</sup> U.S. House Committee on Ways and Means, Subcommittee on Public Assistance and Unemployment Compensation, *Federal-State Unemployment Compensation System*, WMCP:100-39 (Washington, U.S. Government Printing Office, Sept. 8, 1988), pp. 158, 436-37, and 448 (updated).

<sup>16</sup> Robert Haveman and Barbara Wolfe, *The Disabled from 1962 to 1984: Trends in Number, Composition, and Well-Being*, Special Report 44 (Madison, WI, Institute for Research on Poverty, University of Wisconsin, May 1987), p. 7.

<sup>17</sup> Robert Myers, *Social Security* (Homewood, IL, Richard D. Irwin, Inc., 1985), pp. 108 and 192-95.

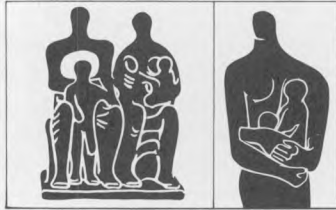
<sup>18</sup> U.S. General Accounting Office, *Social Security Disability: Denied Applicants' Health and Financial Status Compared with Beneficiaries'*, HRD-90-2 (Washington, General Accounting Office, November 1989), pp. 20-21, 23, 39; and John Bound, "The Health and Earnings of Rejected Disability Insurance Applicants," *American Economic Review*, June 1989, pp. 482-503.

<sup>19</sup> Steven Mintz and Susan Kellogg, *Domestic Revolutions: A Social History of American Family Life* (New York, Free Press, 1988), p. 130.

<sup>20</sup> Patricia Ruggles and Richard Michel, *Participation Rates in the Aid to Families with Dependent Children Program: Trends for 1967 Through 1984* (Washington, The Urban Institute, April 1987), p. 37 (updated).

<sup>21</sup> U.S. House Committee on Ways and Means, *Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means*, WMPC:101-4 (Washington, U.S. Government Printing Office, Mar. 15, 1989), pp. 536-37.

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## The changing family in international perspective

*Families are becoming smaller and less traditional as fertility rates fall and more persons live alone; Scandinavian countries are the pacesetters in developing nontraditional forms of family living, but the United States has the highest incidence of divorce and of single-parent households*

Constance Sorrentino

**F**ar-reaching changes are occurring in family structures and household living arrangements in the developed countries. The pace and timing of change differ from country to country, but the general direction is the same practically everywhere. Families are becoming smaller, and household composition patterns over the past several decades have been away from the traditional nuclear family—husband, wife, and children living in one household—and toward more single-parent households, more persons living alone, and more couples living together out of wedlock. Indeed, the “consensual union” has become a more visible and accepted family type in several countries. The one-person household has become the fastest growing household type.

In conjunction with the changes in living arrangements, family labor force patterns have also undergone profound changes. Most countries studied have experienced a rapid rise in participation rates of married women, particularly women who formerly would have stayed at home with their young children.

Scandinavian countries have been the pacesetters in the development of many of the non-traditional forms of family living, especially births outside of wedlock and cohabitation outside of legal marriage. Women in these societies also have the highest rates of labor force partic-

ipation. However, in at least two aspects, the United States is setting the pace: Americans have, by far, the highest divorce rate of any industrial nation, as well as a higher incidence of single-parent households, one of the most economically vulnerable segments of the population. Japan is the most traditional society of those studied, with very low rates of divorce and births out of wedlock and the highest proportion of married-couple households. In fact, Japan is the only country studied in which the share of such households has increased since 1960. But even in Japan, family patterns are changing: sharp drops in fertility have led to much smaller families, and the three-generation household, once the mainstay of Japanese family life, is in decline.

As part of the *Monthly Labor Review*'s 75th-anniversary examination of the family, this article develops an international perspective on the changes in the American family by looking at selected demographic, household, and labor force trends in the past 25 to 30 years in Canada, Japan, and the major Western European nations. The 25- to 30-year time frame was chosen as the longest span for which data were available for all the countries examined. Because definitions and concepts differ among countries, an appendix dealing with these is included at the end of the article.

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### Demographic background

Major demographic and sociological changes directly influencing family composition have taken place in this century, with the pace of change accelerating in the past two decades. Almost all developed countries have seen changes of four principal types: A decline in fertility rates, the aging of the population, an erosion of the institution of marriage, and a rapid increase in childbirths out of wedlock. Each of these four trends has played a part in the transformation of the modern family.

**Fertility rates.** Over the past century, women in industrialized countries have moved to having fewer children—that is, to lower fertility rates. The decline was, in many cases, interrupted by the post-World War II baby boom, but it resumed in the 1960's. Japan is an exception, in that fertility rates have declined sharply and almost continuously since the late 1940's, with no postwar upturn apart from a small recovery and stabilization from the mid-1960's to the early 1970's.

The change in total fertility rates in 10 countries is shown in table 1. With the exception of some baby "boomlets" in the late 1970's and 1980's, total fertility rates in most developed countries have declined to below the level needed to replace population deaths, namely, 2.1 children per woman. This means that the current population will not even replace itself if

current levels of fertility continue. By 1988, fertility rates in the developed countries fell into a narrow range of from 1.3 to 1.4 children per woman in Germany and Italy to around 1.9 to 2.0 in the United States and Sweden.

Decreased fertility has important implications for the family. In particular, family size is getting smaller, with consequences for parents—especially mothers—and children. Probably the most significant effect of falling fertility is the opportunity it has afforded women for increased participation in the labor market. And the converse relation holds as well: increased participation leads to lower fertility. Smaller families also mean fewer relatives to care for young children.

**Aging of the population.** It is important to consider the age structure of the population because different arrays of persons by age result in different household structures across countries. Mortality, as well as fertility, has declined in the 20th century. The decline in mortality has been more or less continuous, and the average age at death has risen considerably in all developed countries. The decrease in fertility has resulted in a decline in the proportion of children in the population. However, because it affected all age groups, the drop in mortality did not have a major effect on the age structure of populations. In fact, mortality decreased more at younger than at older ages, thereby offsetting rather than exacerbating the effect of the fertility decline. Thus, the progressive aging of the population in the developed countries is attributable primarily to the declining fertility rates.<sup>1</sup>

Table 2 shows the distribution of the population by age in 10 countries from 1950 to 1990. The proportion of the population in the youngest age group (0-14 years) is declining everywhere, while the proportion of the elderly (age 65 and over) is increasing. Compared with most European countries and Japan, the U.S. and Canadian populations are more youthful, reflecting higher comparative fertility rates. However, in both North American countries, the declining fertility rates have produced a sharp drop since 1960 in the share of the population held by the under-age-15 group. With the exception of France, all the European countries and Japan now have less than one-fifth of their total population under 15, with Germany having the lowest proportion.

At the other end of the spectrum, European countries tend to have larger proportions of elderly persons than do the two North American nations. Sweden, Germany, and Denmark all have about the same proportion of elderly as they have children under 15. In contrast, the

Table 1. Total fertility rates<sup>1</sup> in 10 countries, selected years, 1921-88

Country	1921	1941	1951	1961	1971	1981	1986	1988
United States .....	3.3	2.3	3.2	3.6	2.3	1.8	1.8	1.9
Canada .....	4.0	2.8	3.5	3.8	2.2	1.7	1.7	1.7
Japan .....	5.3	4.5	3.2	1.9	2.1	1.7	1.7	1.6
Denmark .....	3.1	2.2	2.5	2.5	2.0	1.4	1.5	1.6
France .....	2.6	1.8	2.8	2.8	2.5	2.0	1.8	1.8
Germany .....	(2)	(2)	2.1	2.5	1.9	1.4	1.4	1.4
Italy .....	(2)	2.7	2.3	2.4	2.4	1.6	1.3	1.3
Netherlands .....	3.5	2.6	3.0	3.2	2.4	1.6	1.6	1.5
Sweden .....	2.7	1.9	2.2	2.2	2.0	1.6	1.8	2.0
United Kingdom .....	2.7	1.7	2.1	2.8	2.4	1.8	1.8	1.8

<sup>1</sup> The total fertility rate is defined as the average number of children that would be born per woman if all women lived to the end of their childbearing years, and at each year of age they experienced the birth rates occurring in the specified year.

<sup>2</sup> Not available.

<sup>3</sup> 1921-25.

SOURCE: Organisation for Economic Cooperation and Development, *Employment Outlook* (Paris, OECD, September 1988), p. 204; Statistical Office of the European Communities, *Rapid Reports, Population and Social Conditions*, no. 1, 1989, p. 4; Statistics Sweden, *Befolkningsförändringar 1988, Del. 1, Församlingar, Kommuner och A-regioner* [Population Changes, 1988, Part 1, Parishes, Communes, and Regions], p. 9; and unpublished estimates (1988 for the United States, Canada, and Japan) by the U.S. Bureau of the Census, Center for International Research.

proportion of children in the United States and Canada is nearly twice as great as the proportion of elderly.

Life expectancy at birth is higher for women than for men in all the countries studied. Women outlive men by 6 to 7 years, on average, and this influences household structures, as many more women than men live alone at older ages. In most developed countries, women must anticipate a period of living alone at some point during their later years.

Aging of the population is common to all the industrialized countries, although there are considerable differences in the extent and timing of the phenomenon. These differences are reflected in the comparisons presented later on household type. For example, countries with high proportions of elderly people tend to have higher proportions of single-person households, because the elderly are increasingly living alone.

*Marriage and divorce.* Almost everyone in the United States gets married at some time in his or her life. The United States has long had one of the highest marriage rates in the world, and even in recent years it has maintained a relatively high rate. For the cohort born in 1945, for example, 95 percent of the men have married, compared with 75 percent in Sweden.<sup>2</sup> The other countries studied ranked somewhere between these two extremes.

According to table 3, a trend toward fewer marriages is plain in all of the countries studied, although the timing of this decline differs from country to country. In Scandinavia and Germany, for example, the downward trend in the marriage rate was already evident in the 1960's; in the United States, Canada, Japan, France, the Netherlands, and the United Kingdom, the decline began in the 1970's.

In Europe, the average age at marriage fell until the beginning of the 1970's, when a complete reversal occurred. Postponement of marriage by the young is now common throughout the continent. The generation born in the early 1950's initiated this new behavior, characterized by both later and less frequent marriage.<sup>3</sup> Average age at first marriage has also been rising in the United States since the mid-1950's, but Americans still tend to marry earlier than their European counterparts. For example, the average age at first marriage for American men and women in 1988 was 25.9 and 23.6, respectively. In Denmark, it was 29.2 for men and 26.5 for women.

The high U.S. marriage rate is, in part, related to the fact that the United States has maintained a fairly low level of nonmarital co-

**Table 2. Distribution of population by age, 10 countries, 1950-90**

[In percent]

Country and age range	1950	1960	1970	1980	1990 <sup>1</sup>
<b>United States:</b>					
Birth to 14 years .....	26.9	31.1	28.3	22.5	21.8
15 to 64 years .....	64.9	59.7	61.9	66.2	66.0
65 years and over .....	8.1	9.2	9.8	11.3	12.2
<b>Canada:</b>					
Birth to 14 years .....	29.7	33.6	30.3	23.0	20.8
15 to 64 years .....	62.6	59.0	61.7	67.5	67.9
65 years and over .....	7.6	7.5	8.0	9.5	11.4
<b>Japan:</b>					
Birth to 14 years .....	35.3	30.2	23.9	23.6	18.3
15 to 64 years .....	59.5	64.1	69.0	67.4	70.3
65 years and over .....	5.2	5.7	7.1	9.0	11.4
<b>Denmark:</b>					
Birth to 14 years .....	26.3	25.2	23.3	20.9	16.8
15 to 64 years .....	64.5	64.2	64.4	64.7	67.9
65 years and over .....	9.1	10.6	12.3	14.4	15.3
<b>France:</b>					
Birth to 14 years .....	22.7	26.4	24.8	22.4	20.3
15 to 64 years .....	65.9	62.0	62.3	63.7	65.9
65 years and over .....	11.3	11.6	12.9	13.9	13.8
<b>Germany:</b>					
Birth to 14 years .....	23.5	21.3	23.2	18.2	15.1
15 to 64 years .....	67.1	67.8	63.6	66.3	69.4
65 years and over .....	9.3	10.8	13.2	15.5	15.5
<b>Italy:</b>					
Birth to 13 years .....	26.4	23.4	22.9	20.5	17.8
14 to 64 years .....	65.5	67.6	66.5	66.7	68.4
65 years and over .....	8.0	9.0	10.5	12.9	13.8
<b>Netherlands:</b>					
Birth to 14 years .....	29.3	30.0	27.3	22.3	18.1
15 to 64 years .....	62.9	61.0	62.6	66.2	69.2
65 years and over .....	7.7	9.0	10.2	11.5	12.7
<b>Sweden:</b>					
Birth to 14 years .....	23.4	22.4	20.9	19.6	17.2
15 to 64 years .....	66.3	65.9	65.5	64.1	65.0
65 years and over .....	10.2	11.8	13.7	16.3	17.7
<b>United Kingdom:</b>					
Birth to 14 years .....	22.3	23.4	24.1	21.0	19.1
15 to 64 years .....	66.9	66.4	62.9	64.1	65.8
65 years and over .....	10.7	11.7	13.0	14.9	15.1

<sup>1</sup> Projected.

SOURCE: *Ageing Populations: The Social Policy Implications* (Paris, Organisation for Economic Cooperation and Development, 1988), pp. 80-81; and *Labour Force Statistics, 1960-71* and *1967-87* editions (Paris, Organisation for Economic Cooperation and Development, 1973, 1989).

habitation. In Europe—particularly in Scandinavia, but also in France, the United Kingdom, and the Netherlands—there have been large increases in the incidence of unmarried couples living together. This situation is reflected in the lower marriage rates of these countries. Swedish data that include all cohabiting couples indicate that family formation rates have remained stable since 1960, even though marriage rates have dropped.

Divorce rates have shown a long-term increase in most industrial nations since around the turn of the century. After accelerating during the 1970's, the rates reached in the 1980's are probably the highest in the modern history of these nations. While a very large proportion of Americans marry, their marital breakup rate is

by far the highest among the developed countries. (See table 3.) Based on recent divorce rates, the chances of a first American marriage ending in divorce are today about one in two; the corresponding ratio in Europe is about one in three to one in four.

Liberalization of divorce laws came to the United States well before it occurred in Europe, but such laws were loosened in most European countries beginning in the 1970's, with further liberalization taking place in the 1980's. Consequently, divorce rates are rising rapidly in many European countries. By 1986, the rate had quadrupled in the Netherlands and almost tripled in France over the levels recorded in 1960. The sharpest increase occurred in the United Kingdom, where the marital breakup rate increased sixfold. Although divorce rates continued to rise in Europe in the 1980's, the increase in the United States abated, and the rate in 1986 was slightly below that recorded in 1980. In Canada, although divorce rates remain considerably lower than in the United States, the magnitude of the increase since 1960 has been greater than that in the United Kingdom.

Italy is the only European country studied in which the divorce rate remains low, and divorce laws have not been liberalized there. Japan's divorce rates are lower than in all other countries except Italy, but, unlike Italy, there has been an upward trend in Japan since 1960.

Divorce rates understate the extent of family breakup in all countries: marital separations are not covered by the divorce statistics, and these statistics also do not capture the breakup of families in which the couple is not legally married. Studies show that in Sweden, the breakup rate of couples in consensual unions is three times the dissolution rate of married couples.<sup>4</sup> Statistics Sweden tabulates data on family dissolution from population registers that show when couples previously living together have moved to separate addresses. The data indicate that the family dissolution rate rose more than fourfold between 1960 and 1980, while the divorce rate merely doubled.

*Births out of wedlock.* Rates of births to unmarried women have increased in all developed countries except Japan. (See table 4.) The phenomenon arises from the decline of marriage, the increase in divorce, and the rising rates of cohabitation. Close to half of all live births in Sweden are now outside of wedlock, up from only 1 in 10 in 1960. Denmark is not far behind. In the United States, France, and the United Kingdom, unmarried women account for more than 1 out of 5 births, while the rates are far lower in the Netherlands, Italy, and Germany.

Although relatively high proportions of Swedish and Danish children are born out of wedlock, it should be noted that nearly all of them are born to parents who live together in a consensual union. These cohabiting parents are typically in a relationship that has many of the legal rights and obligations of a marriage. Statistics Sweden estimates that only 0.5 percent of all live births in the early 1980's involved a situation in which no father was identified and required to pay child support.

A relatively high proportion of births out of wedlock in the United States and the United Kingdom are to teenagers—more than 33 and 29 percent, respectively. In Sweden, teenagers account for only 6 percent, and in France and Japan about 10 percent. More than half of the births out of wedlock in Sweden are to women between the ages of 25 and 34, while only one-quarter are to women in that age group in the United States and the United Kingdom.<sup>5</sup>

All of the foregoing demographic trends have had an impact on household size and composition in the developed nations. This impact can be seen clearly in developments since 1960.

Table 3. Marriage and divorce rates in 10 countries, selected years, 1960-86

Country	1960	1970	1980	1986
<b>Marriage rates (per 1,000 population, ages 15 to 64)</b>				
United States .....	14.1	17.0	15.9	15.1
Canada .....	12.4	14.3	11.8	10.2
Japan .....	14.5	14.4	9.8	8.6
Denmark .....	12.2	11.5	7.9	9.0
France .....	11.3	12.4	9.7	7.3
Germany .....	13.9	11.5	8.9	8.7
Italy .....	11.7	11.3	8.7	7.5
Netherlands .....	12.7	15.2	9.6	8.7
Sweden .....	10.2	8.2	7.1	7.2
United Kingdom .....	11.5	13.5	11.6	10.6
<b>Divorce rates (per 1,000 married women)</b>				
United States .....	9.2	14.9	22.6	21.2
Canada .....	1.8	6.3	10.9	12.9
Japan .....	3.6	3.9	4.8	5.4
Denmark .....	5.9	7.6	11.2	12.8
France .....	2.9	3.3	6.3	8.5
Germany .....	3.6	5.1	6.1	8.3
Italy .....	(2)	1.3	.8	1.1
Netherlands .....	2.2	3.3	7.5	8.7
Sweden .....	5.0	6.8	11.4	11.7
United Kingdom .....	2.0	4.7	12.0	12.9

<sup>1</sup> Beginning in 1980, includes unlicensed marriages registered in California.

<sup>2</sup> Not available.

SOURCES: Statistical Office of the European Communities, *Demographic Statistics, 1988*; and various national sources.

## Household size declines

One of the major ramifications of the demographic trends, especially the declining fertility rates and the aging of the population, is that households have diminished in size throughout this century. All of the countries studied have seen declines from an average of four or five members per household in the 1920's to an average of only two or three persons living together in the mid- to late 1980's. (See table 5.) Denmark, Germany, and Sweden currently have average household sizes in the range of 2.2 to 2.3 persons. The United States, Canada, France, Italy, and the United Kingdom have households in the 2.6- to 2.8-person range. Japan maintains the highest average, at about three persons per household. This is explained, in part, by the prevalence of three-generation households there.

Married couples living with both their children and parents made up 12 percent of all households in Japan in 1985. However, such households have lost considerable ground since 1960, when they represented one-quarter of all households in Japan. Meanwhile, three-generation households have virtually disappeared in Europe and North America. For example, the traditional German "stem" family comprising more than two generations represented 6 percent of all households in 1961, but only 2 percent by 1981. The share of the population residing in such households fell from 11 percent to less than 4 percent.<sup>6</sup>

## Household composition

Households come in many sizes and types. Table 6 sets forth a proportional distribution by major household type for the period 1960 to 1988. Despite definitional differences that do not allow for full comparability across countries, broad distinctions and trends are reliable. Deviations that should be kept in mind involve the concepts of a married couple and a child. The classification "married couple" increasingly includes couples living together who are not legally married. The definition of the age limit for a child varies considerably from country to country, ranging from under the age of 16 in Sweden and under 18 in the United States and several other countries to any age in Germany and the Netherlands. Finally, the data for Denmark are derived differently than those for the other countries. For further information on all of these points, see the appendix.

Table 6 indicates that all countries shown, except Japan, are moving in the same direction in terms of household composition, although

Table 4. Births to unmarried women as a percent of all live births, 10 countries, selected years, 1960-86

Country	1960	1970	1980	1986	Percent change, 1960-86	
					All live births	Births to unmarried women
United States .....	5.3	10.7	18.4	23.4	-12	292
Canada .....	4.3	9.6	11.3	16.9	-22	209
Japan .....	1.2	0.9	0.8	1.0	-14	-26
Denmark .....	7.8	11.0	33.2	43.9	-27	308
France .....	6.1	6.8	11.4	21.9	-5	243
Germany .....	6.3	5.5	7.6	9.6	-55	-2
Italy .....	2.4	2.2	4.3	5.6	-39	41
Netherlands .....	1.3	2.1	4.1	8.8	-23	403
Sweden .....	11.3	18.4	39.7	48.4	0	329
United Kingdom .....	5.2	8.0	11.5	21.0	-18	231

SOURCES: Statistical Office of the European Communities, *Demographic Statistics, 1988*; and various national sources.

some are moving much faster than others. Married-couple households are declining in share in all but Japan; however, this category disguises the different changes occurring in the households with children, as opposed to those without children. Married-couple households without children are holding steady or increasing, while households comprising married couples with children are declining everywhere. Single-parent and one-person households are both on the rise.

All of the trends shown are partly reflections of the demographic patterns previously discussed. The erosion of marriage and the increase in divorce rates have brought about the decrease in the proportion of married-couple households. The decline would have been even greater in some countries if cohabiting couples had been excluded from the more recent statistics. Diminishing fertility rates and aging of the population, as well as postponement of parenthood among those who intend to have children, are behind the decline in the percentage of married couples with children. Divorce rates combine with the sharp rise in births out of wedlock to propel the increase in single-parent households. Postponement of marriage, increases in the incidence of divorce, and the aging of the population all have played a part in the increase in the proportion of one-person households. The next sections examine these trends in further detail.

## Married couples decline

Reflecting a significant change in family patterns, the term "married couple" now encom-

passes an increasing number of unmarried cohabiting couples, particularly in Europe, but also in Canada. Although "married-couple" households remain the predominant household type in all countries, the term has a different meaning today than it did in 1960, when it was more likely to refer only to legally married persons. Nowadays, even though cohabitants are increasingly included as married couples, this type of household has lost considerable ground since 1960 in all countries except Japan. The decline is entirely in households with children.

Couples with children, the traditional nuclear family, accounted for half or more of all households in Canada and the Netherlands at the beginning of the 1960's. In Japan, too, such households were virtually half of all households, while their share was somewhat lower in the United States (44 percent), Germany, Sweden, the United Kingdom, and probably France.

By the mid- to late 1980's, households comprising couples with children had fallen to under 30 percent of all households in the United States, Denmark, Sweden, and the United Kingdom. Canada's and Germany's proportions were slightly more than 30 percent, while France's was 36 percent. Couples with children were most prevalent in Japan and the Netherlands, where they constituted almost 4 out of every 10 households. However, it should be noted that the data for Germany and the Nether-

lands are overstated in relation to the other countries because such data encompass children of all ages. Furthermore, the data for Japan and the Netherlands are for 1985, lagging 2 or 3 years behind the figures for several of the other countries. Because the trend is downward, 1988 data could show Japan and the Netherlands at around the level for France.

The share of married-couple households without children held fairly steady in all countries except Japan, where such families rose from 16 percent to 28 percent of all households, and Canada, which recorded an increase from 27 percent to 32 percent. These households are actually a diverse group, comprising young couples who have not yet started their families, childless couples, and older couples whose children have left home. Thus, some of the couples who appeared as those with children in earlier years have now moved into the category of those without children.

Overall, married-couple households accounted for about 3 out of every 4 households in the United States, Canada, the Netherlands, and the United Kingdom at the beginning of the 1960's. They represented 6 or 7 of every 10 households in Japan, Germany, and Sweden at that time, and probably slightly more than 7 of every 10 in France. By the mid- to late 1980's, such households represented fewer than 2 out of every 3 households in all countries except Japan. The United States, Germany, and Sweden (and probably also Denmark) had the lowest proportion of married-couple households, about 55 percent. Excluding unmarried cohabiting couples, Sweden had well below half (44 percent) of all households in this category in 1985. If cohabitants classified elsewhere had been included in the U.S. figures for married couples, the late 1980's proportion would have been slightly over 60 percent of all households.

### Rise of the consensual union

As noted previously, there has been a rapid increase in the incidence of cohabitation outside of marriage in a number of countries. Such arrangements became much more widespread in the 1970's and, by the 1980's, received more general acceptance in public opinion. For some couples, particularly younger ones, consensual unions may be a temporary arrangement that eventually leads to marriage. For others, it is an alternative to the institution of marriage.

A recent public opinion survey in Germany revealed increasing acceptance of marriages without licenses. The percentage of respondents who disapproved of couples living together without being legally married dropped from 36

**Table 5. Average number of members per household, 10 countries, selected years, 1960-88**

Country	1960	1970	1977	1985-88 <sup>1</sup>
United States .....	3.3	3.1	2.9	2.6
Canada .....	3.9	3.5	<sup>2</sup> 2.9	2.8
Japan .....	4.1	3.4	<sup>3</sup> 3.3	3.1
Denmark .....	2.9	2.7	(4)	2.3
France .....	3.1	2.9	2.8	2.6
Germany .....	2.9	2.7	2.5	2.3
Italy .....	3.6	3.4	3.1	2.8
Netherlands .....	3.6	3.2	2.9	2.5
Sweden .....	2.8	2.6	<sup>3</sup> 2.4	2.2
United Kingdom <sup>5</sup> .....	3.1	2.9	2.7	2.6

<sup>1</sup> 1988 for the United States, Denmark, and France; 1987 for Germany, Italy, and the Netherlands; 1986 for Canada and the United Kingdom; 1985 for Japan and Sweden.

<sup>2</sup> 1981.

<sup>3</sup> 1975.

<sup>4</sup> Not available.

<sup>5</sup> Great Britain only (excludes Northern Ireland).

SOURCES: Statistical Office of the European Communities, *Economic and Social Features of Households in the Member States of the European Community* (Luxembourg, EUROSTAT, 1982); and various national sources.



Table 6. Percent distribution of households by type, nine countries, selected years, 1960–88

Country and year	Married-couple households <sup>1</sup>			Single-parent households <sup>2</sup>	One-person households	Other households <sup>3</sup>
	Total	With children <sup>2</sup>	Without children <sup>2</sup>			
United States:						
1960	74.3	44.2	30.1	4.4	13.1	8.2
1970	70.5	40.3	30.3	5.0	17.1	7.4
1980	60.8	30.9	29.9	7.5	22.7	9.0
1987	57.6	27.5	30.0	8.1	23.6	10.7
1988	56.9	27.0	29.9	8.0	24.0	11.1
Canada:						
1961	478.0	450.8	426.7	43.8	9.3	48.9
1971	74.0	46.5	27.5	4.5	13.4	8.1
1981	66.8	36.3	30.5	5.3	20.3	7.6
1986	64.5	32.3	32.2	5.6	21.5	8.4
Japan:						
1960	65.3	49.4	15.9	3.1	17.2	14.4
1970	64.3	44.6	19.7	2.3	20.3	13.1
1980	68.4	42.9	25.6	2.2	19.8	9.6
1985	67.4	39.2	28.2	2.5	20.8	9.3
Denmark: <sup>5</sup>						
1976	44.5	23.5	21.0	4.9	(6)	(6)
1983	43.7	22.6	21.1	5.4	(6)	(6)
1988	41.0	19.9	21.1	5.1	(6)	(6)
France:						
1968	70.1	43.6	26.5	4.2	20.3	5.4
1975	68.8	42.1	26.8	4.1	22.1	5.0
1982	67.0	39.7	27.2	4.3	24.6	4.1
1988	63.4	36.2	27.3	5.1	27.1	4.4
Germany:						
1961	66.7	44.3	22.4	10.8	20.6	1.9
1970	64.8	41.7	23.1	6.2	26.5	2.5
1980	60.5	37.0	23.5	6.6	30.2	2.7
1988	54.3	31.4	22.9	6.7	34.9	4.1
Netherlands:						
1961	77.6	55.4	22.3	5.7	11.9	4.8
1971	74.1	51.8	22.3	5.1	17.1	3.7
1981	66.5	43.7	22.9	6.1	21.4	6.0
1985	60.0	38.5	21.5	6.7	27.8	5.5
Sweden:						
1960	66.4	35.7	30.6	3.5	20.2	9.9
1970	64.3	30.2	34.1	3.2	25.3	7.2
1980	57.9	24.8	33.1	3.1	32.8	6.2
1985	54.8	21.7	33.1	3.2	36.1	5.9
United Kingdom: <sup>7</sup>						
1961	73.7	37.8	36.0	2.3	11.9	12.1
1971	69.7	34.4	35.2	2.8	18.1	9.4
1981	64.3	30.5	33.7	4.7	21.8	9.2
1987	64.0	28.0	36.0	4.0	25.0	7.0

<sup>1</sup> May include unmarried cohabiting couples. Such couples are explicitly included under married couples in Canada (beginning in 1981) and France. For Sweden, beginning in 1980, all cohabitants are included as married couples, and the figures for 1970 have been adjusted by Thora Nilsson (see source note below) to include all cohabitants. The 1960 data have not been adjusted, but the number of unmarried cohabitants was insignificant in 1960, according to Nilsson. For Denmark, from 1983 onward, persons reported separately as living in consensual unions with joint children have been classified here as married couples. There was no separate reporting of such persons in 1976. In other countries, some unmarried cohabitants are included as married couples, while some are classified under "other households," depending on responses to surveys and censuses.

<sup>2</sup> Children are defined as unmarried children living at home according to the following age limits: Under 18 years old in the United States, Canada, Japan, Denmark, and the United Kingdom, except that the United Kingdom includes 16- and 17-year-olds only if they are in full-time education; under 25 years old in France; under 16 years old in Sweden; and children of all ages in Germany and the Netherlands.

<sup>3</sup> Includes both family and nonfamily households not elsewhere classified. These households comprise, for example, siblings residing together, other households composed of relatives, and households made up of roommates. Some unmarried cohabiting couples may also be included in the "other" group. (See footnote 1.)

<sup>4</sup> Estimated by the U.S. Bureau of Labor Statistics, based on ratios of adjusted to unadjusted series in 1971. See source note on Canada.

<sup>5</sup> From family-based statistics. However, one person living alone constitutes a family in Denmark. In this respect, the Danish data are closer to household statistics.

<sup>6</sup> Not available.

<sup>7</sup> Great Britain only (excludes Northern Ireland).

SOURCES: Compiled by the Bureau of Labor Statistics from national population censuses, household surveys, and other sources. For the United States, data are from the March Current Population Survey; for Denmark, data are from the Central Population Register; for Canada, Japan, France, Germany, the Netherlands, Sweden, and the United Kingdom, data are from population censuses, with the following exceptions: French data for 1988 and British data for 1987 are from household surveys; German data for 1970, 1980, and 1988 are from the Microcensus; Dutch data for 1981 and 1985 are from Housing Demand Surveys. Data for Sweden for 1960, 1970, and 1980 are adjusted for historical comparability by Thora Nilsson of Statistics Sweden in the article "Les ménages en Suède, 1960–1980" [Households in Sweden, 1960–1980], *Population*, no. 2, Mar.–Apr. 1985, pp. 223–48. Data for Canada (1971, 1981, and 1986) have been adjusted to U.S. concepts by Statistics Canada.

*Almost all developed countries have seen a decline in fertility rates, aging of the population, an erosion of the institution of marriage, and a rapid increase in childbirths out of wedlock.*

percent in 1982 to 27 percent in 1989, and correspondingly, the notion that unmarried couples should enjoy the same legal recognition and advantages as married couples received more support.<sup>7</sup> Germany is a country where the number of consensual unions has remained low, compared with the rest of Europe.

The high marriage rate in the United States means that, so far at least, the country has maintained a fairly low level of nonmarital cohabitation, a rate lower than in most European countries and in a different league entirely from Scandinavia. The Census Bureau reports the number of households comprising two unrelated adults of the opposite sex, with or without children. Although some may be roommate or landlord-tenant arrangements, most of these households can be viewed as consensual unions.<sup>8</sup> None are included in the married-couple data in table 6; rather, they are classified in the "other households" group. According to the Census Bureau data, the incidence of such arrangements has risen from 1.2 percent of all couples living together in 1970 to 3.1 percent in 1980 and 4.7 percent in 1988. Moreover, these percentages are understated to the extent that people in common-law marriages report themselves as married couples and are, therefore, not included in these statistics. By definition, no more than two unrelated adults are present in an unmarried-couple household, but the household also may contain one or more children. About 3 out of every 10 unmarried-couple households included a child under 15 (not age 18, as in other U.S. statistics on children) in 1988, slightly higher than the proportion for 1980. Thus, a minority of consensual unions in the United States involve a parent-child family group.

The U.S. figures on consensual unions are low in comparison with those of Europe and Canada. In Canada, 8 percent of all couples lived in common-law marriages in 1986, and all are included among the married couples in table 6.

Sweden and the Netherlands have recorded rapid increases in consensual unions. In Sweden, the proportion of such unions rose from only 1 percent of all couples in 1960 to 11 percent in 1975 and 19 percent in 1985. In the Netherlands, the ratio rose from 11 percent in 1982 to 19 percent in 1988. Thus, about 1 in every 5 couples in these two countries is living together out of wedlock.

Denmark reports that the number of couples in consensual unions with joint children rose from 4 percent of all families with children in 1982 to 8 percent in 1988. The proportion of all consensual unions among couples living to-

gether is undoubtedly far higher.

In France, nonmarital cohabitation increased from 3 percent of all couples in 1975 to more than 6 percent in 1982 and 8 percent in 1988. Table 7, which shows the percent of all French men and women in consensual unions or marriages by age group in 1988, illustrates the fact that cohabitation occurs predominantly in the younger age groups.

As in France, the younger age groups in Sweden have a higher incidence of cohabitation. For instance, in 1980, 4 out of every 5 unmarried Swedish men ages 20 to 24 were living in a consensual union, as were 68 percent of all unmarried women in that age group. In the age group 25 to 29, the proportions were 49 percent and 35 percent, respectively. Virtually all Swedes now cohabit before marriage.<sup>9</sup>

Sweden has long been permissive about premarital sexual relations, and even in the 1950's it was not uncommon for marriages to occur around the time the first child was to be born. The difference today is that nonmarital cohabitation is regarded legally and culturally as an accepted alternative, rather than a prelude to marriage. This is reflected by the fact that the average period over which Swedish couples remain unmarried lengthens each year, with a growing number never marrying at all.<sup>10</sup> The rapidly declining influence of childbirth on marriage is brought into focus by the data presented earlier on the percentage of children born out of wedlock. Statistics Sweden has been modifying its family statistics to take into account the in-

**Table 7. Percent of French men and women in marriages or consensual unions, by age, 1988**

Sex and age	Married	In consensual union
<b>Men:</b>		
18-24 .....	4.7	6.1
18-19 .....	0	.1
20-24 .....	6.5	8.4
25-29 .....	42.7	14.5
30-34 .....	67.4	9.8
35 and over .....	78.7	3.4
<b>Women:</b>		
18-24 .....	14.0	10.4
18-19 .....	.7	1.8
20-24 .....	19.0	13.7
25-29 .....	55.9	12.3
30-34 .....	71.7	7.6
35 and over .....	63.5	2.1

SOURCE: Institut National de la Statistique et des Études Économiques, *Enquête sur l'emploi de 1988: résultats détaillés* [Labor Force Survey of 1988: Detailed Results], Les Collections de L'INSEE, Série D, no. 128 (Paris, INSEE, October 1988), table MEN-07, pp. 104-05.

creasing incidence of cohabitation. Thus, figures on family formation and family dissolution are replacing data on marriage and divorce, respectively.

British surveys also indicate that consensual unions have become more prevalent there.<sup>11</sup> The proportion of women ages 18 to 49 who were cohabiting more than doubled between 1979 and 1987. In the latter year, about 11 percent of all women ages 18 to 24 were cohabiting, about the same proportion as in France for this age group. The figure for British women ages 25 to 49 was 5 percent. Cohabitation is more prevalent at ages 25 to 29 for men and ages 20 to 24 for women. British men tend to be a few years older than their partners, as is the case in France and Sweden. Women and men who are divorced are more likely than those of other marital status to be cohabiting.

Estimates for Germany indicate that consensual unions have not reached significant proportions there. In 1981, only about 3 percent of all couples were cohabiting outside of marriage. However, the increase in numbers has been great, from 100,000 in 1972 to 440,000 in 1981. These figures may well be too low, because some German couples living in consensual unions claim to be married.<sup>12</sup>

The rise of the consensual union is a significant move away from the traditional nuclear form of the family. In particular, there is a higher rate of family dissolution among unmarried as opposed to married couples in all countries. Thus, where consensual unions are significantly numerous, official divorce statistics do not encompass the extent of family breakup.

### Single-parent families increase

Intercountry comparisons of single-parent families are restricted by variations in definitions. The main issues relate to the upper age limit for children and the presence or absence of cohabiting parents. (See appendix.) For the comparison presented in table 8, the Bureau of Labor Statistics has obtained data for recent years using the under-18 age limit for children—the U.S. definition—allowing for more valid international comparisons of lone-parent households.

All countries shown in table 8, except Japan, have experienced significant increases in single-parent households as a proportion of all family households with children. Allowing for definitional differences, it is clear that the United States has the highest proportion of single-parent households. (See chart 1.) In 1988, more than 1 in 5 U.S. households with dependent

children were single-parent households, up from fewer than 1 in 10 in 1960. Only Denmark approaches the U.S. level in the 1980's, and the Danish data are overstated because they count single-parent families instead of households; that is, they include single parents who are part of a larger household, while the U.S. figures exclude such parents. (In 1987, one-parent family groups in the United States represented 27 percent of all families with children; this figure is more comparable to the Danish proportion of 20 percent.) In France, the Netherlands, and the United Kingdom, the incidence of lone parenthood was in the range of 10 percent to 15 percent of all households with children. Using the under-18 age limit, Sweden's proportion of lone-parent families in 1985 was closer to the U.S. proportion in 1980, but well below the U.S. figure in 1988. Of the countries covered in table 8, Japan had by far the lowest incidence of single parenthood: 5 percent to 6 percent of all households with children in the period since 1960. This is to be expected, given the low rates of divorce and births out of wedlock in Japan.

The paths to single parenthood are numerous: Marriage and childbirth with subsequent widowhood; separation or divorce; and childbirth without marriage or consensual union. Combinations of events may lead to an exit from or reentry into single-parent status—for example, divorce and subsequent remarriage. The growth in the number of single-parent families has some common demographic elements in all the countries studied.

In Europe and North America, there is a growing proportion of those entering single parenthood through marital dissolution (separation and divorce) and childbirth outside marriage, and a diminishing share arising through the premature death of a spouse. Prior to the last three decades, single-parent families were usually formed as the result of the death of one of the parents.

A recent study indicates that, with the exception of the United States, the growth of divorced and separated mothers was responsible for the vast majority of the net increase in one-parent families since 1970.<sup>13</sup> In the United States, family dissolution also accounted for the majority of the net increase, but the growing number of never-married mothers contributed about 40 percent of the increase as well. Even in Japan, divorce or separation has become the predominant route to single parenthood.

Another common characteristic is that the great majority of single-parent households are headed by women. In every country, 85 to 90 percent of all heads of single-parent families are women.

*There has been a rapid increase in the incidence of cohabitation outside of marriage in a number of countries.*

In all countries, single-parent families frequently have low incomes, and they are more likely than other families to experience poverty. Families headed by women are often in economic difficulty because of the absence of the father and his resources, the limited earnings of many women, and the immense difficulties of reconciling paid work and family obligations. The pressures on countries to address the requirements of these families efficiently and effectively are increasing.

Indicative of the financial instability of such families in the United States is the fact that the

average difference between after-tax income and total expenditures of single-parent households in 1984-85 was negative.<sup>14</sup> A recent Bureau of Labor Statistics study indicated that unmarried women maintaining families are the workers with the greatest risk of living in poverty and almost one-fourth of these families are poor.<sup>15</sup> An Organisation for Economic Co-operation and Development conference paper revealed that lone-parent family incomes were only half as much as two-parent family incomes in the United Kingdom and the United States, a little closer in France, and about four-fifths as

**Table 8. Family households with children and single-parent households in nine countries, selected years, 1960-88**

[Numbers in thousands]

Country, age limit for children, year	Total family households with children	Single-parent households		Country, age limit for children, year	Total family households with children	Single-parent households	
		Number	Percent of total			Number	Percent of total
United States				Under 25:			
Under 18:				1968 .....	7,532	658	8.7
1960 .....	25,662	2,329	9.1	1975 .....	8,189	726	8.9
1970 .....	28,731	3,199	11.1	1982 .....	8,628	847	9.8
1980 .....	31,022	6,061	19.5	1988 .....	8,613	1,070	12.4
1988 .....	31,920	7,320	22.9	Germany			
Canada				Under 18:			
Under 18:				1972 .....	8,872	707	8.0
1971 .....	3,076	271	8.8	1980 .....	8,391	879	10.5
1981 .....	3,441	438	12.7	1988 .....	6,918	934	13.5
1986 .....	3,406	503	14.8	Netherlands			
No limit:				Under 18:			
1981 .....	4,122	639	15.5	1981 .....	2,005	176	8.8
1986 .....	4,335	770	17.8	1985 .....	1,950	240	12.3
Under 25:				No limit:			
1961 .....	12,725	266	9.8	1961 .....	1,903	177	9.3
1971 .....	13,391	408	12.0	1971 .....	2,270	202	8.9
Japan				1981 .....	2,522	309	12.3
Under 18:				1985 .....	2,527	376	14.9
1960 .....	11,839	707	6.0	Sweden			
1970 .....	14,228	710	5.0	Under 18:			
1980 .....	16,147	796	4.9	1985 .....	1,051	178	16.9
1985 .....	15,836	940	5.9	Under 16:			
Denmark <sup>2</sup>				1960 .....	1,015	91	9.0
Under 18:				1970 .....	1,019	98	9.6
1976 .....	731	126	17.2	1980 .....	978	110	11.2
1983 .....	717	139	19.4	1985 .....	913	117	12.8
1988 .....	674	137	20.3	United Kingdom <sup>3</sup>			
France				Under 18: <sup>4</sup>			
Under 18:				1961 .....	6,484	367	5.7
1988 .....	7,070	769	10.9	1971 .....	6,820	515	7.6
				1981 .....	6,866	916	13.3
				1987 .....	(5)	(5)	12.7

<sup>1</sup> Estimated by the Bureau of Labor Statistics partially from family data.

<sup>2</sup> Data are from family-based, rather than household-based, statistics. (See note.)

<sup>3</sup> Great Britain only (excludes Northern Ireland).

<sup>4</sup> Includes all children under 16 and those ages 16 or 17 who are in full-time education.

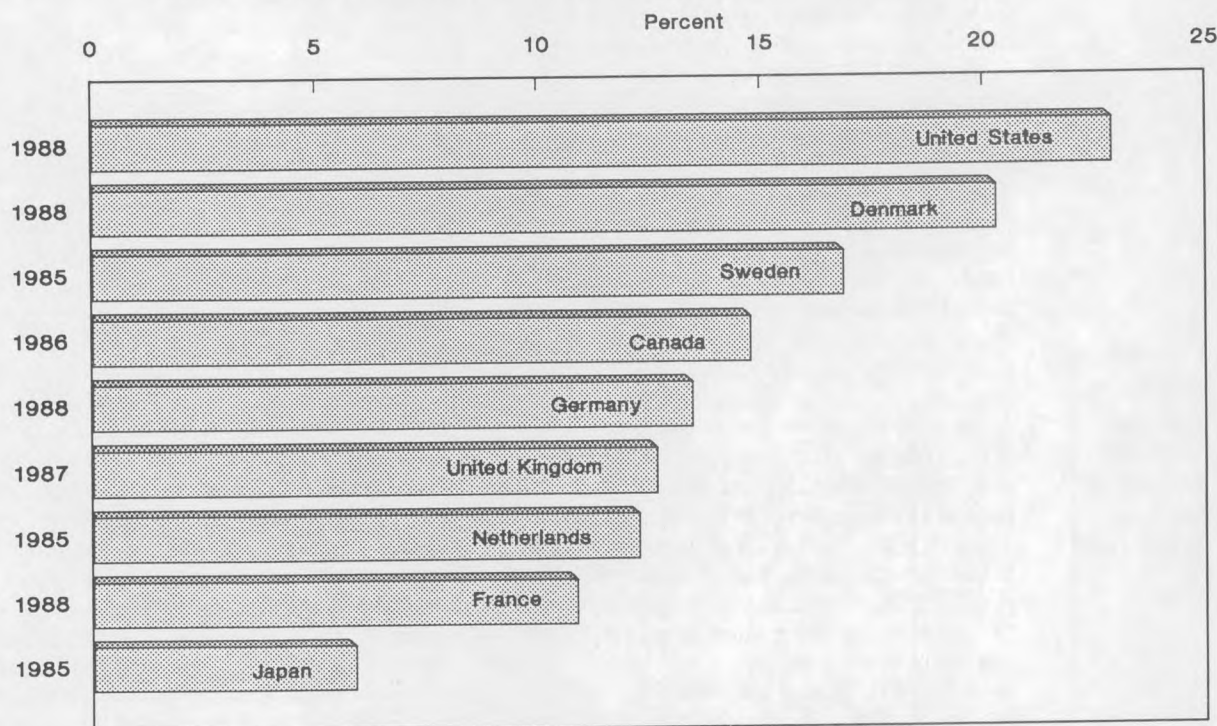
<sup>5</sup> Not available because survey data were not inflated to universe levels.

NOTE: Intercountry comparisons should be made with caution due to differing age limits and different treatments of unmarried

cohabiting couples across countries. Some households of unmarried cohabitants may be classified as single-parent households in all countries except Canada (1981, 1986), Denmark (1983, 1988), France, and Sweden. Except in Denmark, single-parent households living as part of a larger household are excluded.

SOURCES: Compiled by the Bureau of Labor Statistics from sources listed in table 6; unpublished data provided by foreign statistical offices and John Ermisch, "Demographic Aspects of the Growing Number of Lone-Parent Families," Paper No. 2, prepared for the Organisation for Economic Cooperation and Development's Conference of National Experts on Lone Parents, Paris, Dec. 15-17, 1987.

Chart 1. Single-parent households as a percent of all households with children under 18, nine countries, latest available year



much in the Netherlands.<sup>16</sup>

Great Britain was the first among the European countries to carry out an extensive official study of single-parent families, with special attention focused on mothers-only families. The Finer Committee was established by the Government in the early 1970's to study the problems of these families, and a well-publicized report was issued in 1974. The report recommended a policy goal of assuring that single mothers and their children have enough income to provide an adequate standard of living even if the mother is not in the work force, and that it not be assumed that the caretaker should go out to work. The report's recommendations have still not been implemented, and discussion of the problem and the need for more concerted attention continues.<sup>17</sup>

All industrialized countries except the United States have family allowance programs that provide cash payments to families with children. In addition, the Scandinavian countries provide special benefits for single parents. For example, the Swedish Government assumes the responsibility for collecting child support payments from the absent parent. When this parent fails to pay or pays irregularly, the Government makes the payment to the custodial parent, assuring a

regular flow of income. The Government also guarantees a minimum level of support for each child. Further, Swedish single parents receive housing allowances, parental leave, and other benefits designed to ease the tension between work and family life. Unlike Great Britain, Sweden assumes that the single parent will work, usually on a part-time basis. Support for single mothers is much more extensive in Sweden than elsewhere; however, recent analyses reveal that single-mother families are still strongly disadvantaged economically.<sup>18</sup>

### More persons living alone

Historically, virtually all household units have been families in some form. To live in a household was at the same time to live in a family. This is no longer the case. Many households in modern societies do not contain families, and the one-person household is the most common type of nonfamily household. Except in Japan, this type of household has shown the most rapid growth of all household types since 1960.

In the United States, one-person households increased their share from 13 percent of all households in 1960 to virtually one-quarter of all households in 1988. (See table 6.) France,

the Netherlands, and the United Kingdom reached about the same level in the 1980's. Sweden and Germany have even higher proportions of single-person households. In Germany, they make up about 3 out of every 10 households;<sup>19</sup> in Sweden, they are approaching 4 out of every 10. Meanwhile, Canada and Japan have much lower proportions of these households than the other countries, about 1 out of every 5.

The fastest growing groups in the living-alone category tend to be young people in their late teens and twenties, the divorced and separated, and the elderly. In many cases, living alone is the voluntary choice of people who can afford separate housing coupled with the increased availability of such housing; higher personal incomes and pensions over the past three decades have allowed people who want to live alone to do so. From this point of view, living alone can be seen as a privilege of affluent people and an expression of individual autonomy.<sup>20</sup>

Sweden has built a large number of apartments in urban areas that are ideal for single people. This new housing has helped to increase the incidence of living alone in all age groups, especially among the young and middle aged, for whom living alone had been a historical rarity. In Sweden, the fastest growth in living alone has been among the younger age groups.<sup>21</sup>

A French study reveals that one-person households grow with the degree of urbanization.<sup>22</sup> That is, rural people tend to live in families, whereas urban people increasingly live alone. In Paris, for example, nearly 50 percent of the dwellings are one-person households. Swedish studies also find that one-person households are predominantly in urban areas, and this is likely to be true in all countries.<sup>23</sup>

A five-country study of living arrangements of young adults looked at how income from various sources affected the decision to live alone.<sup>24</sup> The study showed that German youth had a much higher propensity to live separately than did young people in the United States, Canada, the United Kingdom, or Australia. Among the five countries, youth in the United States and the United Kingdom had the lowest propensities to live alone. Earnings levels were positively correlated with living alone in the United States and the United Kingdom, and to a lesser extent in Australia, but in Germany there was no such correlation.

At the other end of the age spectrum, the proportion of the elderly living alone is generally high and increasing. The proportion of persons 65 years of age or older living by themselves at various times during the 1980's is given in the following tabulation:<sup>25</sup>

Country	Percent living alone
United States	30.4
Canada	27.7
Japan	8.6
Denmark	38.3
France	32.6
Germany	38.9
Netherlands	31.3
Sweden	40.0
United Kingdom	30.3

In Japan, the figure is low because nearly 65 percent of the elderly still live with their children in either two- or three-generation households. There is a sharp contrast between East and West in this area: among persons age 75 or older in Japan, fully three-quarters live with their children; in the United States, about 1 in 4 persons 65 or older lives with his or her children.<sup>26</sup>

Women outlive men, on average, and women tend to be younger than their spouses. Therefore, the proportion of elderly women living alone is much higher than that of elderly men in all countries studied. In the United States, about 16 percent of all men and 40 percent of all women 65 and older live alone. These proportions are similar to those for the European countries, except that in Germany and Scandinavia, about half of all elderly women live alone. In all the countries studied, women constitute about four-fifths of all one-person households maintained by people 65 and older.

The importance of elderly citizens in overall national household profiles is apparent in the percentage of single-person households in the countries studied that were maintained by an elderly person. In Germany, more than 30 percent of all households are one-person households, and half of these are individuals age 65 or older. Thus, more than 15 percent of all households in Germany consist of one elderly person. In the United Kingdom, about two-thirds of single-person households consist of one elderly person, and proportions for Denmark, France, and the Netherlands are also high. In the United States, persons 65 and older account for 40 percent of all persons living alone.

Among older persons, living alone is most often the result of having outlived a spouse. Consequently, the likelihood of living alone increases with age, although there may be a decline at the oldest ages, when the elderly enter nursing homes or homes for the aged or take in companions or boarders in a search for additional income or assistance.<sup>27</sup>

Both numbers and proportions of elderly living alone have risen sharply during the past three decades, although the rise in the propor-

*Except in Japan, the one-person household has shown the most rapid growth of all household types since 1960.*

tion may be leveling off in North America. The number of elderly residing alone in the United Kingdom more than doubled between 1961 and 1981. In Germany, 37 percent of all widows lived alone in 1961; by 1981, the proportion was up to 63 percent. These figures partly reflect the large number of postwar widows still living with their children in 1961, but who lived alone by 1981 as their children married and moved away. For widowers, the proportion living alone rose from 41 percent to 72 percent. Among persons who were divorced, the proportion living alone hardly changed, as remarriage and cohabitation were choices that were preferred to living alone. German data also indicate a strong increase in never-married persons living alone.<sup>28</sup>

### Mothers at work

The developed countries have witnessed notable increases in women's labor force participation since 1960, with an acceleration in the 1970's. More and more, these increases have involved mothers of dependent children, with profound effects on family life because of the problems of reconciling employment with family responsibilities. Consequently, the availability of child care facilities has become a significant issue for many families in these countries.

As women have entered the work force in increasing numbers, marriages have been postponed, the average size of the family has declined, and the divorce rate has risen. The increased economic independence of women, through labor force activity, has been a major factor behind changes in the traditional family over the past three decades.

The increases in women's labor force participation have been universal across age groups, except for teenagers in Japan and Europe and elderly women in all the countries studied. Most dramatic has been the rise in labor force participation for women 25 to 34 years of age, as shown in the following tabulation:

Country	1970	1988
United States	44.7	72.6
Canada	*41.2	74.9
Japan	46.8	54.5
Denmark	**	90.0
France	52.2	74.5
Germany	47.6	61.5
Italy (ages 25-39)	***44.1	60.8
Netherlands	23.9	55.4
Sweden	60.7	89.4
United Kingdom	43.3	66.0

\*BLS estimate.

\*\*Not available.

\*\*\*1977 data.

**Table 9. Labor force participation rates of all women under age 60<sup>1</sup> and women with children under the ages of 18 and 3, eight countries, 1986 or 1988<sup>2</sup>**

[In percent]

Country	All women	All women with children		Lone mothers <sup>3</sup> with children	
		Under 18 years old	Under 3 years old	Under 18 years old	Under 3 years old
United States	68.5	65.0	52.5	65.3	45.1
Canada	66.8	467.0	58.4	463.6	41.3
Denmark	79.2	86.1	83.9	85.9	80.9
Germany	55.8	48.4	39.7	69.7	50.4
France	60.1	65.8	60.1	85.2	69.6
Italy	43.3	43.9	45.0	67.2	68.0
Sweden	80.0	489.4	585.8	(6)	(6)
United Kingdom	64.3	58.7	36.9	51.9	23.4

<sup>1</sup> Women ages 60 to 64 are included in Canada and Sweden. Lower age limits are 16 for the United States and Sweden, 15 for Canada, and 14 for all other countries. For participation rates of women with children, no upper limit is applied for the United States or Canada. These differences do not distort the comparisons because very few women under 16 have children, while few women over 60 live with their children.

<sup>2</sup> Data for the United States are for March 1988; Canada and Sweden—annual averages for 1988; data for all other countries are for spring 1986.

<sup>3</sup> Includes divorced, separated, never-married, and widowed women.

<sup>4</sup> Children under 16 years.

<sup>5</sup> Children under 7 years.

<sup>6</sup> Not available.

SOURCES: Published data from U.S., Canadian, and Swedish labor force surveys; unpublished data for other countries provided by the Statistical Office of the European Communities from the European Community labor force surveys.

Women ages 25 to 34 are in the primary childbearing and childrearing ages. In most of the countries shown, fewer than half of such women were in the work force in 1970. By 1988, a substantial majority were in the labor force, except in Japan and the Netherlands. Still, the Dutch women increased their participation from a low among these countries of 24 percent in 1970 to 55 percent in 1988.

Swedish women were already participating at a comparatively high rate of 60 percent in 1970, and by 1988, almost 9 out of every 10 Swedish women ages 25 to 34 were in the labor force. Danish and Swedish women in this age group had the highest participation rates, by far.

Table 9 focuses on participation rates of women with children under the age of 18 and under the age of 3 in a recent year in eight countries. Except for Italy, women with younger children tended to have lower participation rates than women with children under age 18. Danish and Swedish women continued to stand out, with more than 8 out of every 10 women with younger children participating in the work force. (The Swedish proportions are based on women with children under age 7; proportions for those with children under age 3 would be somewhat lower.) French and Cana-

dian women, with about 6 out of 10 economically active, were second to the Scandinavian women. In the United States, about 5 out of 10 women with children under age 3 were in the labor force. The participation rates for German and British women were substantially lower than in the other countries.

Although no historical data are shown in table 9, it is clear that there has been a dramatic increase in participation rates of women with younger children. For example, about 40 percent of Swedish women with children under the age of 7 (the age at which compulsory schooling begins) were employed in 1970; today, 85 percent are working. In Canada, women's overall participation rate increased from 45 percent in 1976 to 55 percent in 1986, and the greatest increase involved women with children under 3 years of age.

Table 9 also shows participation rates for mothers without partners. In the United States, Canada, Denmark, and the United Kingdom, single mothers with young children had lower participation rates than all mothers with young children. By contrast, in France, Germany, and Italy, single mothers of young children had higher participation rates than their married counterparts.

The dramatic growth in female participation in the labor force has contributed toward substantial political pressures for more child care services in all the countries studied. Decades of both national and international debate, task forces, and commissions have resulted in a wide variety of responses. In all the countries, there have been two factors besides the participation of women in the labor force that have fueled the increase in demand for child care: Changes in family structure and changing parental attitudes and needs. As regards the first, with smaller families, there are fewer relatives to care for young children. Also, additional pressure for child care facilities has been brought about by the rise in single-parent families. Concerning parental attitudes, in the past, most parents preferred to raise their children during the early years within the family environment. Now, however, more and more families, whether the mother is working or not, are turning to day care centers, nurseries, and preschool programs to foster the intellectual, social, and emotional development of their children. As an example, preference studies in Canada show that both working and nonworking parents have a high propensity to choose licensed day care for children ages 3 to 5. There appears to be less preference for infant care, although studies vary in their conclusions as to whether this is so.<sup>29</sup>

There are wide differences in child care services across countries. In Europe, broadly speaking, the highest levels are found in Denmark, Sweden, and France, and the lowest in the United Kingdom and the Netherlands. As a percent of gross national product, Denmark spends more than six times as much for services for children under age 5 than does the United Kingdom. In Denmark, 44 percent of all children age 2 or younger attend publicly funded day care facilities on a full-time basis. This contrasts with 1 percent to 2 percent of all very young children in the United Kingdom and the Netherlands, and 16 percent to 17 percent in France. In the United States, one estimate indicates that about 20 percent of children under the age of 3 were in day care in 1984–85, largely part time. About 12 percent of children under age 3 were in day care in Canada.<sup>30</sup>

In all of the countries, the supply of publicly funded services is inadequate relative to the demand. Even in Denmark, with its high level of services and its population of only 5 million, present waiting lists suggest an unmet need of approximately 40,000 spaces.<sup>31</sup> Sweden also has a shortage of full-time day care spaces. About 55,000 children who need a place cannot be served. The Swedish Parliament recently decided that all children older than 1½ years whose parents are working shall have a right to public day care after the year 1991.<sup>32</sup>

Canada's National Day Care Information Center estimates that licensed day care facilities serve only 7 percent of the need for spaces for children under 18 months of age. Overall, licensed day care facilities serve 12 percent of the estimated need for spaces for Canadian children age 12 and under.<sup>33</sup>

Public debate regarding the possible negative effects of employment on parenting has been nowhere more spirited than in Sweden. Consequently, Sweden has adopted legislative reforms expressly intended to alleviate the contradictions between work and family needs. These reforms include paid parental leave for either father or mother, time off from work to take care of a sick child, publicly supported day care, and the option of part-time work for parents of preschool children. There is widespread acceptance of these parental supports throughout the country.<sup>34</sup> More than other advanced industrial societies, Sweden has explicitly recognized the dilemmas of employed parents and has adopted programs to address them.

One aspect of the Swedish family support system bears further mention. Swedish parents have the right to stay home and take care of their newborn infant for quite a long time without risk of losing their jobs. They are guaranteed an

*More than other advanced industrial societies, Sweden has explicitly recognized the dilemmas of employed parents and has adopted programs to address them.*



economic standard corresponding to their previous salary, paid by the social insurance system. Up to 1977, the time during which financial support was provided was limited to 7 months; it has subsequently been increased in stages to 15 months as of July 1989, the last 3 of which, however, are funded at a greatly reduced level. By mid-1991, parental leave will be available for 18 months with full financial benefits.<sup>35</sup> Either mother or father can take advantage of the parental leave, or they can take turns. No other country offers such a generous system of parental leave.

Like Sweden, Denmark provides extensive family support programs that have eased the entry of a very high proportion of mothers into the labor force. Women employees have a right to be absent from work for 4 weeks prior to childbirth. After the baby's birth, the mother has a right to be absent from work a total of 24 weeks, of which up to 10 weeks may be used by the father. During their parental leaves, the mother and father are entitled to cash payments in compensation for their loss of income amounting to a maximum of 2,126 kroner per week, the equivalent of 67 percent of average industrial wages. Parents with low incomes receive 90 percent of their former pay, and those with high incomes receive the stipulated weekly maximum.<sup>36</sup>

## Conclusion

During the past three decades, the family has undergone major transformations in all developed countries. The general direction of household composition patterns suggests a common contemporary trend to which all developed countries are a party, to a greater or lesser

degree. Four major demographic developments—declining fertility, aging of the population, rising divorce rates, and an increasing incidence of childbirth out of wedlock—are underlying factors in the transformation of the modern family.

Japan is the most traditional society of the countries studied, with very low rates of divorce and births out of wedlock. It was the only country with an increase in the proportion of married-couple households since 1960. But even in Japan, the traditional nuclear family—mother, father, and children—lost ground. And Japan preceded the other countries in the decline in fertility rates.

Among the countries studied, the United States is either a leader or a follower, depending on the trend. We are a country of relative family traditionalism, as evidenced by our greater tendency to marry, and at an earlier age, than persons in other countries and to have slightly larger families; moreover, our rate of nonmarital cohabitation is still relatively low, compared with European countries, and so is our tendency to live alone. Women with young children in Scandinavia and France are well ahead of their American counterparts with respect to labor force participation and access to child care services.

Nonetheless, the United States is by no means a land of family stability. We have long had the highest incidence of divorce and single-parent families. The United States surpasses even Scandinavia in its nontraditionalism in regard to these two indicators. Thus, in some respects, this Nation is catching up to other developed countries, but in certain other respects, the rest of the developed world is following the United States. □

## Footnotes

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<sup>1</sup> *Ageing Populations: The Social Policy Implications* (Paris, Organisation for Economic Cooperation and Development, 1988), p. 12.

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<sup>2</sup> David Popenoe, *Disturbing the Nest: Family Change and Decline in Modern Societies* (New York, Aldine De Gruyter, 1988), p. 283.

<sup>3</sup> Jean-Paul Sardon, "Évolution de la nuptialité et de la divortialité en Europe depuis la fin des années 1960" [Movement in Marriage and Divorce Rates in Europe since the Late 1960's], *Population*, no. 3, May-June 1986, pp. 463-82. *Population* is the journal of the French National Institute of Demographic Studies.

<sup>4</sup> Popenoe, *Disturbing the Nest*, p. 173.

<sup>5</sup> United Nations, *Demographic Yearbook 1986* (New York, United Nations, 1988), tables 23 and 33.

<sup>6</sup> Karl Schwarz, "Les ménages en République Fédérale d'Allemagne: 1961, 1972, 1981" [Households in the Federal Republic of Germany: 1961, 1972, 1981], *Population*, no. 3, May-June 1983, pp. 565-83.

<sup>7</sup> Study by Allensbach Institute for Public Opinion Re-

## International Perspective of the Family

search, as reported in "The Week in Germany," German Information Center, New York, Sept. 8, 1989, p. 7.

<sup>8</sup> *Households, Families, Marital Status and Living Arrangements: March 1988, Current Population Reports, Series P-20, No. 432 (Advance Report)* (Bureau of the Census, September 1988), p. 2.

<sup>9</sup> Popenoe, *Disturbing the Nest*, p. 170. Popenoe states that only an estimated 2 percent of Swedish women marrying today have not previously cohabited with their husbands-to-be or with some other man, compared with nearly 50 percent of women born in the 1930's.

<sup>10</sup> Popenoe, pp. 170-71.

<sup>11</sup> Office of Population Censuses and Surveys, *General Household Survey 1986* (London, Her Majesty's Stationery Office, 1989), pp. 23-24.

<sup>12</sup> Schwarz, "Les ménages," pp. 572-74.

<sup>13</sup> John Ermisch, "Demographic Aspects of the Growing Number of Lone-Parent Families," Organisation for Economic Cooperation and Development Conference of National Experts on Lone Parents, Paris, Dec. 15-17, 1987, Paper No. 2, pp. 3-6.

<sup>14</sup> Mark Lino, "Financial Status of Single-Parent Households," *Family Economics Review*, vol. 2, no. 1, 1989, p. 6.

<sup>15</sup> Bruce W. Klein and Philip L. Rones, "A profile of the working poor," *Monthly Labor Review*, October 1989, p. 3.

<sup>16</sup> Michael O'Higgins, "Lone-Parent Families in OECD Countries: Numbers and Socio-Economic Characteristics," Organisation for Economic Cooperation and Development Conference of National Experts on Lone Parents, Paris, Dec. 15-17, 1987, Paper No. 3, pp. 26-33. For international comparisons of poverty rates among children, see Timothy M. Smeeding and Barbara B. Torrey, "Poor Children in Rich Countries," *Science*, Nov. 11, 1988, pp. 873-77. See also Elizabeth Diskin, "Lone-Parenthood and the Low-Income Trap," *OECD Observer*, August-September 1988, pp. 22-25; and Gertrude S. Goldberg and Eleanor Kremen, *Feminization of Poverty: Only in America?* (New York, Greenwood Press, forthcoming).

<sup>17</sup> For a discussion of policies regarding single-parent families in the United States and abroad, see Sheila B. Kamerman and Alfred J. Kahn, *Mothers Alone: Strategies for a Time of Change* (Dover, MA, Auburn House, 1988).

<sup>18</sup> Kamerman and Kahn, *Mothers Alone*, pp. 95-100.

<sup>19</sup> The German figures on one-person households in table 6 are inflated somewhat by the practice (unique to Germany) of double-counting people who maintain more than one household. For example, the same person can have two households if he or she uses a rented apartment because of work in a city other than the one in which the principal residence is maintained. This second household is counted as a single-person household in the German statistics. See Louis Roussel, "Évolution récente de la structure des ménages dans quelques pays industriels" [Recent trends in the structure of households in several industrialized countries], *Population*, no. 6, November-December 1986, p. 916.

<sup>20</sup> Popenoe, *Disturbing the Nest*, p. 194.

<sup>21</sup> Popenoe, p. 176. See also Thora Nilsson, "Les ménages en Suède, 1960-1980," [Households in Sweden, 1960-1980], *Population*, no. 2, Mar.-Apr. 1985, pp. 234-41.

<sup>22</sup> Jean-Pierre Courson and Michel de Saboulin, "Ménages et familles: vers de nouveaux modes de vie?" [Households and Families: New Ways of Life?] *Économie et Statistique*, March 1985, pp. 3-20.

<sup>23</sup> Popenoe, *Disturbing the Nest*, p. 326.

<sup>24</sup> Kathleen S. Short and Thesia I. Garner, "Living Arrangements of Young Adults Living Independently: Evidence from the Luxembourg Income Study," paper presented at the 35th Annual Conference of the American Council on Consumer Interests, Baltimore, MD, Mar. 29-Apr. 1, 1989.

<sup>25</sup> Kevin Kinsela, *Living Arrangements of the Elderly and Social Policy: A Cross-National Perspective*, staff paper (Bureau of the Census, Center for International Research, forthcoming).

<sup>26</sup> Samuel H. Preston and Shigemi Kono, "Trends in Well-Being of Children and the Elderly in Japan," chapter 11 in John L. Palmer and others, eds., *The Vulnerable* (Washington, Urban Institute Press, 1988), p. 282.

<sup>27</sup> Kinsela, *Living Arrangements*.

<sup>28</sup> Schwarz, "Les ménages," pp. 574-88.

<sup>29</sup> Glenn Drover, "Child Care in Canada: A Social Service Approach," paper prepared for a workshop on child care policies and programs sponsored by International Perspectives, National Academy of Sciences Summer Study Center at Woods Hole, MA, Aug. 9, 1988, p. 9.

<sup>30</sup> Sheila B. Kamerman, "Child Care Policies and Programs: An International Overview," paper prepared for workshop on child care policies and programs, Woods Hole, MA, p. 4.

<sup>31</sup> Peter Moss, "Comments from a European Community Perspective," paper prepared for workshop on child care policies and programs, Woods Hole, MA, p. 8.

<sup>32</sup> Soren Kindlund, "Child Care in Sweden," paper prepared for workshop on child care policies and programs, Woods Hole, MA, pp. 3-4.

<sup>33</sup> Drover, "Child Care in Canada," table 5, p. 27.

<sup>34</sup> Phyllis Moen, *Working Parents: Transformations in Gender Roles and Public Policies in Sweden* (Madison, WI, University of Wisconsin Press, 1989), p. 15. See also Bengt-Erik Andersson, "Effects of Public Day Care—A Longitudinal Study," paper prepared for workshop on child care policies and programs, Woods Hole, MA.

<sup>35</sup> *The Swedish Budget 1989/90* (Stockholm, Ministry of Finance, 1989), p. 83.

<sup>36</sup> Jacob Vedel-Petersen, "Child Care Policies and Programs in Denmark," paper prepared for workshop on child care policies and programs, Woods Hole, MA, pp. 16-17.

## APPENDIX: Concepts and definitions

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For the United States, trends in the family can be analyzed from the point of view of two types of related statistics: Those based on all households and those based on families. For international comparison, the data presented here are based on all households rather than families because they are more readily available, are more comparable across countries, and cover a longer span of time than most family-based data. In addition, nonfamily households—primarily one-person households—have been the fastest growing household type, and their increase is one of the factors affecting the changing composition of family households.

Households take many forms and are not limited to families. For example, in 1988 there were 91 million households, but 65 million families, in the United States. Households contain family members residing together, but they also may include nonfamily members sharing the dwelling. One person living alone represents a household, but not a family. By the U.S. definition, a family is two or more persons residing together and related by blood, adoption, or marriage. A household is one or more persons sharing the same housing unit. Yet, households are the basic unit of family life, and in the majority of cases, the household and the family coincide. Analysis of household composition across countries allows us to see how all of a society's population—not just families—lives.

It would have been interesting to show a family-nonfamily breakdown of household types across countries; however, definitional differences precluded this kind of breakdown. In the other countries studied, the concept of a family is generally more restrictive than the U.S. definition, limited to married (or cohabiting) couples with or without children and single-parent families. Households comprising brothers and sisters and other family configurations are counted as family households in the United States, but not in these other countries. Multifamily households are also treated differently. In the United States, such households are classified according to the status of the family that includes the householder. Abroad, multifamily households are classified as a separate category and not allocated to any particular family type. However, the number of such households is small in all the countries studied, and the difference in treatment should have no significant impact on the household comparisons in this article.

For most countries, household composition data were available back to 1960 or 1961, but for France the series began in 1968 and for Denmark in 1976. Data for Italy could not be shown at all, due to definitional changes over the period studied. Household statistics for Denmark were not available in terms of the classifications of table 6; therefore, proportions derived from family-based data are shown instead. These are not comparable with the figures for the other countries, but they illustrate the more recent trends in Denmark.

The figures in table 6 are generally based upon national population censuses and labor force surveys with broadly comparable household definitions

across countries, although there are some definitional differences that do not allow full comparability. Among these differences are the concepts of a married couple and a child.

*Married couples.* The classification "married couple" increasingly includes couples living together that are not legally married. The 1980 United Nations recommendations for population censuses states that "couples living in consensual unions should be regarded as married couples." (See United Nations, *Principles and Recommendations for Population and Housing Censuses*, Statistical Papers, Series M., No. 67, p. 72.) However, this is not always the case in the statistics for the countries studied. In fact, such couples are generally categorized as nonfamily households in U.S. data, rather than as married couples. In the United States, the reported number of married couples depends upon the answers of survey respondents. Those who are in common-law marriages may respond that they are married; if so, they are classified as married couples. Those who say that they are unmarried partners, friends, or roommates are classified as nonfamily households if there are no children present. However, if there are children, the household is classified as a family household if the children are those of the reference person or "householder." In this case, the grouping could even be classified as a single-parent household, despite the fact that there are two cohabiting "parents" in the household.

Although most countries follow the U.S. method of self-reporting of marital status, some countries are more explicit in their treatment of persons of the opposite sex living together but not married. Since 1981, the Canadian census questionnaire has directed such persons to classify themselves as husband-and-wife couples. Since 1980, all cohabiting couples are classified together in Swedish household statistics, whereas earlier censuses classified married couples as a separate category. The Swedish data presented in table 6 for 1970 have been adjusted to include unmarried cohabiting couples. Data for 1960 were not adjusted because the number of unmarried cohabitants was believed to be insignificant. French household statistics report data on "couples" whether married or not, and separate data are collected on married and unmarried cohabitants. All French couples have been classified as married couples in table 6.

*Families with children.* The national definitions of families with children vary considerably because of differences in the age limits delineating a child. Most countries count as children all unmarried persons under a certain age and living at home or away at school. The United States, Japan, and the United Kingdom consider children to be all those under the age of 18, except that the United Kingdom counts 16- and 17-year-olds only if they are in full-time education. In Sweden, children are defined as all those age 16 and under. Canada (since 1981), Germany, and the Netherlands impose no age limit in their classi-

fication of children, although earlier Canadian censuses used a limit of under 25 years of age. Denmark counts as children all those under the age of 26, while France counts those under the age of 25. The Danish and Canadian Statistical Offices have provided special tabulations for table 6 based on the under-age-18 cutoff. However, the other countries using different age limits were not able to provide such data, although some provided a year or two of recent data on the under-age-18 limit for comparisons of single-parent households in table 8.

The differences in age limits for children have an impact on the comparisons of married couples with and without children and of single-parent households. Therefore, it should be recognized that the proportions in table 6 for these types of households are on a different basis for France, Germany, the Netherlands, and Sweden than for the other countries, which use or have provided data on the basis of the under-age-18 cutoff. The effect of these differences on the classification of households can be seen in table 8.

*Single-parent households.* The main issues in comparing single-parent households across countries relate to the definition of a child and the presence or absence of cohabiting parents in the statistics. A further issue, which involves all countries except Denmark, is that the household statistics on single-parent families understate the number of such families because they exclude single-parent families that are part of a larger household. These differences affect both the cross-country comparisons and the trends in different countries over time.

The age of children in families encompassed by the term "single-parent family" differs across countries. Ideally, the concept should cover families with one or more unmarried children who live at home (or are away at school) and receive their financial support from the parent. As discussed earlier, there is little agreement across countries as to the specific age limit required for an individual to qualify as a child of a single-parent family. However, all countries that do not use the U.S. age limit of under 18 were able to provide unpublished tabulations with this age limit

for one or more years. These data are shown in the single-parent household comparisons in table 8. They indicate that higher age limits produce higher proportions of single-parent households.

Another important issue is that the data in table 8 are for households rather than families, except for Denmark. Single-parent households include only those which form a single household on their own. Thus, a single-parent household occurs in household statistics only when the single parent is the head of the household or the reference person for the household. Situations in which single-parent families are part of a larger household—such as a husband-and-wife household with an unmarried daughter and her young child—will be excluded from the figures, except in Denmark. Thus, on this account, the Danish figures are overstated in relation to the other countries. Further, the data for all the other countries understate the true extent of single parenthood, especially in countries where a sizable portion of single parents live in their own parents' or other people's households. British family statistics for 1977, for example, indicate that about three-quarters of single parents were living alone with their children, while about 14 percent lived in their parents' household. The remaining single-parent families lived with other relatives or with nonrelatives. (See Office of Population Censuses and Surveys, *Social Trends*, No. 11, 1981, p. 31.)

It would be preferable to define a single-parent household as one in which there is a parent with no cohabitant. In practice, however, cohabitants may be included in the figures for lone parents, except in Canada (1981, 1986), Denmark (1985, 1988), France, and Sweden. For the other countries, it depends on how people classify their status in the surveys and censuses. British statistical investigations indicate that most cohabiting parents describe themselves as married and, therefore, are not classified as single parents. (See Office of Population Censuses and Surveys, *General Household Survey*, 1986, p. 11.) However, it should be recognized that the rise in consensual unions in these countries means that the number and growth of one-parent families may be overstated to some extent.

# Significant decisions in labor cases



## Fetal protection

Under certain circumstances, an employer may prohibit women from performing jobs that pose a hazard to unborn children, the Court of Appeals for the Seventh Circuit recently ruled in *UAW v. Johnson Controls, Inc.*<sup>1</sup> In this case, which a dissenting judge said "is likely the most important sex-discrimination case in any court since . . . Congress enacted Title VII,"<sup>2</sup> the court was asked to determine whether a battery manufacturer's "fetal protection policy" amounted to unlawful sex discrimination under Title VII because it barred women, but not men, from working in jobs that may involve excessive exposure to lead.<sup>3</sup>

The company first established a fetal protection policy in 1977. This policy warned women that exposure to lead could pose a danger to fetuses and recommended that women who were considering having children not work in jobs that required such exposure. The policy did not, however, prohibit women from performing those jobs. In spite of the company's efforts between 1979 and 1983 at least six women in positions with high lead exposure became pregnant while maintaining levels of lead in the blood that the employer considered dangerous. In addition, at least one of the babies born to these women showed elevated blood lead levels. From these events, the company concluded that its voluntary fetal protection policy, as well as its other safety and health policies, were not effective in protecting pregnant women and their unborn children from excessive exposure to lead. As a result, the company established a new policy

under which women capable of bearing children could not work in jobs that exposed them to high lead levels.<sup>4</sup>

The employees and their unions challenged this policy, claiming that it overtly discriminated against them on the basis of sex. They argued that such discriminatory treatment could not be upheld under the sex discrimination provisions of Title VII because the employer had not shown that an employee's sex was a "bona fide occupational qualification."<sup>5</sup> Writing for a 7-4 majority of the Court of Appeals for the Seventh Circuit, Judge John Coffey rejected this argument, holding that the company's fetal protection policy did not violate Title VII's prohibition against sex discrimination, because the policy was justified under a modified and less stringent "business necessity" standard.<sup>6</sup>

As Judge Coffey conceded, the business necessity defense generally applies when a facially neutral employment practice, such as a written test or a weight requirement, is claimed to have a disparate impact on women.<sup>7</sup> In contrast, the more limited bona fide occupation qualification defense applies when the employment practice in question is overt, not neutral, in its discrimination against women.<sup>8</sup>

Johnson Controls' fetal protection policy would appear to operate more like overt sex discrimination than like a neutral practice that has a disparate impact on women, because the Pregnancy Discrimination Act states that under Title VII, sex discrimination includes discrimination based on pregnancy, childbirth, or related medical conditions.<sup>9</sup> Thus, the bona fide occupational qualification defense would appear to be more appropriate in this type of case than the business necessity standard.

The court recognized this problem, but held that the traditional analysis should not be applied inflexibly. Instead, it applied a modified business necessity defense analysis that two other courts of appeals had considered to be the appropriate analytical framework for evaluating the propriety of fetal protection policies.<sup>10</sup> The *Johnson Controls* court concluded that such a framework should be applied to fetal protection policy cases because that defense "balance[s] the interests of the employer, the employee and the unborn child in a manner consistent with Title VII."<sup>11</sup>

Judge Coffey articulated a three-part test for determining whether business necessity justified Johnson Controls' fetal protection policy. He looked first to see whether workplace exposure to lead posed a substantial risk of harm to employees' unborn children. On this point, he noted that the parties agreed that exposure to lead presented a risk to fetuses. Next, he looked to see whether harm to fetuses occurred through the exposure of women, but not men, to lead. Here, he indicated that the only credible evidence that had been presented had been presented by the company, whose experts testified that exposure of men to lead levels meeting Federal guidelines did not pose a substantial risk of harm to unborn children. Finally, Judge Coffey looked to see whether an adequate, less discriminatory alternative to the company's fetal protection policy existed.<sup>12</sup> Because the union did not suggest any such alternative, he found that none existed. Judge Coffey said that the union's failure to allege facts that met his three-part business necessity test meant that the company was entitled to summary judgment in its favor.<sup>13</sup>

The dissenting judges strongly dis-

"Significant Decisions in Labor Cases" was prepared by Craig Hukill of the Office of the Solicitor, U.S. Department of Labor.

agreed with the majority, each complaining that fetal protection policy cases should not be analyzed under the business necessity standard. Judge Frank H. Easterbrook indicated that even if business necessity were the correct standard to apply, the majority's view of what constituted a substantial risk of harm to unborn children was too narrow. In his opinion, the majority should have applied a "net" risk analysis, whereby the risks to the fetus posed by exposure to lead would be balanced against the risks posed by other factors, such as the mother's loss of income and medical insurance.<sup>14</sup>

### Traditional labor relations

On December 5, 1989, the Supreme Court decided two cases that raised issues under the National Labor Relations Act.<sup>15</sup> The first, *Breining v. Sheet Metal Workers, Local 6*,<sup>16</sup> involved a union member's complaint that his union had refused to refer him to employers through its hiring hall. He claimed that the union, through the hiring hall practices of its business manager and business agent, had breached a duty of fair representation under the National Labor Relations Act<sup>17</sup> and improperly disciplined him under the Labor-Management Reporting and Disclosure Act.<sup>18</sup>

The lower court had rejected each of the employee's claims, holding that Federal courts lack jurisdiction to consider union members' duty-of-fair-representation claims because the National Labor Relations Board exercises exclusive jurisdiction over such issues.<sup>19</sup> The lower court also held that the union's hiring hall practices did not amount to improper discipline under the Labor-Management Reporting and Disclosure Act, because the individual's membership rights in the union had not been diminished. The Supreme Court agreed that the employee's claim under the Labor-Management Reporting and Disclosure Act should be dismissed, although its reasons differed from those of the court of appeals. The High Court disagreed, though, on the duty-of-fair-representation issue.

The Supreme Court held that Federal courts retain jurisdiction to consider whether a union has breached its

duty of fair representation. This is so, the Court ruled, even though the breach of the duty of fair representation may constitute an "unfair labor practice,"<sup>20</sup> over which the National Labor Relations Board has exclusive jurisdiction.<sup>21</sup> Simply because the National Labor Relations Board is experienced and expert in the area is not a sufficient reason for denying Federal courts the power to hear these cases, which the Court said "require great sensitivity to the tradeoffs between the interests of the bargaining unit as a whole and the rights of individuals."<sup>22</sup> Further, the Court said that to reach a contrary result would "remove an unacceptably large number of fair-representation claims from federal courts."<sup>23</sup>

The Court then considered whether the union's hiring practices amounted to discipline that is prohibited under section 101(a)(5) of the Labor Management Reporting and Disclosure Act.<sup>24</sup> Under this provision, union members may not be "fined, suspended, expelled, or otherwise disciplined" without being given written notice of the charges, time to prepare a defense, and a hearing.<sup>25</sup> Interpreting section 101(a)(5) narrowly, the Court held that by enumerating specific types of discipline that typically result from established disciplinary processes, the Congress intended to exclude from the definition of "otherwise disciplined" acts of retaliation by individual union members. Because the alleged punishment in this case was not authorized by the union as a collective entity, the Court ruled in favor of the union.

Justice John Paul Stevens disagreed with the majority's interpretation of section 101(a)(5), saying that it "deprives union members of the protection of the act's procedural safeguards at a time when they are most needed—when the union or its officers act so secretly and so informally that the member receives no advance notice, no opportunity to be heard, and no explanation for the union's action."<sup>26</sup> In his view, discipline under the Labor-Management Reporting and Disclosure Act should be given a broad meaning and include any punishment that is imposed by the union or its officers to protect the union by attempting to con-

trol a member's conduct.

In the second case involving issues arising under the National Labor Relations Act, *Golden State Transit Corp. v. City of Los Angeles*,<sup>27</sup> the Supreme Court held that a taxi company can recover compensatory damages under 42 U.S.C. § 1983 from the City of Los Angeles for interfering with the company's collective bargaining process with its union.<sup>28</sup> By imposing liability under section 1983, which authorizes a Federal remedy for the "deprivation of any rights, privileges, or immunities secured by the Constitution and laws," the Court reversed the Court of Appeals for the Ninth Circuit.<sup>29</sup> This lower court had held that section 1983 gives rise to liability only for actions that directly violate Federal law, not for actions that are improper merely because they intrude into an area that is "preempted," or overridden, by Federal law.

Writing for a 6-3 majority of the Court, Justice Stevens held that a two-part test should be applied in determining whether a remedy is available under section 1983. First, the plaintiff must be an "intended beneficiary of a statutory scheme that prevents governmental interference."<sup>30</sup> Justice Stevens found that the company met this part of the test. The National Labor Relations Act, he said, was enacted "to give parties to a collective-bargaining agreement the right to make use of 'economic weapons' . . . free of governmental interference," even though the act directly regulates only employers and unions.<sup>31</sup>

Next, for liability to be imposed under section 1983, the Congress must not have provided a comprehensive enforcement mechanism for protecting the Federal right in question. On this issue, Justice Stevens noted that the National Labor Relations Act grants the National Labor Relations Board the authority to remedy violations committed only by employers and unions. As a result, he said, the act is not a comprehensive enforcement mechanism for protecting the Federal right to be free from governmental intrusion into the collective bargaining process. He therefore concluded that a remedy is needed under section 1983 to protect the Federal right. □

## Footnotes

<sup>1</sup> 886 F.2d 871 (7th Cir. 1989).

<sup>2</sup> *Id.* at 920 (Judge Easterbrook, dissenting).

<sup>3</sup> Title VII of the Civil Rights Act of 1964 provides that "[i]t shall be an unlawful employment practice for an employer . . . to limit, segregate, or classify his employees or applicants for employment in any way which would deprive . . . any individual of employment opportunities . . . because of such individual's . . . sex." 42 U.S.C. § 2000e-2(a)(2) (1982).

<sup>4</sup> The company's policy applied to "[a]ll women except those whose inability to bear children is medically documented." 886 F.2d at 876 n.8.

<sup>5</sup> Title VII does not define the phrase "bona fide occupational qualification." Instead, it simply states that "it shall not be an unlawful employment practice for an employer to hire and employ employees . . . on the basis of . . . sex . . . in those certain instances where . . . sex . . . is a bona fide occupational qualification reasonably necessary to the normal operation of that particular business." 42 U.S.C. § 2000e-2(e)(1) (1982). One court has said that for a sex-based employment criterion to be justified as a bona fide occupational qualification, the criterion must be essential to the job. See *Diaz v. Pan Am. World Airways, Inc.*, 442 F.2d 385, 388-89 (5th Cir.), *cert. denied*, 404 U.S. 950 (1971). Another court has held that for such a criterion to be considered a bona fide occupational qualification, the employer must prove that it "had reasonable cause to believe . . . that all or substantially all women would be unable to perform safely and efficiently the duties of the job involved." *Weeks v. Southern Bell Tel. & Telegraph Co.*, 408 F.2d 228, 235 (5th Cir. 1969).

<sup>6</sup> To be justified by business necessity, the employment practice must serve a legitimate employment goal, although it need not be essential to the operation of the business. See *Ward's Cove Packing Co. v. Atonio*, 109 S. Ct 2115, 2125-26 (1989).

<sup>7</sup> 886 F.2d at 884. See also *Griggs v. Duke Power Co.*, 401 U.S. 424 (1971).

<sup>8</sup> See *Dothard v. Rawlinson*, 433 U.S. 321 (1977), and compare this Court's discussion of height and weight requirements, in which it applied the business necessity defense, with its discussion of regulations prohibiting women from working in certain prison guard jobs, in which it applied the bona fide occupational qualification defense. *Id.* at 328-37.

<sup>9</sup> 42 U.S.C. § 2000e(k) (1982).

<sup>10</sup> See *Hayes v. Shelby Memorial Hosp.*, 726 F.2d 1543 (11th Cir. 1984); and *Wright v. Olin*

*Corp.*, 697 F.2d 1172 (4th Cir. 1982). See also Equal Employment Opportunity Commission, *Policy Statement on Reproductive and Fetal Hazards under Title VII* (Oct. 3, 1988), reprinted in *Fair Employment Practices Manual* (BNA), 401:6013.

<sup>11</sup> 886 F.2d at 886. Judge Richard D. Cudahy, in a dissenting opinion, disagreed with the majority's failure to follow a traditional, statute-based analysis, implying that the majority had engaged in "result-oriented gimmickry" when it applied a business necessity framework. *Id.* at 902 (Judge Cudahy, dissenting).

<sup>12</sup> Judge Coffey indicated that, to show that an adequate, less discriminatory alternative exists, a plaintiff must present a specific alternative that is both economical and feasible. The plaintiff also must show that its alternative is equally effective in achieving legitimate employment goals, taking into account factors such as cost or other burdens. *Id.* at 892.

<sup>13</sup> Under Rule 56 of the Federal Rules of Civil Procedure, a party is entitled to summary judgment in its favor if there is "no genuine issue as to any material fact and . . . [the party] is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). As a practical matter, the application of Rule 56 in *Johnson Controls* meant that a trial was never held. Instead, the trial judge found, and the court of appeals agreed, that the union did not allege facts that were sufficient to meet its burden of proof.

Judge Richard A. Posner, in a dissenting opinion, criticized this aspect of the majority's decision, saying that it was a mistake to decide the case on such a "meager record." 886 F.2d at 902 (Judge Posner, dissenting). The Equal Employment Opportunity Commission, in policy guidance issued after the *Johnson Controls* decision, agreed with Judge Posner on this point and warned its investigators not to "overlook or dismiss conflicting evidence on the basis of the [*Johnson Controls*] decision." Equal Employment Opportunity Commission, *Policy Guidance on Seventh Circuit Decision in the United Auto Workers v. Johnson Controls, Inc.* (Jan. 24, 1990), reprinted in 1990 Daily Lab. Rep. (BNA), No. 18, at D-1.

<sup>14</sup> 886 F.2d at 915, 917-18 (Judge Easterbrook, dissenting). Judge Cudahy, another dissenting judge, expressed a similar view: "What is the situation of the pregnant woman, unemployed or working for the minimum wage and unprotected by health insurance, in relation to her pregnant sister, exposed to an indeterminant lead risk but well-fed, housed and doctored? Whose fetus is at greater risk?" 886 F.2d at 902 (Judge Cudahy, dissenting).

In warning its field offices not to rely on *Johnson Controls* as guidance for processing fetal hazards complaints, the Equal Employment Op-

portunity Commission has taken a slightly different approach:

In evaluating these cases, the field must weigh the extent of the risk against the breadth of the exclusion. Thus, where the risk is slight in terms of numbers and nature of the harm, any exclusion will be hard to justify; conversely, severe harm to a high percentage of those exposed may warrant a broad exclusion.

Equal Employment Opportunity Commission. (See note 13.)

<sup>15</sup> 29 U.S.C. § 151 (1982 & Supp. V 1987).

<sup>16</sup> 110 S. Ct. 424 (1989).

<sup>17</sup> A union's duty of fair representation is implicit in its role as the employees' exclusive bargaining representative under section 9 of the National Labor Relations Act. 29 U.S.C. § 159(a) (1982).

<sup>18</sup> 29 U.S.C. § 401 (1982 & Supp. V 1987).

<sup>19</sup> 849 F.2d 997 (6th Cir. 1988).

<sup>20</sup> See *Miranda Fuel Co., Inc.*, 140 N.L.R.B. No. 7, 51 LRRM (BNA) 1584 (NLRB 1962), *enforcement denied*, 326 F.2d 172 (2d Cir. 1963). Section 8 of the National Labor Relations Act, 29 U.S.C. § 158 (1982), prohibits certain actions by employers and unions. These prohibited actions are called unfair labor practices. For example, a union commits an unfair labor practice when it interferes with employees' exercise of rights that are guaranteed under the National Labor Relations Act. 29 U.S.C. § 158(b)(1)(A) (1982).

<sup>21</sup> See *San Diego Bldg. Trades Council v. Garmon*, 359 U.S. 236 (1959).

<sup>22</sup> 110 S. Ct. at 431.

<sup>23</sup> *Id.*

<sup>24</sup> 29 U.S.C. § 411(a)(5) (1982).

<sup>25</sup> *Id.*

<sup>26</sup> 110 S. Ct. at 443.

<sup>27</sup> 110 S. Ct. 444 (1989).

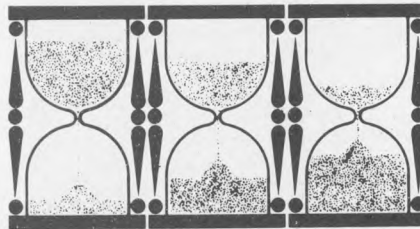
<sup>28</sup> The City of Los Angeles had required the taxi company to settle a labor dispute with its union as a condition for renewing the company's franchise. In a 1986 decision, the Supreme Court found this action to be improper because only the Federal Government, through the National Labor Relations Act, 29 U.S.C. § 151 (1982 & Supp. V 1987), can regulate collective bargaining. *Golden State Transit Corp. v. City of Los Angeles*, 475 U.S. 608 (1986). The Court held that, even though the terms of the National Labor Relations Act refer only to employers and employees, the act "preempted" the city's action.

<sup>29</sup> 857 F.2d 631 (9th Cir. 1988).

<sup>30</sup> 110 S. Ct. at 450.

<sup>31</sup> *Id.*

# Major agreements expiring next month



This list of selected collective bargaining agreements expiring in April is based on information collected by the Bureau's Office of Compensation and Working Conditions. The list includes agreements covering 1,000 workers or more. Private industry is arranged in order of Standard Industrial Classification. Labor organizations listed are affiliated with the AFL-CIO, except where noted as independent (Ind.).

## Private industry

### Construction

Associated Contractors of Essex County, NY; Carpenters, 1,000 workers

Associated General Contractors, Duluth, MN; Teamsters, 1,200 workers

Associated General Contractors, Marquette, MI; Carpenters, 1,000 workers

Associated General Contractors, southern Colorado, CO; Carpenters, 1,200 workers

Associated General Contractors and others, Denver, CO; Laborers, 2,400 workers

Associated General Contractors and Connecticut Construction Industries Association Inc., CT; Operating Engineers, 1,000 workers

Building Contractors of Southern New Jersey, NJ; Carpenters, 15,000 workers

Building Contractors Association of New Jersey, NJ; Laborers, 12,000 workers

Building Contractors Association of New Jersey, NJ; Carpenters, 2,200 workers

Connecticut Construction Industries Association Inc., New Haven, CT; Teamsters, 1,500 workers

Executive Council of the Mason Contractors Exchange of Southern California, Inc., CA; Bricklayers, 1,200 workers

Independent contractors, ME; Carpenters, 1,500 workers

Independent employers, Rochester, NY; Carpenters, 1,500 workers

Keystone Building Contractors, PA; Carpenters, 1,000 workers

Pipe Line Contractors Association, Interstate; Plumbers, 5,000 workers

Painting and Decorating Contractors Association, Cleveland, OH; Painters, 1,000 workers

### Furniture and fixtures

Store Fixture and Architectural Woodwork Institute, CA; Carpenters, 1,200 workers

### Printing and publishing

Detroit News and Detroit Free Press, Detroit, MI; various unions, 1,200 workers

Detroit News and Detroit Free Press, Detroit, MI; various unions, 2,000 workers

Graphic Arts Association of Delaware Valley, PA; Graphic Communications Union, 1,300 workers

### Rubber

Dayco Corp., Waynesville, NC; Rubber Workers, 1,250 workers

### Leather and leather products

New York Industrial Council of the National Handbag Association, NY; Leather Goods Workers, 3,500 workers

### Stone, clay, and glass products

Anchor Hocking Corp., Interstate; Glass, Pottery, Plastics and Allied Workers, 4,250 workers

Brockway Glass Co., Interstate; Glass, Pottery, Plastics and Allied Workers, 6,450 workers

Indian Head, Inc., Interstate; Glass, Pottery, Plastics and Allied Workers, 2,100 workers

Owens-Illinois, Inc., Interstate; Glass and Ceramic Workers, 7,500 workers

### Primary metals

Allegheny-Ludlum Industries, Interstate; Steelworkers, 3,500 workers

Amsted Industries, Inc., American Steel Foundries Division, Interstate; Steelworkers, 1,000 workers

### Industrial and commercial machinery

Cummins Engine Co., Columbus, IN; Diesel Workers' Union (Ind.), 4,000 workers

### Utilities

Arizona Public Service Co., AZ; Electrical Workers (IBEW), 2,800 workers

Cleveland Electric Illuminating Co., OH; Utility Workers, 2,500 workers

### Wholesale trade—nondurable goods

Greater New York Association of Meat and Poultry Dealers, Inc., NY; Food and Commercial Workers, 1,900 workers

### Retail trade—food stores

Shoprite, Pathmark, Grand Union, and Foodtown stores, NY and NJ; Food and Commercial Workers, 17,000 workers

### Finance, insurance, and real estate

Building Managers Association, Chicago, IL; Service Employees, 10,000 workers

Building Owners and Managers Association (elevator operators), Chicago, IL; Service Employees, 1,000 workers

Building Owners and Managers Association (security), Chicago, IL; Service Employees, 1,000 workers

Northwestern Mutual Life Insurance Co., Milwaukee, WI; Office and Professional Employees, 1,600 workers

### Services

Affiliated Hospitals of San Francisco, San Francisco, CA; Service Employees, 1,800 workers

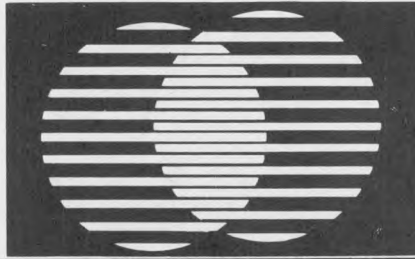
### Public activity

#### General government

Kansas City general unit, Kansas City, MO; State, County and Municipal Employees, 2,400 workers. □



# Developments in industrial relations



## Aerospace industry update

A new 3-year contract, covering 6,000 employees in the Eddystone, PA, area, was reached between Local 1069 of the United Auto Workers and Boeing Helicopters, a leading producer of military rotorcraft. The pact is similar to one Boeing Helicopter's parent company, The Boeing Co., negotiated with the Machinists earlier. (See *Monthly Labor Review*, February 1990, p. 56, for terms of that settlement.) The Boeing-Machinists settlement, the first in the 1989 round of negotiations in the aerospace industries, was expected to influence subsequent settlements in the industry.

The Boeing Helicopter-Auto Workers contract provided for a 4-percent wage boost retroactive to October 5, 1989, and 3-percent increases in October of 1990 and 1991. In addition, employees received a lump-sum payment in December 1989, equal to 10 percent of their earnings during the preceding 12 months, to be followed by a similar 5-percent payment in December 1990 and a 4-percent payment in December 1991.

Other provisions include:

- A new cost-of-living formula providing quarterly adjustments at the rate of 1 cent an hour for each .075-percent change in the Bureau of Labor Statistics Consumer Price Index for Urban Wage Earners and Clerical Workers.

- An increase in the noncontributory retirement plan's monthly pension rate to \$30 for each year of credited service for employees retiring on or

after January 1, 1990. (Under the prior contract, rates were \$22 for years of credited service earned prior to 1987, \$24 for 1987 and 1988, and \$26 for 1989.) Also, on January 1, 1990, the monthly pension rate increased by \$1 for each year of credited service for retirees who left the company between January 1, 1984, and December 1, 1986, and by \$2 for each year of credited service for retirees who left prior to 1984.

- Several improvements in medical benefits, including a reduced number of in-patient surgical procedures requiring a second opinion, expanded coverage for well-baby care, and increased benefit limits for substance abuse. Other medical plan changes include coverage for nutritional guidance, infusion therapy, organ donor expenses, routine physical examinations for active employees and their spouses, and certain eating disorders.

At Boeing in Seattle, WA, members of the Seattle Professional Engineering Employees Association rejected a tentative accord covering about 15,000 engineers and scientists, and accepted a contract for 12,000 technical employees. Negotiations on the two contracts had resulted in settlements which met most of the association's demands, except for general wage increases, lump-sum payments, and cost-of-living allowances. Even after the association scaled back its demands, the company's final money package presented to association members for ratification reportedly was below that in the Boeing-Machinists settlement.

The association's proposal for the technicians called for a 14-percent general wage increase in the first year, followed by selective adjustments every 6 months thereafter; improvements in the

cost-of-living adjustment (COLA) provision; and a modification in the wage structure.

Boeing's counter proposal, which was accepted by the association, provided for a general wage increase of 3 percent retroactive to December 2, 1989, and 2-percent increases in December of 1990 and 1991; lump-sum payments equal to 10 percent of an employee's earnings in the preceding 12 months, payable in December 1989, followed by a similar 5-percent payment in December 1990 and a 4-percent payment in December 1991; selective adjustments of 2 percent in June of each year; and no modification of the present COLA clause or the wage structure.

While the Seattle-based engineers were rejecting the tentative settlement at Boeing, 1,700 engineers at the company's Wichita, KS, facility, represented by the Machinists, ratified a new 3-year contract that provides essentially the same terms as the Seattle Professional Engineering Employees Association agreement for the technicians.

The Machinists contract also calls for a package of job protection provisions in anticipation of a shift from military to commercial aircraft production. Under this provision, laid-off engineers are eligible for retraining to perform commercial aircraft structures work. The union defeated a company proposal to change the current layoff retention language, which provides for placement of employees in four groups for retention rating by supervisors in event of layoffs. In addition, a special grievance procedure was added to hear retention disputes. Although this special procedure includes only the first two steps of the regular grievance procedures, Boeing supervisors, for the

"Developments in Industrial Relations" is prepared by Michael H. Cimini of the Division of Developments in Labor-Management Relations, Bureau of Labor Statistics, and is largely based on information from secondary sources.

first time, must reveal the reasons for an employee's retention rating.

The money package includes a lump-sum payment in December 1989, equal to 10 percent of the employee's earnings during the preceding 12 months; a 3-percent general wage increase retroactive to December 2, 1989; and six 2-percent semiannual selective adjustments. (The selective adjustments, which are based on merit, are made at the company's discretion.) The union also tightened contract language for selective salary adjustments. Under the prior agreement, the semiannual adjustment money pool was offset by any increase in the bargaining unit's average salary. The new pact calls for distribution of the entire money pool without an offset.

Other terms include:

- A "me-too" clause, which provides that any more favorable terms negotiated by the Seattle-based engineers be extended to the Wichita engineers.
- Improved pension benefits for active employees equal to the greater of a \$30 (was \$24) monthly pension rate per year of service, or average earnings in the highest 60 months of the last 120.
- Increased monthly pension benefits for retirees equal to the greater of \$1 per year of credited service or a percentage increase based on the number of years of retirement.
- Improved medical benefits for both active employees and retirees, including new coverage for routine physicals and well-baby care and extended coverage for vision care, hospice care, alcohol and drug abuse treatment, and eating disorders.

Elsewhere, McDonnell Douglas and the Machinists settled for 8,000 workers in six facilities in three States. The 3-year agreement reportedly includes wage increases of 5.5 percent retroactive to October 23, 1989, and 3 percent in the second and third year. Employees will receive lump-sum payments in each of the 3 years, calculated at 4 percent of earnings in the preceding 12 months. The monthly pension rate increases by \$6, to \$29, for each year of service. The accord also calls for a 20-cent-per-hour increase (to 50

cents) in the differentials for working the second shift and for being an elected team leader. The shift differential is retroactive to October 23, 1989, while the team leader differential became effective December 18, 1989.

Meanwhile, negotiations between Lockheed Aeronautical Systems and the Machinists, which had broken off in October, resumed in December. The contract talks are for some 6,200 employees at three of the company's facilities in southern California. The major issues in dispute reportedly are wages, increased employee contributions for health care premiums, and the COLA formula. The employees are currently working under a day-to-day extension of the contract. The union has stated that it does not consider the Boeing-Machinist contract as a standard for a settlement at Lockheed.

#### Detroit newspapers—five unions

After intermittent contract talks that began late November, five unions, representing about 3,000 workers, ratified 2½-year accords with the Detroit Newspaper Agency, which bargains for *The Detroit News* and *The Detroit Free Press*. Negotiations began as a result of a recent Supreme Court ruling affirming a lower court's decision upholding a "joint operations agreement" between the two newspapers. The previous contracts, negotiated last June as 1-year interim settlements, were scheduled to expire May 1, 1990, or when the Supreme Court ruled on the joint operations agreement, whichever was earlier.

The unions involved in the new contracts are the Teamsters Local 372, representing some 1,300-1,450 drivers, handlers, and circulation managers; The Newspaper Guild Local 22, representing about 800-900 editorial workers; Mailers Union Local 2040, representing 360 full-time and 150 part-time mailers; Typographical Union Local 18, representing about 290 printers; and Graphic Communications Local 289, representing 37 photoengravers. (Employment numbers are sketchy, particularly because of a representation dispute between The Guild and Teamsters over the newspapers' inside circulation workers.)

The agreements reportedly provide for an \$80 increase in weekly wages over the term; a bonus equivalent to 2-weeks' salary, paid upon ratification; and a \$5 a week increase in optional benefits in 1990.

The *News* and the *Free Press* are owned by the two largest newspaper chains in the United States, Gannet Newspaper Inc. and Knight-Ridder Inc., respectively. After experiencing revenue losses for a number of years, the two newspapers entered into the joint operations agreement, in which their business and production departments would merge, but the editorial functions would remain separate. (The Detroit Newspaper Agency was formed to run the merged operations.) The joint operation was expected to result in the loss of almost 450 jobs through attrition and layoffs.

The merger, the largest of its type ever proposed in the industry, was approved by the Justice Department in August 1988, but was postponed for almost 16 months until the Supreme Court ruled that the merger did not violate the Newspaper Preservation Act of 1970. Knight-Ridder, citing a loss of almost \$18 million in 1988, had threatened to shutdown or sell *The Free Press* if the joint operations agreement was not implemented.

The five unions involved in the current settlements were among the seven unions at the two newspapers that had bargained as two coalitions in negotiating the 1-year interim pacts. Two locals of the Graphic Communications Union (Locals 13N and 289), The Newspaper Guild, and the Typographical Union bargained jointly as the Council of Newspaper Unions; while the Teamsters, Mailers, and Service Employees negotiated as a group. In the interim contract talks, the Council of Newspaper Unions had requested weekly wage increases of \$150 over the term of the contract, plus a 6-week bonus when the joint operations agreement was implemented. The Teamster-led group had proposed a \$200 weekly wage increase and a \$1,700 lump-sum payment.

The newspapers' counter proposal was interim 1-year agreements providing for a \$22 per week wage raise, retroactive to May 1989, if the unions

ratified the settlement by June 8, 1989.

All the unions involved in the negotiations eventually accepted the counter proposal. The unions' members had not had a wage increase since 1986.

### **Rouge steel accord**

As part of the sale of Ford Motor Co.'s Rouge Steel operations to Marico Acquisitions, a 3-year tripartite agreement among Ford, Marico, and the United Auto Workers was reached covering 3,300 workers at the facility in Dearborn, MI. The labor agreement provides job security and retirement protection provisions. Marico agreed to invest up to \$60 million to modernize the facility and to run it as a fully integrated steel mill, rather than reducing the operation to a minimill, as Ford had planned to do if the sale had not been completed. For its part, Ford assumed the pension liability for employees who retire before 1992, with benefits that equal those under a superior retirement plan at other Ford operations. In addition, Ford agreed to give job preference to current employees who become permanently laid-off if the new owner fails or sells the plant.

The new contract also provides retention bonuses totaling up to a \$13,000 maximum, depending on an employee's seniority, to attract and keep current Ford employees. The \$13,000 consists of \$6,000 for present Ford employees who accept employment with Marico, and an additional \$7,000 if they remain with Marico for the term of the contract. In addition, the agreement calls for \$500 lump-sum payments in 1990 and 1991 to senior employees in lieu of vacation bonuses; continuation of the profit-sharing plan; and the transfer of both supplemental unemployment benefit assets and the guaranteed income stream plan commitments, as well as a 5-year guarantee of these benefits by Ford.

### **BASF lockout ends**

One of the longest and most bitter labor disputes in American labor history ended when the BASF Corp. and the Oil, Chemical and Atomic Workers (OCAW) reached a 3-year agreement,

ending a 5½-year lockout at the company's Geismar, LA, chemical facility. When the dispute began, 370 operators and maintenance employees represented by the OCAW were among the 1,200 workers at the plant. BASF locked out the OCAW-represented workers in 1984, shortly before their contract was to expire. Three years later, the company recalled the operators, but terminated the 110 maintenance workers, whose ranks included most of the local OCAW leaders.

Since then, the labor dispute escalated from the bargaining table to the media and to the national and international political arena. The turning point in the stalemate came when the company approached the union last September in an attempt to resolve the dispute. After intense negotiations, an agreement was reached around the end of the year.

The 3-year pact covers only the terminated maintenance workers. It provides for recall and job protection: maintenance workers will be recalled on a flow basis and trained as operators; once their seniority is effectively restored, they will have the right to displace employees in any job below top operator. Thirty-two workers will be recalled immediately, and 10 additional workers will be recalled every 30 days until all terminated employees have been offered employment as operators. In addition, the company is prohibited from contracting out work covered by the contract.

The agreement also provides for an immediate 2-percent wage boost and 3½-percent increases in 1990 and 1991. The company will pay the full cost of health insurance premiums in the first 2 contract years, and 80 percent in the third year.

### **Grocery settlements**

New 5-year agreements, covering about 8,200 workers in Phoenix and Tucson, AZ, were signed by the United Food and Commercial Workers and the Arizona Employers Council, the bargaining agent for three grocery chains—Safeway Stores, Fry's, and ABCO Markets. (Previous labor contracts ran for 3 years.) The longer duration of the new pacts allows the parties

to meet the challenge from the recent entrance of new nonunion supermarket chains into the retail food industry.

Contract terms call for a 30-cent-per-hour increase in the \$10.87 rate of employees at the top of the wage progression scale, effective December 1989, followed by a 25-cent-per-hour increase in December 1991 and a 40-cent increase in December 1993. Starting rates were increased to \$4.75 per hour (previously, \$4.50), and progress to \$5.50 after 90 days (previously, 780 hours); in December 1990, rates for new hires are set at \$5 per hour, increasing to \$6 after 90 days. Lump-sum payments of \$500 each will be distributed to employees at the top of the wage progression scale in February 1991 and December 1992, with proportionally smaller payments to employees advancing up the wage progression scale.

Other terms include:

- A \$73.55 increase in the employers' \$193.95 monthly payment to the health and welfare fund for each worker beginning in June 1991, subject to two additional \$20 increases if needed to maintain benefit levels.
- Changing Easter Sunday and Memorial Day from holidays to floating personal days, effective in 1990.
- A temporary 3-year cut in Sunday premium pay from time and one-half to time and one-quarter, and in daily overtime pay from time and one-half to straight time.

Elsewhere in the industry, the United Food and Commercial Workers Local 1776 signed a 3-year pact with Acme Markets, Inc., covering about 8,000 clerks working at 60 locations in the Philadelphia, PA, area. The agreement, coming as a product of an "interest bargaining process" in which the parties determined areas of mutual interest, was negotiated 1 month before the expiration of the previous contract.

Under the terms of the contract, the multiclassification scheme, in which each classification had its own wage progression, was replaced with a single job classification scheme, with a single wage progression. In addition, the rate for new hires increased to \$5 per hour, and progresses to \$12 per hour after 5 years. Employees currently earning

less than \$12 per hour were integrated into the wage progression scale, with their rates depending on their seniority; workers earning more than \$12 per hour get a 60-cent raise in each of the 3 years.

As for benefits, monthly pension rates for full-time employees were increased \$5 (to \$20) for each year of past service, and \$2 (to \$30) for each year of future service. The rates for part-time workers were boosted \$6 (to \$14) per year of service for both past and future service. The multitiered health and welfare plan was replaced by a plan with two coverage levels, one for full-timers with fewer than 5 years seniority and the other for employees with 5 years or more of service. In addition, part-timers became eligible for basic coverage after 60 days of service, and advance to a more extensive plan after 2 years.

The contract also provides a package of "fairly contemporary" provisions for part-timers. In addition to the improved pension and health benefits, minimum hours were raised from 12 hours per week to 20 hours, and maximum hours from 29 to 35. The company agreed to expand full-time positions by 10 percent, and to establish tuition and education benefits and child care/day care assistance.

The parties agreed to expand the scope of the Quality of Work Life program established under the prior agreement by adding authority to deal with new issues such as breaks and quitting time. In addition, a joint safety committee will be established to address the problem of repetitive motion injuries.

### **Beth Israel hospital—Local 1199**

Beth Israel Medical Center and Local 1199 of the Drug, Hospital and Health Care Employees Union reached a 3-year agreement, covering 3,500 nurses in New York City, that provides for

gains in starting and senior level pay. Over the term, minimum annual starting salaries were raised \$11,525 (to \$42,500), while maximum pay of senior level nurses increased to almost \$70,000.

Maximum annual longevity pay was boosted to \$16,750 (from \$4,960) in January 1990, progresses to \$22,000 in March 1991, to \$23,000 in September 1991, and to \$25,000 in October 1992. Nurses with less seniority received proportionally smaller increases.

The contract also increased both education and shift differentials. The differential for bachelor degrees increased to \$1,000 per year (previously, \$400), and for masters and doctorates to \$1,200 (previously, \$700 and \$1,000, respectively). The evening and night shift differential was raised \$800 annually (to \$4,800) in the first year of the contract and \$200 in the second year. In addition, a new \$2,500 annual differential was given to nurses with certain certification specialties.

Other contract changes include the elimination of mandatory overtime for nurses with at least 5 years seniority; a 1-month paid sabbatical for registered nurses with at least 25 years of service; the elimination of mandatory floating from one hospital unit to another, except in an emergency, for nurses with at least 15 years of seniority in the first year of the contract and with at least 12 years in the second contract year; the establishment of "in-charge" pay, up to \$1,500 annually; increases of \$5-\$8 in the per diem rate (to \$28-\$35); establishment of unpaid paternal leave of up to 6 months to care for newborn or adopted children; and improved health insurance and pension benefits.

### **Safety and health in meatpacking**

The Excel Corp., the third largest meat processing company in the Nation, and the United Food and Commercial Workers signed an agreement, cover-

ing 8,600 meatpacking employees in 10 of the company's 14 plants, that establishes a comprehensive program to reduce injuries caused by repetitive motion, commonly referred to as cumulative trauma disorders.

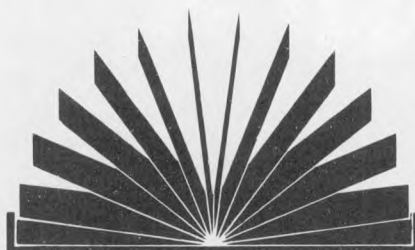
The program will use ergonomics to modify working conditions to fit workers. The company reportedly will furnish consultant and medical staff, train employees to become "ergonomic monitors" (to spot problems and work with supervisors to correct them), and provide orientation and training programs for new hires, as well as comprehensive preventive training for all employees. Other aspects of the program include a study of changes that must be made in the tools, equipment, and procedures used in the production process to ease employees' physical stress; and a study of changes needed in the medical treatment of injured employees.

The agreement comes amid charges by the Occupational Safety and Health Administration that Excel's parent company, Cargill, Inc., violated safety and health regulations by exposing employees to working conditions that lead to repetitive motion injuries.

Elsewhere in the meatpacking industry, after a 3-month aggressive organizing campaign by Teamsters Local 238, production and maintenance workers at IBP, Inc.'s facility at Columbus Junction, IA, rebuffed the union by a vote of 762 to 213 in a representation election conducted by the National Labor Relations Board. The election results for the 1,250 employee unit surprised the union's organizing team—Teamster Local 238 president said, "All indications were that we had a win."

IBP, the Nation's largest meat processing company, has 15 plants throughout the United States. The Teamsters represent IBP employees at four of the company's facilities (Amarillo, TX; Pasco, WA; and Dakota City and Storm Lake, IA). □

## Book reviews



### 'On-Demand' employment

*The Contingent Economy: The Growth of the Temporary, Part-time and Subcontracted Workforce.* By Richard S. Belous. Washington, DC, National Planning Association, 1989. 121 pp. \$15.

The changing relationship between workers and their employers has become an important issue in the continuing debate over the quality of jobs that the economy has generated in the 1980's. Some analysts have suggested that the bonds between workers and their employers have weakened to a point that our throwaway society has developed a class of disposable workers. The phrase, the "contingent work force," describe workers with little or no commitment from their employers for continuing employment. The possibility that a large and perhaps growing share of the labor force finds itself in such a predicament has received considerable attention in the press and was even the subject of congressional hearings in the spring of 1988. Richard Belous, who has published several articles about the contingent work force, has now written a longer study of this issue.

Belous asserts that increased competitive pressure during the 1980's has forced corporations to lower labor costs by adopting flexible labor-management strategies, including the use of contingent workers. These workers lack an implicit contract for long-term employment and thus have a limited stake in their firms. Examples of contingent work arrangements used by Belous include part-time and temporary work, as well as subcontracting. The author believes that contingent employment now represents at least a quarter of the U.S. employment total and accounted for nearly half of

the net increase in employment during the 1980's.

Belous describes a number of benefits that can result from contingent work arrangements. For example, employers may be able to respond more readily to market conditions or to hedge on risky new business ventures. The arrangements may benefit workers by offering alternative work schedules to persons with family or other non-work responsibilities. There are, of course, drawbacks to contingent arrangements. Employers may find contingent workers difficult to motivate and supervise. And, workers in contingent jobs typically receive low pay, few benefits, and, by definition, little job security.

The growth of the contingent work force presents several challenges to society. Key among these is providing health insurance and other benefits to workers who do not receive them through their employers. Another could be to compensate for a decline in employer-sponsored training, because firms have little incentive to train workers whom they employ for only a short time.

Belous deserves credit for addressing so many aspects of this important issue in a single volume and for providing information from an interesting source—50 interviews that he conducted with human resource executives. Readers unacquainted with the concept of the contingent work force will find all of the major issues touched on in the book. They may wonder, however, about the range of workers that the author defines as contingent. For example, he considers all subcontracting work to be contingent employment. In some instances, such as independent truck driving and free-lancing for newspapers, such a classification seems intuitively appropriate. Much

subcontracting, however, does not fit the stereotype of contingent work. The author, for example, describes a company that he identifies as GR, which has 120,000 employees working out of 3,500 locations and annual revenues of over \$4 billion. Because GR is a subcontractor, the author considers all its employees contingent. A reader may question the justification for defining all the workers—even those with full-time, permanent positions—of such a large and presumably prosperous company as contingent. Similar arguments could be made about defining all part-time workers and, particularly, the self-employed as contingent. It would seem, for example, that this offers the anomalous situation that self-employed individuals would be "contingent," while their full-time employees would not be.

Readers who have been following the discussion of the contingent work force may be disappointed at the rehashing of some items and at some missed opportunities to extend their knowledge on the subject. For example, the author presents an estimate of the contingent work force made by piecing together currently available data about part-time and self-employed workers and employment in the business services and temporary help supply industries. The shortcomings to this approach are readily apparent to any reader knowledgeable about the data used, and the author admits his estimates are subject to both over and undercounting. It is puzzling that so much emphasis is placed on these rather weak estimates.

It is also puzzling that the author did not make better use of his interviews with human resource executives from various industries. These interviews provide some of the most interesting information in the book, including a

good examination of the problems and benefits of contingent work arrangements. Yet, on some key issues, no information from these case studies is presented. There is no indication, for example, about how many of these firms offer some benefits to their contingent workers or of the actual cost savings to the firms from the use of these workers. The author does state that companies have surprisingly little information regarding their use of contingent arrangements, so data may have been hard to obtain. However, even the qualitative information the author provides from his interviews is at times disappointing.

In the discussion of the difficulties involved in supervising subcontractors, for example, the author mentions the case of a clothing manufacturer who subcontracts to have its products given an "aged" look. He then poses the questions: How do you supervise subcontracted (contingent) workers who have been hired to "destroy" clothing and how do you establish quality measures for making clothing look old? His only answer is, "The company was able to accomplish this tricky task." An attempt at a response might have provided useful insights into the difficulties in using contingent arrangements. An important service to the reader would have been rendered by tabulating whatever information was obtained from the interviews on the key issues. Also, some explanation of how the firms interviewed were selected and how the interviews were conducted would have been useful.

The considerable attention given to the evolving relationship between firms and their workers is likely to continue. Readers just beginning to explore this topic will find Belous' book to be a useful overview of the subject. The problems with the author's definition and estimates of contingent employment, however, suggest that much more research is needed in order to better understand the magnitude and effects of contingent work.

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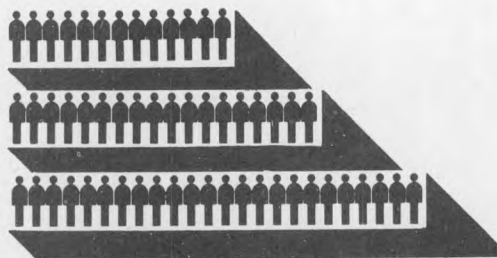
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# Current labor statistics



## Notes on Current Labor Statistics ..... 72

### Comparative indicators

1. Labor market indicators .....	82
2. Annual and quarterly percent changes in compensation, prices, and productivity .....	83
3. Alternative measures of wage and compensation changes .....	83

### Labor force data

4. Employment status of the total population, data seasonally adjusted .....	84
5. Employment status of the civilian population, data seasonally adjusted .....	85
6. Selected employment indicators, data seasonally adjusted .....	86
7. Selected unemployment indicators, data seasonally adjusted .....	87
8. Unemployment rates by sex and age, data seasonally adjusted .....	88
9. Unemployed persons by reason for unemployment, data seasonally adjusted .....	88
10. Duration of unemployment, data seasonally adjusted .....	88
11. Unemployment rates of civilian workers, by State .....	89
12. Employment of workers, by State .....	89
13. Employment of workers, by industry, data seasonally adjusted .....	90
14. Average weekly hours, by industry, data seasonally adjusted .....	91
15. Average hourly earnings, by industry, data seasonally adjusted .....	92
16. Average hourly earnings, by industry .....	92
17. Average weekly earnings, by industry .....	93
18. Diffusion indexes of employment change, data seasonally adjusted .....	94
19. Annual data: Employment status of the noninstitutional population .....	95
20. Annual data: Employment levels, by industry .....	95
21. Annual data: Average hours and earnings levels, by industry .....	96

### Labor compensation and collective bargaining data

22. Employment Cost Index, compensation, by occupation and industry group .....	97
23. Employment Cost Index, wages and salaries, by occupation and industry group .....	98
24. Employment Cost Index, benefits, private industry workers, by occupation and industry group .....	99
25. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size .....	100
26. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, situations covering 1,000 workers or more .....	101

### Labor compensation and collective bargaining data—Continued

27. Average specified compensation and wage adjustments, bargaining situations covering 1,000 workers or more .....	101
28. Average effective wage adjustments, bargaining situations covering 1,000 workers or more .....	102
29. Specified compensation and wage adjustments, State and local government bargaining situations covering 1,000 workers or more .....	102
30. Work stoppages involving 1,000 workers or more .....	102

### Price data

31. Consumer Price Index: U.S. city average, by expenditure category and commodity and service groups .....	103
32. Consumer Price Index: U.S. city average and local data, all items .....	106
33. Annual data: Consumer Price Index, all items and major groups .....	107
34. Producer Price Indexes, by stage of processing .....	108
35. Producer Price Indexes, by durability of product .....	108
36. Producer Price Indexes for the net output of major industry groups .....	109
37. Annual data: Producer Price Indexes, by stage of processing .....	109
38. U.S. export price indexes, by Standard International Trade Classification .....	110
39. U.S. import price indexes, by Standard International Trade Classification .....	111
40. U.S. export price indexes by end-use category .....	112
41. U.S. import price indexes by end-use category .....	112
42. U.S. export price indexes, by Standard Industrial Classification .....	112
43. U.S. import price indexes, by Standard Industrial Classification .....	113

### Productivity data

44. Indexes of productivity, hourly compensation, and unit costs, data seasonally adjusted .....	113
45. Annual indexes of multifactor productivity .....	114
46. Annual indexes of productivity, hourly compensation, unit costs, and prices .....	115
47. Annual productivity indexes for selected industries .....	116

### International comparisons data

48. Unemployment rates in nine countries, data seasonally adjusted .....	118
49. Annual data: Employment status of civilian working-age population, 10 countries .....	119
50. Annual indexes of productivity and related measures, 12 countries .....	120

### Injury and illness data

51. Annual data: Occupational injury and illness incidence rates .....	121
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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; collective bargaining settlements; 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 1-3, 4-10, 13-15, 17-18, 44, and 48. Seasonally adjusted labor force data in tables 1 and 4-10 were revised in the February 1990 issue of the *Review* and reflect the experience through 1989. Seasonally adjusted establishment survey data shown in tables 13-15 and 17-18 were revised in the July 1989 *Review* and reflect the experience through March 1989. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 44 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 15—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 1977 = 100, the hourly rate expressed in 1977 dollars is \$2 ( $\$3/150 \times 100 = \$2$ ). The \$2 (or any other resulting values) are described as "real," "constant," or "1977" dollars.

## Additional information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule preceding these general notes. More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in *Employment and Earnings*, a monthly publication of the Bureau. More data from the household survey are published in the data books—*Revised Seasonally Adjusted Labor Force Statistics*, Bulletin 2306, and *Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2307. More data from the establishment survey appear in two data books—*Employment, Hours, and Earnings, United States*, and *Employment, Hours, and Earnings, States and Areas*, and the supplements to these data books. More detailed information on employee compensation and collective bargaining settlements is published in the monthly periodical, *Current Wage Developments*. More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report*, and *Producer Price Indexes*. Detailed data on all of the series in this section are provided in the *Handbook of Labor Statistics*, which is published biennially by the Bureau. BLS bulletins are issued covering productivity, injury and illness, and other data in this section. 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 may also 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 nonagricultural payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in: consumer prices for all urban consumers; producer prices by stage of processing; and the 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. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988), as well as the additional bulletins, articles, and other publications noted in the separate sections of the *Review's* "Current Labor Statistics Notes." Users may also wish to consult *Major Programs, Bureau of Labor Statistics*, Report 718 (Bureau of Labor Statistics, 1985).

## Employment and Unemployment Data

(Tables 1; 4-21)

### 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 civilians 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. Members of the Armed Forces stationed in the United States are also included in the employed total. 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 or waiting to start new jobs within the next 30 days are also counted among the unemployed. The **overall unemployment rate** represents the number unemployed as a percent of the labor force, including the resident Armed Forces. The **civilian unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **labor force** consists of all employed or unemployed civilians plus members of the Armed Forces stationed in the United States. Persons **not in the labor force** are those not classified as employed or unemployed; this group includes persons who are retired, those engaged in their own household, those not working while attending school, those unable to work because of long-term illness, those discouraged from seeking work because of personal or job-market factors, and those who are voluntarily idle. The **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, and members of the Armed Forces stationed in the United States. The **labor force participation rate** is the proportion of the noninstitutional population that is in the labor force. The **employment-population ratio** is total employment (including the resident Armed Forces) as a percent of the 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 appear in the Explanatory Notes of *Employment and Earnings*.

Labor force data in tables 1 and 4-10 are seasonally adjusted based on the experience through December 1989. 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, February 1980).

At the end of each calendar year, seasonally adjusted data for the previous 5 years are revised, and projected seasonal adjustment factors are calculated for use during the January-June period. 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.

### Additional sources of information

For detailed explanations of the data, see *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988), and for additional data, *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989). Historical unadjusted data from 1948 to 1987 are available in *Labor Force Statistics Derived from the Current Population Survey*, Bulletin 2307 (Bureau of Labor Statistics, 1988). Historical seasonally adjusted data appear in *Labor Force Statistics Derived from the Current Population Survey: A Databook*, Vol. II, Bulletin 2096 (Bureau of Labor Statistics, 1982), and *Revised Seasonally Adjusted Labor Force Statistics, 1978-87*, Bulletin 2306 (Bureau of Labor Statistics, 1988).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20.

### 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 more than 300,000 establishments representing all industries except agriculture. 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 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 12-17 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 excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

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

**The Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Data are centered within the span. The March 1989 *Review* introduced an expanded index on private nonagricultural employment based on 349 industries, and a new manufacturing index based on 141 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 employ-

ment (called "benchmarks"). The latest adjustment, which incorporated March 1988 benchmarks, was made with the release of May 1989 data, published in the July 1989 issue of the *Review*. Coincident with the benchmark adjustments, seasonally adjusted data were revised to reflect the experience through March 1989. Unadjusted data have been revised back to April 1987; seasonally adjusted data back to January 1984. These revisions were published in the *Supplement to Employment and Earnings* (Bureau of Labor Statistics, 1989). Unadjusted data from April 1988 forward and seasonally adjusted data from January 1985 forward are subject to revision in future benchmarks.

The BLS also uses the X-11 ARIMA methodology to seasonally adjust establishment survey data. Beginning in June 1989, projected seasonal adjustment factors are calculated only for the first 6 months after benchmarking, rather than for 12 months (April-March) as was previously done. A second set of projected factors, which incorporate the experience through September, will be produced for the subsequent period and introduced with the publication of data for October. The change makes the procedure used for the establishment survey data more parallel to that used in adjusting the household survey data. Revisions of historical data will continue to be made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the 2 most recent months are based on incomplete returns and are published as preliminary in the tables (13 to 18 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 final in March.

#### Additional sources of information

Detailed national data from the establishment survey are published monthly in the BLS periodical, *Employment and Earnings*. Earlier comparable unadjusted and seasonally adjusted data are published in *Employment, Hours, and Earnings, United States, 1909-84*, Bulletin 1312-12 (Bureau of Labor Statistics, 1985) and its annual supplement. For a detailed discussion of the methodology of the survey, see *BLS Hand-*

*book of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988). For additional data, see *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20.

## Unemployment data by State

### Description of the series

Data presented in this section are obtained from two major sources—the Current Population Survey (CPS) and 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 and the Public Works and Economic Development Act. 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 11 States—California, Florida, Illinois, Massachusetts, Michigan, New York, New Jersey, North Carolina, Ohio, Pennsylvania, and Texas—are obtained directly from the CPS, because the size of the sample is large enough to meet BLS standards of reliability. Data for the remaining 39 States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates for the 11 States are revised to new population controls. For the remaining States and the District of Columbia, data are benchmarked to annual average CPS levels.

### Additional sources of information

Information on the concepts, definitions, and technical procedures used to develop labor force data for States and sub-State areas as well as additional data on sub-States are provided in the monthly Bureau of Labor Statistics periodical, *Employment and Earnings*, and the annual report, *Geographic Profile of Employment and Unemployment* (Bureau of Labor Statistics). See also *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988).

## Compensation and Wage Data

(Tables 1-3; 22-30)

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. The index is not seasonally adjusted.

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 4,200 private nonfarm establishments providing about 22,000 occupational observations and 800 State and local government establishments providing 4,200 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 bargain-

ing 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) of the quarterly rates of change are presented in the March issue of the BLS periodical, *Current Wage Developments*.

### Additional sources of information

For a more detailed discussion of the Employment Cost Index, see the *Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988), *Employment Cost Indexes and Levels, 1975-88*, Bulletin 2319 (Bureau of Labor Statistics, 1988), and the following *Monthly Labor Review* articles: "Estimation procedures for the Employment Cost Index," May 1982; and "Introducing new weights for the Employment Cost Index," June 1985.

Data on the ECI are also available in BLS quarterly press releases issued in the month

following the reference months of March, June, September, and December; and from the *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989).

## Collective bargaining settlements

### Description of the series

**Collective bargaining settlements** data provide statistical measures of negotiated adjustments (increases, decreases, and freezes) in compensation (wage and benefit costs) and wages alone, quarterly for private industry and semiannually for State and local government. Compensation measures cover all collective bargaining situations involving 5,000 workers or more and wage measures cover all situations involving 1,000 workers or more. These data, covering private nonagricultural industries and State and local governments, are calculated using information obtained from bargaining agreements on file with the Bureau, parties to the agreements, and secondary sources, such as newspaper accounts. The data are not seasonally adjusted.

Settlement data are measured in terms of future specified adjustments: those that will occur within 12 months of the contract effective date—first-year—and all adjustments that will occur over the life of the contract expressed as an average annual rate. Adjustments are worker weighted. Both first-year and over-the-life measures exclude wage changes that may occur under cost-of-living clauses that are triggered by future movements in the Consumer Price Index.

**Effective wage adjustments** measure all adjustments occurring in the reference period, regardless of the settlement date. Included are changes from settlements reached during the period, changes deferred from contracts negotiated in earlier periods, and changes under cost-of-living adjustment clauses. Each wage change is worker weighted. The changes are prorated over all workers under agreements during the reference period yielding the average adjustment.

### Definitions

**Wage rate changes** are calculated by dividing newly negotiated wages by the average straight-time hourly wage rate plus shift premium at the time the agreement is reached. Compensation changes are calculated by dividing the change in the value of the newly negotiated wage and benefit package by existing average hourly compensation, which includes the cost of previously negotiated benefits, legally required

social insurance programs, and average hourly earnings.

**Compensation changes** are calculated by placing a value on the benefit portion of the settlements at the time they are reached. The cost estimates are based on the assumption that conditions existing at the time of settlement (for example, methods of financing pensions or composition of labor force) will remain constant. The data, therefore, are measures of negotiated changes and not of total changes of employer cost.

**Contract duration** runs from the effective date of the agreement to the expiration date or first wage reopening date, if applicable. Average annual percent changes over the contract term take account of the compounding of successive changes.

### Notes on the data

Comparisons of major collective bargaining settlements for State and local government with those for private industry should note differences in occupational mix, bargaining practices, and settlement characteristics. Professional and white-collar employees, for example, make up a much larger proportion of the workers covered by government than by private industry settlements. Lump-sum payments and cost-of-living adjustments (COLA) clauses, on the other hand, are rare in government but common in private industry settlements. Also, State and local government bargaining frequently excludes items such as pension benefits and holidays, that are prescribed by law, while these items are typical bargaining issues in private industry.

### Additional sources of information

For a more detailed discussion on the series, see the *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988). Comprehensive data are published in press releases issued quarterly (in January, April, July, and October) for private industry, and semiannually (in February and August) for State and local government. Historical data and additional detailed tabulations for the prior calendar year appear in the April issue of the BLS periodical, *Current Wage Developments*.

### 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 time lost because of stoppage.

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

### Definitions

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

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

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

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

### Notes on the data

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

### Additional sources of information

Data for each calendar year are reported in a BLS press release issued in the first quarter of the following year. Monthly and historical data appear in the BLS periodical, *Current Wage Developments*. Historical data appear in the *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989).

### Other compensation data

Other BLS data on pay and benefits, not included in the Current Labor Statistics section of the *Monthly Labor Review*, appear in and consist of the following:

*Industry Wage Surveys* provide data for specific occupations selected to represent an industry's wage structure and the types of activities performed by its workers. The Bureau collects information on weekly work schedules, shift operations and pay differentials, paid holiday and vacation practices, and information on incidence of health, insurance, and retirement plans. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Monthly Labor Review*.

*Area Wage Surveys* annually provide data for selected office, clerical, profes-

sional, technical, maintenance, toolroom, powerplant, material movement, and custodial occupations common to a wide variety of industries in the areas (labor markets) surveyed. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Review*.

*The National Survey of Professional, Administrative, Technical, and Clerical Pay* provides detailed information annually on salary levels and distributions for the types of jobs mentioned in the survey's title in private employment. Although the definitions of the jobs surveyed reflect the duties and responsibilities in private industry, they are designed to match specific pay grades of Federal white-collar employees under the General Schedule pay system. Accordingly, this survey provides the legally required information for comparing the pay of salaried employees in the Federal civil service with pay in private industry. (See Federal Pay Comparability Act of 1970, 5 U.S.C. 5305.) Data are published in a BLS news release issued in the summer and in a bulletin each fall; summaries and analytical articles also appear in the *Review*.

*Employee Benefits Survey* provides nationwide information on the incidence and characteristics of employee benefit plans in medium and large establishments in the United States, excluding Alaska and Hawaii. Data are published in an annual BLS news release and bulletin, as well as in special articles appearing in the *Review*.

### Price Data

(Tables 2; 31-43)

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 or 1982-84 = 100 for many Consumer Price Indexes, unless otherwise noted).

### 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 1982-84 buying habits of about 80 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 21,000 retail establishments and 60,000 housing units in 91 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 27 major urban centers are presented in table 32. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

### Notes on the data

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

### Additional sources of information

For a discussion of the general method for computing the CPI, see *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988). The recent change in the measurement of homeownership costs is

discussed in Robert Gillingham and Walter Lane, "Changing the treatment of shelter costs for homeowners in the CPI," *Monthly Labor Review*, July 1982, pp. 9-14. An overview of the recently introduced revised CPI, reflecting 1982-84 expenditure patterns, is contained in *The Consumer Price Index: 1987 Revision*, Report 736 (Bureau of Labor Statistics, 1987).

Additional detailed CPI data and regular analyses of consumer price changes are provided in the *CPI Detailed Report*, a monthly publication of the Bureau. Historical data for the overall CPI and for selected groupings may be found in the *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989).

## 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 3,100 commodities and about 75,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining, gas and electricity, and public utilities sectors. The stage of processing structure of Producer Price Indexes 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 1987, 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 1982. 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.

### Notes on the data

Beginning with the January 1986 issue, the *Review* is no longer presenting tables of Producer Price Indexes for commodity groupings or special composite groups. However, these data will continue to be presented in the Bureau's monthly publication *Producer Price Indexes*.

The Bureau has completed the first major stage of its comprehensive overhaul of the theory, methods, and procedures used to construct the Producer Price Indexes. Changes include the replacement of judgment sampling with probability sampling techniques; expansion to systematic coverage of the net output of virtually all industries in the mining and manufacturing sectors; a shift from a commodity to an industry orientation; the exclusion of imports from, and the inclusion of exports in, the survey universe; and the respecification of commodities priced to conform to Bureau of the Census definitions. These and other changes have been phased in gradually since 1978. The result is a system of indexes that is easier to use in conjunction with data on wages, productivity, and employment and other series that are organized in terms of the Standard Industrial Classification and the Census product class designations.

### Additional sources of information

For a discussion of the methodology for computing Producer Price Indexes, see *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988).

Additional detailed data and analyses of price changes are provided monthly in *Producer Price Indexes*. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989).

## International Price Indexes

### Description of the series

The BLS **International Price Program** produces quarterly export and import price indexes for nonmilitary goods 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. With publication of an all-import index in February 1983 and an all-export index in February 1984, all U.S. merchandise imports and exports now are represented in these indexes. The reference period for the indexes is 1985 = 100, unless otherwise indicated.

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 quarterly 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 2 weeks of the third month of each calendar quarter—March, June, September, and December. 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 by the 4- and 5-digit level of detail of the Standard Industrial Trade Classification System (SITC). The calculation of indexes by SITC category facilitates the comparison of U.S. price trends and sector production with similar data for other countries. Detailed indexes are also computed and published on a Standard Industrial Classification (SIC-based) basis, as well as by end-use class.

### Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each weight category and are then aggregated to the SITC level. The values assigned to each weight category are based on trade value figures compiled by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1985.

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 quarterly 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 the export price indexes, the preferred pricing basis is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f. (cost, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges. For a given product, only one price basis series is used in the construction of an index.

Beginning in 1988, the Bureau has also been publishing a series of indexes which represent the price of U.S. exports and imports in foreign currency terms.

### Additional sources of information

For a discussion of the general method of computing International Price Indexes, see *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988).

Additional detailed data and analyses of international price developments are presented in the Bureau's quarterly publication *U.S. Import and Export Price Indexes* and in occasional *Monthly Labor Review* articles prepared by BLS analysts. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989). For further information on the foreign currency indexes, see "BLS publishes average exchange rate and foreign currency price indexes," *Monthly Labor Review*, December 1987, pp. 47-49.

## Productivity Data

(Tables 2; 44-47)

### Business sector and major sectors

#### Description of the series

The productivity measures relate real physical output to real input. As such, they encompass a family of measures which include single factor input measures, such as output per unit of labor input (output per hour) or output per unit of capital input, as well as measures of multifactor productivity (output per unit of labor and capital inputs combined). 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 value of goods and services in constant prices produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the value of goods and services in constant dollars produced per unit of capital services input.

**Multifactor productivity** is the ratio of output per unit of labor and capital inputs combined. Changes in this measure reflect changes in a number of factors which affect the production process, such as changes in technology, shifts in the composition of the labor force, changes in capacity utilization, research and development, skill and efforts of the work force, management, and so forth. Changes in the output per hour measures reflect the impact of these factors as well as the substitution of capital for labor.

**Compensation per hour** is the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, and the wages, salaries, and supplementary payments for the self-employed (except for nonfinancial corporations in which there are no self-employed)—the sum divided by hours paid for. **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 compen-



sation 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.

**Capital services** is 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.

**Labor and capital inputs** combined are derived by combining changes in labor and capital inputs with weights which represent each component's share of total output. The indexes for capital services and combined units of labor and capital 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

The output measure for the **business sector** is equal to constant-dollar gross national product but excludes the rental value of owner-occupied dwellings, the rest-of-world sector, the output of nonprofit institutions, the output of paid employees of private households, general government, and the statistical discrepancy. Output of the **nonfarm business sector** is equal to business sector output less farming. The measures are derived from data supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly manufacturing output indexes are adjusted by the Bureau of Labor Statistics to annual estimates of manufacturing output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are developed from data of the Bureau of Labor Statistics and the Bureau of Economic Analysis.

The productivity and associated cost measures in tables 44–47 describe the relationship between output in real terms and the labor time and capital services 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; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and efforts of the work force.

### Additional sources of information

Descriptions of methodology underlying the measurement of output per hour and multifactor productivity are found in the *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988). Historical data are provided in *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989).

### 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 3- and 4-digit levels of the Standard Industrial Classification system. 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 employee hour is derived by dividing an index of industry output by an index of aggregate hours of all employees. Output indexes are based on quantifiable units of products or services, or both, combined with fixed-period weights. Whenever possible, physical quantities are used as the unit of measurement for output. If quantity data are not available for a given industry, data on the constant-dollar value of production are used.

The labor input series consist of the hours of all employees (production 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.

#### Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics, the Departments of Commerce, Interior, and Agriculture, the Federal Reserve Board, regulatory agencies, trade associations, and other sources.

For most industries, the productivity in-

dexes refer to the output per hour of all employees. For some transportation industries, only indexes of output per employee are prepared. For some trade and service industries, indexes of output per hour of all persons (including the self-employed) are constructed.

### Additional sources of information

For a complete listing of available industry productivity indexes and their components, see *Productivity Measures for Selected Industries and Government Services*, Bulletin 2322 (Bureau of Labor Statistics, 1989). For additional information about the methodology for computing the industry productivity measures, see *Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988), chapter 11.

## International Comparisons

(Tables 48–50)

### Labor force and unemployment

#### Description of the series

Tables 48 and 49 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.

#### 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 over. Therefore, the adjusted statistics relate to the population age 16 and over in France,

Sweden, and from 1973 onward, the United Kingdom; 15 and over in Canada, Australia, Japan, Germany, the Netherlands, and prior to 1973, the United Kingdom; and 14 and over in Italy. 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 job 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 are, therefore, subject to revision whenever data from more current labor force surveys become available.

There are breaks in the data series for Germany (1983 and 1987), Italy (1986), the Netherlands (1983), and Sweden (1987). For both Germany and the Netherlands, the 1983 breaks reflect the replacement of labor force survey results tabulated by the national statistical offices with those tabulated by the European Community Statistical Office (EUROSTAT). The Dutch figures for 1983 onward also reflect the replacement of man-year employment data with data from the Dutch Survey of Employed Persons. The impact of the changes was to lower the adjusted unemployment rate by 0.3 percentage point for Germany and by about 2 percentage points for the Netherlands. The 1987 break for Germany reflects the incorporation of employment statistics based on the 1987 Population Census, which indicated that the level of employment was about 1 million higher than previously estimated. The impact of this change was to lower the adjusted unemployment rate by 0.3 percentage point. When historical data benchmarked to the 1987 census became available, BLS will revise its comparative measures for Germany.

For Italy, the break in series reflects more accurate enumeration of time of last job search. This resulted in a significant increase in the number of people reported as seeking work in the last 30 days. The impact was to increase the Italian unemployment rates approximating U.S. concepts by about 1 percentage point.

Sweden introduced a new questionnaire.

Questions regarding current availability were added and the period of active work-seeking was reduced from 60 days to 4 weeks. These changes result in lowering Sweden's unemployment rate by 0.5 percentage point.

### Additional sources of information

For further information, see *International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, 1978), Appendix B, and Supplements to Appendix B. The statistics are also analyzed periodically in the *Monthly Labor Review*. Additional historical data, generally beginning with 1959, are published in the *Handbook of Labor Statistics* and are available in statistical supplements to Bulletin 1979.

## Occupational Injury and Illness Data

(Table 51)

### Description of the series

The Annual Survey of Occupational Injuries and Illnesses is designed to collect data on injuries and illnesses based on records which employers in the following industries maintain under the Occupational Safety and Health Act of 1970: agriculture, forestry, and fishing; oil and gas extraction; construction; manufacturing; transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. Excluded from the survey are self-employed individuals, farmers with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies.

Because the survey is a Federal-State cooperative program and the data must meet the needs of participating State agencies, an independent sample is selected for each State. The sample is selected to represent all private industries in the States and territories. The sample size for the survey is dependent upon (1) the characteristics for which estimates are needed; (2) the industries for which estimates are desired; (3) the characteristics of the population being sampled; (4) the target reliability of the estimates; and (5) the survey design employed.

While there are many characteristics upon which the sample design could be based, the total recorded case incidence rate is used because it is one of the most important characteristics and the least variable; therefore, it requires the smallest sample size.

The survey is based on stratified random

sampling with a Neyman allocation and a ratio estimator. The characteristics used to stratify the establishments are the Standard Industrial Classification (sic) code and size of employment.

### Definitions

**Recordable occupational injuries and illnesses** are: (1) occupational deaths, regardless of the time between injury and death, or the length of the illness; or (2) nonfatal occupational illnesses; or (3) nonfatal occupational injuries which 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, amputation, and so forth, which results from a work accident or from exposure involving a single incident in the work environment.

**Occupational illness** is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental 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 cases** are cases which involve days away from work, or days of restricted work activity, or both.

**Lost workday cases involving restricted work activity** are those cases which result in restricted work activity only.

**Lost workdays away from work** are the number of workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness.

**Lost workdays—restricted work activity** are the number of workdays (consecutive or not) on which, because of injury or illness: (1) the employee was assigned to another job on a temporary basis; or (2) the employee worked at a permanent job less than full time; or (3) the employee worked at a permanently assigned job but could not perform all duties normally connected with it.

**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 even though able to work.

**Incidence rates** represent the number of injuries and/or illnesses or lost workdays per 100 full-time workers.

### Notes on the data

Estimates are made for industries and employment-size classes and for severity

classification: fatalities, lost workday cases, and nonfatal cases without lost workdays. Lost workday cases are separated into those where the employee would have worked but could not and those in which work activity was restricted. Estimates of the number of cases and the number of days lost are made for both categories.

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses, or lost workdays, per 100 full-time employees. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Only a few of the available measures are included in the *Handbook of Labor Statistics*. Full detail is presented in the annual bulletin, *Occupational Injuries and Illnesses in the United States, by Industry*.

Comparable data for individual States are available from the BLS Office of Safety,

Health, and Working Conditions.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration, respectively. Data from these organizations are included in BLS and State publications. Federal employee experience is compiled and published by the Occupational Safety and Health Administration. Data on State and local government employees are collected by about half of the States and territories; these data are not compiled nationally.

#### **Additional sources of information**

The Supplementary Data System provides detailed information describing various factors associated with work-related injuries and illnesses. These data are obtained from information reported by employers to State workers' compensation

agencies. The Work Injury Report program examines selected types of accidents through an employee survey which focuses on the circumstances surrounding the injury. These data are not included in the *Handbook of Labor Statistics* but are available from the BLS Office of Safety, Health, and Working Conditions.

The definitions of occupational injuries and illnesses and lost workdays are from *Recordkeeping Requirements under the Occupational Safety and Health Act of 1970*. For additional data, see *Occupational Injuries and Illnesses in the United States, by Industry*, annual Bureau of Labor Statistics bulletin; *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988); *Handbook of Labor Statistics*, Bulletin 2340 (Bureau of Labor Statistics, 1989), pp. 411-14; annual reports in the *Monthly Labor Review*; and annual U.S. Department of Labor press releases.

Current Labor Statistics: Comparative Indicators

1. Labor market indicators

Selected indicators	1988	1989	1988				1989			
			I	II	III	IV	I	II	III	IV
<b>Employment data</b>										
Employment status of the civilian noninstitutionalized population (household survey): <sup>1</sup>										
Labor force participation rate .....	65.9	66.5	65.8	65.8	66.0	66.1	66.3	66.5	66.5	66.5
Employment-population ratio .....	62.3	63.0	62.0	62.2	62.3	62.6	62.9	63.0	63.0	63.0
Unemployment rate .....	5.5	5.3	5.7	5.5	5.5	5.3	5.2	5.3	5.3	5.3
Men .....	5.5	5.2	5.6	5.4	5.5	5.3	5.2	5.1	5.2	5.3
16 to 24 years .....	11.4	11.4	11.9	11.2	11.5	11.1	11.2	11.1	11.4	11.8
25 years and over .....	4.2	3.9	4.3	4.2	4.2	4.1	3.9	3.9	3.9	4.0
Women .....	5.6	5.4	5.8	5.6	5.5	5.3	5.2	5.4	5.4	5.4
16 to 24 years .....	10.6	10.4	11.0	10.7	10.5	10.3	10.2	10.4	10.5	10.4
25 years and over .....	4.3	4.2	4.5	4.3	4.3	4.1	4.1	4.2	4.2	4.3
Unemployment rate, 15 weeks and over .....	1.3	1.1	1.4	1.3	1.3	1.2	1.1	1.1	1.1	1.1
Employment, nonagricultural (payroll data), in thousands: <sup>1</sup>										
Total .....	105,584	108,579	104,355	105,184	105,976	106,799	107,680	108,339	108,917	109,390
Private sector .....	88,212	90,852	87,111	87,851	88,577	89,288	90,104	90,661	91,110	91,545
Goods-producing .....	25,249	25,634	25,022	25,202	25,313	25,452	25,634	25,664	25,659	25,582
Manufacturing .....	19,403	19,612	19,271	19,360	19,435	19,550	19,659	19,663	19,617	19,514
Service-producing .....	80,335	82,945	79,333	79,983	80,663	81,346	82,047	82,676	83,258	83,809
Average hours:										
Private sector .....	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.6
Manufacturing .....	41.1	41.0	41.0	41.1	41.1	41.1	41.1	41.1	41.0	40.7
Overtime .....	3.9	3.8	3.8	3.9	3.9	3.9	3.9	3.8	3.8	3.7
<b>Employment Cost Index</b>										
Percent change in the ECI, compensation:										
All workers (excluding farm, household, and Federal workers) .....	5.0	5.0	1.4	1.1	1.3	1.0	1.2	1.1	1.6	1.0
Private industry workers .....	4.9	4.8	1.5	1.2	1.0	1.0	1.3	1.2	1.2	1.0
Goods-producing <sup>2</sup> .....	4.4	4.3	1.8	1.1	.6	.8	1.0	1.1	1.1	1.0
Service-producing <sup>2</sup> .....	5.1	5.1	1.3	1.4	1.2	1.2	1.5	1.2	1.3	.9
State and local government workers .....	5.6	6.2	1.3	.3	2.7	1.1	1.2	.6	3.3	1.0
Workers by bargaining status (private industry):										
Union .....	3.9	3.7	1.6	1.0	.7	.5	.8	1.0	.9	1.0
Nonunion .....	5.1	5.1	1.5	1.3	1.1	1.2	1.5	1.2	1.4	.9

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

<sup>2</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	1988	1989	1988				1989			
			I	II	III	IV	I	II	III	IV
<b>Compensation data<sup>1, 2</sup></b>										
Employment Cost Index--compensation (wages, salaries, benefits):										
Civilian nonfarm .....	5.0	5.0	1.4	1.1	1.3	1.0	1.2	1.1	1.6	1.0
Private nonfarm .....	4.9	4.8	1.5	1.2	1.0	1.0	1.3	1.2	1.2	1.0
Employment Cost Index--wages and salaries										
Civilian nonfarm .....	4.3	4.4	1.0	.9	1.3	1.0	1.1	.8	1.6	.8
Private nonfarm .....	4.1	4.2	1.0	1.1	1.0	1.0	1.1	1.0	1.2	.8
<b>Price data<sup>1</sup></b>										
Consumer Price Index (All urban consumers): All items .....	4.4	4.6	1.0	1.3	1.5	.6	1.5	1.5	.7	.9
Producer Price Index:										
Finished goods .....	4.0	4.8	.5	1.3	.8	1.3	1.9	2.0	-.6	1.5
Finished consumer goods .....	4.0	5.3	.4	1.4	1.0	1.1	2.2	2.3	-.8	1.5
Capital equipment .....	3.6	3.7	.7	.6	.4	1.8	.9	1.1	.1	1.5
Intermediate materials, supplies, components .....	5.6	2.4	1.1	2.6	1.2	.6	1.9	1.1	-.3	-.4
Crude materials .....	3.1	6.9	-.3	4.0	-1.2	.6	6.1	.9	-1.7	1.7
<b>Productivity data<sup>3</sup></b>										
Output per hour of all persons:										
Business sector .....	1.7	1.1	2.5	-2.1	3.1	.2	1.1	1.6	1.5	.2
Nonfarm business sector .....	2.0	.9	2.8	-1.6	3.3	1.9	-1.3	1.1	2.4	.2
Nonfinancial corporations <sup>4</sup> .....	2.3	-	3.9	.4	1.3	-.4	-1.7	.1	3.0	-

<sup>1</sup> Annual changes are December-to-December change. 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 percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

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

- Data not available.

## 3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ended--					
	1988		1989				1988		1989			
	III	IV	I	II	III	IV	III	IV	I	II	III	IV
Average hourly compensation: <sup>1</sup>												
All persons, business sector .....	5.8	5.2	4.8	6.8	4.7	6.5	5.3	4.8	5.4	5.6	5.4	5.7
All persons, nonfarm business sector .....	5.4	5.9	4.9	5.6	5.3	6.9	5.1	4.8	5.4	5.5	5.4	5.7
Employment Cost Index--compensation:												
Civilian nonfarm <sup>2</sup> .....	1.3	1.0	1.2	1.1	1.6	1.0	4.7	5.0	4.8	4.8	5.1	5.0
Private nonfarm .....	1.0	1.0	1.3	1.2	1.2	1.0	4.5	4.9	4.6	4.5	4.7	4.8
Union .....	.7	.5	.8	1.0	.9	1.0	4.5	3.9	3.0	3.1	3.2	3.7
Nonunion .....	1.1	1.2	1.5	1.2	1.4	.9	4.5	5.1	5.1	5.0	5.3	5.1
State and local governments .....	2.7	1.1	1.2	.6	3.3	1.0	5.4	5.6	5.5	5.8	6.4	6.2
Employment Cost Index--wages and salaries:												
Civilian nonfarm <sup>2</sup> .....	1.3	1.0	1.1	.8	1.6	.8	3.9	4.3	4.4	4.3	4.6	4.4
Private nonfarm .....	1.0	1.0	1.1	1.0	1.2	.8	3.7	4.1	4.2	4.1	4.4	4.2
Union .....	.7	.4	.7	.8	.6	1.0	2.9	2.2	2.5	2.6	2.5	3.1
Nonunion .....	1.0	1.1	1.3	1.0	1.3	.8	3.9	4.5	4.8	4.6	4.9	4.5
State and local governments .....	2.6	1.0	.8	.5	3.1	.8	4.7	4.8	4.8	5.0	5.5	5.3
Total effective wage adjustments <sup>3</sup> .....	.8	.5	.5	1.0	1.0	.7	2.9	2.6	2.7	2.8	3.0	3.2
From current settlements .....	.2	.1	.1	.3	.4	.4	1.0	.7	.8	.7	.9	1.2
From prior settlements .....	.4	.2	.3	.5	.4	.2	1.4	1.3	1.3	1.3	1.3	1.3
From cost-of-living provision .....	.2	.2	.1	.2	.2	.1	.5	.6	.6	.8	.8	.7
Negotiated wage adjustments from settlements: <sup>3</sup>												
First-year adjustments .....	2.7	2.6	3.2	3.9	3.6	5.0	2.5	2.5	2.7	3.2	3.5	4.0
Annual rate over life of contract .....	2.8	2.2	3.1	3.3	3.0	3.9	2.2	2.4	2.5	2.9	3.0	3.3
Negotiated wage and benefit adjustments from settlements: <sup>4</sup>												
First-year adjustment .....	3.4	3.5	3.2	5.1	3.9	5.3	3.1	3.1	3.3	3.8	4.0	4.5
Annual rate over life of contract .....	3.2	2.1	3.1	3.4	2.7	4.1	2.5	2.5	2.6	3.0	2.8	3.3

<sup>1</sup> Seasonally adjusted.

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

<sup>3</sup> Limited to major collective bargaining units of 1,000 workers or more. The

most recent data are preliminary.

<sup>4</sup> Limited to major collective bargaining units of 5,000 workers or more. The most recent data are preliminary.

Current Labor Statistics: Employment Data

4. Employment status of the total population, by sex, monthly data seasonally adjusted

(Numbers in thousands)

Employment status	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>TOTAL</b>															
Noninstitutional population <sup>1, 2</sup> .....	186,322	188,081	187,340	187,461	187,581	187,708	187,854	187,995	188,149	188,286	188,428	188,580	188,721	188,865	188,990
Labor force <sup>2</sup> .....	123,378	125,557	124,961	124,801	124,929	125,299	125,224	125,777	125,679	125,758	125,725	125,857	126,192	126,246	126,094
Participation rate <sup>3</sup> .....	66.2	66.8	66.7	66.6	66.6	66.8	66.7	66.9	66.8	66.8	66.7	66.7	66.9	66.8	66.7
Total employed <sup>2</sup> .....	116,677	119,030	118,336	118,441	118,731	118,768	118,805	119,208	119,102	119,238	119,121	119,294	119,540	119,588	119,560
Employment-population ratio <sup>4</sup> .....	62.6	63.3	63.2	63.2	63.3	63.3	63.2	63.4	63.3	63.3	63.2	63.3	63.3	63.3	63.3
Resident Armed Forces <sup>1</sup> .....	1,709	1,688	1,696	1,684	1,684	1,684	1,673	1,666	1,666	1,688	1,702	1,709	1,704	1,700	1,697
Civilian employed .....	114,968	117,342	116,640	116,757	117,047	117,084	117,132	117,542	117,436	117,550	117,419	117,585	117,836	117,888	117,863
Agriculture .....	3,169	3,199	3,268	3,196	3,185	3,144	3,137	3,138	3,217	3,275	3,219	3,197	3,160	3,197	3,134
Nonagricultural industries .....	111,800	114,142	113,372	113,561	113,862	113,940	113,995	114,404	114,219	114,275	114,200	114,388	114,676	114,691	114,728
Unemployed .....	6,701	6,528	6,625	6,360	6,198	6,531	6,419	6,569	6,577	6,520	6,604	6,563	6,652	6,658	6,535
Unemployment rate <sup>5</sup> .....	5.4	5.2	5.3	5.1	5.0	5.2	5.1	5.2	5.2	5.2	5.3	5.2	5.3	5.3	5.2
Not in labor force .....	62,944	62,523	62,379	62,660	62,652	62,409	62,630	62,218	62,470	62,528	62,703	62,723	62,529	62,619	62,896
<b>Men, 16 years and over</b>															
Noninstitutional population <sup>1, 2</sup> .....	89,404	90,283	89,914	89,973	90,032	90,094	90,167	90,237	90,315	90,384	90,456	90,535	90,606	90,678	90,772
Labor force <sup>2</sup> .....	68,474	69,360	68,936	69,033	69,100	69,293	69,142	69,542	69,366	69,404	69,360	69,599	69,635	69,725	69,539
Participation rate <sup>3</sup> .....	76.6	76.8	76.7	76.7	76.8	76.9	76.7	77.1	76.8	76.8	76.7	76.9	76.9	76.9	76.6
Total employed <sup>2</sup> .....	64,820	65,835	65,296	65,529	65,814	65,727	65,713	66,078	65,939	65,919	65,681	66,046	66,011	66,143	65,943
Employment-population ratio <sup>4</sup> .....	72.5	72.9	72.6	72.8	73.1	73.0	72.9	73.2	73.0	72.9	72.6	73.0	72.9	72.9	72.6
Resident Armed Forces <sup>1</sup> .....	1,547	1,520	1,532	1,521	1,521	1,521	1,511	1,501	1,499	1,519	1,531	1,533	1,529	1,525	1,523
Civilian employed .....	63,273	64,315	63,764	64,008	64,293	64,206	64,202	64,577	64,440	64,400	64,150	64,513	64,482	64,618	64,420
Unemployed .....	3,655	3,525	3,640	3,504	3,286	3,566	3,429	3,464	3,427	3,485	3,679	3,553	3,624	3,582	3,597
Unemployment rate <sup>5</sup> .....	5.3	5.1	5.3	5.1	4.8	5.1	5.0	5.0	4.9	5.0	5.3	5.1	5.2	5.1	5.2
<b>Women, 16 years and over</b>															
Noninstitutional population <sup>1, 2</sup> .....	96,918	97,798	97,427	97,488	97,550	97,614	97,687	97,758	97,834	97,902	97,972	98,045	98,115	98,187	98,218
Labor force <sup>2</sup> .....	54,904	56,198	56,025	55,768	55,829	56,006	56,082	56,235	56,313	56,354	56,365	56,258	56,557	56,521	56,555
Participation rate <sup>3</sup> .....	56.6	57.5	57.5	57.2	57.2	57.4	57.4	57.5	57.6	57.6	57.5	57.4	57.6	57.6	57.6
Total employed <sup>2</sup> .....	51,858	53,195	53,040	52,912	52,917	53,041	53,092	53,130	53,163	53,319	53,440	53,248	53,529	53,445	53,617
Employment-population ratio <sup>4</sup> .....	53.5	54.4	54.4	54.3	54.2	54.3	54.3	54.3	54.3	54.5	54.5	54.3	54.6	54.4	54.6
Resident Armed Forces <sup>1</sup> .....	162	168	164	163	163	163	162	165	167	169	171	176	175	175	174
Civilian employed .....	51,696	53,027	52,876	52,749	52,754	52,878	52,930	52,965	52,996	53,150	53,269	53,072	53,354	53,270	53,443
Unemployed .....	3,046	3,003	2,985	2,856	2,912	2,965	2,990	3,105	3,150	3,035	2,925	3,010	3,028	3,076	2,938
Unemployment rate <sup>5</sup> .....	5.5	5.3	5.3	5.1	5.2	5.3	5.3	5.5	5.6	5.4	5.2	5.4	5.4	5.4	5.2

<sup>1</sup> The population and Armed Forces figures are not adjusted for seasonal variation.

<sup>2</sup> Includes members of the Armed Forces stationed in the United States.

<sup>3</sup> Labor force as a percent of the noninstitutional population.

<sup>4</sup> Total employed as a percent of the noninstitutional population.

<sup>5</sup> Unemployment as a percent of the labor force (including the resident Armed Forces).

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

(Numbers in thousands)

Employment status	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>TOTAL</b>															
Civilian noninstitutional population <sup>1</sup>	184,613	186,393	185,644	185,777	185,897	186,024	186,181	186,329	186,483	186,598	186,726	186,871	187,017	187,165	187,293
Civilian labor force	121,669	123,869	123,265	123,117	123,245	123,615	123,551	124,111	124,013	124,070	124,023	124,148	124,488	124,546	124,397
Participation rate	65.9	66.5	66.4	66.3	66.3	66.5	66.4	66.6	66.5	66.5	66.4	66.4	66.6	66.5	66.4
Employed	114,968	117,342	116,640	116,757	117,047	117,084	117,132	117,542	117,436	117,550	117,419	117,585	117,836	117,888	117,863
Employment-population ratio <sup>2</sup>	62.3	63.0	62.8	62.8	63.0	62.9	62.9	63.1	63.0	63.0	62.9	62.9	63.0	63.0	62.9
Unemployed	6,701	6,528	6,625	6,360	6,198	6,531	6,419	6,569	6,577	6,520	6,604	6,563	6,652	6,658	6,535
Unemployment rate	5.5	5.3	5.4	5.2	5.0	5.3	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Not in labor force	62,944	62,523	62,379	62,660	62,652	62,409	62,630	62,218	62,470	62,528	62,703	62,723	62,529	62,619	62,896
<b>Men, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	80,553	81,619	81,162	81,256	81,333	81,413	81,524	81,592	81,679	81,754	81,790	81,905	81,968	82,055	82,168
Civilian labor force	62,768	63,704	63,285	63,393	63,468	63,638	63,535	63,874	63,736	63,717	63,771	63,918	63,967	64,071	63,958
Participation rate	77.9	78.1	78.0	78.0	78.0	78.2	77.9	78.3	78.0	77.9	78.0	78.0	78.0	78.1	77.8
Employed	59,781	60,837	60,398	60,566	60,783	60,716	60,774	61,072	60,915	60,861	60,729	61,026	61,033	61,154	60,976
Employment-population ratio <sup>2</sup>	74.2	74.5	74.4	74.5	74.7	74.6	74.5	74.9	74.6	74.4	74.2	74.5	74.5	74.5	74.2
Agriculture	2,271	2,307	2,286	2,312	2,309	2,270	2,295	2,279	2,329	2,340	2,330	2,304	2,292	2,293	2,269
Nonagricultural industries	57,510	58,530	58,112	58,254	58,474	58,446	58,479	58,793	58,586	58,521	58,399	58,722	58,741	58,861	58,706
Unemployed	2,987	2,867	2,887	2,827	2,685	2,922	2,761	2,802	2,821	2,856	3,042	2,892	2,934	2,917	2,983
Unemployment rate	4.8	4.5	4.6	4.5	4.2	4.6	4.3	4.4	4.4	4.5	4.8	4.5	4.6	4.6	4.7
<b>Women, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup>	89,532	90,550	90,072	90,153	90,242	90,318	90,432	90,526	90,607	90,684	90,771	90,860	90,952	91,042	91,091
Civilian labor force	50,870	52,212	51,961	51,816	51,876	52,009	52,120	52,219	52,385	52,352	52,358	52,281	52,541	52,586	52,686
Participation rate	56.8	57.7	57.7	57.5	57.5	57.6	57.6	57.7	57.8	57.7	57.7	57.5	57.8	57.8	57.8
Employed	48,383	49,745	49,517	49,455	49,467	49,560	49,649	49,687	49,817	49,875	49,984	49,796	50,043	50,048	50,255
Employment-population ratio <sup>2</sup>	54.0	54.9	55.0	54.9	54.8	54.9	54.9	54.9	55.0	55.0	55.1	54.8	55.0	55.0	55.2
Agriculture	625	642	704	646	647	638	633	622	639	642	660	641	624	618	594
Nonagricultural industries	47,757	49,103	48,813	48,809	48,820	48,922	49,016	49,065	49,178	49,233	49,324	49,155	49,419	49,430	49,661
Unemployed	2,487	2,467	2,444	2,361	2,409	2,449	2,471	2,532	2,568	2,477	2,374	2,485	2,498	2,538	2,431
Unemployment rate	4.9	4.7	4.7	4.6	4.6	4.7	4.7	4.8	4.9	4.7	4.5	4.8	4.8	4.8	4.6
<b>Both sexes, 16 to 19 years</b>															
Civilian noninstitutional population <sup>1</sup>	14,527	14,223	14,410	14,367	14,323	14,293	14,224	14,211	14,196	14,160	14,166	14,107	14,097	14,067	14,034
Civilian labor force	8,031	7,954	8,019	7,908	7,901	7,968	7,896	8,018	7,892	8,001	7,894	7,949	7,980	7,889	7,752
Participation rate	55.3	55.9	55.6	55.0	55.2	55.7	55.5	56.4	55.6	56.5	55.7	56.3	56.6	56.1	55.2
Employed	6,805	6,759	6,725	6,736	6,797	6,808	6,709	6,783	6,704	6,814	6,706	6,763	6,760	6,686	6,631
Employment-population ratio <sup>2</sup>	46.8	47.5	46.7	46.9	47.5	47.6	47.2	47.7	47.2	48.1	47.3	47.9	48.0	47.5	47.3
Agriculture	273	250	278	238	229	236	209	237	249	293	229	252	244	286	270
Nonagricultural industries	6,532	6,510	6,447	6,498	6,568	6,572	6,500	6,546	6,455	6,521	6,477	6,511	6,516	6,400	6,361
Unemployed	1,226	1,194	1,294	1,172	1,104	1,160	1,187	1,235	1,188	1,187	1,188	1,186	1,220	1,203	1,121
Unemployment rate	15.3	15.0	16.1	14.8	14.0	14.6	15.0	15.4	15.1	14.8	15.0	14.9	15.3	15.2	14.5
<b>White</b>															
Civilian noninstitutional population <sup>1</sup>	158,194	159,338	158,865	158,947	159,020	159,098	159,200	159,297	159,400	159,470	159,549	159,644	159,736	159,832	159,938
Civilian labor force	104,756	106,355	105,999	105,760	105,926	106,208	106,152	106,474	106,384	106,485	106,393	106,618	106,834	106,896	106,884
Participation rate	66.2	66.7	66.7	66.5	66.6	66.8	66.7	66.8	66.7	66.8	66.7	66.8	66.9	66.9	66.8
Employed	99,812	101,584	101,137	101,187	101,413	101,400	101,432	101,683	101,546	101,684	101,579	101,862	101,991	102,032	102,074
Employment-population ratio <sup>2</sup>	63.1	63.8	63.7	63.7	63.8	63.7	63.7	63.8	63.7	63.8	63.7	63.8	63.8	63.8	63.8
Unemployed	4,944	4,770	4,862	4,573	4,513	4,808	4,720	4,791	4,838	4,801	4,814	4,756	4,843	4,864	4,811
Unemployment rate	4.7	4.5	4.6	4.3	4.3	4.5	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.5
<b>Black</b>															
Civilian noninstitutional population <sup>1</sup>	20,692	21,021	20,877	20,905	20,930	20,956	20,986	21,012	21,038	21,060	21,085	21,108	21,136	21,164	21,163
Civilian labor force	13,205	13,497	13,447	13,443	13,429	13,336	13,454	13,569	13,548	13,476	13,518	13,507	13,576	13,522	13,510
Participation rate	63.8	64.2	64.4	64.3	64.2	63.6	64.1	64.6	64.4	64.0	64.1	64.0	64.2	63.9	63.8
Employed	11,658	11,953	11,867	11,883	11,952	11,872	11,962	11,969	12,063	11,961	11,938	11,923	11,954	11,920	11,978
Employment-population ratio <sup>2</sup>	56.3	56.9	56.8	56.8	57.1	56.7	57.0	57.0	57.3	56.8	56.6	56.5	56.6	56.3	56.6
Unemployed	1,547	1,544	1,580	1,560	1,477	1,464	1,492	1,600	1,485	1,515	1,580	1,584	1,622	1,602	1,532
Unemployment rate	11.7	11.4	11.7	11.6	11.0	11.0	11.1	11.8	11.0	11.2	11.7	11.7	11.9	11.8	11.3

See footnotes at end of table.

Current Labor Statistics: Employment Data

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

(Numbers in thousands)

Employment status	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>Hispanic origin</b>															
Civilian noninstitutional population <sup>1</sup> .....	13,325	13,791	13,564	13,606	13,649	13,690	13,731	13,772	13,813	13,853	13,894	13,936	13,977	14,019	14,080
Civilian labor force .....	8,982	9,323	9,211	9,192	9,201	9,288	9,359	9,289	9,403	9,361	9,342	9,339	9,424	9,495	9,440
Participation rate .....	67.4	67.6	67.9	67.6	67.4	67.8	68.2	67.4	68.1	67.6	67.2	67.0	67.4	67.7	67.0
Employed .....	8,250	8,573	8,452	8,549	8,581	8,531	8,619	8,543	8,579	8,541	8,564	8,595	8,672	8,691	8,769
Employment-population ratio <sup>2</sup> .....	61.9	62.2	62.3	62.8	62.9	62.3	62.8	62.0	62.1	61.7	61.6	61.7	62.0	62.0	62.3
Unemployed .....	732	750	759	643	620	757	740	746	824	820	778	744	752	804	671
Unemployment rate .....	8.2	8.0	8.2	7.0	6.7	8.2	7.9	8.0	8.8	8.8	8.3	8.0	8.0	8.5	7.1

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

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

because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals

6. Selected employment indicators, monthly data seasonally adjusted

(In thousands)

Selected categories	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>CHARACTERISTIC</b>															
Civilian employed, 16 years and over .....	114,968	117,342	116,640	116,757	117,047	117,084	117,132	117,542	117,436	117,550	117,419	117,585	117,836	117,888	117,863
Men .....	63,273	64,315	63,764	64,008	64,293	64,206	64,202	64,577	64,440	64,400	64,150	64,513	64,482	64,618	64,420
Women .....	51,696	53,027	52,876	52,749	52,754	52,878	52,930	52,965	52,996	53,150	53,269	53,072	53,354	53,270	53,443
Married men, spouse present ..	40,472	40,760	40,794	40,880	40,976	40,857	40,932	41,025	41,067	40,723	40,649	40,839	40,886	41,041	40,982
Married women, spouse present .....	28,756	29,404	29,557	29,379	29,485	29,563	29,608	29,499	29,520	29,259	29,506	29,544	29,767	29,695	29,897
Women who maintain families ..	6,211	6,338	6,396	6,381	6,267	6,263	6,354	6,401	6,446	6,371	6,429	6,354	6,351	6,349	6,215
<b>MAJOR INDUSTRY AND CLASS OF WORKER</b>															
Agriculture:															
Wage and salary workers .....	1,621	1,665	1,667	1,644	1,651	1,630	1,647	1,557	1,685	1,723	1,680	1,678	1,687	1,677	1,634
Self-employed workers .....	1,398	1,403	1,395	1,411	1,403	1,414	1,377	1,411	1,424	1,410	1,424	1,406	1,373	1,369	1,354
Unpaid family workers .....	150	131	177	146	137	126	127	126	127	133	132	124	122	125	107
Nonagricultural industries:															
Wage and salary workers .....	103,021	105,259	104,380	104,815	104,948	104,981	105,232	105,430	105,353	105,317	105,476	105,504	105,960	105,643	105,747
Government .....	17,114	17,469	17,346	17,318	17,376	17,266	17,305	17,328	17,501	17,559	17,613	17,595	17,681	17,728	17,626
Private industries .....	85,907	87,790	87,034	87,497	87,572	87,715	87,927	88,102	87,852	87,758	87,863	87,909	88,279	87,915	88,121
Private households .....	1,153	1,101	1,187	1,131	1,149	1,118	1,123	1,128	1,094	1,147	1,065	987	1,051	1,077	1,035
Other .....	84,754	86,689	85,847	86,366	86,423	86,597	86,804	86,974	86,758	86,611	86,798	86,922	87,228	86,838	87,086
Self-employed workers .....	8,519	8,605	8,681	8,541	8,631	8,643	8,573	8,578	8,602	8,621	8,581	8,610	8,528	8,653	8,733
Unpaid family workers .....	260	279	298	290	319	277	299	245	248	272	279	280	264	251	256
<b>PERSONS AT WORK PART TIME<sup>1</sup></b>															
All industries:															
Part time for economic reasons ..	5,206	4,894	5,082	4,987	4,978	5,086	4,883	4,928	4,773	4,802	4,864	4,767	4,803	4,802	4,983
Slack work .....	2,350	2,303	2,328	2,314	2,283	2,346	2,314	2,315	2,301	2,281	2,321	2,314	2,297	2,277	2,402
Could only find part-time work ..	2,487	2,233	2,363	2,339	2,368	2,375	2,307	2,269	2,172	2,142	2,161	2,082	2,162	2,106	2,255
Voluntary part time .....	14,963	15,393	15,386	15,150	15,510	15,405	15,350	15,466	15,577	15,550	15,506	15,368	15,254	15,388	14,931
Nonagricultural industries:															
Part time for economic reasons ..	4,965	4,657	4,831	4,722	4,720	4,855	4,643	4,738	4,583	4,567	4,605	4,526	4,552	4,554	4,729
Slack work .....	2,199	2,143	2,168	2,129	2,095	2,198	2,137	2,183	2,164	2,129	2,165	2,166	2,132	2,111	2,240
Could only find part-time work ..	2,408	2,166	2,287	2,272	2,290	2,310	2,246	2,198	2,104	2,076	2,095	2,021	2,097	2,051	2,172
Voluntary part time .....	14,509	14,963	14,947	14,707	15,074	14,975	14,977	15,016	15,138	15,071	15,076	14,936	14,805	14,983	14,515

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



## 7. Selected unemployment indicators, monthly data seasonally adjusted

(Unemployment rates)

Selected categories	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>CHARACTERISTIC</b>															
Total, all civilian workers .....	5.5	5.3	5.4	5.2	5.0	5.3	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Both sexes, 16 to 19 years .....	15.3	15.0	16.1	14.8	14.0	14.6	15.0	15.4	15.1	14.8	15.0	14.9	15.3	15.2	14.5
Men, 20 years and over .....	4.8	4.5	4.6	4.5	4.2	4.6	4.3	4.4	4.4	4.5	4.8	4.5	4.6	4.6	4.7
Women, 20 years and over .....	4.9	4.7	4.7	4.6	4.6	4.7	4.7	4.8	4.9	4.7	4.5	4.8	4.8	4.8	4.6
White, total .....	4.7	4.5	4.6	4.3	4.3	4.5	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.5
Both sexes, 16 to 19 years .....	13.1	12.7	13.8	12.3	11.9	12.4	12.8	12.9	12.7	12.7	12.2	12.4	12.9	13.0	12.7
Men, 16 to 19 years .....	13.9	13.7	15.9	13.9	13.0	13.2	14.1	13.5	12.8	13.1	13.3	13.8	14.3	14.0	12.9
Women, 16 to 19 years .....	12.3	11.5	11.6	10.7	10.7	11.5	11.4	12.3	12.6	12.3	11.1	10.9	11.3	11.9	12.4
Men, 20 years and over .....	4.1	3.9	3.9	3.8	3.6	3.9	3.7	3.8	3.8	3.9	4.2	3.9	3.9	3.9	4.0
Women, 20 years and over .....	4.1	4.0	4.0	3.7	3.9	4.1	4.1	4.1	4.2	4.1	3.8	4.0	4.0	4.1	4.0
Black, total .....	11.7	11.4	11.7	11.6	11.0	11.0	11.1	11.8	11.0	11.2	11.7	11.7	11.9	11.8	11.3
Both sexes, 16 to 19 years .....	32.4	32.4	33.9	32.2	31.5	31.7	32.4	35.1	27.9	31.9	36.3	33.4	32.5	30.7	26.7
Men, 16 to 19 years .....	32.7	31.9	35.6	32.6	29.0	34.8	35.4	33.8	23.2	30.3	33.8	32.0	32.3	30.1	29.2
Women, 16 to 19 years .....	32.0	33.0	31.9	31.7	34.3	28.5	29.6	36.8	33.1	33.6	38.8	34.9	32.7	31.4	24.0
Men, 20 years and over .....	10.1	10.0	10.2	10.2	9.8	9.9	9.5	9.6	9.5	9.9	10.1	10.3	10.6	10.8	11.2
Women, 20 years and over .....	10.4	9.8	10.2	10.0	9.3	9.1	9.6	10.5	9.9	9.6	9.7	9.9	10.2	10.0	9.2
Hispanic origin, total .....	8.2	8.0	8.2	7.0	6.7	8.2	7.9	8.0	8.8	8.8	8.3	8.0	8.0	8.5	7.1
Married men, spouse present .....	3.3	3.0	3.1	3.0	2.9	3.2	2.9	2.9	3.0	3.1	3.3	3.0	3.1	3.0	3.4
Married women, spouse present .....	3.9	3.7	3.7	3.4	3.5	4.0	3.8	3.8	3.9	3.8	3.9	3.8	3.8	3.9	3.7
Women who maintain families .....	8.1	8.1	7.9	8.0	7.9	7.8	8.2	7.9	8.5	8.0	7.7	7.8	8.2	8.1	7.5
Full-time workers .....	5.2	4.9	5.0	4.8	4.8	5.0	4.9	4.9	5.0	4.9	5.0	4.9	5.0	5.0	5.0
Part-time workers .....	7.6	7.3	7.7	7.2	6.4	7.2	6.9	7.7	7.2	7.1	7.3	7.1	7.4	7.5	7.0
Unemployed 15 weeks and over .....	1.3	1.1	1.2	1.1	1.1	1.1	1.1	1.0	1.2	1.1	1.1	1.1	1.1	1.1	1.1
Labor force time lost <sup>1</sup> .....	6.3	5.9	6.1	6.0	5.9	6.0	6.0	6.0	6.0	6.0	6.0	5.9	5.9	6.0	6.0
<b>INDUSTRY</b>															
Nonagricultural private wage and salary workers ....	5.5	5.3	5.5	5.2	5.1	5.3	5.2	5.3	5.4	5.4	5.4	5.3	5.4	5.4	5.5
Mining .....	7.9	5.8	6.2	7.6	7.0	5.8	4.6	3.9	5.8	6.4	8.4	4.8	6.2	4.4	6.8
Construction .....	10.6	10.0	10.3	10.0	9.6	9.8	9.5	10.0	10.3	10.2	10.1	9.3	9.8	9.8	9.3
Manufacturing .....	5.3	5.1	5.2	4.9	4.8	5.0	4.9	5.1	5.1	5.2	5.2	5.4	5.4	5.6	5.9
Durable goods .....	5.0	4.8	4.8	4.5	4.6	4.7	4.6	4.6	4.7	4.9	4.9	5.2	5.4	5.4	5.8
Nondurable goods .....	5.7	5.5	5.6	5.5	5.1	5.3	5.5	5.8	5.6	5.7	5.5	5.6	5.3	5.9	5.9
Transportation and public utilities .....	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.1	4.1	3.7	4.5	3.9	3.6	3.4	4.3
Wholesale and retail trade .....	6.2	6.0	6.4	5.7	5.7	5.9	5.6	6.0	6.1	6.0	5.9	5.9	6.4	6.3	6.2
Finance and service industries .....	4.5	4.4	4.6	4.3	4.3	4.6	4.6	4.3	4.4	4.4	4.5	4.3	4.3	4.2	4.3
Government workers .....	2.8	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.8	2.7	2.8	2.7	2.7	2.6	2.4
Agricultural wage and salary workers .....	10.6	9.6	9.5	9.1	8.9	9.8	9.9	10.4	8.9	9.0	7.8	9.8	12.1	9.7	9.2

<sup>1</sup> Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

Current Labor Statistics: Employment Data

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

(Civilian workers)

Sex and age	Annual average		1989												1990	
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
	Total, 16 years and over	5.5	5.3	5.4	5.2	5.0	5.3	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
16 to 24 years	11.0	10.9	11.6	10.6	10.0	10.6	10.5	11.1	10.9	11.0	11.1	11.1	11.3	11.2	10.6	
16 to 19 years	15.3	15.0	16.1	14.8	14.0	14.6	15.0	15.4	15.1	14.8	15.0	14.9	15.3	15.2	14.5	
16 to 17 years	17.4	17.2	17.8	17.6	15.8	15.9	16.6	17.4	17.7	17.5	17.2	16.9	17.4	18.1	14.8	
18 to 19 years	13.8	13.6	15.0	12.7	12.9	13.7	14.3	14.6	13.1	12.8	14.2	13.5	13.8	13.4	14.2	
20 to 24 years	8.7	8.6	9.1	8.2	7.9	8.4	7.9	8.7	8.6	8.8	8.8	8.9	9.0	8.9	8.5	
25 years and over	4.3	4.0	4.0	4.0	3.9	4.1	4.0	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.2	
25 to 54 years	4.5	4.2	4.2	4.2	4.2	4.2	4.3	4.2	4.1	4.2	4.1	4.3	4.2	4.2	4.3	
55 years and over	3.1	3.1	3.0	3.0	2.7	3.0	2.9	3.3	3.1	3.1	3.0	3.0	3.2	3.2	3.4	
Men, 16 years and over	5.5	5.2	5.4	5.2	4.9	5.3	5.1	5.1	5.0	5.1	5.4	5.2	5.3	5.3	5.3	
16 to 24 years	11.4	11.4	12.5	11.2	10.0	10.8	10.9	11.4	10.9	11.5	11.9	11.7	12.0	11.8	11.2	
16 to 19 years	16.0	15.9	18.3	16.4	14.6	15.6	16.3	15.9	14.7	15.1	15.7	15.9	16.7	16.1	15.1	
16 to 17 years	18.2	18.6	19.9	18.8	16.5	17.5	18.7	19.5	17.8	17.7	19.5	18.5	19.0	19.6	14.2	
18 to 19 years	14.6	14.2	17.2	14.7	13.6	14.3	15.1	13.7	12.1	13.1	13.7	14.2	15.1	13.8	15.6	
20 to 24 years	8.9	8.8	9.3	8.3	7.5	8.2	8.0	8.9	8.9	9.4	9.8	9.3	9.4	9.5	8.9	
25 years and over	4.2	3.9	4.0	4.0	3.8	4.1	3.8	3.7	3.8	3.8	4.1	3.9	4.0	3.9	4.2	
25 to 54 years	4.4	4.1	4.2	4.1	4.0	4.3	3.9	3.8	3.9	3.8	4.1	4.0	4.1	4.0	4.3	
55 years and over	3.3	3.2	3.0	3.3	2.8	3.2	3.0	3.1	3.1	3.3	3.5	3.2	3.5	3.6	3.6	
Women, 16 years and over	5.6	5.4	5.3	5.1	5.2	5.3	5.3	5.5	5.6	5.4	5.2	5.4	5.4	5.5	5.2	
16 to 24 years	10.6	10.4	10.6	9.9	10.1	10.4	10.0	10.8	10.9	10.4	10.2	10.4	10.4	10.4	10.1	
16 to 19 years	14.4	14.0	13.9	13.1	13.3	13.5	13.7	14.9	15.5	14.6	14.4	13.8	13.8	14.3	13.7	
16 to 17 years	16.6	15.7	15.7	16.3	15.1	14.1	14.3	15.2	17.6	17.2	14.7	15.0	15.7	16.5	15.5	
18 to 19 years	12.9	13.0	12.7	10.4	12.0	12.9	13.4	15.6	14.2	12.5	14.6	12.8	12.3	13.0	12.6	
20 to 24 years	8.5	8.3	8.8	8.1	8.3	8.7	7.9	8.5	8.3	8.1	7.7	8.5	8.5	8.2	8.0	
25 years and over	4.3	4.2	4.1	4.0	4.1	4.1	4.3	4.3	4.3	4.2	4.1	4.2	4.2	4.3	4.1	
25 to 54 years	4.6	4.4	4.3	4.2	4.3	4.4	4.6	4.5	4.5	4.5	4.4	4.4	4.4	4.6	4.3	
55 years and over	2.8	2.8	3.1	2.6	2.6	2.7	2.9	3.6	3.1	2.8	2.4	2.8	2.9	2.7	3.3	

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

(Numbers in thousands)

Reason for unemployment	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
	Job losers	3,092	2,983	3,088	2,879	2,852	2,932	2,798	2,820	2,916	2,964	2,932	2,979	3,092	3,097
On layoff	851	850	813	783	806	833	805	813	829	865	852	780	969	957	1,033
Other job losers	2,241	2,133	2,275	2,096	2,046	2,099	1,993	2,007	2,087	2,099	2,080	2,199	2,123	2,140	2,150
Job leavers	983	1,024	973	980	902	985	1,103	1,021	1,016	1,031	1,034	994	1,049	1,055	1,016
Reentrants	1,809	1,843	1,827	1,767	1,774	1,882	1,853	1,993	1,901	1,772	1,920	1,890	1,845	1,853	1,730
New entrants	816	677	768	757	713	692	696	726	723	643	648	685	695	686	640
<b>PERCENT OF UNEMPLOYED</b>															
Job losers	46.1	45.7	46.4	45.1	45.7	45.2	43.4	43.0	44.5	46.2	44.9	45.5	46.3	46.3	48.5
On layoff	12.7	13.0	12.2	12.3	12.9	12.8	12.5	12.4	12.6	13.5	13.0	11.9	14.5	14.3	15.7
Other job losers	33.4	32.7	34.2	32.8	32.8	32.3	30.9	30.6	31.8	32.7	31.8	33.6	31.8	32.0	32.7
Job leavers	14.7	15.7	14.6	15.4	14.5	15.2	17.1	15.6	15.5	16.1	15.8	15.2	15.7	15.8	15.5
Reentrants	27.0	28.2	27.4	27.7	28.4	29.0	28.7	30.4	29.0	27.6	29.4	28.9	27.6	27.7	26.3
New entrants	12.2	10.4	11.5	11.9	11.4	10.7	10.8	11.1	11.0	10.0	9.9	10.5	10.4	10.3	9.7
<b>PERCENT OF CIVILIAN LABOR FORCE</b>															
Job losers	2.5	2.4	2.5	2.3	2.3	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.6
Job leavers	.8	.8	.8	.8	.7	.8	.9	.8	.8	.8	.8	.8	.8	.8	.8
Reentrants	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1.6	1.5	1.4	1.5	1.5	1.5	1.5	1.4
New entrants	.7	.5	.6	.6	.6	.6	.6	.6	.6	.5	.5	.6	.6	.6	.5

10. Duration of unemployment, monthly data seasonally adjusted

(Numbers in thousands)

Weeks of unemployment	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
	Less than 5 weeks	3,084	3,174	3,140	3,212	3,072	3,113	3,070	3,279	3,156	3,125	3,169	3,166	3,258	3,302
5 to 14 weeks	2,007	1,978	1,998	1,894	1,849	2,006	1,993	2,006	1,965	2,002	2,030	1,995	1,991	2,013	2,012
15 weeks and over	1,610	1,375	1,499	1,300	1,335	1,391	1,331	1,295	1,461	1,338	1,359	1,378	1,422	1,362	1,430
15 to 26 weeks	801	730	761	660	672	667	711	684	838	759	769	743	765	730	777
27 weeks and over	809	646	738	640	663	724	620	611	623	579	590	635	657	632	653
Mean duration in weeks	13.5	11.9	12.6	12.3	12.4	12.6	11.9	11.2	11.9	11.4	11.5	11.7	11.6	11.5	12.1
Median duration in weeks	5.9	4.8	5.6	5.4	5.5	5.4	5.3	5.4	5.4	5.0	5.0	5.0	4.8	4.8	5.1

## 11. Unemployment rates of civilian workers by State, data not seasonally adjusted

State	Dec. 1988	Dec. 1989	State	Dec. 1988	Dec. 1989
Alabama .....	7.7	6.5	Montana .....	6.5	5.3
Alaska .....	8.6	7.9	Nebraska .....	3.0	2.7
Arizona .....	5.3	4.0	Nevada .....	4.3	4.4
Arkansas .....	6.5	6.4	New Hampshire .....	2.2	4.2
California .....	4.3	4.8	New Jersey .....	4.0	3.5
Colorado .....	6.2	5.5	New Mexico .....	6.4	5.5
Connecticut .....	3.3	3.8	New York .....	4.6	5.5
Delaware .....	3.1	2.8	North Carolina .....	3.3	3.0
District of Columbia .....	4.6	4.9	North Dakota .....	4.7	4.1
Florida .....	5.4	5.8	Ohio .....	5.4	6.0
Georgia .....	4.8	5.0	Oklahoma .....	5.6	5.1
Hawaii .....	2.8	2.6	Oregon .....	4.9	5.1
Idaho .....	5.4	4.6	Pennsylvania .....	4.2	4.9
Illinois .....	6.2	6.1	Rhode Island .....	2.0	4.8
Indiana .....	4.5	5.3	South Carolina .....	3.5	4.1
Iowa .....	4.0	3.8	South Dakota .....	3.8	3.7
Kansas .....	4.8	3.7	Tennessee .....	5.5	4.6
Kentucky .....	6.7	5.5	Texas .....	6.2	5.8
Louisiana .....	10.1	6.9	Utah .....	3.6	3.5
Maine .....	4.1	4.4	Vermont .....	2.5	3.9
Maryland .....	3.8	3.4	Virginia .....	4.1	4.0
Massachusetts .....	3.0	4.2	Washington .....	5.5	5.7
Michigan .....	7.1	7.2	West Virginia .....	8.2	8.0
Minnesota .....	4.1	3.6	Wisconsin .....	3.7	4.3
Mississippi .....	8.8	6.9	Wyoming .....	7.0	5.9
Missouri .....	5.5	5.5			

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

## 12. Employment of workers on nonagricultural payrolls by State, data not seasonally adjusted

(In thousands)

State	Dec. 1988	Nov. 1989	Dec. 1989 <sup>P</sup>	State	Dec. 1988	Nov. 1989	Dec. 1989 <sup>P</sup>
Alabama .....	1,573.8	1,592.3	1,588.9	Nebraska .....	705.4	727.0	728.4
Alaska .....	207.1	216.3	214.2	Nevada .....	556.2	590.2	593.0
Arizona .....	1,434.8	1,476.7	1,486.2	New Hampshire .....	543.3	534.4	536.9
Arkansas .....	873.1	896.7	896.2	New Jersey .....	3,700.0	3,721.3	3,725.3
California .....	12,378.3	12,640.5	12,688.7	New Mexico .....	549.6	563.8	565.5
Colorado .....	1,444.9	1,461.8	1,465.1	New York .....	8,335.9	8,342.3	8,394.6
Connecticut .....	1,709.2	1,715.1	1,721.8	North Carolina .....	3,030.8	3,082.3	3,079.6
Delaware .....	338.0	342.7	344.5	North Dakota .....	259.0	265.2	264.1
District of Columbia .....	682.2	694.9	698.7	Ohio .....	4,781.8	4,886.8	4,893.1
Florida .....	5,257.1	5,393.2	5,455.1	Oklahoma .....	1,145.1	1,153.2	1,154.3
Georgia .....	2,949.9	2,959.8	2,973.0	Oregon .....	1,183.3	1,224.4	1,222.5
Hawaii .....	490.1	503.6	504.7	Pennsylvania .....	5,106.8	5,166.0	5,149.2
Idaho .....	357.2	376.8	375.5	Rhode Island .....	464.4	459.8	462.6
Illinois .....	5,136.7	5,210.6	5,208.2	South Carolina .....	1,479.4	1,529.7	1,534.9
Indiana .....	2,450.1	2,495.1	2,496.2	South Dakota .....	265.5	270.4	268.7
Iowa .....	1,185.6	1,213.6	1,208.6	Tennessee .....	2,073.1	2,100.4	2,096.4
Kansas .....	1,052.2	1,073.6	1,070.8	Texas .....	6,755.0	6,863.3	6,873.9
Kentucky .....	1,395.4	1,419.7	1,420.9	Utah .....	682.7	711.0	714.3
Louisiana .....	1,517.0	1,533.0	1,528.8	Vermont .....	264.3	257.1	263.6
Maine .....	530.1	535.5	533.5	Virginia .....	2,860.7	2,953.4	2,949.0
Maryland .....	2,139.4	2,160.8	2,159.7	Washington .....	1,984.5	2,088.7	2,089.9
Massachusetts .....	3,182.3	3,146.3	3,165.7	West Virginia .....	616.9	626.1	622.3
Michigan .....	3,890.2	3,908.2	3,913.1	Wisconsin .....	2,185.0	2,234.4	2,230.2
Minnesota .....	2,059.2	2,119.9	2,112.2	Wyoming .....	187.1	191.9	191.2
Mississippi .....	910.2	926.1	925.4	Puerto Rico .....	836.6	830.2	836.6
Missouri .....	2,269.6	2,291.0	2,289.5	Virgin Islands .....	41.5	38.2	38.5
Montana .....	280.8	285.9	284.6				

<sup>P</sup> = preliminary

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

Current Labor Statistics: Employment Data

13. Employment of workers on nonagricultural payrolls by industry, monthly data seasonally adjusted

(In thousands)

Industry	Annual average		1989												1990
	1988	1989 <sup>D</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	Jan. <sup>P</sup>
<b>TOTAL</b> .....	105,584	108,579	107,442	107,711	107,888	108,101	108,310	108,607	108,767	108,887	109,096	109,171	109,452	109,548	109,823
<b>PRIVATE SECTOR</b> .....	88,212	90,852	89,897	90,124	90,291	90,475	90,623	90,884	91,016	91,083	91,230	91,328	91,622	91,685	91,962
<b>GOODS-PRODUCING</b> .....	25,249	25,634	25,626	25,629	25,646	25,671	25,672	25,648	25,669	25,694	25,614	25,603	25,609	25,533	25,526
<b>Mining</b> .....	721	722	711	711	714	720	722	715	706	729	730	731	737	739	740
Oil and gas extraction .....	406	404	393	394	397	400	401	402	404	405	408	409	414	416	417
<b>Construction</b> .....	5,125	5,300	5,267	5,270	5,252	5,279	5,283	5,283	5,314	5,321	5,325	5,335	5,355	5,305	5,409
General building contractors .....	1,368	1,391	1,404	1,398	1,380	1,377	1,388	1,384	1,391	1,403	1,396	1,386	1,391	1,390	1,419
<b>Manufacturing</b> .....	19,403	19,612	19,648	19,648	19,680	19,672	19,667	19,650	19,649	19,644	19,559	19,537	19,517	19,489	19,377
Production workers .....	13,254	13,375	13,423	13,426	13,442	13,430	13,426	13,400	13,410	13,401	13,319	13,307	13,276	13,258	13,151
<b>Durable goods</b> .....	11,437	11,537	11,605	11,594	11,604	11,600	11,594	11,567	11,549	11,551	11,480	11,457	11,439	11,411	11,310
Production workers .....	7,635	7,687	7,758	7,749	7,749	7,744	7,735	7,706	7,697	7,696	7,632	7,615	7,594	7,580	7,479
Lumber and wood products .....	765	770	784	778	777	772	771	769	767	763	759	764	765	766	771
Furniture and fixtures .....	530	531	532	534	535	537	534	534	536	529	528	525	525	523	521
Stone, clay, and glass products .....	600	603	607	608	607	606	604	603	602	601	597	600	602	600	602
Primary metal industries .....	774	782	786	786	788	788	787	787	785	786	777	776	772	771	767
Blast furnaces and basic steel products .....	277	274	276	276	276	275	276	276	277	276	273	271	269	270	268
Fabricated metal products .....	1,431	1,445	1,458	1,458	1,457	1,454	1,452	1,449	1,446	1,443	1,438	1,434	1,430	1,427	1,410
Machinery, except electrical .....	2,082	2,146	2,134	2,138	2,143	2,144	2,150	2,151	2,154	2,152	2,147	2,139	2,146	2,144	2,142
Electrical and electronic equipment .....	2,070	2,038	2,065	2,062	2,060	2,058	2,050	2,041	2,040	2,034	2,023	2,018	2,012	1,994	1,996
Transportation equipment .....	2,051	2,054	2,079	2,067	2,071	2,073	2,076	2,062	2,046	2,068	2,038	2,031	2,020	2,022	1,929
Motor vehicles and equipment .....	857	856	882	871	869	875	876	861	844	873	843	833	824	824	734
Instruments and related products .....	749	777	770	772	776	777	778	779	781	782	780	779	778	773	777
Miscellaneous manufacturing industries .....	386	391	390	391	390	391	392	392	392	393	393	391	389	391	395
<b>Nondurable goods</b> .....	7,967	8,076	8,043	8,054	8,076	8,072	8,073	8,083	8,100	8,093	8,079	8,080	8,078	8,078	8,067
Production workers .....	5,619	5,688	5,665	5,677	5,693	5,686	5,691	5,694	5,713	5,705	5,687	5,692	5,682	5,678	5,672
Food and kindred products .....	1,636	1,665	1,650	1,650	1,655	1,657	1,656	1,663	1,678	1,667	1,674	1,676	1,673	1,676	1,677
Tobacco manufactures .....	56	53	56	56	56	54	53	52	53	52	51	51	51	51	52
Textile mill products .....	729	726	728	728	729	728	728	729	730	727	723	724	721	719	714
Apparel and other textile products .....	1,092	1,091	1,092	1,096	1,101	1,098	1,095	1,093	1,094	1,095	1,088	1,084	1,084	1,079	1,074
Paper and allied products .....	693	697	696	696	697	696	697	697	701	700	697	697	697	699	700
Printing and publishing .....	1,561	1,607	1,595	1,595	1,600	1,601	1,603	1,607	1,609	1,611	1,612	1,612	1,617	1,619	1,625
Chemicals and allied products .....	1,065	1,093	1,084	1,085	1,088	1,090	1,094	1,096	1,091	1,097	1,095	1,096	1,098	1,103	1,102
Petroleum and coal products .....	162	162	160	161	161	162	162	163	163	163	163	164	164	163	163
Rubber and misc. plastics products .....	829	840	839	843	845	843	843	841	841	841	837	837	835	832	824
Leather and leather products .....	144	141	143	144	144	143	142	142	140	140	139	139	138	137	136
<b>SERVICE-PRODUCING</b> .....	80,335	82,945	81,816	82,082	82,242	82,430	82,638	82,959	83,098	83,193	83,482	83,568	83,843	84,015	84,297
<b>Transportation and public utilities</b> .....	5,548	5,705	5,654	5,667	5,666	5,682	5,700	5,716	5,736	5,618	5,709	5,729	5,753	5,832	5,859
Transportation .....	3,334	3,514	3,439	3,453	3,452	3,467	3,484	3,500	3,524	3,539	3,546	3,566	3,592	3,614	3,641
Communication and public utilities .....	2,214	2,190	2,215	2,214	2,214	2,215	2,216	2,216	2,212	2,079	2,163	2,163	2,161	2,218	2,218
<b>Wholesale trade</b> .....	6,029	6,234	6,146	6,171	6,197	6,206	6,222	6,230	6,237	6,256	6,264	6,278	6,300	6,308	6,332
Durable goods .....	3,561	3,696	3,638	3,657	3,676	3,676	3,685	3,693	3,700	3,708	3,717	3,721	3,737	3,746	3,757
Nondurable goods .....	2,467	2,539	2,508	2,514	2,521	2,530	2,537	2,537	2,537	2,548	2,547	2,557	2,563	2,562	2,575
<b>Retail trade</b> .....	19,110	19,574	19,407	19,460	19,488	19,489	19,528	19,551	19,586	19,621	19,632	19,679	19,744	19,714	19,831
General merchandise stores .....	2,461	2,483	2,472	2,481	2,490	2,492	2,491	2,493	2,482	2,484	2,486	2,478	2,492	2,468	2,494
Food stores .....	3,098	3,270	3,200	3,212	3,223	3,233	3,245	3,262	3,274	3,293	3,294	3,321	3,334	3,342	3,366
Automotive dealers and service stations .....	2,090	2,157	2,143	2,150	2,155	2,159	2,159	2,155	2,155	2,152	2,157	2,169	2,169	2,161	2,163
Eating and drinking places .....	6,282	6,370	6,323	6,332	6,322	6,335	6,348	6,362	6,370	6,385	6,397	6,403	6,417	6,432	6,459
<b>Finance, insurance, and real estate</b> .....	6,676	6,814	6,746	6,763	6,774	6,776	6,790	6,808	6,815	6,836	6,852	6,851	6,871	6,882	6,892
Finance .....	3,290	3,329	3,308	3,311	3,316	3,312	3,320	3,320	3,324	3,336	3,343	3,345	3,357	3,362	3,363
Insurance .....	2,082	2,128	2,109	2,116	2,117	2,119	2,123	2,129	2,131	2,137	2,137	2,134	2,138	2,142	2,149
Real estate .....	1,304	1,357	1,329	1,336	1,341	1,345	1,347	1,359	1,360	1,363	1,372	1,372	1,376	1,378	1,380
<b>Services</b> .....	25,600	26,892	26,318	26,434	26,520	26,651	26,711	26,931	26,973	27,058	27,159	27,188	27,345	27,416	27,522
Business services .....	5,571	5,789	5,707	5,729	5,736	5,760	5,776	5,799	5,786	5,800	5,836	5,827	5,852	5,854	5,862
Health services .....	7,144	7,635	7,396	7,442	7,488	7,528	7,570	7,616	7,648	7,695	7,739	7,778	7,839	7,885	7,933
<b>Government</b> .....	17,372	17,727	17,545	17,587	17,597	17,626	17,687	17,723	17,751	17,804	17,866	17,843	17,830	17,863	17,861
Federal .....	2,971	2,988	2,978	2,982	2,982	2,982	2,999	2,995	3,000	2,999	2,996	2,984	2,982	2,972	2,984
State .....	4,063	4,134	4,084	4,095	4,102	4,111	4,119	4,136	4,145	4,154	4,182	4,153	4,162	4,157	4,145
Local .....	10,339	10,605	10,483	10,510	10,513	10,533	10,569	10,592	10,606	10,651	10,688	10,706	10,686	10,734	10,732

<sup>P</sup> = preliminary

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

**14. Average weekly hours of production or nonsupervisory workers on private nonagricultural payrolls by industry, monthly data seasonally adjusted**

Industry	Annual average		1989												1990
	1988	1989 <sup>p</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>p</sup>	Jan. <sup>p</sup>
	<b>PRIVATE SECTOR</b> .....	34.7	34.7	34.8	34.6	34.7	34.9	34.6	34.6	34.8	34.6	34.7	34.7	34.6	34.5
<b>MANUFACTURING</b> .....	41.1	41.0	41.1	41.1	41.0	41.3	41.0	41.0	41.0	41.0	41.0	40.8	40.7	40.7	40.7
Overtime hours .....	3.9	3.8	3.9	3.9	4.0	3.9	3.8	3.8	3.9	3.8	3.8	3.7	3.7	3.6	3.6
<b>Durable goods</b> .....	41.8	41.6	41.8	41.8	41.7	41.9	41.5	41.5	41.5	41.6	41.6	41.2	41.2	41.2	41.3
Overtime hours .....	4.1	3.9	4.1	4.1	4.1	4.1	3.9	3.9	4.0	3.9	3.9	3.8	3.7	3.6	3.7
Lumber and wood products .....	40.3	40.1	40.3	39.6	40.0	40.5	39.7	39.8	39.6	40.2	40.2	40.4	40.3	40.1	40.2
Furniture and fixtures .....	39.4	39.5	39.8	39.7	39.8	39.9	39.4	39.4	39.5	39.6	39.6	39.2	39.4	39.1	39.5
Stone, clay, and glass products .....	42.3	42.3	42.5	42.2	42.2	42.5	41.9	42.2	42.3	42.5	42.2	42.3	42.4	41.6	42.2
Primary metal industries .....	43.6	43.0	43.6	43.4	43.5	43.3	43.2	43.3	43.0	42.9	42.8	42.5	42.6	42.5	42.6
Blast furnaces and basic steel products .....	44.0	43.4	44.0	43.8	44.1	43.5	43.6	43.7	43.2	43.4	42.9	42.8	43.0	43.0	43.3
Fabricated metal products .....	41.9	41.6	41.9	41.9	41.8	41.9	41.7	41.5	41.5	41.5	41.6	41.5	41.4	41.2	41.4
Machinery except electrical .....	42.6	42.4	42.5	42.6	42.5	42.7	42.5	42.5	42.4	42.2	42.3	42.0	42.1	42.0	42.0
Electrical and electronic equipment .....	41.0	40.8	40.9	40.9	40.6	41.0	40.7	40.7	40.6	40.9	41.1	40.9	40.8	40.6	40.7
Transportation equipment .....	42.7	42.4	42.8	43.1	43.1	42.8	42.5	42.5	42.6	42.7	42.8	41.2	40.9	41.9	41.5
Motor vehicles and equipment .....	43.5	43.1	43.6	43.9	43.9	43.3	42.8	42.7	42.6	43.0	43.4	42.9	42.3	42.3	41.2
Instruments and related products .....	41.5	41.2	41.5	41.5	41.1	41.5	41.1	41.3	41.4	41.1	41.0	41.1	41.0	41.1	41.1
Miscellaneous manufacturing .....	39.2	39.4	39.4	39.5	39.5	39.8	39.6	39.4	39.3	39.4	39.2	39.3	39.7	39.3	39.5
<b>Nondurable goods</b> .....	40.1	40.2	40.1	40.2	40.1	40.4	40.2	40.3	40.2	40.2	40.2	40.2	40.1	39.9	40.0
Overtime hours .....	3.7	3.7	3.6	3.7	3.8	3.8	3.7	3.6	3.8	3.6	3.7	3.7	3.6	3.6	3.5
Food and kindred products .....	40.3	40.7	40.1	40.3	40.4	40.7	40.5	40.7	41.0	40.8	41.0	40.8	40.8	40.7	40.4
Textile mill products .....	41.1	41.0	40.9	40.8	41.1	41.7	41.4	41.4	41.2	41.0	40.6	40.7	40.5	40.3	40.2
Apparel and other textile products .....	37.0	37.0	37.0	37.1	36.9	37.6	37.1	37.1	37.0	37.0	37.0	36.9	36.8	36.3	36.6
Paper and allied products .....	43.2	43.3	43.1	43.2	43.3	43.4	43.3	43.3	43.2	43.5	43.2	43.4	43.4	43.1	43.3
Printing and publishing .....	38.0	37.8	38.0	38.0	37.9	37.9	37.7	37.8	37.6	37.7	37.9	37.8	37.9	37.7	37.9
Chemicals and allied products .....	42.3	42.4	42.3	42.3	42.3	42.6	42.1	42.5	42.5	42.4	42.5	42.4	42.3	42.7	42.4
Rubber and miscellaneous plastics products .....	41.7	41.5	41.7	41.7	41.6	41.6	41.5	41.5	41.4	41.5	41.5	41.4	41.2	40.7	40.8
Leather and leather products .....	37.5	37.9	38.0	38.6	38.0	38.3	37.4	37.9	37.7	38.1	38.1	37.7	37.5	37.2	37.2
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	39.3	39.4	39.6	39.4	39.4	40.1	39.5	39.4	39.4	39.0	39.3	39.3	39.1	39.2	38.9
<b>WHOLESALE TRADE</b> .....	37.4	37.4	38.1	38.1	38.1	38.3	37.9	38.0	38.1	38.0	38.1	38.1	38.1	38.0	38.0
<b>RETAIL TRADE</b> .....	29.1	28.9	29.1	28.9	28.9	29.1	28.9	28.9	29.2	28.8	28.8	29.0	28.8	28.7	29.0
<b>SERVICES</b> .....	32.6	32.6	32.7	32.5	32.6	32.8	32.5	32.5	32.8	32.6	32.7	32.8	32.6	32.6	32.5

<sup>p</sup> = preliminary

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

Current Labor Statistics: Employment Data

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

Industry	Annual average		1989											1990	
	1988	1989 <sup>a</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>p</sup>	Jan. <sup>p</sup>
<b>PRIVATE SECTOR (in current dollars)<sup>1</sup></b>	\$9.29	\$9.66	\$9.49	\$9.52	\$9.54	\$9.61	\$9.60	\$9.62	\$9.69	\$9.69	\$9.74	\$9.78	\$9.78	\$9.83	\$9.84
Construction	13.01	13.37	13.18	13.22	13.26	13.33	13.32	13.32	13.42	13.37	13.39	13.44	13.52	13.62	13.35
Manufacturing	10.18	10.47	10.33	10.37	10.40	10.40	10.42	10.45	10.48	10.52	10.55	10.55	10.57	10.60	10.56
Excluding overtime	9.72	10.01	9.87	9.89	9.92	9.92	9.97	9.99	10.01	10.05	10.08	10.08	10.11	10.14	10.11
Transportation and public utilities	12.32	12.57	12.45	12.48	12.50	12.52	12.54	12.54	12.61	12.57	12.67	12.68	12.61	12.65	12.74
Wholesale trade	9.94	10.38	10.19	10.18	10.21	10.36	10.28	10.33	10.44	10.39	10.47	10.54	10.54	10.59	10.60
Retail trade	6.31	6.54	6.44	6.45	6.47	6.51	6.49	6.52	6.54	6.57	6.58	6.61	6.61	6.65	6.69
Finance, insurance, and real estate	9.09	9.57	9.40	9.35	9.36	9.54	9.45	9.53	9.68	9.57	9.66	9.77	9.67	9.79	9.77
Services	8.91	9.39	9.15	9.19	9.24	9.32	9.33	9.34	9.46	9.43	9.49	9.58	9.54	9.62	9.66
<b>PRIVATE SECTOR (in constant (1977) dollars)<sup>1</sup></b>	4.84	4.80	4.81	4.81	4.80	4.80	4.77	4.77	4.79	4.79	4.81	4.81	4.79	4.80	-

<sup>1</sup> Includes mining, not shown separately  
 - Data not available.  
<sup>p</sup> = preliminary

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

16. Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Annual average		1989											1990	
	1988	1989 <sup>a</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>p</sup>	Jan. <sup>p</sup>
<b>PRIVATE SECTOR</b>	\$9.29	\$9.66	\$9.54	\$9.55	\$9.56	\$9.62	\$9.59	\$9.58	\$9.63	\$9.61	\$9.77	\$9.81	\$9.81	\$9.84	\$9.89
<b>MINING</b>	12.75	13.14	13.20	13.22	13.15	13.19	13.13	13.03	12.95	13.11	13.15	13.10	13.13	13.34	13.39
<b>CONSTRUCTION</b>	13.01	13.37	13.26	13.21	13.26	13.30	13.28	13.24	13.33	13.33	13.48	13.52	13.51	13.66	13.43
<b>MANUFACTURING</b>	10.18	10.47	10.37	10.38	10.41	10.41	10.42	10.44	10.47	10.44	10.55	10.52	10.58	10.66	10.60
<b>Durable goods</b>	10.71	11.00	10.90	10.91	10.93	10.93	10.94	10.98	10.99	10.98	11.10	11.06	11.10	11.18	11.04
Lumber and wood products	8.61	8.86	8.71	8.69	8.68	8.76	8.79	8.85	8.92	8.93	8.98	8.99	8.99	9.02	8.95
Furniture and fixtures	7.94	8.25	8.10	8.08	8.13	8.12	8.16	8.23	8.26	8.29	8.40	8.39	8.40	8.40	8.40
Stone, clay, and glass products	10.47	10.74	10.59	10.62	10.62	10.71	10.69	10.73	10.75	10.77	10.79	10.82	10.87	10.87	10.87
Primary metal industries	12.15	12.36	12.27	12.27	12.27	12.26	12.25	12.32	12.40	12.36	12.47	12.43	12.51	12.53	12.48
Blast furnaces and basic steel products	13.97	14.24	14.04	14.13	14.13	14.06	14.06	14.18	14.33	14.27	14.38	14.40	14.48	14.41	14.34
Fabricated metal products	10.26	10.53	10.45	10.46	10.47	10.48	10.49	10.51	10.53	10.50	10.64	10.57	10.61	10.69	10.55
Machinery, except electrical	11.01	11.34	11.21	11.23	11.25	11.26	11.29	11.32	11.35	11.32	11.41	11.43	11.48	11.57	11.50
Electrical and electronic equipment	10.13	10.38	10.27	10.26	10.30	10.31	10.33	10.37	10.41	10.40	10.47	10.43	10.47	10.52	10.46
Transportation equipment	13.31	13.70	13.58	13.59	13.65	13.60	13.58	13.65	13.61	13.70	13.89	13.84	13.85	13.92	13.58
Motor vehicles and equipment	14.00	14.28	14.20	14.19	14.28	14.20	14.17	14.22	14.07	14.18	14.48	14.45	14.46	14.50	13.73
Instruments and related products	9.98	10.26	10.12	10.14	10.17	10.17	10.17	10.25	10.31	10.29	10.32	10.35	10.36	10.49	10.47
Miscellaneous manufacturing	8.01	8.31	8.22	8.23	8.23	8.21	8.24	8.24	8.29	8.20	8.39	8.38	8.49	8.60	8.61
<b>Nondurable goods</b>	9.43	9.74	9.62	9.62	9.66	9.65	9.68	9.70	9.77	9.71	9.80	9.80	9.86	9.95	9.99
Food and kindred products	9.10	9.33	9.27	9.26	9.33	9.32	9.34	9.37	9.35	9.28	9.32	9.27	9.38	9.47	9.46
Tobacco manufactures	14.68	15.38	14.39	14.75	15.34	15.87	16.13	16.48	16.34	15.72	14.69	14.91	15.01	15.46	15.89
Textile mill products	7.37	7.68	7.60	7.59	7.59	7.60	7.62	7.65	7.66	7.69	7.76	7.77	7.82	7.86	7.92
Apparel and other textile products	6.12	6.35	6.32	6.32	6.34	6.32	6.32	6.33	6.28	6.32	6.41	6.39	6.42	6.45	6.45
Paper and allied products	11.65	11.93	11.78	11.80	11.84	11.83	11.89	11.91	12.04	11.90	11.99	11.97	12.08	12.11	12.08
Printing and publishing	10.52	10.87	10.73	10.74	10.79	10.73	10.76	10.75	10.83	10.89	11.05	11.04	11.05	11.07	11.14
Chemicals and allied products	12.67	13.06	12.85	12.88	12.91	12.92	12.98	12.98	13.12	13.08	13.18	13.25	13.26	13.31	13.40
Petroleum and coal products	14.98	15.44	15.24	15.45	15.46	15.50	15.34	15.23	15.34	15.23	15.43	15.63	15.64	15.80	15.96
Rubber and miscellaneous plastics products	9.14	9.42	9.32	9.31	9.33	9.35	9.40	9.41	9.45	9.44	9.46	9.47	9.50	9.60	9.71
Leather and leather products	6.27	6.58	6.48	6.49	6.54	6.55	6.58	6.59	6.54	6.53	6.63	6.64	6.67	6.73	6.80
<b>TRANSPORTATION AND PUBLIC UTILITIES</b>	12.32	12.57	12.47	12.50	12.46	12.51	12.49	12.48	12.58	12.56	12.70	12.69	12.67	12.70	12.75
<b>WHOLESALE TRADE</b>	9.94	10.38	10.23	10.23	10.21	10.36	10.28	10.31	10.40	10.35	10.47	10.50	10.55	10.62	10.64
<b>RETAIL TRADE</b>	6.31	6.54	6.48	6.47	6.48	6.52	6.49	6.49	6.49	6.50	6.61	6.62	6.64	6.66	6.74
<b>FINANCE, INSURANCE, AND REAL ESTATE</b>	9.09	9.57	9.46	9.47	9.43	9.59	9.48	9.48	9.59	9.50	9.62	9.71	9.69	9.76	9.84
<b>SERVICES</b>	8.91	9.39	9.25	9.28	9.29	9.34	9.30	9.26	9.33	9.29	9.49	9.59	9.61	9.69	9.77

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

17. Average weekly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Annual average		1989												1990
	1988	1989 <sup>P</sup>	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. <sup>P</sup>	Jan. <sup>P</sup>
<b>PRIVATE SECTOR</b>															
Current dollars .....	\$322.36	\$335.20	\$329.13	\$327.57	\$328.86	\$334.78	\$330.86	\$333.38	\$338.01	\$335.39	\$339.02	\$341.39	\$338.45	\$340.46	\$338.24
Seasonally adjusted .....	-	-	330.25	329.39	331.04	335.39	332.16	332.85	337.21	335.27	337.98	339.37	338.39	339.14	340.46
Constant (1977) dollars .....	167.81	166.52	167.41	165.94	165.76	167.39	164.53	165.37	167.08	165.79	167.00	167.43	165.66	166.40	-
<b>MINING</b> .....	539.33	563.71	557.04	551.27	552.30	564.53	551.46	555.08	550.38	566.35	574.66	575.09	572.47	584.29	589.16
<b>CONSTRUCTION</b> .....	493.08	506.72	483.99	478.20	495.92	504.07	500.66	503.12	518.54	519.87	520.33	529.98	514.73	505.42	506.31
<b>MANUFACTURING</b>															
Current dollars .....	418.40	429.27	425.17	423.50	426.81	426.81	426.18	429.08	424.04	425.95	434.66	430.27	434.84	440.26	430.36
Constant (1977) dollars .....	217.80	213.25	216.26	214.54	215.13	213.41	211.92	212.84	209.61	210.55	214.12	211.02	212.84	215.18	-
<b>Durable goods</b> .....	447.68	457.60	455.62	452.77	455.78	455.78	454.01	457.87	449.49	453.47	462.87	457.88	460.65	468.44	454.85
Lumber and wood products .....	346.98	355.29	345.79	338.91	345.46	354.78	352.48	357.54	352.34	360.77	362.79	364.99	360.50	362.60	354.42
Furniture and fixtures .....	312.84	325.88	319.14	315.93	321.95	319.12	318.24	324.26	320.49	329.94	336.84	334.76	334.32	337.68	328.44
Stone, clay, and glass products .....	442.88	454.30	439.49	436.48	444.98	456.25	453.26	457.10	456.88	460.96	459.65	464.18	461.98	451.11	448.93
Primary metal industries .....	529.74	531.48	536.20	532.52	533.75	529.63	527.98	533.46	528.24	525.30	534.96	527.03	535.43	540.04	532.90
Blast furnaces and basic steel products .....	614.68	618.02	617.76	617.48	621.72	613.02	613.02	622.50	619.06	613.61	619.78	612.00	622.64	625.39	620.92
Fabricated metal products .....	429.89	438.05	438.90	435.14	436.60	437.02	435.34	438.27	428.57	432.60	443.69	439.71	443.50	450.05	437.83
Machinery, except electrical .....	469.03	480.82	477.55	477.28	479.25	478.55	477.57	482.23	475.57	472.04	482.64	480.06	486.75	497.51	484.15
Electrical and electronic equipment .....	415.33	423.50	422.10	416.56	417.15	419.62	417.33	423.10	416.40	423.28	430.32	427.63	431.36	437.63	427.81
Transportation equipment .....	568.34	580.88	582.58	584.37	591.05	584.80	579.87	581.49	566.18	572.66	594.49	571.59	573.39	592.99	564.93
Motor vehicles and equipment .....	609.00	615.47	619.12	621.52	631.18	620.54	613.56	611.46	582.50	589.89	628.43	621.35	620.33	623.50	565.68
Instruments and related products .....	414.17	422.71	420.99	420.81	419.00	420.02	414.94	423.33	420.65	419.83	423.12	425.39	428.90	439.53	431.36
Miscellaneous manufacturing .....	313.99	327.41	323.05	322.62	324.26	325.12	324.66	324.66	319.99	321.44	329.73	332.69	341.30	344.00	338.37
<b>Nondurable goods</b> .....	378.14	391.55	383.84	382.88	385.43	386.97	387.20	390.91	390.80	391.31	396.90	394.94	398.34	402.98	397.60
Food and kindred products .....	366.73	379.73	369.87	366.70	372.27	372.80	377.34	381.36	382.42	382.34	386.78	381.00	386.46	391.11	380.29
Tobacco manufactures .....	584.26	592.13	546.82	557.55	556.84	604.65	637.14	660.85	619.29	586.36	592.01	599.38	585.39	584.39	594.29
Textile mill products .....	302.91	314.88	309.32	307.40	311.19	313.12	313.94	318.24	311.00	317.60	318.16	317.79	319.84	319.90	316.01
Apparel and other textile products .....	226.44	234.95	232.58	233.21	233.95	234.47	233.84	236.74	230.48	234.47	237.17	237.07	238.18	236.72	234.14
Paper and allied products .....	503.28	516.57	508.90	506.22	509.12	509.87	512.46	514.51	516.52	514.08	523.96	520.70	527.90	531.63	523.06
Printing and publishing .....	399.76	410.89	404.52	404.90	408.94	405.59	402.42	402.05	405.04	411.64	423.22	418.42	421.01	423.98	418.86
Chemicals and allied products .....	535.94	553.74	544.84	544.82	546.09	549.10	546.46	551.65	553.66	550.67	560.15	560.48	564.88	576.32	568.16
Petroleum and coal products .....	665.11	683.99	662.94	679.80	667.87	686.65	673.43	679.26	679.56	665.55	685.09	704.91	699.11	729.96	746.93
Rubber and miscellaneous plastics products .....	381.14	390.93	390.51	387.30	387.20	388.03	390.10	391.46	385.56	388.93	392.59	393.01	394.25	397.44	398.11
Leather and leather products .....	235.13	249.38	244.94	245.32	244.60	247.59	247.41	255.03	247.21	250.75	252.60	251.66	250.13	253.72	251.60
<b>TRANSPORTATION AND PUBLIC UTILITIES</b> .....	484.18	495.26	490.07	488.75	488.43	497.90	490.86	494.21	500.68	494.86	500.38	499.99	495.40	497.84	492.15
<b>WHOLESALE TRADE</b> .....	378.71	395.48	387.72	386.69	386.96	395.75	389.61	392.81	398.32	394.34	398.91	402.15	401.96	405.68	402.19
<b>RETAIL TRADE</b> .....	183.62	189.01	184.03	183.10	184.68	188.43	186.91	189.51	194.05	192.40	191.03	191.32	189.90	194.47	190.74
<b>FINANCE, INSURANCE, AND REAL ESTATE</b> .....	326.33	343.56	341.51	339.03	337.59	348.12	337.49	339.38	348.12	340.10	343.43	350.53	345.93	348.43	351.29
<b>SERVICES</b> .....	290.47	306.11	301.55	300.67	301.00	306.35	301.32	302.80	308.82	305.64	309.37	314.55	313.29	314.93	316.55

- Data not available.  
P = preliminary

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

Current Labor Statistics: Employment Data

18. Diffusion indexes of employment change, seasonally adjusted

(In percent)

Time span and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Private nonagricultural payrolls, 349 industries											
Over 1-month span:												
1988 .....	60.7	63.5	63.0	62.8	61.3	67.2	63.6	58.0	55.4	63.9	68.2	64.6
1989 .....	68.3	60.5	61.0	58.2	55.6	59.7	55.6	57.4	47.9	55.3	60.9	52.6
1990 .....	59.5	-	-	-	-	-	-	-	-	-	-	-
Over 3-month span:												
1988 .....	64.8	65.6	69.5	70.2	71.1	71.9	71.2	64.2	65.3	70.1	73.4	74.6
1989 .....	71.6	70.1	64.5	61.9	61.6	60.7	61.6	53.4	54.6	55.7	57.6	60.3
1990 .....	-	-	-	-	-	-	-	-	-	-	-	-
Over 6-month span:												
1988 .....	69.9	70.2	71.5	73.9	73.9	69.1	70.2	74.6	73.5	73.9	74.5	75.8
1989 .....	75.1	69.5	68.2	66.0	63.0	57.9	57.7	60.2	54.6	58.2	-	-
1990 .....	-	-	-	-	-	-	-	-	-	-	-	-
Over 12-month span:												
1988 .....	76.2	76.1	74.8	74.6	75.8	74.9	78.1	75.5	75.5	74.8	74.9	74.1
1989 .....	73.2	73.6	69.6	67.6	66.6	63.0	63.9	-	-	-	-	-
1990 .....	-	-	-	-	-	-	-	-	-	-	-	-
Manufacturing payrolls, 141 industries												
Over 1-month span:												
1988 .....	58.5	56.0	55.0	59.9	58.5	61.7	59.6	51.1	49.3	62.8	64.9	58.5
1989 .....	62.4	53.5	53.2	49.6	46.8	48.6	49.6	45.4	34.8	52.1	48.2	45.7
1990 .....	48.2	-	-	-	-	-	-	-	-	-	-	-
Over 3-month span:												
1988 .....	63.1	61.0	62.4	64.9	67.4	67.0	64.5	58.2	62.1	66.7	71.3	70.9
1989 .....	67.4	63.8	55.7	51.8	49.3	48.6	47.9	34.0	41.8	41.5	47.5	43.3
1990 .....	-	-	-	-	-	-	-	-	-	-	-	-
Over 6-month span:												
1988 .....	66.3	66.3	67.7	69.5	66.7	64.2	66.0	70.9	68.8	69.9	71.6	74.1
1989 .....	69.5	58.5	55.7	52.8	48.9	39.0	40.1	41.8	37.2	38.7	-	-
1990 .....	-	-	-	-	-	-	-	-	-	-	-	-
Over 12-month span:												
1988 .....	73.8	70.2	70.9	71.6	72.0	69.9	70.9	69.1	71.6	70.2	69.9	67.0
1989 .....	63.1	63.8	57.1	53.5	49.6	44.3	45.4	-	-	-	-	-
1990 .....	-	-	-	-	-	-	-	-	-	-	-	-

- 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.



## 19. Annual data: Employment status of the noninstitutional population

(Numbers in thousands)

Employment status	1981	1982	1983	1984	1985	1986	1987	1988	1989
Noninstitutional population .....	171,775	173,939	175,891	178,080	179,912	182,293	184,490	186,322	188,081
Labor force:									
Total (number) .....	110,315	111,872	113,226	115,241	117,167	119,540	121,602	123,378	125,557
Percent of population .....	64.2	64.3	64.4	64.7	65.1	65.6	65.9	66.2	66.8
Employed:									
Total (number) .....	102,042	101,194	102,510	106,702	108,856	111,303	114,177	116,677	119,030
Percent of population .....	59.4	58.2	58.3	59.9	60.5	61.1	61.9	62.6	63.3
Resident Armed Forces .....	1,645	1,668	1,676	1,697	1,706	1,706	1,737	1,709	1,688
Civilian .....									
Total .....	100,397	99,526	100,834	105,005	107,150	109,597	112,440	114,968	117,342
Agriculture .....	3,368	3,401	3,383	3,321	3,179	3,163	3,208	3,169	3,199
Nonagricultural industries .....	97,030	96,125	97,450	101,685	103,971	106,434	109,232	111,800	114,142
Unemployed:									
Total (number) .....	8,273	10,678	10,717	8,539	8,312	8,237	7,425	6,701	6,528
Percent of labor force .....	7.5	9.5	9.5	7.4	7.1	6.9	6.1	5.4	5.2
Not in labor force (number) .....	61,460	62,067	62,665	62,839	62,744	62,752	62,888	62,944	62,523

## 20. Annual data: Employment levels by industry

(Numbers in thousands)

Industry	1981	1982	1983	1984	1985	1986	1987	1988	1989 <sup>P</sup>
Total employment .....	91,156	89,566	90,200	94,496	97,519	99,525	102,200	105,584	108,579
Private sector .....	75,126	73,729	74,330	78,472	81,125	82,832	85,190	88,212	90,852
Goods-producing .....	25,497	23,813	23,334	24,727	24,859	24,558	24,708	25,249	25,634
Mining .....	1,139	1,128	952	966	927	777	717	721	722
Construction .....	4,188	3,905	3,948	4,383	4,673	4,816	4,967	5,125	5,300
Manufacturing .....	20,170	18,781	18,434	19,378	19,260	18,965	19,024	19,403	19,612
Service-producing .....	65,659	65,753	66,866	69,769	72,660	74,967	77,492	80,335	82,945
Transportation and public utilities .....	5,165	5,082	4,954	5,159	5,238	5,255	5,372	5,548	5,705
Wholesale trade .....	5,358	5,278	5,268	5,555	5,717	5,753	5,844	6,029	6,234
Retail trade .....	15,189	15,179	15,613	16,545	17,356	17,930	18,483	19,110	19,574
Finance, insurance, and real estate .....	5,298	5,341	5,468	5,689	5,955	6,283	6,547	6,676	6,814
Services .....	18,619	19,036	19,694	20,797	22,000	23,053	24,236	25,600	26,892
Government .....	16,031	15,837	15,869	16,024	16,394	16,693	17,010	17,372	17,727
Federal .....	2,772	2,739	2,774	2,807	2,875	2,899	2,943	2,971	2,988
State .....	3,640	3,640	3,662	3,734	3,832	3,893	3,967	4,063	4,134
Local .....	9,619	9,458	9,434	9,482	9,687	9,901	10,100	10,339	10,605

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

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

Industry	1981	1982	1983	1984	1985	1986	1987	1988	1989 <sup>P</sup>
<b>Private sector:</b>									
Average weekly hours .....	35.2	34.8	35.0	35.2	34.9	34.8	34.8	34.7	34.7
Average hourly earnings (in dollars) .....	7.25	7.68	8.02	8.32	8.57	8.76	8.98	9.29	9.66
Average weekly earnings (in dollars) .....	255.20	267.26	280.70	292.86	299.09	304.85	312.50	322.36	335.20
<b>Mining:</b>									
Average weekly hours .....	43.7	42.7	42.5	43.3	43.4	42.2	42.4	42.3	42.9
Average hourly earnings (in dollars) .....	10.04	10.77	11.28	11.63	11.98	12.46	12.54	12.75	13.14
Average weekly earnings (in dollars) .....	438.75	459.88	479.40	503.58	519.93	525.81	531.70	539.33	563.71
<b>Construction:</b>									
Average weekly hours .....	36.9	36.7	37.1	37.8	37.7	37.4	37.8	37.9	37.9
Average hourly earnings (in dollars) .....	10.82	11.63	11.94	12.13	12.32	12.48	12.71	13.01	13.37
Average weekly earnings (in dollars) .....	399.26	426.82	442.97	458.51	464.46	466.75	480.44	493.08	506.72
<b>Manufacturing:</b>									
Average weekly hours .....	39.8	38.9	40.1	40.7	40.5	40.7	41.0	41.1	41.0
Average hourly earnings (in dollars) .....	7.99	8.49	8.83	9.19	9.54	9.73	9.91	10.18	10.47
Average weekly earnings (in dollars) .....	318.00	330.26	354.08	374.03	386.37	396.01	406.31	418.40	429.27
<b>Transportation and public utilities:</b>									
Average weekly hours .....	39.4	39.0	39.0	39.4	39.5	39.2	39.2	39.3	39.4
Average hourly earnings (in dollars) .....	9.70	10.32	10.79	11.12	11.40	11.70	12.03	12.32	12.57
Average weekly earnings (in dollars) .....	382.18	402.48	420.81	438.13	450.30	458.64	471.58	484.18	495.26
<b>Wholesale trade:</b>									
Average weekly hours .....	38.5	38.3	38.5	38.5	38.4	38.3	38.1	38.1	38.1
Average hourly earnings (in dollars) .....	7.56	8.09	8.55	8.89	9.16	9.35	9.60	9.94	10.38
Average weekly earnings (in dollars) .....	291.06	309.85	329.18	342.27	351.74	358.11	365.76	378.71	395.48
<b>Retail trade:</b>									
Average weekly hours .....	30.1	29.9	29.8	29.8	29.4	29.2	29.2	29.1	28.9
Average hourly earnings (in dollars) .....	5.25	5.48	5.74	5.85	5.94	6.03	6.12	6.31	6.54
Average weekly earnings (in dollars) .....	158.03	163.85	171.05	174.33	174.64	176.08	178.70	183.62	189.01
<b>Finance, insurance, and real estate:</b>									
Average weekly hours .....	36.3	36.2	36.2	36.5	36.4	36.4	36.3	35.9	35.9
Average hourly earnings (in dollars) .....	6.31	6.78	7.29	7.63	7.94	8.36	8.73	9.09	9.57
Average weekly earnings (in dollars) .....	229.05	245.44	263.90	278.50	289.02	304.30	316.90	326.33	343.56
<b>Services:</b>									
Average weekly hours .....	32.6	32.6	32.7	32.6	32.5	32.5	32.5	32.6	32.6
Average hourly earnings (in dollars) .....	6.41	6.92	7.31	7.59	7.90	8.18	8.49	8.91	9.39
Average weekly earnings (in dollars) .....	208.97	225.59	239.04	247.43	256.75	265.85	275.93	290.47	306.11

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

(June 1981=100)

Series	1987		1988				1989				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended	
										Dec. 1989		
<b>Civilian workers</b> <sup>2</sup> .....	138.6	140.6	142.1	144.0	145.5	147.3	148.9	151.3	152.8	1.0	5.0	
Workers, by occupational group:												
White-collar workers .....	142.2	144.2	145.7	147.9	149.7	151.9	153.4	156.4	157.9	1.0	5.5	
Blue-collar workers .....	132.5	134.7	136.2	137.2	138.2	139.6	141.3	142.9	144.1	.8	4.3	
Service occupations .....	140.8	142.9	144.3	147.2	148.5	150.0	151.2	153.7	155.5	1.2	4.7	
Workers, by industry division:												
Goods-producing .....	133.5	135.8	137.3	138.2	139.3	140.7	142.3	143.9	145.3	1.0	4.3	
Manufacturing .....	134.1	136.8	138.1	139.0	140.1	141.9	143.5	145.1	146.4	.9	4.5	
Service-producing .....	141.7	143.6	145.1	147.6	149.2	151.4	152.9	155.9	157.3	.9	5.4	
Services .....	150.6	152.8	153.8	157.7	159.7	161.8	163.1	167.5	169.2	1.0	5.9	
Health services .....	-	-	-	-	-	-	-	-	-	1.6	7.0	
Hospitals .....	-	-	-	-	-	-	-	-	-	1.4	7.1	
Public administration <sup>3</sup> .....	148.1	150.3	151.2	154.0	154.4	156.7	157.9	161.8	163.0	.7	5.6	
Nonmanufacturing .....	140.5	142.3	143.9	146.1	147.7	149.7	151.2	154.0	155.5	1.0	5.3	
<b>Private industry workers</b> .....	136.0	138.1	139.8	141.2	142.6	144.4	146.1	147.9	149.4	1.0	4.8	
Excluding sales occupations .....	136.6	138.7	140.2	141.7	142.9	144.7	146.2	147.9	149.3	.9	4.5	
Workers, by occupational group:												
White-collar workers .....	139.3	141.2	143.0	144.6	146.3	148.6	150.3	152.4	153.9	1.0	5.2	
Excluding sales occupations .....	141.1	143.0	144.6	146.4	147.6	149.9	151.4	153.3	154.7	.9	4.8	
Professional specialty and technical occupations .....	-	-	-	-	-	-	-	-	-	1.1	5.5	
Executive, administrative, and managerial occupations .....	-	-	-	-	-	-	-	-	-	.6	3.8	
Sales occupations .....	-	-	-	-	-	-	-	-	-	1.4	7.3	
Administrative support occupations, including clerical .....	-	-	-	-	-	-	-	-	-	1.1	5.1	
Blue-collar workers .....	131.8	134.1	135.6	136.5	137.6	138.9	140.6	142.2	143.3	.8	4.1	
Precision production, craft, and repair occupations .....	-	-	-	-	-	-	-	-	-	.8	4.1	
Machine operators, assemblers, and inspectors .....	-	-	-	-	-	-	-	-	-	.9	4.3	
Transportation and material moving occupations .....	-	-	-	-	-	-	-	-	-	.2	3.2	
Handlers, equipment cleaners, helpers, and laborers .....	-	-	-	-	-	-	-	-	-	.9	4.6	
Service occupations .....	136.7	138.6	140.1	142.2	143.9	145.4	146.5	148.1	150.1	1.4	4.3	
Workers, by industry division:												
Goods-producing .....	133.2	135.6	137.1	137.9	139.0	140.4	142.0	143.6	145.0	1.0	4.3	
Excluding sales occupations .....	132.9	135.2	136.8	137.6	138.7	140.2	141.7	143.3	144.8	1.0	4.4	
Construction .....	-	-	-	-	-	-	-	-	-	1.2	4.4	
Manufacturing .....	134.1	136.8	138.1	139.0	140.1	141.9	143.5	145.1	146.4	.9	4.5	
Durables .....	-	-	-	-	-	-	-	-	-	1.1	4.5	
Nondurables .....	-	-	-	-	-	-	-	-	-	.7	4.5	
Service-producing .....	138.4	140.2	142.1	143.8	145.5	147.7	149.5	151.5	152.9	.9	5.1	
Excluding sales occupations .....	140.0	141.9	143.5	145.4	146.7	148.8	150.4	152.2	153.5	.9	4.6	
Transportation and public utilities .....	-	-	-	-	-	-	-	-	-	.5	3.8	
Transportation .....	-	-	-	-	-	-	-	-	-	.3	3.6	
Public utilities .....	-	-	-	-	-	-	-	-	-	.7	4.0	
Communications .....	-	-	-	-	-	-	-	-	-	.6	-	
Electric, gas, and sanitary services .....	-	-	-	-	-	-	-	-	-	.7	-	
Wholesale and retail trade .....	-	-	-	-	-	-	-	-	-	1.0	5.1	
Excluding sales occupations .....	-	-	-	-	-	-	-	-	-	.7	3.9	
Wholesale trade .....	-	-	-	-	-	-	-	-	-	1.9	8.8	
Excluding sales occupations .....	-	-	-	-	-	-	-	-	-	.8	5.0	
Retail trade .....	-	-	-	-	-	-	-	-	-	.5	3.4	
Food stores .....	-	-	-	-	-	-	-	-	-	.9	-	
Finance, insurance, and real estate .....	-	-	-	-	-	-	-	-	-	1.0	5.4	
Excluding sales occupations .....	-	-	-	-	-	-	-	-	-	.9	4.1	
Banking, savings and loan, and other credit agencies .....	-	-	-	-	-	-	-	-	-	.1	3.0	
Insurance .....	-	-	-	-	-	-	-	-	-	1.1	-	
Service .....	-	-	-	-	-	-	-	-	-	1.1	5.6	
Business services .....	-	-	-	-	-	-	-	-	-	.6	4.3	
Health services .....	-	-	-	-	-	-	-	-	-	1.8	7.0	
Hospitals .....	-	-	-	-	-	-	-	-	-	1.5	7.1	
Nonmanufacturing .....	137.1	138.9	140.8	142.4	143.9	145.9	147.6	149.5	151.0	1.0	4.9	
<b>State and local government workers</b> .....	151.1	153.1	153.6	157.8	159.6	161.5	162.5	167.9	169.5	1.0	6.2	
Workers, by occupational group:												
White-collar workers .....	152.7	154.8	155.2	159.6	161.8	163.7	164.6	170.5	172.1	.9	6.4	
Blue-collar workers .....	144.3	145.9	145.9	148.4	149.1	151.9	153.0	156.2	158.6	1.5	6.4	

See footnotes at end of table.

Current Labor Statistics: Compensation & Industrial Relations

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

(June 1981=100)

Series	1987		1988				1989				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended	
	Dec. 1989											
Workers, by industry division:												
Services .....	153.1	155.2	155.6	160.5	163.0	164.6	165.5	171.8	173.3	0.9	6.3	
Hospitals and other services <sup>1</sup> .....	146.3	150.3	150.4	153.2	155.2	157.2	158.7	162.6	163.7	.7	5.5	
Health services .....	-	-	-	-	-	-	-	-	-	1.1	7.1	
Schools .....	155.5	156.8	157.3	163.1	165.7	167.2	167.8	175.1	176.7	.9	6.6	
Elementary and secondary .....	157.8	158.9	159.4	165.4	168.3	169.3	169.9	177.7	179.2	.8	6.5	
Public administration <sup>2</sup> .....	148.1	150.3	151.2	154.0	154.4	156.7	157.9	161.8	163.0	.7	5.6	

<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> Consist of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

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

<sup>4</sup> Includes, for example, library, social, and health services.

- Data not available.

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

(June 1981=100)

Series	1987		1988				1989				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended	
	Dec. 1989											
Civilian workers <sup>1</sup> .....	136.1	137.4	138.7	140.5	141.9	143.4	144.6	146.9	148.1	0.8	4.4	
Workers, by occupational group:												
White-collar workers .....	140.2	141.5	143.0	145.2	146.8	148.6	149.8	152.6	154.0	.9	4.9	
Blue-collar workers .....	129.4	130.4	131.6	132.5	133.4	134.6	136.0	137.4	138.3	.7	3.7	
Service occupations .....	136.6	138.0	139.3	141.8	142.9	143.9	144.8	146.8	148.4	1.1	3.8	
Workers, by industry division:												
Goods-producing .....	131.0	132.2	133.4	134.1	135.1	136.3	137.7	139.0	140.3	.9	3.8	
Manufacturing .....	132.2	133.3	134.4	135.1	136.2	137.4	138.8	140.0	141.5	1.1	3.9	
Service-producing .....	139.2	140.5	141.9	144.2	145.8	147.5	148.7	151.4	152.7	.9	4.7	
Services .....	148.2	149.5	150.4	154.0	155.7	157.4	158.4	162.4	163.6	.7	5.1	
Health services .....	-	-	-	-	-	-	-	-	-	1.5	6.3	
Hospitals .....	-	-	-	-	-	-	-	-	-	1.3	6.4	
Public administration <sup>2</sup> .....	143.8	145.5	146.4	148.9	149.4	150.9	151.8	155.0	156.0	.6	4.4	
Nonmanufacturing .....	137.8	139.0	140.5	142.7	144.1	145.8	147.0	149.6	150.8	.8	4.6	
Private industry workers .....	133.8	135.1	136.6	137.9	139.3	140.8	142.2	143.9	145.1	.8	4.2	
Excluding sales occupations .....	134.7	135.9	137.2	138.6	139.7	141.2	142.5	144.0	145.2	.8	3.9	
Workers, by occupational group:												
White-collar workers .....	137.6	139.0	140.8	142.4	144.0	145.9	147.3	149.3	150.8	1.0	4.7	
Excluding sales occupations .....	140.1	141.5	142.9	144.7	146.0	147.8	149.0	150.8	152.1	.9	4.2	
Professional specialty and technical occupations .....	142.6	144.0	145.8	148.1	148.9	151.0	152.1	154.6	155.9	.8	4.7	
Executive, administrative, and managerial occupations .....	139.2	139.9	141.3	142.5	144.4	146.2	147.3	148.5	149.5	.7	3.5	
Sales occupations .....	126.1	127.5	130.8	131.5	134.4	136.7	138.7	141.6	143.8	1.6	7.0	
Administrative support occupations, including clerical .....	138.1	140.2	141.2	143.2	144.1	146.0	147.4	149.0	150.6	1.1	4.5	
Blue-collar workers .....	128.9	129.9	131.1	131.9	132.9	134.0	135.4	136.7	137.6	.7	3.5	
Precision production, craft, and repair occupations .....	131.1	132.1	133.4	134.0	134.9	136.1	137.8	139.2	140.0	.6	3.8	
Machine operators, assemblers, and inspectors .....	129.2	129.9	131.2	131.9	133.3	134.5	135.9	136.7	138.1	1.0	3.6	
Transportation and material moving occupations .....	122.9	123.7	125.4	126.7	126.9	127.8	128.7	130.2	130.2	0.0	2.6	
Handlers, equipment cleaners, helpers, and laborers .....	125.0	126.7	127.5	128.4	129.3	130.4	131.6	133.0	134.2	.9	3.8	
Service occupations .....	133.2	134.5	135.8	137.6	139.1	140.0	140.9	142.1	144.1	1.4	3.6	
Workers, by industry division:												
Goods-producing .....	130.8	132.0	133.2	133.9	134.9	136.1	137.4	138.8	140.1	.9	3.9	
Excluding sales occupations .....	130.8	131.8	133.2	133.8	134.9	136.1	137.4	138.8	140.1	.9	3.9	
Construction .....	124.7	125.9	127.6	128.6	129.4	130.4	131.6	133.0	133.9	.7	3.5	

See footnotes at end of table.

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

(June 1981 = 100)

Series	1987	1988				1989				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec. 1989	
Manufacturing .....	132.2	133.3	134.4	135.1	136.2	137.4	138.8	140.0	141.5	1.1	3.9
Durables .....	131.1	132.1	133.1	133.7	134.6	135.9	137.3	138.3	139.9	1.2	3.9
Nondurables .....	134.1	135.6	136.7	137.6	139.1	140.2	141.6	143.1	144.2	.8	3.7
Service-producing .....	136.2	137.5	139.3	141.0	142.6	144.5	145.8	147.8	149.0	.8	4.5
Excluding sales occupations .....	138.1	139.4	140.8	142.7	143.9	145.7	146.9	148.6	149.6	.7	4.0
Transportation and public utilities .....	130.2	131.3	132.5	133.5	133.4	134.6	135.3	136.3	136.9	.4	2.6
Transportation .....	-	-	-	-	-	-	-	-	-	.2	2.1
Public utilities .....	-	-	-	-	-	-	-	-	-	.7	3.2
Communications .....	-	-	-	-	-	-	-	-	-	.7	-
Electric, gas, and sanitary services .....	-	-	-	-	-	-	-	-	-	.7	-
Wholesale and retail trade .....	130.7	131.9	134.6	136.0	136.9	138.6	139.9	142.1	143.7	1.1	5.0
Excluding sales occupations .....	132.3	133.4	135.2	136.5	137.8	139.2	140.0	141.6	142.6	.7	3.5
Wholesale trade .....	138.5	139.0	141.7	143.2	143.6	147.5	149.0	153.2	156.7	2.3	9.1
Excluding sales occupations .....	136.0	136.8	138.2	139.6	140.4	141.8	142.9	145.3	146.5	.8	4.3
Retail trade .....	127.7	129.2	131.7	133.2	134.3	135.1	136.3	137.7	138.5	.6	3.1
Food stores .....	-	-	-	-	-	-	-	-	-	1.3	-
Finance, insurance, and real estate .....	131.6	132.9	134.9	134.9	139.9	142.7	145.2	146.0	147.1	.8	5.1
Excluding sales occupations .....	131.6	132.9	134.9	134.9	139.9	142.7	145.2	146.0	147.1	.8	5.1
Banking, savings and loan, and other credit agencies .....	-	-	-	-	-	-	-	-	-	-3	3.2
Insurance .....	-	-	-	-	-	-	-	-	-	1.2	-
Services .....	147.1	148.6	149.8	152.9	154.4	156.4	157.8	160.4	161.8	.9	4.8
Business services .....	-	-	-	-	-	-	-	-	-	.3	3.9
Health services .....	-	-	-	-	-	-	-	-	-	1.6	6.4
Hospitals .....	-	-	-	-	-	-	-	-	-	1.3	6.6
Nonmanufacturing .....	134.8	136.0	137.8	139.4	140.8	142.6	143.9	145.9	147.0	.8	4.4
<b>State and local government workers .....</b>	<b>147.4</b>	<b>148.7</b>	<b>149.1</b>	<b>153.0</b>	<b>154.5</b>	<b>155.8</b>	<b>156.6</b>	<b>161.4</b>	<b>162.7</b>	<b>.8</b>	<b>5.3</b>
Workers, by occupational group:											
White-collar workers .....	149.3	150.5	150.8	154.9	156.8	158.0	158.7	164.1	165.3	.7	5.4
Blue-collar workers .....	139.6	141.1	141.1	143.5	144.1	146.1	146.8	149.6	151.6	1.3	5.2
Workers, by industry division:											
Services .....	149.5	150.7	151.1	155.6	157.6	158.6	159.3	165.0	166.2	.7	5.5
Hospitals and other services <sup>3</sup> .....	142.2	144.5	144.7	147.4	148.7	150.2	151.5	155.3	156.1	.5	5.0
Health services .....	-	-	-	-	-	-	-	-	-	.9	6.1
Schools .....	151.8	152.6	153.0	158.0	160.3	161.2	161.7	168.1	169.3	.7	5.6
Elementary and secondary .....	153.4	154.0	154.3	159.7	162.1	162.8	163.3	170.2	171.3	.6	5.7
Public administration <sup>2</sup> .....	143.8	145.5	146.4	148.9	149.4	150.9	151.8	155.0	156.0	.6	4.4

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

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

<sup>3</sup> Includes, for example, library, social and health services.

- Data not available.

### 24. Employment Cost Index, benefits, private industry workers by occupation and industry group

(June 1981 = 100)

Series	1987	1988				1989				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec. 1989	
<b>Private industry workers .....</b>	<b>141.7</b>	<b>146.1</b>	<b>148.2</b>	<b>149.7</b>	<b>151.3</b>	<b>154.0</b>	<b>156.5</b>	<b>158.7</b>	<b>160.6</b>	<b>1.2</b>	<b>6.1</b>
Workers, by occupational group:											
White-collar workers .....	143.7	147.3	149.3	150.9	152.7	156.1	158.8	161.1	163.0	1.2	6.7
Blue-collar workers .....	138.7	144.1	146.3	147.5	148.9	150.7	152.9	155.1	156.8	1.1	5.3
Workers, by industry group:											
Goods-producing .....	138.8	144.1	146.1	147.3	148.6	150.7	152.7	155.0	156.7	1.1	5.5
Service-producing .....	144.4	148.1	150.1	151.9	153.9	157.2	160.1	162.3	164.2	1.2	6.7
Manufacturing .....	138.4	144.5	146.4	147.8	149.0	152.3	154.2	156.6	157.8	.8	5.9
Nonmanufacturing .....	143.8	147.2	149.3	150.9	152.9	155.2	158.0	160.2	162.4	1.4	6.2

Current Labor Statistics: Compensation & Industrial Relations

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

(June 1981=100)

Series	1987	1988				1989				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec. 1989	
<b>COMPENSATION</b>											
<b>Workers, by bargaining status<sup>1</sup></b>											
Union .....	133.4	135.6	136.9	137.9	138.6	139.7	141.1	142.3	143.7	1.0	3.7
Goods-producing .....	131.3	134.1	135.3	136.2	137.2	137.9	139.4	140.6	142.0	1.0	3.5
Service-producing .....	136.7	138.0	139.4	140.5	140.9	142.6	143.9	145.1	146.3	.8	3.8
Manufacturing .....	131.5	135.0	136.2	137.0	138.2	139.9	141.3	142.5	144.1	1.1	4.3
Nonmanufacturing .....	135.1	136.2	137.5	138.6	138.9	139.5	141.0	142.1	143.3	.8	3.2
Nonunion .....	136.9	138.9	140.7	142.2	143.9	146.0	147.7	149.8	151.2	.9	5.1
Goods-producing .....	134.1	136.2	137.8	138.7	139.9	141.6	143.2	145.0	146.5	1.0	4.7
Service-producing .....	138.6	140.5	142.5	144.4	146.3	148.6	150.5	152.7	154.1	.9	5.3
Manufacturing .....	135.6	137.8	139.2	140.1	141.3	143.1	144.8	146.5	147.8	.9	4.6
Nonmanufacturing .....	137.5	139.4	141.5	143.2	145.0	147.3	149.1	151.2	152.7	1.0	5.3
<b>Workers, by region<sup>1</sup></b>											
Northeast .....	141.9	143.7	145.9	147.8	150.4	153.5	155.5	158.3	160.0	1.1	6.4
South .....	135.4	137.1	139.3	140.4	141.3	142.7	144.1	145.8	147.3	1.0	4.2
Midwest (formerly North Central) .....	131.7	134.4	135.5	136.7	138.0	139.3	140.9	142.3	143.6	.9	4.1
West .....	136.3	138.3	139.5	140.6	141.5	143.2	144.9	146.4	147.5	.8	4.2
<b>Workers, by area size<sup>1</sup></b>											
Metropolitan areas .....	136.7	138.9	140.5	142.0	143.6	145.6	147.4	149.4	150.7	.9	4.9
Other areas .....	132.0	133.6	135.5	136.2	136.8	137.5	138.3	139.4	141.1	1.2	3.1
<b>WAGES AND SALARIES</b>											
<b>Workers, by bargaining status<sup>1</sup></b>											
Union .....	130.5	131.0	132.0	132.9	133.4	134.3	135.4	136.2	137.6	1.0	3.1
Goods-producing .....	128.5	128.7	129.7	130.4	131.2	132.0	133.4	134.2	135.6	1.0	3.4
Service-producing .....	133.6	134.4	135.4	136.7	136.8	137.8	138.4	139.3	140.7	1.0	2.9
Manufacturing .....	129.3	129.6	130.4	131.0	132.1	133.0	134.4	135.1	136.7	1.2	3.5
Nonmanufacturing .....	131.5	132.1	133.3	134.5	134.6	135.4	136.2	137.1	138.3	.9	2.7
Nonunion .....	135.0	136.4	138.1	139.5	141.1	142.9	144.4	146.3	147.5	.8	4.5
Goods-producing .....	132.1	133.6	135.0	135.7	136.8	138.2	139.5	141.1	142.4	.9	4.1
Service-producing .....	136.7	138.0	140.0	141.8	143.6	145.6	147.2	149.3	150.5	.8	4.8
Manufacturing .....	133.9	135.5	136.7	137.4	138.6	139.9	141.4	142.8	144.2	1.0	4.0
Nonmanufacturing .....	135.4	136.8	138.8	140.4	142.2	144.1	145.6	147.7	148.9	.8	4.7
<b>Workers, by region<sup>1</sup></b>											
Northeast .....	139.7	140.9	142.9	144.6	147.3	150.1	152.0	154.7	156.4	1.1	6.2
South .....	133.0	134.0	136.1	137.1	137.8	138.9	140.0	141.7	142.9	.8	3.7
Midwest (formerly North Central) .....	129.9	131.3	132.1	133.3	134.5	135.6	136.9	138.0	139.1	.8	3.4
West .....	133.5	134.9	136.0	137.4	138.1	139.4	140.7	141.8	142.7	.6	3.3
<b>Workers, by area size<sup>1</sup></b>											
Metropolitan areas .....	134.6	135.8	137.3	138.7	140.2	141.9	143.4	145.2	146.4	.8	4.4
Other areas .....	129.8	130.9	133.0	133.5	133.7	134.6	135.2	136.1	137.8	1.2	3.1

<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.

**26. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more (in percent)**

Measure	Annual average		Quarterly average							
	1987	1988	1988				1989			
			I	II	III	IV	I	II <sup>P</sup>	III <sup>P</sup>	IV <sup>P</sup>
<b>Specified adjustments:</b>										
Total compensation <sup>1</sup> adjustments, <sup>2</sup> settlements covering 5,000 workers or more:										
First year of contract .....	3.0	3.1	1.8	3.1	3.4	3.5	3.2	5.1	3.9	5.3
Annual rate over life of contract .....	2.6	2.5	1.8	2.4	3.2	2.1	3.1	3.4	2.7	4.1
Wage adjustments, settlements covering 1,000 workers or more:										
First year of contract .....	2.2	2.5	2.1	2.6	2.7	2.6	3.2	3.9	3.6	5.0
Annual rate over life of contract .....	2.1	2.4	2.3	2.2	2.8	2.2	3.1	3.3	3.0	3.9
<b>Effective adjustments:</b>										
Total effective wage adjustment <sup>3</sup> .....	3.1	2.6	.4	.9	.8	.5	.5	1.0	1.0	.7
From settlements reached in period .....	.7	.7	.1	.3	.2	.1	.1	.3	.4	.4
Deferred from settlements reached in earlier periods .....	1.8	1.3	.3	.5	.4	.2	.3	.5	.4	.2
From cost-of-living-adjustments clauses .....	.5	.6	.1	.1	.2	.2	.1	.2	.2	.1

<sup>1</sup> Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

<sup>2</sup> Adjustments are the net result of increases, decreases, and no changes in

compensation or wages.

<sup>3</sup> Because of rounding, total may not equal sum of parts.

<sup>P</sup> = preliminary.

**27. Average specified compensation and wage adjustments, major collective bargaining settlements in private industry situations covering 1,000 workers or more during 4-quarter periods (in percent)**

Measure	Average for four quarters ending--							
	1988				1989			
	I	II	III	IV	I	II <sup>P</sup>	III <sup>P</sup>	IV <sup>P</sup>
<b>Specified total compensation adjustments, settlements covering 5,000 workers or more, all industries:</b>								
First year of contract .....	3.1	3.0	3.1	3.1	3.3	3.8	4.0	4.5
Annual rate over life of contract .....	2.5	2.3	2.5	2.5	2.6	3.0	2.8	3.3
<b>Specified wage adjustments, settlements covering 1,000 workers or more:</b>								
<b>All industries:</b>								
First year of contract .....	2.4	2.4	2.5	2.5	2.7	3.2	3.5	4.0
Contracts with COLA clauses .....	2.2	2.4	2.4	2.4	2.4	2.2	2.6	3.8
Contracts without COLA clauses .....	2.5	2.4	2.6	2.7	2.9	3.4	3.6	4.0
Annual rate over life of contract .....	2.2	2.0	2.2	2.4	2.5	2.9	3.0	3.3
Contracts with COLA clauses .....	1.4	1.5	1.5	1.8	1.8	1.8	2.0	2.6
Contracts without COLA clauses .....	2.7	2.5	2.8	2.8	2.9	3.2	3.2	3.5
<b>Manufacturing:</b>								
First year of contract .....	2.4	2.5	2.6	2.2	2.2	2.6	2.6	3.9
Contracts with COLA clauses .....	2.4	2.5	2.4	2.1	2.1	2.1	2.1	5.4
Contracts without COLA clauses .....	2.4	2.5	3.0	2.5	2.5	3.1	2.8	3.1
Annual rate over life of contract .....	1.5	1.6	1.9	2.1	2.2	2.4	2.5	3.2
Contracts with COLA clauses .....	1.0	1.3	1.4	1.8	1.8	1.7	1.7	3.5
Contracts without COLA clauses .....	2.7	2.5	3.1	2.6	2.8	3.1	2.9	3.0
<b>Nonmanufacturing:</b>								
First year of contract .....	2.3	2.3	2.4	2.8	3.0	3.5	3.8	4.0
Contracts with COLA clauses .....	1.6	2.2	2.4	2.9	2.9	3.0	3.0	3.0
Contracts without COLA clauses .....	2.5	2.4	2.5	2.7	3.0	3.5	3.9	4.2
Annual rate over life of contract .....	2.7	2.4	2.4	2.5	2.7	3.2	3.1	3.4
Contracts with COLA clauses .....	2.4	1.9	1.8	1.7	1.7	2.5	2.1	2.1
Contracts without COLA clauses .....	2.7	2.6	2.7	2.8	3.0	3.3	3.3	3.7
<b>Construction:</b>								
First year of contract .....	2.9	2.6	2.1	2.2	2.4	2.4	2.6	2.8
Contracts with COLA clauses .....	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Contracts without COLA clauses .....	( <sup>1</sup> )	2.6	2.1	2.2	2.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Annual rate over life of contract .....	3.1	2.7	2.4	2.6	2.7	2.9	2.9	3.0
Contracts with COLA clauses .....	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Contracts without COLA clauses .....	( <sup>1</sup> )	2.7	2.4	2.6	2.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Data do not meet publication standards.

<sup>2</sup> Between -0.05 and 0.05 percent.

<sup>P</sup> = preliminary.

**28. Average effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more during 4-quarter periods (in percent)**

Effective wage adjustment	Average for four quarters ending--						
	1988			1989			
	II	III	IV	I	II <sup>P</sup>	III <sup>P</sup>	IV <sup>P</sup>
<b>For all workers:<sup>1</sup></b>							
Total .....	3.0	2.9	2.6	2.7	2.8	3.0	3.2
From settlements reached in period .....	1.0	1.0	.7	.8	.7	.9	1.2
Deferred from settlements reached in earlier period .....	1.6	1.4	1.3	1.3	1.3	1.3	1.3
From cost-of-living-adjustments clauses .....	.5	.5	.6	.6	.8	.8	.7
<b>For workers receiving changes:</b>							
Total .....	3.7	3.5	3.3	3.5	3.8	4.0	4.0
From settlements reached in period .....	2.9	2.9	3.1	3.2	3.5	3.7	4.2
Deferred from settlements reached in earlier period .....	3.3	3.0	3.0	3.2	3.2	3.4	3.4
From cost-of-living-adjustments clauses .....	2.3	2.5	2.7	2.9	3.2	3.8	3.3

<sup>1</sup> Because of rounding, total may not equal sum of parts.

<sup>P</sup> = preliminary.

**29. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, State and local government collective bargaining situations covering 1,000 workers or more (in percent)**

Measure	Annual average		
	1987	1988	1989
<b>Specified adjustments:</b>			
Total compensation <sup>1</sup> adjustments, <sup>2</sup> settlements covering 5,000 workers or more:			
First year of contract .....			
Annual rate over life of contract .....	4.9	5.4	5.1
Annual rate over life of contract .....	4.8	5.3	4.9
<b>Wage adjustments, settlements covering 1,000 workers or more:</b>			
First year of contract .....			
Annual rate over life of contract .....	4.9	5.1	5.1
Annual rate over life of contract .....	5.1	5.3	5.1
<b>Effective adjustments:</b>			
Total effective wage adjustment <sup>3</sup> .....	4.9	4.7	5.1
From settlements reached in period .....	2.7	2.3	2.5
Deferred from settlements reached in earlier periods .....	2.2	2.4	2.6
From cost-of-living-adjustment clauses .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )

<sup>1</sup> Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

<sup>2</sup> Adjustments are the net result of increases, decreases, and no changes in compensation or wages.

<sup>3</sup> Because of rounding, total may not equal sum of parts.

<sup>4</sup> Less than 0.05 percent.

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

Measure	Annual totals		1989												1990 <sup>P</sup>
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>Number of stoppages:</b>															
Beginning in period .....	40	51	3	0	3	6	8	2	6	6	6	5	5	1	2
In effect during period .....	43	52	4	3	5	10	14	7	12	13	12	13	14	9	8
<b>Workers involved:</b>															
Beginning in period (in thousands) .....	118.3	452.1	7.4	.0	31.5	8.7	56.1	3.3	45.7	203.0	14.5	68.9	8.0	5.0	33
In effect during period (in thousands) .....	121.9	454.1	9.4	7.2	37.7	45.2	95.2	46.3	88.8	239.8	108.7	171.1	169.1	104.1	191
<b>Days idle:</b>															
Number (in thousands) .....	4,364.3	16,996.3	140.0	125.8	805.3	770.2	1,337.1	924.8	1,273.8	3,761.4	1,922.3	3,220.9	2,343.7	376.0	308.3
Percent of estimated working time <sup>1</sup> .....	.02	.07	.01	.01	.03	.04	.06	.04	.06	.15	.09	.14	.11	.02	.01

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

in "Total economy" measure of strike idleness," *Monthly Labor Review*, October 1968, pp. 54-56.

<sup>P</sup> = preliminary.



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

(1982-84 = 100, unless otherwise indicated)

Series	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS:</b>															
All items .....	118.3	124.0	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125.0	125.6	125.9	126.1	127.4
All items (1967=100) .....	354.3	371.3	362.7	364.1	366.2	368.8	370.8	371.7	372.7	373.1	374.6	376.2	377.0	377.6	381.5
Food and beverages .....	118.2	124.9	122.0	122.7	123.3	124.0	124.7	124.9	125.4	125.6	125.9	126.3	126.7	127.2	130.0
Food .....	118.2	125.1	122.2	122.9	123.5	124.2	124.9	125.0	125.5	125.8	126.1	126.5	126.9	127.4	130.4
Food at home .....	116.6	124.2	121.2	122.0	122.7	123.5	124.4	124.3	124.8	124.9	125.0	125.4	125.8	126.5	131.0
Cereals and bakery products .....	122.1	132.4	127.9	128.9	129.7	130.4	131.5	132.1	133.3	134.1	134.6	135.0	135.3	136.1	136.9
Meats, poultry, fish, and eggs .....	114.3	121.3	118.5	118.2	120.5	120.6	120.7	121.4	121.6	122.3	122.9	122.4	122.8	123.8	126.8
Dairy products .....	108.4	115.6	112.6	113.4	113.8	114.1	113.8	113.6	114.1	114.5	116.1	118.2	120.2	122.9	125.8
Fruits and vegetables .....	128.1	138.0	134.8	137.1	135.7	138.0	142.7	140.2	140.1	138.8	136.6	137.1	137.8	136.7	153.7
Other foods at home .....	113.1	119.1	116.6	117.8	118.1	119.0	118.9	119.2	119.7	119.7	119.7	120.3	119.9	120.1	121.3
Sugar and sweets .....	114.0	119.4	117.2	117.8	118.0	117.9	118.1	119.2	120.1	120.6	120.8	121.3	120.7	121.1	122.5
Fats and oils .....	113.1	121.1	119.6	120.5	120.4	121.6	121.6	121.6	121.7	121.3	121.6	121.0	121.0	121.6	123.5
Nonalcoholic beverages .....	107.5	111.3	109.6	111.3	111.3	111.8	111.5	111.6	112.3	111.2	111.0	111.8	111.2	111.0	112.4
Other prepared foods .....	118.0	125.5	121.9	123.0	123.7	125.2	125.2	125.5	125.9	126.7	126.7	127.2	127.3	127.6	128.3
Food away from home .....	121.8	127.4	124.7	125.2	125.7	126.2	126.7	127.1	127.8	128.1	128.8	129.1	129.5	129.8	130.3
Alcoholic beverages .....	118.6	123.5	120.3	121.1	121.8	122.3	123.1	123.5	124.0	124.5	124.8	125.2	125.5	125.6	126.2
Housing .....	118.5	123.0	120.7	121.1	121.5	121.6	122.1	122.9	123.9	124.2	124.3	124.4	124.5	124.9	125.9
Shelter .....	127.1	132.8	129.8	130.3	131.2	131.2	131.8	132.3	133.6	134.1	134.1	134.8	135.2	135.6	136.3
Renters' costs (12/82=100) .....	139.6	138.9	135.2	136.3	138.6	137.9	137.8	138.7	141.5	141.5	139.4	140.0	140.1	140.1	142.0
Rent, residential .....	127.8	132.8	130.5	130.9	131.1	131.4	131.7	132.3	133.0	133.5	133.9	134.7	135.2	135.5	135.8
Other renters' costs .....	134.8	140.7	132.7	136.2	144.7	140.7	139.7	141.5	150.5	148.8	139.1	139.2	138.0	137.2	143.6
Homeowners' costs (12/82=100) .....	131.1	137.3	134.4	134.7	135.0	135.4	136.2	136.5	137.3	138.1	138.9	139.7	140.3	140.9	141.1
Owners' equivalent rent (12/82=100) .....	131.1	137.4	134.5	134.8	135.1	135.5	136.3	136.6	137.4	138.2	139.0	139.9	140.5	141.0	141.2
Household insurance (12/82=100) .....	129.0	132.6	130.9	131.2	131.3	132.1	132.8	133.1	133.3	133.6	133.7	133.8	134.0	134.1	141.4
Maintenance and repairs .....	114.7	118.0	116.1	117.1	117.1	117.3	117.4	118.3	118.4	118.5	118.6	118.6	119.3	119.5	120.4
Maintenance and repair services .....	117.9	120.6	118.7	119.9	119.6	119.8	120.2	121.0	121.1	121.3	120.9	121.0	121.7	122.2	123.7
Maintenance and repair commodities .....	110.4	114.6	112.8	113.4	113.8	114.1	113.8	114.7	115.0	114.8	115.6	115.5	116.2	115.8	116.0
Fuel and other utilities .....	104.4	107.8	106.0	105.9	105.9	106.2	107.0	109.2	109.7	109.7	109.7	108.0	107.5	108.4	110.8
Fuels .....	98.0	100.9	98.7	98.6	98.5	98.8	99.6	103.2	103.7	103.7	103.5	101.0	99.9	101.2	104.5
Fuel oil, coal, and bottled gas .....	78.1	81.7	80.5	81.4	81.5	82.5	81.5	80.2	79.7	78.9	79.3	82.0	83.9	88.7	113.1
Gas (piped) and electricity .....	104.6	107.5	105.1	104.9	104.8	105.0	106.1	110.5	111.1	111.3	111.0	107.6	106.1	107.0	107.5
Other utilities and public services .....	122.9	127.1	125.9	126.0	125.9	126.2	127.0	127.1	127.7	127.8	128.1	127.6	127.9	128.2	129.3
Household furnishings and operations .....	109.4	111.2	110.9	110.9	110.5	110.7	110.8	111.1	111.4	111.4	111.7	111.9	111.9	111.7	112.1
Housefurnishings .....	105.1	105.5	106.0	105.9	105.1	105.0	104.7	105.1	105.5	105.2	105.7	106.1	106.0	105.5	106.1
Housekeeping supplies .....	114.7	120.9	117.5	117.7	118.5	119.6	120.9	121.2	121.7	122.3	122.3	122.5	122.5	123.6	123.2
Housekeeping services .....	114.3	117.3	116.6	116.8	116.9	117.1	117.3	117.4	117.3	117.5	117.5	117.4	117.6	117.6	117.9
Apparel and upkeep .....	115.4	118.6	115.3	115.3	119.3	120.9	120.4	117.8	115.0	115.0	120.0	122.7	122.1	119.2	116.7
Apparel commodities .....	113.7	116.7	113.3	113.3	117.5	119.3	118.6	115.8	112.9	112.8	118.2	121.1	120.4	117.1	114.3
Men's and boys' apparel .....	113.4	117.0	115.1	114.2	115.9	117.2	117.8	115.9	114.7	114.7	117.7	120.3	121.1	118.8	116.3
Women's and girls' apparel .....	114.9	116.4	111.6	111.4	119.4	121.5	119.5	114.8	109.6	109.5	119.0	123.1	121.3	116.4	112.0
Infants' and toddlers' apparel .....	116.4	119.1	115.6	118.8	118.5	123.6	125.4	123.9	117.9	116.7	118.0	118.3	117.2	115.3	112.7
Footwear .....	109.9	114.4	112.2	112.7	114.1	115.3	114.9	114.0	113.4	112.6	114.1	117.6	116.6	114.7	113.1
Other apparel commodities .....	116.0	122.1	119.2	120.4	120.4	121.5	121.7	121.6	122.5	124.1	124.5	123.5	122.8	125.1	
Apparel services .....	123.7	129.4	127.3	127.8	128.5	128.9	129.9	130.0	129.4	129.5	129.7	129.8	130.8	131.3	132.4
Transportation .....	108.7	114.1	111.1	111.6	111.9	114.6	116.0	115.9	115.4	114.3	113.7	114.5	115.0	115.2	117.2
Private transportation .....	107.6	112.9	109.8	110.3	110.7	113.6	115.0	114.9	114.3	113.1	112.4	113.3	113.7	113.9	115.9
New vehicles .....	116.5	119.2	119.4	119.5	119.4	119.2	119.2	118.9	118.5	117.7	117.1	118.5	120.6	121.9	122.4
New cars .....	116.9	119.2	119.5	119.6	119.6	119.4	119.5	119.1	118.6	117.7	117.0	118.6	120.5	121.8	122.3
Used cars .....	118.0	120.4	120.5	120.5	120.5	120.7	121.0	121.3	121.1	120.3	119.8	119.7	120.1	119.7	118.9
Motor fuel .....	80.9	88.5	79.6	80.3	81.5	92.1	96.6	96.0	94.4	91.0	88.8	88.9	87.2	85.8	91.4
Gasoline .....	80.8	88.5	79.4	80.1	81.3	92.1	96.7	96.2	94.6	91.1	88.8	88.8	87.0	85.5	90.6
Maintenance and repair .....	119.7	124.9	122.4	123.3	123.5	123.8	124.3	124.5	124.8	125.4	126.2	126.7	126.7	126.9	127.3
Other private transportation .....	127.9	135.8	133.5	134.3	134.5	134.7	135.6	135.9	135.6	135.7	135.7	137.1	138.2	139.0	140.3
Other private transportation commodities .....	98.9	101.5	101.0	101.2	100.1	100.8	101.5	101.9	101.3	102.0	102.0	101.9	102.1	102.3	101.9
Other private transportation services .....	133.9	143.2	140.4	141.4	141.9	142.0	142.9	143.2	143.0	142.9	144.8	146.0	146.9	146.9	148.7
Public transportation .....	123.3	129.5	127.5	128.1	128.2	128.4	128.9	129.6	129.7	130.1	130.1	130.6	131.3	131.7	134.2
Medical care .....	138.6	149.3	143.8	145.2	146.1	146.8	147.5	148.5	149.7	150.7	151.7	152.7	153.9	154.4	155.9
Medical care commodities .....	139.9	150.8	145.0	145.8	147.2	148.4	150.0	151.0	151.4	152.1	153.3	154.1	155.3	156.0	156.9
Medical care services .....	138.3	148.9	143.5	145.1	145.9	146.4	146.9	147.9	149.3	150.4	151.3	152.3	153.6	154.1	155.7
Professional services .....	137.5	146.4	142.2	143.5	144.4	144.9	145.2	146.1	147.0	147.5	148.0	148.6	149.3	149.9	151.1
Hospital and related services .....	143.9	160.5	152.9	155.1	155.8	156.6	157.3	158.5	160.8	162.7	164.3	166.0	167.9	167.9	169.9
Entertainment .....	120.3	126.5	123.8	124.3	124.7	125.4	125.5	126.2	126.9	127.3	127.8	128.4	128.6	129.1	129.9
Entertainment commodities .....	115.0	119.8	118.1	118.4	118.5	119.0	119.3	119.5	119.9	120.0	120.5	121.2	121.3	121.6	122.3
Entertainment services .....	127.7	135.4	131.6	132.3	132.9	134.0	133.9	135.0	136.1	136.7	137.2	137.8	138.2	138.8	139.8
Other goods and services .....	137.0	147.7	143.4	144.1	144.4	144.7	145.4	146.3	147.3	148.7	151.2	151.8	151.9	152.9	154.0
Tobacco products .....	145.8	164.4	157.0	158.5	159.2	159.5	1								

Current Labor Statistics: Price Data

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

(1982-84=100, unless otherwise indicated)

Series	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
All items .....	118.3	124.0	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125.0	125.6	125.9	126.1	127.4
Commodities .....	111.5	116.7	113.9	114.3	115.2	116.7	117.5	117.2	117.0	117.3	118.1	118.3	118.2	119.9	
Food and beverages .....	118.2	124.9	122.0	122.7	123.3	124.0	124.7	124.9	125.4	125.6	125.9	126.3	126.7	130.0	
Commodities less food and beverages .....	107.3	111.6	108.9	109.1	110.1	112.2	112.9	112.4	111.7	111.1	111.9	113.0	113.0	113.7	
Nondurables less food and beverages .....	105.2	111.2	106.4	106.9	108.9	112.5	113.6	112.7	111.6	110.9	112.4	113.6	113.1	113.7	
Apparel commodities .....	113.7	116.7	113.3	113.3	117.5	119.3	118.6	115.8	112.9	112.8	118.2	121.1	120.4	114.3	
Nondurables less food, beverages, and apparel .....	103.2	111.0	105.3	106.1	106.9	111.5	113.6	113.7	113.6	112.5	110.2	112.4	111.9	112.0	
Durables .....	110.4	112.2	112.5	112.4	111.9	111.8	111.9	112.1	111.9	111.4	111.3	112.1	113.0	113.8	
Services .....	125.7	131.9	128.9	129.4	130.0	130.2	130.8	131.6	132.5	133.1	133.4	133.7	134.1	135.4	
Rent of shelter (12/82=100) .....	132.0	138.0	134.8	135.4	136.3	136.3	136.9	137.4	138.8	139.3	139.3	140.1	140.5	141.6	
Household services less rent of shelter (12/82=100) .....	115.3	118.7	117.0	116.9	116.9	117.2	118.0	120.1	120.6	120.7	120.7	119.0	118.5	119.6	
Transportation services .....	128.0	135.6	133.0	133.9	134.3	134.5	135.2	135.6	135.5	135.7	135.9	137.1	138.0	140.2	
Medical care services .....	138.3	148.9	143.5	145.1	145.9	146.4	146.9	147.9	149.3	150.4	151.3	152.3	153.6	155.7	
Other services .....	132.6	140.9	137.3	137.8	138.2	138.8	139.2	139.8	140.4	141.5	143.8	144.3	144.6	146.1	
Special indexes:															
All items less food .....	118.3	123.7	120.8	121.3	122.0	122.9	123.5	123.9	124.2	124.3	124.8	125.4	125.6	126.7	
All items less shelter .....	115.9	121.6	118.7	119.2	119.9	121.0	121.7	122.0	122.0	122.0	122.6	123.1	123.3	125.0	
All items less homeowners' costs (12/82=100) .....	119.5	125.3	122.3	122.9	123.7	124.7	125.3	125.6	125.9	125.9	126.3	126.8	127.0	128.7	
All items less medical care .....	117.0	122.4	119.7	120.1	120.8	121.7	122.3	122.6	122.9	123.0	123.4	124.0	124.2	125.7	
Commodities less food .....	107.7	112.0	109.2	109.5	110.5	112.5	113.2	112.8	112.1	111.6	112.4	113.4	113.4	114.1	
Nondurables less food .....	105.8	111.7	107.1	107.6	109.4	112.8	113.9	113.1	112.2	111.5	112.9	114.1	113.6	114.2	
Nondurables less food and apparel .....	104.0	111.3	106.0	106.8	107.6	111.7	113.6	113.8	113.7	112.8	112.4	112.8	112.4	116.1	
Nondurables .....	111.8	118.2	114.3	114.9	116.2	118.4	119.3	119.0	118.7	118.4	119.3	120.1	120.0	119.8	
Services less rent of shelter (12/82=100) .....	128.3	135.1	132.1	132.7	133.0	133.4	134.0	135.2	135.8	136.3	137.0	137.0	137.2	138.9	
Services less medical care .....	124.3	130.1	127.3	127.8	128.3	128.5	129.1	129.9	130.8	131.3	131.6	131.8	132.1	133.4	
Energy .....	89.3	94.3	89.0	89.3	89.8	89.9	94.9	97.4	99.0	98.5	97.0	95.9	94.6	93.2	
All items less energy .....	122.3	128.1	125.5	126.0	126.7	127.1	127.6	127.7	128.2	128.5	129.1	129.9	130.4	130.6	
All items less food and energy .....	123.4	129.0	126.4	126.9	127.6	128.0	128.3	128.5	129.0	129.3	130.0	130.9	131.3	131.5	
Commodities less food and energy .....	115.8	119.6	117.9	118.1	119.0	119.6	119.7	119.3	118.8	118.8	120.1	121.2	121.6	121.0	
Energy commodities .....	80.8	87.9	79.9	80.6	81.7	91.2	95.0	94.4	92.9	89.8	88.0	88.3	87.0	86.4	
Services less energy .....	127.9	134.4	131.4	132.0	132.7	132.9	133.4	133.9	134.8	135.4	135.8	136.5	137.0	138.4	
Purchasing power of the consumer dollar:															
1982-84=\$1.00 .....	84.6	80.7	82.6	82.3	81.8	81.2	80.8	80.6	80.4	80.3	80.0	79.6	79.5	78.5	
1967=\$1.00 .....	28.2	26.9	27.6	27.5	27.3	27.1	27.0	26.9	26.8	26.8	26.7	26.6	26.5	26.2	
<b>CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS:</b>															
All items .....	117.0	122.6	119.7	120.2	120.8	121.8	122.5	122.8	123.2	123.2	123.6	124.2	124.4	125.9	
All items (1967=100) .....	348.4	365.2	356.7	358.0	360.0	362.9	364.9	365.9	366.8	367.0	368.3	369.8	370.6	375.0	
Food and beverages .....	117.9	124.6	121.7	122.4	123.1	123.7	124.4	124.6	125.1	125.3	125.6	126.0	126.4	129.7	
Food .....	117.9	124.8	121.9	122.6	123.3	123.9	124.6	124.8	125.3	125.5	125.8	126.2	126.6	130.1	
Food at home .....	116.2	123.9	120.8	121.7	122.4	123.2	124.0	123.9	124.4	124.6	124.6	125.0	125.5	130.5	
Cereals and bakery products .....	122.2	132.4	128.0	129.0	129.7	130.5	131.5	132.0	133.3	134.1	134.6	135.1	135.3	136.8	
Meats, poultry, fish, and eggs .....	114.1	121.2	118.3	118.0	120.3	120.4	120.5	121.2	121.5	122.1	122.7	122.2	122.9	126.7	
Dairy products .....	108.1	115.4	112.4	113.3	113.6	114.0	113.6	113.3	113.8	114.2	115.9	118.0	120.0	122.8	
Fruits and vegetables .....	127.6	137.6	134.3	136.8	135.4	137.7	142.5	140.0	139.9	138.6	136.1	136.5	137.0	152.9	
Other foods at home .....	113.0	119.0	116.5	117.7	118.0	118.9	118.8	119.0	119.6	119.6	119.6	120.2	119.8	121.3	
Sugar and sweets .....	113.9	119.5	117.3	117.8	118.0	118.1	118.4	119.2	120.1	120.6	120.9	121.4	120.7	122.5	
Fats and oils .....	113.0	121.1	119.5	120.4	120.3	121.5	121.5	121.5	121.5	121.6	121.2	121.5	120.9	121.5	
Nonalcoholic beverages .....	107.7	111.4	109.8	111.4	111.4	111.9	111.5	111.6	112.2	111.1	111.0	112.0	111.3	112.7	
Other prepared foods .....	117.8	125.3	121.7	122.8	123.6	125.0	125.0	125.3	125.7	126.5	126.6	127.0	127.1	128.2	
Food away from home .....	121.6	127.3	124.6	125.1	125.5	126.1	126.5	127.0	127.6	128.0	128.6	129.0	129.4	130.2	
Alcoholic beverages .....	118.3	123.1	119.8	120.8	121.4	122.0	122.8	123.2	123.6	124.0	124.4	124.7	125.1	125.9	
Housing .....	116.8	121.2	119.0	119.3	119.6	119.8	120.3	121.1	122.1	122.4	122.5	122.5	122.7	123.9	
Shelter .....	124.3	129.8	126.9	127.4	128.1	128.3	128.8	129.3	130.5	131.0	131.1	131.8	132.3	133.2	
Renters' costs (12/84=100) .....	119.2	123.9	120.7	121.5	123.0	122.7	122.8	123.6	125.7	125.9	124.6	125.1	125.3	126.6	
Rent, residential .....	127.5	132.3	130.1	130.4	130.7	131.0	131.2	131.8	132.5	133.0	133.4	134.2	134.6	135.3	
Other renters' costs .....	135.2	141.5	131.8	135.2	144.2	140.9	139.9	142.3	153.7	152.0	140.9	140.4	139.1	144.1	
Homeowners' costs (12/84=100) .....	119.5	125.1	122.5	122.8	123.0	123.4	124.1	124.4	125.2	125.8	126.6	127.3	127.8	128.5	
Owners' equivalent rent (12/84=100) .....	119.5	125.2	122.5	122.8	123.1	123.5	124.2	124.5	125.2	125.9	126.7	127.4	128.0	128.6	
Household insurance (12/84=100) .....	118.2	121.4	119.9	120.0	120.1	120.2	120.9	121.5	121.8	122.0	122.4	122.5	122.5	122.8	
Maintenance and repairs .....	114.0	117.6	115.6	116.7	116.7	116.7	116.9	117.9	118.2	117.9	118.0	118.1	118.9	120.0	
Maintenance and repair services .....	117.7	120.4	118.3	119.5	119.2	119.3	119.8	121.0	121.2	121.3	120.7	120.9	121.7	124.1	
Maintenance and repair commodities .....	108.3	112.6	110.9	111.8	112.1	112.1	112.0	112.7	113.2	112.5	113.3	113.4	114.0	113.8	
Fuel and other utilities .....	104.1	107.5	105.7	105.7	105.7	105.9	106.7	109.0	109.4	109.5	109.5	107.6	107.2	108.0	
Fuels .....	97.7	100.6	98.4	98.3	98.2	98.5	99.2	103.0	103.4	103.5	103.3	103.6	99.5	100.7	
Fuel oil, coal, and bottled gas .....	77.9	81.4	80.3	81.0	81.2	82.1	81.2	80.1	79.6	78.8	79.2	81.8	83.6	88.1	
Gas (piped) and electricity .....	104.4	107.3	104.8	104.6	104.6	104.8	105.8	110.3	110.8	111.0	110.7	107.2	105.8	106.7	
Other utilities and public services .....	122.9	127.4	126.2	126.3	126.2	126.5	127.2	127.4	127.9	128.0	128.3	127.8	128.2	129.6	
Household furnishings and operations .....	108.9	110.6	110.4	110.4	110.0	110.1	110.1	110.4	110.8	110.8	111.0	111.2	111.2	111.1	
Housefurnishings .....	104.5	104.8	105.5	105.4	104.5	104.3	104.0	104.4	104.8	104.6	105.0	105.3	105.2	104.7	
Housekeeping supplies .....	115.1	121.2	117.9	118.1	118.9	120.0	121.2</								

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

(1982-84=100, unless otherwise indicated)

Series	Annual average		1989												1990
	1988	1989	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Apparel commodities .....	113.4	116.1	113.0	112.8	116.7	118.4	117.7	115.0	112.3	112.4	117.6	120.5	119.8	116.6	114.0
Men's and boys' apparel .....	112.8	116.1	114.4	113.4	115.1	116.4	116.9	115.0	113.7	113.9	116.9	119.6	120.2	118.0	115.8
Women's and girls' apparel .....	114.5	115.5	111.3	110.7	118.3	120.2	118.1	113.5	108.7	108.9	118.1	122.0	120.5	115.5	111.3
Infants' and toddlers' apparel .....	118.6	122.5	118.5	121.8	121.7	126.7	128.3	126.7	121.9	120.4	122.0	122.2	121.0	119.3	116.8
Footwear .....	110.4	114.7	112.8	113.1	114.1	115.2	115.0	114.1	113.9	113.1	114.5	118.0	117.0	115.4	113.8
Other apparel commodities .....	114.9	120.5	117.8	119.0	118.5	119.6	119.8	119.8	120.7	122.4	122.5	121.9	122.4	121.5	123.2
Apparel services .....	123.0	128.6	126.4	126.8	127.7	128.1	128.9	129.0	128.6	128.7	128.8	129.0	130.0	130.6	131.7
Transportation .....	108.3	113.9	110.7	111.2	111.6	114.5	116.0	116.0	115.4	114.2	113.5	114.3	114.6	114.8	116.8
Private transportation .....	107.5	113.0	109.7	110.3	110.6	113.7	115.3	115.2	114.6	113.3	112.6	113.3	113.7	113.8	115.8
New vehicles .....	116.2	119.0	119.2	119.3	119.2	118.9	119.0	118.7	118.3	117.6	117.1	118.4	120.5	122.0	122.4
New cars .....	116.6	119.1	119.3	119.5	119.4	119.2	119.3	118.9	118.4	117.6	116.9	118.4	120.2	121.7	122.2
Used cars .....	117.9	120.3	120.3	120.4	120.3	120.5	120.9	121.1	120.9	121.0	119.6	119.5	119.9	119.5	118.7
Motor fuel .....	80.9	88.6	79.6	80.3	81.5	92.3	96.7	96.1	94.5	91.0	89.0	89.1	87.3	85.9	91.7
Gasoline .....	80.8	88.6	79.5	80.2	81.4	92.3	96.9	96.3	94.7	91.2	89.0	89.0	87.2	85.6	91.0
Maintenance and repair .....	119.8	124.9	122.4	123.3	123.5	123.9	124.4	124.6	124.8	125.4	126.2	126.7	126.8	126.9	127.3
Other private transportation .....	125.8	133.7	131.4	132.2	132.5	132.7	133.5	133.9	133.7	133.7	133.6	134.9	136.0	136.8	138.1
Other private transportation commodities .....	98.6	101.1	100.5	100.7	99.8	100.4	101.1	101.5	101.0	101.6	101.6	101.5	101.7	101.9	101.4
Other private transportation services .....	131.7	141.0	138.2	139.2	139.8	139.8	140.7	141.2	141.0	140.8	140.6	142.5	143.8	144.7	146.5
Public transportation .....	122.5	128.2	126.1	126.8	126.9	127.1	127.5	128.2	128.3	129.1	129.1	129.2	129.7	130.1	132.9
Medical care .....	139.0	149.6	144.2	145.6	146.5	147.2	147.9	148.8	150.1	151.1	152.1	153.0	154.2	154.7	156.1
Medical care commodities .....	139.0	149.7	143.9	144.7	146.0	147.4	148.9	149.9	150.3	150.9	152.2	153.1	154.2	154.8	155.7
Medical care services .....	139.0	149.6	144.2	145.8	146.7	147.2	147.6	148.6	150.0	151.1	152.1	153.0	154.2	154.7	156.2
Professional services .....	137.7	146.7	142.4	143.7	144.7	145.1	145.5	146.4	147.3	147.8	148.4	149.0	149.6	150.2	151.5
Hospital and related services .....	143.3	159.4	151.9	154.2	154.8	155.6	156.2	157.3	159.7	161.6	163.3	164.7	166.5	166.8	168.4
Entertainment .....	119.7	125.8	123.1	123.6	124.1	124.8	124.9	125.5	126.1	126.5	127.0	127.7	127.9	128.4	129.1
Entertainment commodities .....	115.1	119.9	118.1	118.4	118.7	119.1	119.5	119.7	120.1	120.1	120.6	121.3	121.4	121.7	122.3
Entertainment services .....	127.2	135.1	131.3	131.9	132.7	133.8	133.6	134.6	135.7	136.4	137.1	137.6	138.0	138.7	139.6
Other goods and services .....	136.5	147.4	143.0	143.7	144.0	144.4	145.2	146.3	147.5	148.8	150.8	151.4	151.5	152.7	153.9
Tobacco products .....	146.0	164.2	156.9	158.2	158.9	159.2	160.7	163.8	167.3	168.5	168.0	168.6	168.5	171.8	173.8
Personal care .....	119.3	124.8	122.7	123.0	123.5	123.9	124.7	124.4	124.6	125.4	125.7	126.3	126.8	126.9	127.3
Toilet goods and personal care appliances .....	118.0	123.3	121.7	121.9	122.3	122.7	122.9	122.4	122.8	123.8	124.1	124.6	125.1	124.7	124.9
Personal care services .....	120.5	126.6	123.6	124.2	124.6	125.2	126.7	126.9	126.8	127.1	127.5	128.2	128.7	129.4	130.1
Personal and educational expenses .....	147.4	157.3	153.3	153.7	153.9	154.3	154.6	155.3	155.7	157.3	161.8	162.5	162.5	163.1	164.2
School books and supplies .....	147.1	156.9	152.0	153.9	154.0	154.1	154.1	154.5	154.7	155.6	161.7	162.8	162.8	162.9	166.9
Personal and educational services .....	147.7	157.7	153.7	154.0	154.1	154.6	154.9	155.7	156.1	157.8	162.1	162.7	162.8	163.4	164.3
All items .....	117.0	122.6	119.7	120.2	120.8	121.8	122.5	122.8	123.2	123.2	123.6	124.2	124.4	124.6	125.9
Commodities .....	111.0	116.3	113.5	113.9	114.1	116.4	117.1	116.9	116.8	116.4	116.9	117.7	117.8	117.8	119.5
Food and beverages .....	117.9	124.6	121.7	122.4	123.7	123.7	124.4	124.6	125.1	125.3	125.6	126.0	126.4	126.9	129.7
Commodities less food and beverages .....	106.8	111.2	108.4	108.7	109.5	111.8	112.6	112.2	111.6	110.9	111.6	112.5	112.5	112.1	113.3
Nondurables less food and beverages .....	104.6	110.9	105.9	106.3	108.1	112.1	113.4	112.6	111.7	110.8	112.0	113.2	112.6	111.6	113.4
Apparel commodities .....	113.4	116.1	113.0	112.8	116.7	118.4	117.7	115.0	112.3	112.4	117.6	120.5	119.8	116.6	114.0
Nondurables less food, beverages, and apparel .....	102.9	110.9	104.9	105.6	106.5	111.6	113.9	114.0	113.9	112.6	112.0	112.3	111.7	111.7	115.7
Durables .....	108.9	110.8	111.0	111.0	110.6	110.5	110.6	110.7	110.6	110.1	110.0	110.6	111.6	112.0	112.2
Services .....	124.7	130.8	127.9	128.4	128.9	129.1	129.7	130.6	131.5	132.0	132.3	132.6	132.9	133.4	134.2
Rent of shelter (12/84=100) .....	119.4	124.8	121.9	122.4	123.1	123.2	123.7	124.2	125.4	125.9	126.0	126.7	127.1	127.5	128.0
Household services less rent of shelter (12/84=100) .....	105.9	109.1	107.5	107.4	107.4	107.6	108.3	110.5	110.9	111.0	111.0	109.3	108.8	109.3	110.0
Transportation services .....	127.1	134.8	132.2	133.1	133.5	133.7	134.4	134.8	134.8	134.9	135.0	136.3	137.1	137.8	139.4
Medical care services .....	139.0	149.6	144.2	145.8	146.7	147.2	147.6	148.6	150.0	151.1	152.1	153.0	154.2	154.7	156.2
Other services .....	131.4	139.6	136.1	136.5	137.0	137.6	137.9	138.6	139.1	140.1	142.3	142.9	143.2	143.8	144.7
Special indexes:															
All items less food .....	116.7	122.0	119.2	119.6	120.2	121.3	122.0	122.3	122.6	122.6	123.1	123.6	123.8	124.0	124.9
All items less shelter .....	115.2	120.9	118.0	118.5	119.1	120.4	121.1	121.3	121.4	121.3	121.8	122.3	122.5	122.6	124.2
All items less homeowners' costs (12/84=100) .....	110.4	115.7	113.0	113.4	114.1	115.2	115.8	116.1	116.3	116.3	116.6	117.1	117.3	117.4	118.8
All items less medical care .....	115.8	121.2	118.5	118.9	119.5	120.5	121.2	121.5	121.8	121.8	122.2	122.7	122.9	123.1	124.4
Commodities less food .....	107.2	111.6	108.8	109.0	109.9	112.1	112.9	112.5	112.0	111.4	112.0	112.9	112.9	112.6	113.7
Nondurables less food .....	105.3	111.3	106.5	107.0	108.7	112.4	113.6	113.0	112.1	111.4	112.5	113.6	113.1	112.2	113.9
Nondurables less food and apparel .....	103.7	111.2	105.6	106.4	107.2	111.7	113.8	114.0	113.9	112.8	112.3	112.7	112.1	112.2	115.8
Nondurables .....	111.5	118.0	114.0	114.6	115.8	118.1	119.1	118.8	118.6	118.3	119.1	119.8	119.7	119.5	121.8
Services less rent of shelter (12/84=100) .....	115.6	121.7	119.0	119.5	119.8	120.1	120.7	121.9	122.3	122.7	123.3	123.2	123.4	123.9	124.9
Services less medical care .....	123.3	129.0	126.3	126.7	127.2	127.4	128.0	128.9	129.7	130.1	130.4	130.6	130.9	131.4	132.2
Energy .....	88.6	93.9	88.3	88.6	89.2	94.8	97.4	98.9	98.3	96.6	95.5	94.2	92.8	92.7	97.1
All items less energy .....	121.0	126.7	124.2	124.7	125.3	125.8	126.2	126.4	126.8	127.1	127.7	128.5	128.9	129.1	130.1
All items less food and energy .....	121.9	127.3	124.8	125.3	125.9	126.3	126.6	126.8	127.3	127.6	128.3	129.1	129.6	129.7	130.1
Commodities less food and energy .....	114.7	118.6	116.9	117.1	117.9	118.4	118.5	118.2	117.9	117.9	119.0	120.1	120.5	120.2	119.9
Energy commodities .....	80.9	88.2	79.9	80.6	81.7	91.6	95.6	94.9	93.5	90.2	88.4	88.7	87.2	86.4	93.9
Services less energy .....	127.0	133.4	130.5	131.1	131.6	131.9	132.4	132.9	133.8	134.4	134.8	135.5	136.0	136.4	137.3
Purchasing power of the consumer dollar:															

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

(1982-84=100, unless otherwise indicated)

Area <sup>1</sup>	Pricing schedule <sup>2</sup>	All Urban Consumers						Urban Wage Earners							
		1989						1990	1989						1990
		Jan.	Feb.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Feb.	Sept.	Oct.	Nov.	Dec.	Jan.
U.S. city average .....	M	121.1	121.6	125.0	125.6	125.9	126.1	127.4	119.7	120.2	123.6	124.2	124.4	124.6	125.9
<b>Region and area size<sup>3</sup></b>															
Northeast urban .....	M	125.4	125.8	130.0	130.6	131.1	131.3	132.9	124.1	124.5	128.8	129.4	129.9	130.1	131.6
Size A - More than 1,200,000 .....	M	126.1	126.5	130.6	131.1	131.6	131.6	133.3	124.0	124.3	128.7	129.1	129.5	129.5	131.0
Size B - 500,000 to 1,200,000 .....	M	123.1	123.9	128.9	130.0	130.7	130.9	132.5	121.9	122.7	127.6	128.6	129.3	129.5	131.1
Size C - 50,000 to 500,000 .....	M	124.4	124.3	128.1	128.9	129.7	130.7	132.0	126.8	126.7	130.8	131.5	132.3	133.1	134.4
North Central urban .....	M	118.7	119.3	122.5	123.0	123.2	123.2	124.5	116.8	117.3	120.4	120.9	121.2	121.1	122.5
Size A - More than 1,200,000 .....	M	119.8	120.4	124.1	124.3	124.4	124.3	125.7	117.1	117.7	121.2	121.4	121.5	121.5	122.9
Size B - 360,000 to 1,200,000 .....	M	118.3	118.6	121.0	122.5	123.0	123.0	124.2	116.0	116.2	118.6	120.0	120.5	120.4	121.8
Size C - 50,000 to 360,000 .....	M	118.8	119.5	122.2	122.9	123.3	123.2	124.6	117.7	118.4	120.9	121.6	122.0	122.0	123.5
Size D - Nonmetropolitan (less than 50,000) .....	M	114.5	115.1	117.8	118.2	118.6	118.8	120.0	114.3	114.8	117.7	118.1	118.4	118.6	119.9
South urban .....	M	118.9	119.2	122.5	123.0	123.2	123.4	124.6	118.3	118.7	121.9	122.4	122.5	122.7	123.9
Size A - More than 1,200,000 .....	M	119.7	120.1	123.5	123.9	124.0	124.0	125.1	118.8	119.3	122.5	122.9	123.0	123.0	124.1
Size B - 450,000 to 1,200,000 .....	M	119.9	120.3	123.9	124.5	124.7	125.1	126.0	117.9	118.2	121.7	122.1	122.4	122.7	123.6
Size C - 50,000 to 450,000 .....	M	117.8	118.0	120.9	121.7	121.6	122.0	123.3	118.4	118.6	121.5	122.2	122.1	122.5	123.8
Size D - Nonmetropolitan (less than 50,000) .....	M	116.9	117.4	120.2	120.7	121.3	121.4	123.5	117.7	118.1	121.0	121.6	122.0	122.1	124.4
West urban .....	M	121.7	122.3	125.6	126.1	126.3	126.8	127.8	120.3	120.9	124.2	124.6	124.8	125.3	126.3
Size A - More than 1,250,000 .....	M	123.3	123.7	127.5	127.8	127.8	128.3	129.5	120.5	121.0	124.6	124.9	124.9	125.4	126.6
Size C - 50,000 to 330,000 .....	M	119.8	120.5	122.8	123.7	124.5	125.3	125.4	119.3	119.9	122.1	123.0	123.7	124.4	124.6
<b>Size classes:</b>															
A (12/86=100) .....	M	110.0	110.5	113.8	114.2	114.3	114.4	115.7	109.9	110.3	113.7	114.0	114.1	114.2	115.5
B .....	M	120.1	120.8	124.2	125.2	125.6	125.9	126.9	118.8	119.3	122.8	123.6	124.0	124.3	125.4
C .....	M	119.6	120.0	122.9	123.7	124.1	124.5	125.6	120.0	120.4	123.3	124.0	124.3	124.7	125.9
D .....	M	117.5	118.0	120.8	121.3	121.8	122.0	123.6	117.8	118.3	121.2	121.7	122.1	122.4	124.0
<b>Selected local areas</b>															
Chicago, IL- Northwestern IN .....	M	121.5	122.2	127.1	126.8	126.7	126.5	128.1	117.9	118.4	123.1	122.9	122.9	122.8	124.4
Los Angeles-Long Beach, Anaheim, CA .....	M	124.6	125.5	130.1	130.0	130.0	130.6	132.1	121.4	122.3	126.5	126.5	126.4	127.0	128.5
New York, NY- Northeastern NJ .....	M	127.0	127.6	132.2	132.8	133.2	133.3	135.1	125.1	125.5	130.3	130.8	131.3	131.3	133.0
Philadelphia, PA-NJ .....	M	125.7	125.4	130.2	130.5	130.1	129.9	131.2	125.5	125.4	130.4	130.6	130.1	130.0	131.0
San Francisco- Oakland, CA .....	M	124.0	124.0	126.8	127.5	127.2	127.4	128.5	122.8	122.9	126.1	126.7	126.4	126.6	127.6
Baltimore, MD .....	M	121.3	-	125.9	-	126.6	-	127.9	120.9	-	125.4	-	126.0	-	127.2
Boston, MA .....	1	129.0	-	132.2	-	134.3	-	136.0	128.9	-	132.6	-	134.7	-	136.0
Cleveland, OH .....	1	118.9	-	123.7	-	123.4	-	125.0	113.8	-	118.2	-	118.0	-	119.5
Miami, FL .....	1	120.0	-	122.9	-	123.0	-	124.6	118.8	-	121.4	-	121.5	-	123.2
St. Louis, MO-IL .....	1	118.4	-	123.9	-	123.1	-	125.1	118.0	-	123.5	-	122.6	-	124.6
Washington, DC-MD-VA .....	1	124.3	-	130.1	-	130.5	-	132.0	123.7	-	129.5	-	129.6	-	131.1
Dallas-Ft. Worth, TX .....	1	-	117.5	-	121.4	-	120.5	-	-	117.2	-	121.1	-	120.1	-
Detroit, MI .....	2	-	120.1	-	124.6	-	124.4	-	-	117.3	-	121.5	-	121.4	-
Houston, TX .....	2	-	112.7	-	115.7	-	115.5	-	-	112.9	-	115.8	-	115.8	-
Pittsburgh, PA .....	2	-	117.9	-	121.7	-	121.8	-	-	113.4	-	116.8	-	117.1	-

<sup>1</sup> Area is the Consolidated Metropolitan Statistical Area (CMSA), exclusive of farms and military. Area definitions are those established by the Office of Management and Budget in 1983, except for Boston-Lawrence-Salem, MA-NH Area (excludes Monroe County); and Milwaukee, WI Area (includes only the Milwaukee MSA). Definitions do not include revisions made since 1983.

<sup>2</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>3</sup> Regions are defined as the four Census regions.

- Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Because each local index is a small subset of the national index, it has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error than the national index. As a result, local area indexes show greater volatility than the national index, although their long-term trends are quite similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in escalator clauses.

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

(1982-84 = 100)

Series	1981	1982	1983	1984	1985	1986	1987	1988	1989
<b>Consumer Price Index for All Urban Consumers:</b>									
All items:									
Index .....	90.9	96.5	99.6	103.9	107.6	109.6	113.6	118.3	124.0
Percent change .....	10.3	6.2	3.2	4.3	3.6	1.9	3.6	4.1	4.8
Food and beverages:									
Index .....	93.5	97.3	99.5	103.2	105.6	109.1	113.5	118.2	124.9
Percent change .....	7.8	4.1	2.3	3.7	2.3	3.3	4.0	4.1	5.7
Housing:									
Index .....	90.4	96.9	99.5	103.6	107.7	110.9	114.2	118.5	123.0
Percent change .....	11.5	7.2	2.7	4.1	4.0	3.0	3.0	3.8	3.8
Apparel and upkeep:									
Index .....	95.3	97.8	100.2	102.1	105.0	105.9	110.6	115.4	118.6
Percent change .....	4.8	2.6	2.5	1.9	2.8	.9	4.4	4.3	2.8
Transportation:									
Index .....	93.2	97.0	99.3	103.7	106.4	102.3	105.4	108.7	114.1
Percent change .....	12.2	4.1	2.4	4.4	2.6	-3.9	3.0	3.1	5.0
Medical care:									
Index .....	82.9	92.5	100.6	106.8	113.5	122.0	130.1	138.6	149.3
Percent change .....	10.7	11.6	8.8	6.2	6.3	7.5	6.6	6.5	7.7
Entertainment:									
Index .....	90.1	96.0	100.1	103.8	107.9	111.6	115.3	120.3	126.5
Percent change .....	7.8	6.5	4.3	3.7	3.9	3.4	3.3	4.3	5.2
Other goods and services:									
Index .....	82.6	91.1	101.1	107.9	114.5	121.4	128.5	137.0	147.7
Percent change .....	9.8	10.3	11.0	6.7	6.1	6.0	5.8	6.6	7.8
<b>Consumer Price Index for Urban Wage Earners and Clerical Workers:</b>									
All items:									
Index .....	91.4	96.9	99.8	103.3	106.9	108.6	112.5	117.0	122.6
Percent change .....	10.3	6.0	3.0	3.5	3.5	1.6	3.6	4.0	4.8

34. Producer Price Indexes, by stage of processing

(1982=100)

Grouping	Annual average		1989											1990
	1988	1989	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>Finished goods</b> .....	108.0	113.5	111.7	112.1	113.0	114.2	114.3	114.1	113.4	113.6	114.8	114.8	115.3	117.5
Finished consumer goods .....	106.2	112.1	110.1	110.6	111.8	113.2	113.1	112.8	111.9	112.2	113.3	113.2	113.9	116.6
Finished consumer goods .....	112.6	118.7	117.2	118.3	117.7	119.1	118.6	119.0	118.7	118.5	119.5	120.2	120.9	123.6
Finished consumer goods excluding foods .....	103.1	108.9	106.6	106.8	108.8	110.3	110.4	109.8	108.5	109.1	110.3	109.8	110.4	113.2
Nondurable goods less food .....	97.3	103.8	100.9	101.3	104.2	106.0	106.0	105.3	103.5	104.5	104.8	104.2	105.1	109.1
Durable goods .....	113.8	117.6	117.0	116.6	116.4	117.1	117.5	116.9	117.0	116.7	120.1	119.7	119.8	119.4
Capital equipment .....	114.3	118.7	117.5	117.5	117.6	118.3	118.8	118.7	119.0	118.9	120.3	120.6	120.7	121.1
<b>Intermediate materials, supplies, and components</b> .....	107.1	112.0	111.0	111.5	112.4	112.7	112.7	112.5	112.0	112.4	112.3	112.2	112.0	113.4
Materials and components for manufacturing .....	113.2	118.2	118.3	118.7	118.9	118.9	118.4	118.1	117.7	117.7	117.9	117.9	117.3	117.6
Materials for food manufacturing .....	106.0	112.7	110.1	111.4	111.1	112.5	112.4	113.3	113.3	113.7	113.3	115.4	115.4	115.5
Materials for nondurable manufacturing .....	112.9	118.6	119.7	119.8	120.3	120.3	119.5	118.6	117.4	116.9	117.1	117.0	116.6	116.5
Materials for durable manufacturing .....	118.7	123.6	123.3	125.7	125.9	125.0	123.6	122.7	122.1	122.6	122.9	122.1	120.1	120.2
Components for manufacturing .....	112.3	116.4	115.3	115.7	115.8	116.1	116.4	116.6	116.9	117.0	117.1	117.3	117.4	118.0
Materials and components for construction .....	116.1	121.2	119.9	120.5	121.1	121.5	121.5	121.6	121.6	121.9	122.2	121.9	121.5	121.8
Processed fuels and lubricants .....	71.2	76.5	72.1	73.2	76.7	78.1	79.3	78.7	77.3	78.7	77.8	77.0	78.1	84.6
Containers .....	120.1	125.5	123.9	124.4	125.1	125.3	125.6	126.0	126.0	126.1	126.9	126.7	126.9	126.9
Supplies .....	113.7	118.1	117.4	118.0	118.0	118.2	118.1	118.5	118.3	118.5	118.3	118.3	118.3	118.7
<b>Crude materials for further processing</b> ...	96.0	103.0	101.2	103.2	104.4	106.1	104.1	103.9	101.1	102.3	101.8	102.3	104.0	106.7
Foodstuffs and feedstuffs .....	106.1	111.1	111.0	113.7	111.6	114.9	111.7	110.1	110.0	108.9	107.2	109.4	112.3	113.6
Crude nonfood materials .....	85.5	93.4	90.7	92.2	95.3	96.0	94.7	95.4	91.1	93.6	93.9	93.4	94.2	97.6
<b>Special groupings:</b>														
Finished goods, excluding foods .....	106.5	111.8	109.9	110.0	111.4	112.6	112.8	112.4	111.7	112.0	113.3	113.0	113.5	115.5
Finished energy goods .....	59.8	65.7	61.8	62.3	68.4	71.8	70.2	68.4	63.6	65.9	65.7	64.5	64.9	72.8
Finished goods less energy .....	115.8	121.2	119.8	120.1	120.0	120.8	121.2	121.3	121.4	121.3	122.7	122.9	123.5	124.5
Finished consumer goods less energy .....	116.3	122.1	120.6	121.1	120.9	121.8	122.1	122.2	122.3	122.1	123.5	123.8	124.5	125.8
Finished goods less food and energy .....	117.0	122.1	120.7	120.8	121.4	122.1	122.1	122.1	122.4	122.3	123.9	123.9	124.4	124.7
Finished consumer goods less food and energy .....	118.5	124.0	122.6	122.6	122.7	123.3	124.1	124.1	124.5	124.2	126.0	125.9	126.6	126.9
Consumer nondurable goods less food and energy .....	122.0	128.8	126.8	127.1	127.4	127.9	129.0	129.3	129.9	129.7	130.4	130.4	131.6	132.3
Intermediate materials less foods and feeds .....	106.9	111.9	110.8	111.4	112.3	112.6	112.7	112.4	112.0	112.3	112.3	112.1	112.0	113.4
Intermediate foods and feeds .....	109.5	113.8	114.0	115.2	113.7	114.2	112.9	114.5	113.1	113.7	112.4	113.3	113.0	113.3
Intermediate energy goods .....	70.9	76.2	71.8	72.9	76.4	77.7	78.9	78.3	76.9	78.3	77.4	76.7	77.7	84.2
Intermediate goods less energy .....	114.6	119.5	119.1	119.6	119.9	120.0	119.7	119.6	119.3	119.5	119.6	119.5	119.2	119.5
Intermediate materials less foods and energy .....	115.2	120.2	119.9	120.3	120.7	120.8	120.5	120.2	120.0	120.1	120.3	120.1	119.7	119.9
Crude energy materials .....	67.7	75.9	72.0	73.5	77.3	78.3	77.5	78.9	73.5	76.1	76.6	76.8	78.5	82.4
Crude materials less energy .....	112.6	117.5	118.1	120.4	118.8	121.0	118.0	116.2	116.4	115.9	114.6	115.4	116.9	117.9
Crude nonfood materials less energy .....	133.0	137.8	140.3	141.3	141.2	140.3	137.9	135.5	136.6	137.7	137.4	134.3	131.7	132.1

35. Producer Price indexes, by durability of product

(1982=100)

Grouping	Annual average		1989											1990
	1988	1989	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
<b>Total durable goods</b> .....	114.7	119.0	118.3	118.5	118.7	118.9	119.0	118.8	119.0	119.2	120.0	119.9	119.6	120.0
<b>Total nondurable goods</b> .....	101.1	107.1	105.2	106.1	107.4	108.6	108.2	108.1	106.7	107.2	107.2	107.3	108.0	110.7
<b>Total manufactures</b> .....	109.1	114.3	112.9	113.4	114.4	115.0	114.9	114.7	114.2	114.5	115.2	115.1	115.1	116.5
Durable .....	114.1	118.3	117.4	117.6	117.8	118.1	118.3	118.2	118.4	118.6	119.5	119.4	119.2	119.6
Nondurable .....	104.1	110.2	108.3	109.2	110.8	111.6	111.3	110.9	110.0	110.4	110.8	110.8	110.9	113.1
<b>Total raw or slightly processed goods</b> .....	95.9	101.3	100.1	101.1	101.5	103.3	102.6	102.7	100.4	101.2	100.2	100.4	102.1	105.8
Durable .....	148.0	151.5	161.9	161.0	159.0	157.5	151.5	146.0	146.5	148.0	145.8	141.3	137.4	138.6
Nondurable .....	93.4	98.9	97.2	98.2	98.8	100.8	100.3	100.6	98.3	99.0	98.0	98.4	100.4	104.2

### 36. Producer price indexes for the net output of major industry groups

(December 1984 = 100, unless otherwise indicated)

Industry	SIC	Annual average		1989											
		1988	1989	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
<b>Total mining industries</b> .....		70.6	76.3	75.5	74.9	77.2	78.2	77.4	78.0	74.0	76.4	76.0	76.2	77.7	
Metal mining .....	10	100.7	100.1	105.9	104.8	103.9	100.6	96.0	91.8	96.2	98.2	99.8	97.7	93.9	
Anthracite mining (12/85=100) .....	11	100.2	102.7	102.7	103.0	102.5	102.4	102.4	102.6	102.6	102.6	103.0	103.0	103.3	
Bituminous coal and lignite mining (12/85=100) .....	12	94.6	94.3	93.0	92.9	93.4	93.9	94.0	94.7	94.9	94.7	94.9	95.8	95.3	
Oil and gas extraction (12/85=100) .....	13	68.5	75.7	74.5	73.8	76.7	78.1	77.2	78.1	72.8	75.7	75.1	75.3	77.5	
Mining and quarrying of nonmetallic minerals, except fuels .....	14	108.0	111.2	110.8	110.9	111.3	111.6	112.1	111.3	111.4	111.0	111.2	111.2	111.3	
<b>Total manufacturing industries</b> .....		104.4	109.6	107.9	108.5	109.4	110.1	110.1	109.9	109.6	109.8	110.7	110.7	111.0	
Food and kindred products .....	20	107.1	112.2	110.9	111.9	111.6	112.2	112.1	112.5	112.3	112.4	112.4	113.2	113.6	
Tobacco manufactures .....	21	141.8	161.5	155.0	155.0	155.1	155.1	163.5	164.4	164.6	164.9	165.8	165.7	174.0	
Textile mill products .....	22	106.8	109.3	108.3	108.6	108.8	108.8	109.4	109.5	109.8	109.9	109.8	110.2	110.3	
Apparel and other finished products made from fabrics and similar materials .....	23	107.2	110.2	109.3	109.3	109.5	109.6	109.8	110.4	110.7	110.9	111.1	111.2	111.4	
Lumber and wood products, except furniture .....	24	109.2	115.3	112.3	113.1	114.4	115.4	115.9	117.1	116.7	116.6	117.9	117.1	115.9	
Furniture and fixtures .....	25	111.4	115.6	114.0	114.4	114.7	115.2	115.5	115.7	116.3	116.3	116.8	116.9	117.2	
Paper and allied products .....	26	113.7	120.8	119.7	120.4	120.6	121.1	121.2	120.9	121.1	121.2	121.7	121.8	121.7	
Printing, publishing, and allied industries .....	27	118.2	124.7	123.2	123.6	124.0	124.2	124.6	124.9	125.4	125.6	125.9	126.2	126.3	
Chemicals and allied products .....	28	113.0	119.7	119.9	120.6	121.0	120.9	120.6	119.4	119.0	119.1	118.8	118.8	118.6	
Petroleum refining and related products .....	29	67.7	75.7	69.3	71.5	79.9	82.9	80.4	77.7	73.0	75.6	77.3	75.9	76.1	
Rubber and miscellaneous plastic products .....	30	106.7	110.2	109.6	110.2	110.5	110.5	110.4	110.4	110.3	110.2	110.2	110.3	110.2	
Leather and leather products .....	31	113.4	118.0	116.6	117.0	117.2	117.4	117.3	117.8	118.6	119.5	119.4	119.3	120.1	
Stone, clay, glass, and concrete products .....	32	105.8	107.9	106.7	107.2	107.9	108.1	108.2	108.2	108.2	108.3	108.3	108.4	108.4	
Primary metal industries .....	33	113.0	118.8	119.4	120.1	120.1	119.8	118.9	118.2	118.0	118.5	118.7	118.0	116.4	
Fabricated metal products, except machinery and transportation equipment .....	34	107.4	112.5	111.1	111.5	112.0	112.5	112.5	112.8	113.0	113.2	113.8	113.7	113.8	
Machinery, except electrical .....	35	106.4	110.6	109.3	109.7	109.8	110.2	110.3	110.9	111.3	111.5	111.6	112.0	112.1	
Electrical and electronic machinery, equipment, and supplies .....	36	104.6	107.2	106.4	106.4	106.6	106.8	107.1	107.6	107.6	107.6	107.8	107.9	108.1	
Transportation equipment .....	37	107.8	112.1	111.7	111.2	110.9	111.6	111.8	111.1	111.3	110.7	114.6	114.4	114.5	
Measuring and controlling instruments; photographic, medical, optical goods; watches, clocks .....	38	107.0	110.7	109.1	109.7	110.1	110.6	110.9	111.0	111.2	111.2	111.8	112.0	112.2	
Miscellaneous manufacturing industries (12/85=100) .....	39	107.5	111.8	110.6	110.9	111.2	111.5	111.7	112.0	112.4	112.6	112.7	112.8	113.1	
<b>Service industries:</b>															
Pipelines, except natural gas (12/86=100) .....	46	94.8	94.4	94.5	94.5	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	

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

(1982=100)

Index	1981	1982	1983	1984	1985	1986	1987	1988	1989
<b>Finished goods:</b>									
Total .....	96.1	100.0	101.6	103.7	104.7	103.2	105.4	108.0	113.5
Consumer goods .....	96.6	100.0	101.3	103.3	103.8	101.4	103.6	106.2	112.1
Capital equipment .....	94.6	100.0	102.8	105.2	107.5	109.7	111.7	114.3	118.7
<b>Intermediate materials, supplies, and components:</b>									
Total .....	98.6	100.0	100.6	103.1	102.7	99.1	101.5	107.1	112.0
Materials and components for manufacturing .....	98.7	100.0	101.2	104.1	103.3	102.2	105.3	113.2	118.2
Materials and components for construction .....	97.9	100.0	102.8	105.6	107.3	108.1	109.8	116.1	121.2
Processed fuels and lubricants .....	100.6	100.0	95.4	95.7	92.8	72.7	73.3	71.2	76.5
Containers .....	96.7	100.0	100.4	105.9	109.0	110.3	114.5	120.1	125.5
Supplies .....	96.9	100.0	101.8	104.1	104.4	105.6	107.7	113.7	118.1
<b>Crude materials for further processing:</b>									
Total .....	103.0	100.0	101.3	103.5	95.8	87.7	93.7	96.0	103.0
Foodstuffs and feedstuffs .....	103.9	100.0	101.8	104.7	94.8	93.2	96.2	106.1	111.1
Nonfood materials except fuel .....	101.8	100.0	100.7	102.2	96.9	81.6	87.9	85.5	93.4
Fuel .....	84.8	100.0	105.1	105.1	102.7	92.2	84.1	82.1	85.3

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

(1985=100, unless otherwise indicated)

Category	1974 SITC	1987			1988				1989			
		June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
<b>ALL COMMODITIES</b>		102.2	102.8	104.9	106.5	109.5	111.9	111.6	113.3	113.2	112.4	112.3
<b>Food</b>	0	89.9	86.7	94.6	95.2	103.4	118.7	114.2	117.6	115.5	110.4	108.3
Meat and meat preparations	01	121.2	118.8	116.8	122.8	131.0	137.0	130.3	132.9	128.2	119.4	116.8
Fish and crustaceans	03	125.8	131.1	138.5	140.9	145.0	175.9	174.0	169.1	158.9	137.1	132.2
Grain and grain preparations	04	71.0	67.8	77.4	79.8	87.2	108.5	102.0	108.4	106.4	101.5	101.0
Vegetables and fruit	05	112.4	101.1	100.5	97.5	104.3	109.9	110.3	108.8	113.6	113.9	111.1
Animal feeds, excluding unmilled cereals	08	123.8	123.1	145.2	134.6	158.1	161.0	157.0	154.1	144.0	139.5	128.9
Miscellaneous food products	09	100.6	100.3	100.3	102.3	102.8	105.2	104.9	107.0	108.0	107.7	108.3
<b>Beverages and tobacco</b>	1	105.0	105.5	107.0	109.6	110.6	112.0	111.7	117.2	117.6	120.4	119.9
Tobacco and tobacco products	12	105.0	105.5	107.0	109.8	110.7	112.1	111.8	117.6	117.9	120.8	120.2
<b>Crude materials</b>	2	114.5	118.7	125.2	130.0	139.9	140.8	135.8	142.6	143.0	139.1	136.7
Raw hides and skins	21	149.6	147.7	157.1	171.4	166.8	156.7	136.8	146.7	149.9	156.3	157.8
Oilseeds	22	101.6	95.1	109.6	115.6	143.0	154.7	135.7	139.3	129.8	111.5	109.5
Crude rubber	23	101.0	102.8	105.3	104.5	106.1	109.1	109.9	111.1	114.6	117.7	117.3
Wood	24	116.2	141.7	146.0	150.2	149.6	150.0	148.6	157.3	170.7	177.6	177.5
Pulp and waste paper	25	149.9	153.0	160.4	171.2	179.5	181.7	182.1	192.9	193.5	193.3	194.3
Textile fibers	26	112.4	116.5	111.6	107.5	109.9	100.8	103.6	106.7	115.5	117.4	116.4
Crude minerals	27	94.0	91.6	91.6	92.8	94.2	94.8	94.8	98.8	99.2	99.3	97.7
Metal ores and metal scrap	28	107.0	117.4	125.9	131.8	146.0	145.0	150.4	163.5	157.2	150.5	138.4
<b>Fuels and related products</b>	3	82.8	84.6	82.5	79.3	82.1	79.5	79.4	81.7	86.0	87.9	91.1
Coal and coke	32	88.2	91.0	89.8	90.6	92.0	92.9	93.4	93.7	94.3	95.6	96.4
Crude petroleum and petroleum products	33	-	-	100.0	90.8	97.2	89.2	88.4	94.5	105.4	108.7	116.5
<b>Fats and oils</b>	4	78.8	78.5	81.6	92.7	97.3	101.5	91.5	90.3	87.3	83.8	86.7
Animal oils and fats	41	86.7	86.7	88.7	101.3	101.6	104.3	95.7	91.8	89.6	84.6	88.0
Fixed vegetable oils and fats	42	71.9	71.2	75.4	85.7	93.7	99.1	87.1	88.2	84.4	81.6	84.4
<b>Chemicals and related products</b>	5	106.7	107.7	112.9	117.9	121.6	124.9	125.5	125.5	121.9	117.7	115.0
Organic chemicals	51	118.4	116.1	123.5	135.1	144.6	153.3	150.8	149.6	145.0	134.0	127.3
Dyeing, tanning, and coloring materials	53	104.2	105.5	108.5	109.1	110.1	111.5	113.0	115.5	116.5	118.3	117.3
Medicinal and pharmaceutical products (12/85=100)	54	101.4	102.2	105.4	109.3	106.3	105.9	107.5	109.0	108.9	109.3	108.5
Essential oils, polish, and cleaning preparations	55	105.7	107.3	108.4	111.2	113.6	120.2	122.4	125.3	124.7	122.4	122.9
Fertilizers, manufactured	56	91.6	100.9	106.5	110.6	109.8	116.4	119.9	119.4	108.0	108.9	94.8
Artificial resins, plastics and cellulose	57	111.9	116.4	124.8	129.4	137.5	138.2	132.5	125.8	118.6	111.6	111.1
Chemical materials and products, n.e.s.	58	97.7	97.1	98.2	100.3	101.7	104.1	105.4	108.4	109.4	109.5	110.2
<b>Intermediate manufactured products</b>	6	107.9	110.3	111.2	114.4	117.7	119.6	120.6	122.6	123.1	122.8	122.6
Leather and furskins	61	126.9	128.7	118.0	125.7	125.1	128.6	125.0	118.3	120.7	121.7	125.0
Rubber manufactures	62	102.5	103.9	104.1	105.2	108.8	109.4	110.4	113.0	112.9	113.4	114.0
Paper and paperboard products	64	117.0	120.1	122.4	126.2	129.0	130.2	131.1	132.5	133.7	132.9	131.0
Textiles	65	103.7	104.1	105.2	106.5	107.9	108.6	111.6	113.9	115.4	115.8	116.9
Non-metallic mineral manufactures (9/85=100)	66	108.7	110.4	111.3	113.4	114.1	115.6	116.8	120.4	122.4	123.9	124.1
Iron and steel	67	102.9	100.7	102.9	106.1	110.8	111.4	112.1	116.0	117.2	116.7	116.2
Nonferrous metals	68	113.0	123.0	124.4	134.0	143.5	149.1	150.0	151.7	145.8	140.4	136.9
Metal manufactures, n.e.s.	69	101.3	102.3	103.4	104.5	107.6	109.9	110.9	112.6	113.9	114.4	115.5
<b>Machinery and transport equipment, excluding military and commercial aircraft</b>	7	101.8	102.1	102.4	103.2	104.0	104.8	105.8	106.7	107.2	107.9	108.6
Power generating machinery and equipment	71	103.7	104.8	105.2	107.0	108.4	108.5	109.3	111.8	112.8	114.0	114.3
Machinery specialized for particular industries	72	100.1	100.5	100.9	102.1	103.6	104.7	106.0	107.3	108.8	109.9	111.3
Metalworking machinery	73	106.7	107.8	108.2	109.3	110.8	111.0	114.4	115.7	117.3	117.7	118.6
General industrial machines and parts, n.e.s.	74	104.5	104.6	105.4	106.7	108.1	109.3	110.3	112.7	113.3	114.2	115.3
Office machines and automatic data processing equipment	75	96.1	95.7	95.5	95.8	95.7	96.8	96.4	95.8	94.8	94.8	94.5
Telecommunications, sound recording and reproducing equipment	76	101.4	101.4	101.9	102.8	104.6	104.1	105.1	106.7	107.5	108.7	110.3
Electrical machinery and equipment	77	102.1	102.5	101.8	103.1	103.4	105.3	105.7	106.1	106.5	106.9	107.0
Road vehicles and parts	78	103.5	103.8	104.6	104.5	104.9	105.4	106.8	107.2	107.8	108.8	110.0
Other transport equipment, excluding military and commercial aviation	79	105.5	105.8	106.6	107.4	109.6	109.7	111.9	113.5	114.7	114.8	116.0
<b>Miscellaneous manufactured articles</b>	8	105.2	105.4	105.6	106.9	108.1	108.9	110.5	111.4	112.8	113.6	114.8
Furniture and parts	82	107.6	107.6	110.0	111.2	111.4	111.7	114.2	114.3	117.3	117.3	118.6
Professional, scientific, and controlling instruments and apparatus	87	105.5	106.3	107.1	110.0	111.1	112.5	113.9	115.5	118.2	119.5	121.1
Photographic apparatus and supplies, optical goods, watches, and clocks	88	102.5	99.0	97.9	97.6	100.1	99.4	99.9	98.5	99.2	99.4	101.0
Miscellaneous manufactured articles, n.e.s.	89	104.8	105.9	105.8	105.4	106.5	106.5	108.7	110.2	110.1	110.4	111.6

- Data not available.



### 39. U.S. import price indexes by Standard International Trade Classification

(1985=100, unless otherwise indicated)

Category	1974 SITC	1987		1988					1989				
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.			
<b>ALL COMMODITIES</b> .....		112.5	113.8	116.8	115.3	117.6	119.7	119.8	118.4	119.8			
<b>ALL COMMODITIES, EXCLUDING FUELS</b> .....		120.8	123.7	126.7	126.1	129.1	129.6	128.5	127.6	128.5			
<b>Food and live animals</b> .....	0	112.5	114.1	114.0	112.7	114.3	114.1	111.3	106.1	108.0			
Meat and meat preparations .....	01	113.4	111.5	107.0	111.2	108.7	111.2	109.7	124.1	134.1			
Dairy products and eggs .....	02	125.1	125.6	125.0	122.2	125.8	124.0	120.2	120.3	123.2			
Fish and crustaceans .....	03	131.0	132.5	129.3	125.9	126.7	127.0	122.7	121.6	122.0			
Bakery goods, pasta products, grain, and grain preparations .....	04	130.7	135.8	139.8	136.9	142.2	140.4	140.2	141.6	143.1			
Fruits and vegetables .....	05	116.2	115.4	120.3	123.7	127.7	123.4	123.2	119.1	127.3			
Sugar, sugar preparations, and honey .....	06	107.0	109.6	110.0	112.1	110.8	109.8	111.8	114.4	117.0			
Coffee, tea, cocoa .....	07	90.6	94.3	93.3	87.4	90.6	91.2	85.3	62.5	57.3			
<b>Beverages and tobacco</b> .....	1	113.5	116.0	116.2	115.3	116.2	117.0	117.2	120.7	122.4			
Beverages .....	11	116.2	118.7	120.0	118.9	119.9	120.7	120.7	122.9	124.1			
<b>Crude materials</b> .....	2	122.1	129.2	137.8	135.4	143.2	146.2	144.3	137.2	136.1			
Crude rubber (including synthetic and reclaimed) .....	23	120.1	121.7	151.1	133.3	121.5	123.0	103.4	98.3	98.5			
Cork and wood .....	24	108.8	112.4	111.4	109.7	107.8	112.1	112.4	113.5	111.6			
Pulp and waste paper .....	25	141.0	151.0	160.5	169.6	174.7	184.7	190.0	190.1	189.6			
Textile fibers .....	26	135.2	137.8	145.5	141.9	145.6	151.5	145.4	141.7	140.2			
Crude fertilizers and crude minerals .....	27	99.9	100.4	101.0	97.2	100.2	103.3	104.7	101.2	98.0			
Metalliferous ores and metal scrap .....	28	137.9	151.2	167.6	172.2	205.4	204.3	212.3	183.4	176.6			
Crude animal and vegetable materials, n.e.s. ....	29	118.3	135.8	148.2	122.0	139.5	138.5	110.3	108.6	129.4			
<b>Fuels and related products</b> .....	3	67.2	60.6	63.4	57.7	56.4	66.8	73.3	68.8	73.3			
Crude petroleum and petroleum products .....	33	67.8	60.4	63.6	57.7	56.1	67.3	74.4	69.5	74.1			
<b>Fats and oils</b> .....	4	102.1	106.4	111.2	114.0	112.3	112.5	117.4	106.7	100.7			
Fixed vegetable oils and fats (9/87=100) .....	42	105.7	111.1	116.1	119.2	117.4	117.3	122.6	110.7	104.2			
<b>Chemicals and related products</b> .....	5	110.1	114.2	116.4	119.2	122.2	123.6	120.4	117.7	118.9			
Organic chemicals .....	51	103.0	105.8	107.3	111.3	115.1	117.6	114.0	110.3	112.8			
Inorganic chemicals .....	52	90.1	92.0	92.3	93.0	96.1	93.1	86.6	85.7	86.0			
Medicinal and pharmaceutical products .....	54	126.3	135.3	140.3	145.4	146.4	154.9	153.5	149.2	149.7			
Essential oils and perfumes .....	55	123.0	125.7	126.2	127.5	130.5	130.3	130.2	127.2	135.3			
Manufactured fertilizers .....	56	133.6	133.7	136.3	136.5	139.9	143.5	142.1	132.4	130.5			
Artificial resins and plastics and cellulose .....	58	117.6	121.6	124.3	127.6	129.5	129.5	129.8	130.8	130.6			
Chemical materials and products, n.e.s. ....	59	124.8	138.7	148.5	153.4	156.5	154.8	151.6	150.2	150.6			
<b>Intermediate manufactured products</b> .....	6	119.8	124.4	132.2	132.3	135.0	137.3	136.1	135.3	134.1			
Leather and furskins .....	61	124.4	131.8	137.0	136.6	134.9	134.6	133.8	133.9	133.4			
Rubber manufactures, n.e.s. ....	62	104.6	106.0	107.7	109.1	111.1	111.7	112.2	113.7	114.0			
Cork and wood manufactures .....	63	128.2	133.8	138.2	136.1	134.1	136.9	139.8	140.8	140.6			
Paper and paperboard products .....	64	112.3	117.2	118.3	119.5	119.9	120.6	120.8	119.7	118.9			
Textiles .....	65	118.6	120.0	120.6	119.1	120.5	120.5	122.1	121.7	122.6			
Nonmetallic mineral manufactures, n.e.s. ....	66	133.4	137.4	142.5	139.7	141.9	147.5	149.5	151.7	153.4			
Iron and steel .....	67	114.0	120.0	127.2	129.9	130.7	132.6	133.6	133.7	130.7			
Nonferrous metals .....	68	125.8	132.7	159.7	158.9	169.1	172.8	158.6	150.7	144.8			
Metal manufactures .....	69	117.8	121.1	126.9	127.5	130.7	132.4	132.6	133.2	133.9			
<b>Machinery and transport equipment</b> .....	7	123.1	125.4	127.3	126.7	129.9	130.1	129.2	129.0	130.1			
Machinery (including SITC 71-77) .....	7hyb	122.6	124.6	126.4	125.9	128.7	129.2	128.4	127.8	128.0			
Machinery specialized for particular industries .....	72	142.1	146.8	149.8	143.7	150.8	149.1	145.7	145.7	148.1			
Metalworking machinery .....	73	135.5	139.9	142.4	139.7	144.1	142.9	139.5	143.9	144.3			
General industrial machinery and parts, n.e.s. ....	74	137.0	140.4	143.7	139.6	144.2	144.7	143.0	143.7	145.3			
Office machines and automatic data processing equipment .....	75	118.3	118.1	119.5	118.7	118.7	119.6	119.3	117.2	117.5			
Telecommunications, sound recording and reproducing apparatus .....	76	112.1	112.8	113.8	113.9	115.5	115.7	115.7	115.0	113.7			
Electrical machinery and equipment .....	77	118.2	122.2	124.2	125.9	129.3	130.5	129.6	128.7	128.9			
Road vehicles and parts .....	78	122.6	125.5	127.6	127.1	130.8	130.5	129.6	129.5	131.9			
<b>Miscellaneous manufactured articles</b> .....	8	121.8	124.2	125.7	124.2	126.6	126.6	126.6	127.2	128.9			
Plumbing, heating, and lighting fixtures .....	81	121.0	123.4	126.9	124.5	127.2	130.0	131.5	133.0	136.6			
Furniture and parts .....	82	124.3	125.4	129.6	128.0	129.1	127.2	127.9	128.8	131.0			
Travel goods, handbags, and similar goods (6/85=100) .....	83	103.0	105.8	107.3	111.3	115.1	117.6	114.0	110.3	112.8			
Clothing .....	84	112.3	115.6	114.9	116.7	117.2	118.5	119.9	120.8	122.3			
Footwear .....	85	124.3	125.4	129.6	128.0	129.1	127.2	127.9	128.8	131.0			
Professional, scientific, and controlling instruments and apparatus .....	87	138.7	140.0	142.5	135.8	141.9	141.1	136.5	136.3	137.3			
Photographic apparatus and supplies, optical goods, watches, and clocks .....	88	127.3	129.2	129.3	125.4	130.6	130.2	127.9	126.3	128.7			
Miscellaneous manufactured articles, n.e.s. ....	89	127.3	129.2	132.1	128.2	131.4	131.7	131.4	131.9	133.8			

Current Labor Statistics: Price Data

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

(1985 = 100 unless otherwise indicated)

Category	1987	1988				1989			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Foods, feeds, and beverages .....	96.6	98.5	110.1	124.5	117.4	120.8	117.2	110.3	108.2
Industrial supplies and materials .....	111.8	114.2	118.3	118.7	118.6	120.7	120.9	119.5	118.7
Capital goods .....	102.1	103.4	104.3	104.9	105.7	106.7	107.4	108.2	108.8
Automotive .....	104.5	104.3	104.8	106.5	107.7	108.1	108.6	109.4	110.8
Consumer goods .....	108.0	110.1	110.6	111.3	112.9	115.3	115.6	116.5	117.1
Consumer nondurables, manufactured, except rugs .....	106.3	107.4	108.7	109.3	110.0	111.4	111.5	111.7	112.9
Consumer durables, manufactured .....	107.9	110.4	110.4	110.7	112.6	115.4	115.4	116.5	116.8
Agricultural (9/88=100) .....	99.3	101.1	110.9	120.6	114.0	117.7	116.1	111.2	109.8
All exports, excluding agricultural (9/88=100) .....	106.2	107.7	109.7	110.8	111.6	112.9	113.1	113.0	113.1

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

(1985=100)

Category	1987	1988				1989			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
All imports, excluding petroleum (6/88=100) .....	120.3	123.2	126.2	125.4	128.3	129.0	128.0	127.1	128.0
Foods, feeds, and beverages .....	112.1	113.7	113.7	112.7	114.2	113.8	111.7	107.1	108.8
Industrial supplies and materials .....	93.7	92.7	97.8	95.2	96.4	102.1	104.2	100.6	102.4
Petroleum and petroleum products, excluding natural gas .....	67.6	60.3	63.5	57.5	56.2	67.2	74.1	69.1	73.9
Industrial supplies and materials, excluding petroleum .....	115.6	119.6	126.4	126.4	129.6	131.2	129.4	126.9	126.3
Capital goods, except automotive .....	126.6	128.6	131.0	129.0	132.3	132.4	131.0	130.6	131.3
Automotive vehicles, parts and engines .....	120.6	123.7	125.8	126.0	129.2	129.1	128.2	128.2	130.0
Consumer goods except automotive .....	121.4	124.2	126.3	125.0	127.4	128.7	129.1	129.5	131.0
Nondurables, manufactured .....	120.2	123.3	124.2	123.8	125.4	126.5	127.5	128.5	130.1
Durables, manufactured .....	121.0	123.5	125.5	124.5	127.4	127.9	127.9	127.8	128.6

42. U.S. export price indexes by Standard Industrial Classification <sup>1</sup>

(1985=100)

Industry group	1987	1988				1989			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Manufacturing:									
Food and kindred products .....	116.3	120.8	125.1	128.9	123.5	124.5	122.7	119.5	117.2
Lumber and wood products, except furniture .....	142.5	146.1	145.4	146.1	144.0	151.7	164.4	171.2	171.2
Furniture and fixtures .....	111.2	112.5	112.9	112.9	115.3	115.2	116.0	116.5	117.7
Paper and allied products .....	119.3	124.6	129.8	133.1	135.6	139.9	141.4	141.6	140.6
Chemicals and allied products .....	113.8	118.4	122.3	125.4	125.5	125.9	122.5	118.5	115.7
Petroleum and coal products .....	78.8	73.0	77.8	73.7	75.4	79.8	86.9	88.7	94.5
Primary metal products .....	126.6	126.9	133.8	133.5	133.6	130.8	125.7	122.5	123.1
Machinery, except electrical .....	99.7	100.6	101.3	102.2	102.8	103.4	103.7	104.4	105.1
Electrical machinery .....	102.2	102.9	103.7	104.9	105.4	106.3	106.8	107.5	107.9
Transportation equipment .....	107.8	108.1	109.1	109.4	110.9	111.8	112.7	113.4	114.5
Scientific instruments; optical goods; clocks .....	107.1	109.2	110.8	112.0	113.4	114.5	116.7	117.7	119.5

<sup>1</sup> SIC-based classification.

### 43. U.S. import price indexes by Standard Industrial Classification <sup>1</sup>

(1985 = 100)

Industry group	1987		1988				1989			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	
<b>Manufacturing:</b>										
Food and kindred products .....	110.6	114.0	114.4	115.0	115.4	114.9	114.0	114.8	115.8	
Textile mill products .....	124.3	127.4	128.9	127.0	127.8	139.0	139.8	137.5	140.7	
Apparel and related products .....	113.4	116.6	115.8	117.0	117.5	118.9	120.3	121.2	122.6	
Lumber and wood products, except furniture .....	115.4	119.5	120.3	118.6	117.0	120.5	122.2	123.3	122.3	
Furniture and fixtures .....	118.9	122.2	124.0	124.8	128.0	126.3	126.1	128.7	128.9	
Paper and allied products .....	113.6	119.1	121.3	123.8	125.2	127.4	128.2	127.3	126.6	
Chemicals and allied products .....	112.2	116.8	121.3	123.5	130.6	130.7	130.0	123.9	123.8	
Petroleum refining and allied products .....	127.4	114.5	119.2	110.8	111.6	121.3	139.1	128.0	133.8	
Rubber and miscellaneous plastics products .....	115.7	117.2	119.0	117.7	122.6	122.3	123.1	124.2	125.2	
Leather and leather products .....	118.4	120.8	124.6	123.7	124.0	122.8	123.5	124.6	126.0	
Stone, clay, glass, and concrete products .....	133.9	138.2	141.5	140.5	144.3	145.1	144.8	147.4	147.8	
Primary metal products .....	120.0	122.6	137.0	136.2	140.2	140.6	135.2	132.0	129.5	
Fabricated metal products .....	123.2	127.3	133.3	133.0	136.3	138.9	140.3	141.3	142.2	
Machinery, except electrical .....	133.9	135.9	138.2	135.0	138.4	138.6	136.7	135.8	137.7	
Electrical machinery and supplies .....	112.5	114.7	116.1	116.7	119.0	119.4	119.4	118.9	118.4	
Transportation equipment .....	124.6	127.3	129.5	129.3	132.8	132.6	131.9	132.0	134.1	
Scientific instruments; optical goods; clocks .....	134.0	135.8	137.0	132.2	137.7	136.7	133.8	132.8	134.2	
Miscellaneous manufactured commodities .....	123.8	127.7	133.1	130.6	132.2	136.6	137.7	138.4	140.1	

<sup>1</sup> SIC - based classification.

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

(1977 = 100)

Item	Quarterly Indexes											
	1987			1988				1989				
	II	III	IV	I	II	III	IV	I	II	III	IV	
<b>Business:</b>												
Output per hour of all persons .....	110.7	111.7	112.5	113.2	112.6	113.4	113.5	113.8	114.2	114.7	114.7	
Compensation per hour .....	189.5	191.8	195.1	196.4	199.1	201.9	204.5	206.9	210.4	212.8	216.2	
Real compensation per hour .....	101.4	101.7	102.5	102.3	102.5	102.8	103.0	102.8	102.9	103.5	104.1	
Unit labor costs .....	171.3	171.6	173.5	173.5	176.9	178.0	180.2	181.9	184.1	185.6	188.4	
Unit nonlabor payments .....	166.5	168.9	167.2	168.9	168.8	171.8	173.7	174.7	176.3	176.5	175.4	
Implicit price deflator .....	169.6	170.7	171.3	171.9	174.1	175.8	177.9	179.4	181.4	182.4	183.9	
<b>Nonfarm business:</b>												
Output per hour of all persons .....	108.6	109.5	110.2	111.0	110.5	111.5	112.0	111.6	111.9	112.6	112.7	
Compensation per hour .....	188.3	190.5	193.8	195.0	197.5	200.2	203.0	205.5	208.3	211.0	214.6	
Real compensation per hour .....	100.7	101.0	101.8	101.5	101.7	101.9	102.3	102.1	101.9	102.7	103.4	
Unit labor costs .....	173.4	173.9	175.8	175.7	178.7	179.6	181.3	184.1	186.1	187.4	190.5	
Unit nonlabor payments .....	167.6	170.3	168.7	170.3	169.8	172.1	176.3	174.6	176.5	177.6	176.9	
Implicit price deflator .....	171.4	172.6	173.4	173.8	175.6	177.0	179.6	180.8	182.8	184.0	185.8	
<b>Nonfinancial corporations:</b>												
Output per hour of all employees .....	111.6	113.0	113.5	114.6	114.7	115.1	114.9	114.5	114.5	115.3	-	
Compensation per hour .....	184.8	186.9	189.5	190.9	193.1	195.5	197.8	200.2	202.8	205.5	-	
Real compensation per hour .....	98.9	99.1	99.6	99.4	99.5	99.5	99.6	99.5	99.3	100.0	-	
Total unit costs .....	170.8	170.8	172.1	171.9	173.6	175.2	177.5	180.4	182.9	184.6	-	
Unit labor costs .....	165.5	165.3	167.0	166.6	168.4	169.9	172.1	174.9	177.1	178.1	-	
Unit nonlabor costs .....	186.3	186.9	187.2	187.8	188.9	191.0	193.3	196.9	200.1	203.9	-	
Unit profits .....	122.5	129.3	122.0	127.0	129.1	127.5	131.6	119.6	116.6	113.5	-	
Unit nonlabor payments .....	163.9	166.7	164.4	166.5	168.0	168.8	171.7	169.8	170.9	172.2	-	
Implicit price deflator .....	165.0	165.8	166.1	166.5	168.2	169.5	172.0	173.1	175.0	176.1	-	
<b>Manufacturing:</b>												
Output per hour of all persons .....	133.3	134.3	134.7	135.5	136.3	137.8	138.6	139.4	140.7	141.1	142.2	
Compensation per hour .....	189.0	190.4	191.7	194.3	195.3	197.4	200.2	201.9	203.2	206.1	209.8	
Real compensation per hour .....	101.1	100.9	100.7	101.2	100.6	100.5	100.8	100.3	99.4	100.3	101.0	
Unit labor costs .....	141.8	141.8	142.3	143.4	143.3	143.2	144.4	144.8	144.4	146.1	147.5	

- Data not available.

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

(1977 = 100)

Item	1960	1970	1973	1978	1980	1982	1983	1984	1985	1986	1987
<b>Private business</b>											
Productivity:											
Output per hour of all persons .....	67.3	88.4	95.9	100.8	99.2	100.3	103.0	105.6	107.9	110.3	111.2
Output per unit of capital services .....	103.7	102.7	105.6	101.9	94.1	86.6	88.3	92.7	92.9	93.0	93.7
Multifactor productivity .....	78.5	93.1	99.2	101.2	97.4	95.2	97.6	100.9	102.4	103.9	104.7
Output .....	55.3	80.2	93.0	105.8	106.6	105.4	109.9	119.2	124.3	128.7	133.4
Inputs:											
Hours of all persons .....	82.2	90.8	96.9	105.0	107.5	105.2	106.7	112.9	115.2	116.7	120.0
Capital services .....	53.3	78.1	88.0	103.8	113.3	121.8	124.4	128.6	133.8	138.5	142.4
Combined units of labor and capital input .....	70.5	86.1	93.7	104.6	109.4	110.7	112.6	118.1	121.4	123.9	127.4
Capital per hour of all persons .....	64.9	86.1	90.8	98.9	105.4	115.8	116.6	113.9	116.1	118.7	118.6
<b>Private nonfarm business</b>											
Productivity:											
Output per hour of all persons .....	70.7	89.2	96.4	100.8	98.7	99.1	102.5	104.7	106.2	108.3	109.1
Output per unit of capital services .....	104.9	103.5	106.3	101.9	93.3	85.1	87.3	91.3	91.0	90.8	91.5
Multifactor productivity .....	81.2	93.8	99.7	101.2	96.9	94.1	97.0	99.9	100.7	102.0	102.7
Output .....	54.4	79.9	92.9	106.0	106.6	104.8	110.1	119.3	124.0	128.3	133.2
Inputs:											
Hours of all persons .....	77.0	89.6	96.3	105.1	108.0	105.7	107.4	114.0	116.8	118.5	122.0
Capital services .....	51.9	77.2	87.3	104.0	114.2	123.3	126.1	130.6	136.3	141.3	145.5
Combined units of labor and capital input .....	67.1	85.2	93.2	104.7	110.0	111.4	113.5	119.4	123.1	125.8	129.6
Capital per hour of all persons .....	67.4	86.2	90.7	99.0	105.7	116.6	117.4	114.6	116.7	119.3	119.2
<b>Manufacturing</b>											
Productivity:											
Output per hour of all persons .....	62.2	80.8	93.4	101.5	101.4	105.9	112.0	118.1	123.6	127.7	131.9
Output per unit of capital services .....	103.0	99.1	112.0	102.0	91.0	81.6	86.7	95.5	97.3	98.4	102.0
Multifactor productivity .....	72.0	85.3	98.0	101.6	98.6	99.2	105.0	112.1	116.4	119.5	123.6
Output .....	52.5	78.6	96.3	106.0	103.2	98.4	104.7	117.5	122.0	124.7	130.1
Inputs:											
Hours of all persons .....	84.4	97.3	103.1	104.4	101.7	92.9	93.5	99.5	98.7	97.7	98.6
Capital services .....	51.0	79.3	86.0	103.9	113.4	120.5	120.8	123.0	125.4	126.8	127.6
Combined units of labor and capital inputs .....	72.9	92.1	98.3	104.2	104.6	99.2	99.7	104.8	104.8	104.4	105.3
Capital per hour of all persons .....	60.4	81.5	83.4	99.5	111.5	129.8	129.3	123.7	127.1	129.8	129.4

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

(1977 = 100)

Item	1960	1970	1973	1978	1980	1982	1983	1984	1985	1986	1987	1988	1989
<b>Business:</b>													
Output per hour of all persons .....	66.1	87.6	95.2	100.9	99.4	100.2	102.6	105.2	107.3	109.8	111.1	113.0	114.2
Compensation per hour .....	32.9	57.2	70.3	108.6	131.8	154.9	160.8	167.4	174.8	183.8	191.0	200.2	211.3
Real compensation per hour .....	67.3	89.4	96.0	100.9	97.0	97.3	97.8	97.6	98.4	101.7	101.9	102.5	103.3
Unit labor costs .....	49.7	65.3	73.8	107.7	132.6	154.5	156.7	159.1	162.8	167.5	171.9	177.1	185.0
Unit nonlabor payments .....	46.4	59.4	72.6	106.7	118.4	136.3	146.2	156.4	160.9	162.1	166.3	170.9	175.8
Implicit price deflator .....	48.5	63.2	73.4	107.3	127.6	148.1	153.0	158.2	162.2	165.6	170.0	174.9	181.8
<b>Nonfarm business:</b>													
Output per hour of all persons .....	69.5	88.4	95.8	100.9	99.0	99.1	102.0	104.2	105.6	107.7	108.9	111.1	112.1
Compensation per hour .....	34.5	57.6	70.7	108.6	131.6	154.7	160.8	167.2	174.0	182.9	189.8	198.7	209.6
Real compensation per hour .....	70.7	90.0	96.4	101.0	96.7	97.1	97.8	97.5	98.0	101.1	101.2	101.8	102.4
Unit labor costs .....	49.7	65.2	73.8	107.7	132.9	156.1	157.6	160.4	164.9	169.8	174.2	178.8	187.0
Unit nonlabor payments .....	46.3	60.0	69.4	105.6	118.1	136.1	148.1	156.3	161.9	163.3	167.7	172.2	176.5
Implicit price deflator .....	48.5	63.4	72.3	107.0	127.8	149.2	154.3	159.0	163.8	167.6	172.0	176.5	183.4
<b>Nonfinancial corporations:</b>													
Output per hour of all employees .....	71.9	90.2	96.8	100.7	99.3	100.2	103.0	105.5	107.2	109.6	112.1	114.7	-
Compensation per hour .....	36.1	58.6	71.0	108.5	131.4	154.1	159.1	165.0	171.6	179.9	186.1	194.1	-
Real compensation per hour .....	74.0	91.6	96.9	100.8	96.6	96.8	96.8	96.3	96.7	99.5	99.3	99.4	-
Total unit costs .....	49.4	64.8	72.7	107.3	133.4	159.5	159.5	160.8	164.1	168.5	171.2	174.6	-
Unit labor costs .....	50.2	65.0	73.4	107.8	132.3	153.8	154.5	156.5	160.2	164.1	166.1	169.3	-
Unit nonlabor costs .....	47.0	64.2	70.7	105.7	136.7	176.4	174.3	173.6	175.8	181.7	186.4	190.3	-
Unit profits .....	59.8	52.3	65.6	102.0	85.2	78.5	110.9	136.5	133.0	123.1	123.0	128.8	-
Unit nonlabor payments .....	51.5	60.1	68.9	104.4	118.6	142.1	152.1	160.6	160.8	161.2	164.2	168.8	-
Implicit price deflator .....	50.7	63.3	71.9	106.6	127.6	149.8	153.7	157.9	160.4	163.1	165.4	169.1	-
<b>Manufacturing:</b>													
Output per hour of all persons .....	60.7	80.2	92.6	101.6	101.7	106.6	112.2	118.2	123.5	128.2	132.9	136.5	140.3
Compensation per hour .....	35.6	57.0	68.2	108.3	132.8	158.7	162.7	168.1	176.3	184.3	189.2	196.0	204.4
Real compensation per hour .....	73.0	89.0	93.1	100.6	97.7	99.6	99.0	98.1	99.3	101.9	100.9	100.4	99.9
Unit labor costs .....	58.7	71.0	73.7	106.6	130.6	148.8	145.1	142.3	142.7	143.8	142.3	143.6	145.7
Unit nonlabor payments .....	60.0	64.1	70.8	101.8	97.6	113.7	128.3	138.5	130.3	135.2	137.6	-	-
Implicit price deflator .....	59.1	69.0	72.8	105.2	121.0	138.6	140.2	141.2	139.1	141.3	141.0	-	-

- Data not available.

47. Annual productivity indexes for selected industries

(1977=100)

Industry	SIC	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
Iron mining, crude ore .....	1011	99.9	112.7	124.7	132.8	100.9	139.0	173.3	187.9	200.3	254.5	258.8
Iron mining, usable ore .....	1011	111.1	117.8	123.2	130.6	98.2	138.6	171.7	187.9	197.8	250.4	248.2
Copper mining, crude ore .....	1021	84.8	87.2	99.5	102.0	106.4	129.9	140.3	164.2	195.4	197.0	206.9
Copper mining, recoverable metal .....	1021	85.5	77.2	91.6	97.7	116.2	130.9	155.4	193.1	228.9	211.2	229.9
Coal mining .....	111,121	141.5	105.3	112.5	122.3	119.4	136.5	151.7	154.3	167.7	181.3	200.7
Bituminous coal and lignite mining .....	121	142.3	105.2	112.6	122.7	120.0	136.9	152.3	154.6	168.2	182.4	201.9
Nonmetallic minerals, except fuels .....	14	89.7	90.6	96.5	94.7	89.3	98.2	105.5	107.5	108.4	115.3	114.0
Crushed and broken stone .....	142	83.1	91.4	101.3	96.7	94.1	103.9	105.8	104.5	104.9	121.3	120.1
Red meat products .....	2011,13	77.3	84.4	107.0	107.9	112.3	115.9	117.0	119.5	117.3	115.3	-
Meatpacking plants .....	2011	78.7	88.6	108.9	113.9	119.5	123.4	125.6	130.1	126.2	126.2	125.7
Sausages and other prepared meats .....	2013	72.8	74.8	102.3	95.0	96.5	100.0	99.5	98.8	98.7	94.5	-
Poultry dressing and processing .....	2016,17	78.3	87.9	105.7	116.4	125.6	131.7	130.3	133.2	127.3	135.4	-
Fluid milk .....	2026	73.7	95.5	123.9	128.0	135.3	143.1	149.5	155.0	162.4	168.0	176.1
Preserved fruits and vegetables .....	203	79.7	93.7	100.8	99.2	107.9	110.8	112.4	113.4	118.3	116.4	-
Grain mill products .....	204	79.7	87.1	105.3	110.9	121.0	125.5	132.8	140.9	142.1	149.6	-
Flour and other grain mill products .....	2041	76.8	85.8	94.8	96.7	104.1	110.4	114.9	122.9	126.6	129.9	132.3
Rice milling .....	2044	82.0	90.4	111.8	117.9	104.5	103.3	93.2	103.2	112.6	120.6	113.7
Bakery products .....	205	87.5	93.4	93.7	96.2	103.3	106.9	106.8	105.5	114.4	113.3	-
Sugar .....	2061,62,63	85.9	94.0	100.1	98.8	90.4	98.6	99.7	105.5	110.1	125.5	126.3
Raw and refined cane sugar .....	2061,62	86.1	90.8	99.3	98.8	87.6	100.0	94.7	108.7	109.6	117.1	118.9
Beet sugar .....	2063	92.9	98.1	102.1	98.7	94.8	94.5	108.8	100.7	111.8	139.2	138.2
Malt beverages .....	2082	56.7	86.1	116.0	118.3	122.6	131.3	137.9	130.3	152.3	165.7	163.6
Bottled and canned soft drinks .....	2086	70.0	89.5	106.9	110.6	114.1	121.5	131.0	136.7	146.6	158.1	166.7
Total tobacco products .....	2111,21,31	86.8	93.9	102.1	100.5	100.7	105.1	110.3	113.4	117.2	124.2	120.3
Cigarettes, chewing and smoking tobacco .....	2111,31	85.3	93.3	101.8	99.6	99.5	104.1	107.2	111.7	115.5	123.1	119.9
Cigars .....	2121	88.4	93.7	106.4	107.3	111.4	112.3	141.4	129.3	133.1	139.1	129.3
Cotton and synthetic broad woven fabrics .....	2211,21	-	86.7	105.0	107.4	112.5	121.6	119.8	123.7	132.8	132.1	131.4
Hosiery .....	2251,52	65.5	94.3	107.4	122.0	114.2	118.0	119.9	118.5	121.0	118.3	126.9
Nonwool yarn mills .....	2281	84.3	101.2	99.7	103.1	118.2	128.5	129.6	134.5	141.1	162.6	161.1
Men's and boys' suits and coats .....	2311	75.1	95.2	97.3	98.8	95.2	90.2	96.9	106.3	107.5	105.8	109.9
Sawmills and planing mills, general .....	2421	90.0	98.8	104.2	107.9	117.1	126.8	132.3	139.2	155.1	151.1	148.7
Millwork .....	2431	95.9	100.2	93.6	96.4	86.1	87.9	88.7	85.7	90.0	94.1	-
Veneer and plywood .....	2435,36	83.2	97.8	102.8	106.9	114.4	121.1	120.0	125.1	128.8	132.1	-
Household furniture .....	251	82.2	97.5	99.9	103.0	104.7	110.1	112.2	112.5	118.5	118.3	124.5
Wood household furniture .....	2511,7	83.5	98.0	97.2	97.3	98.2	103.8	105.5	104.4	111.9	110.5	-
Upholstered household furniture .....	2512	84.4	97.2	102.3	110.5	115.9	121.6	122.7	124.6	127.1	125.2	-
Mattresses and bedsprings .....	2515	67.7	96.9	112.1	114.0	104.3	108.6	109.5	108.8	117.9	130.9	123.7
Office furniture .....	252	78.2	85.5	112.1	108.8	107.4	112.0	117.8	116.7	117.8	118.7	113.9
Paper, paperboard, and pulp mills .....	2611,21,31,61	77.5	86.7	105.2	104.4	111.3	119.5	121.0	123.1	133.5	138.0	142.8
Paper and plastic bags .....	2643	75.8	99.8	94.6	92.3	95.3	102.9	105.6	107.1	112.3	110.5	-
Folding paperboard boxes .....	2651	77.4	98.5	101.6	104.5	104.2	104.5	102.4	99.6	101.4	98.1	98.7
Corrugated and solid fiber boxes .....	2653	73.1	96.2	111.0	109.8	111.9	114.0	118.9	122.5	126.7	123.3	124.3
Industrial inorganic chemicals .....	281	-	86.5	94.3	91.4	86.3	94.0	104.5	101.4	105.4	107.5	-
Industrial inorganic chemicals, not elsewhere classified .....	2819 pt.	-	84.0	90.3	89.3	80.8	85.8	95.0	91.5	90.6	92.0	-
Synthetic fibers .....	2823,24	53.8	84.5	115.7	120.9	103.6	126.2	125.3	135.8	146.2	156.4	156.6
Pharmaceutical preparations .....	2834	74.8	92.5	106.0	104.2	107.0	114.3	116.4	118.1	121.8	120.9	116.8
Cosmetics and other toiletries .....	2844	65.9	94.0	83.6	76.1	84.0	86.2	85.2	87.3	94.3	96.2	-
Paints and allied products .....	2851	74.9	94.2	100.8	99.8	106.5	113.8	121.5	125.6	127.7	135.3	138.2
Industrial organic chemicals, not elsewhere classified .....	2869	65.5	85.3	98.9	103.9	87.2	105.3	113.9	112.5	119.6	132.1	-
Agricultural chemicals .....	287	-	86.7	97.2	97.7	94.5	106.2	119.8	115.6	110.0	129.4	-
Petroleum refining .....	2911	73.8	88.7	94.2	83.7	79.4	81.8	92.5	102.6	113.8	120.1	125.7
Tires and inner tubes .....	3011	87.6	91.8	102.4	118.1	128.2	136.1	146.8	146.7	151.4	162.2	169.7
Miscellaneous plastic products .....	3079	-	86.2	95.7	98.5	110.1	107.2	110.5	113.0	114.1	125.4	-
Footwear .....	314	100.3	101.3	99.1	95.6	106.4	103.9	105.7	107.3	109.3	104.7	100.6
Glass containers .....	3221	87.2	98.5	105.2	110.1	105.8	108.5	128.0	127.0	138.9	153.6	153.3
Hydraulic cement .....	3241	84.8	84.7	87.0	91.1	94.0	108.4	125.3	128.3	135.5	143.8	147.6
Structural clay products .....	325	78.2	91.0	97.6	100.7	102.6	105.4	111.3	112.8	115.6	119.9	-
Clay construction products .....	3251,53,59	77.4	89.1	94.0	97.3	103.3	101.1	110.4	112.6	114.5	120.0	120.6
Brick and structural clay tile .....	3251	81.1	93.1	84.9	84.3	88.6	85.5	93.3	100.4	98.7	104.9	104.9
Clay refractories .....	3255	82.1	95.5	109.6	111.1	100.0	121.6	115.1	114.1	122.9	121.9	-
Concrete products .....	3271,72	82.3	91.9	90.4	88.5	91.0	97.6	99.2	100.5	105.9	102.1	-
Ready-mixed concrete .....	3273	91.1	97.5	93.1	95.4	90.6	93.7	96.3	97.4	100.1	104.5	-
Steel .....	331	87.6	93.3	102.9	112.0	90.9	116.8	131.3	139.5	141.8	152.3	168.3
Gray iron foundries .....	3321	79.8	97.0	90.8	92.7	93.7	98.3	106.8	104.2	107.4	108.8	-
Steel foundries .....	3324,25	90.6	107.5	99.8	91.6	89.0	89.9	98.8	95.6	100.3	95.0	-
Steel foundries, not elsewhere classified .....	3325	-	107.7	99.8	90.0	88.4	90.2	103.5	101.0	104.3	104.3	111.0
Primary copper, lead, and zinc .....	3331,32,33	78.1	85.3	103.7	118.6	128.0	141.2	148.0	181.5	210.8	259.8	-
Primary copper .....	3331	79.8	83.0	105.3	124.4	128.5	138.3	151.9	189.8	229.2	296.9	338.0
Primary aluminum .....	3334	92.5	96.2	100.0	103.8	103.0	111.5	125.4	125.4	134.0	133.3	134.9
Copper rolling and drawing .....	3351	76.8	76.8	94.1	97.9	106.0	121.1	128.1	122.0	130.4	135.5	135.7
Aluminum rolling and drawing .....	3353,54,55	66.0	87.5	100.0	96.8	99.2	110.4	116.2	115.6	125.0	128.4	128.4
Metal cans .....	3411	78.8	87.0	102.6	108.1	118.5	120.5	123.0	125.6	126.0	132.6	143.2
Hand and edge tools .....	3423	91.0	93.9	98.4	95.2	92.8	88.8	89.5	90.1	89.2	93.9	-
Heating equipment, except electric .....	3433	-	80.4	99.7	94.6	102.3	93.2	102.0	101.6	105.0	109.3	-
Fabricated structural metal .....	3441	102.2	97.4	102.1	98.5	99.5	103.0	107.9	117.7	117.7	117.7	-
Metal doors, sash, and trim .....	3442	82.1	89.3	90.6	90.4	96.0	99.7	102.8	106.3	104.1	104.9	-
Metal stampings .....	3465,66,69	86.4	93.2	99.9	101.4	98.1	104.7	110.4	104.7	108.7	115.6	-
Valves and pipe fittings .....	3494	93.6	92.4	102.8	105.4	101.3	103.6	105.1	104.5	104.4	110.8	-
Farm and garden machinery .....	352	75.7	97.7	93.3	95.1	94.9	95.1	105.2	101.5	103.0	109.6	-

47. Continued—Annual productivity indexes for selected industries

(1977 = 100)

Industry	SIC	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
Construction machinery and equipment .....	3531	83.4	93.9	97.4	96.1	88.9	88.2	102.6	104.1	107.1	100.8	101.6
Oilfield machinery and equipment .....	3533	86.4	107.9	104.0	104.7	98.4	91.8	87.5	79.9	73.2	75.6	72.0
Machine tools .....	3541,42	91.7	103.0	98.8	96.5	88.0	83.0	93.6	96.7	97.7	110.8	100.2
Metal-cutting machine tools .....	3541	89.5	102.9	100.6	98.9	89.2	81.1	93.3	96.4	97.6	112.4	93.3
Metal-forming machine tools .....	3542	98.5	104.0	93.5	89.4	85.0	87.6	93.7	96.6	97.1	105.9	112.9
Pumps and compressors .....	3561,63	85.8	91.4	100.2	102.4	95.9	100.2	106.1	106.8	108.3	115.4	-
Ball and roller bearings .....	3562	85.5	97.5	95.4	94.3	83.3	86.3	94.4	92.1	95.6	103.6	106.3
Refrigeration and heating equipment .....	3585	88.4	89.9	93.8	99.4	100.1	100.9	105.5	103.7	101.5	107.9	-
Carburetors, pistons, rings, and valves .....	3592	-	100.1	90.3	91.7	92.0	99.6	110.3	114.0	111.1	118.8	-
Transformers .....	3612	89.1	89.3	110.6	106.9	99.6	99.1	97.6	99.3	100.4	101.5	103.1
Switchgear and switchboard apparatus .....	3613	83.3	93.4	103.2	99.5	101.3	106.1	107.4	110.6	110.7	109.3	-
Motors and generators .....	3621	87.8	93.0	96.7	100.4	102.4	104.3	107.9	110.5	112.3	119.2	117.4
Major household appliances .....	3631,32,33,39	70.2	93.6	105.8	107.6	108.6	117.6	123.6	127.2	134.1	137.2	138.9
Household cooking equipment .....	3631	68.7	97.8	103.9	105.7	112.6	120.8	131.9	135.6	158.4	168.5	170.9
Household refrigerators and freezers .....	3632	71.7	94.5	114.4	117.4	116.1	127.1	127.5	136.8	133.5	129.0	131.2
Household laundry equipment .....	3633	70.7	93.6	102.1	103.9	105.4	112.2	117.5	118.2	123.1	125.3	129.8
Household appliances, not elsewhere classified .....	3639	70.4	88.8	99.1	100.4	94.7	103.7	109.8	110.0	113.1	120.1	117.7
Electric lamps .....	3641	88.3	96.4	103.2	106.9	108.4	124.8	131.9	126.9	131.1	144.5	150.4
Lighting fixtures .....	3645,46,47,48	78.1	89.2	93.3	88.7	91.0	96.3	102.2	107.1	113.9	109.9	109.8
Radio and television receiving sets .....	3651	70.6	90.1	116.9	133.6	163.9	196.1	236.9	249.8	278.1	257.7	258.5
Semiconductors and related devices .....	3674	-	56.0	149.4	171.6	197.9	211.5	229.2	206.1	210.5	260.1	-
Motor vehicles and equipment .....	371	70.5	87.7	90.8	93.1	96.9	109.6	115.7	121.2	121.7	129.1	133.8
Instruments to measure electricity .....	3825	-	95.9	108.4	111.9	119.2	121.8	133.7	130.4	122.2	132.2	-
Railroad transportation, revenue traffic .....	401 Class I	77.7	89.5	107.3	111.5	115.8	141.9	152.9	161.7	178.1	206.4	226.5
Railroad transportation, car-miles .....	401 Class I	89.1	98.3	107.9	107.6	110.1	128.9	137.7	138.9	148.2	167.5	179.4
Class 1 bus carriers .....	411,13,14 pts.	107.3	97.0	100.9	90.7	98.8	95.4	90.9	87.4	86.8	90.6	-
Intercity trucking .....	4213 pt.	83.5	89.2	107.7	116.3	108.0	130.7	135.1	130.2	134.5	138.9	-
Intercity trucking, general freight .....	4213 pt.	76.8	88.4	107.5	117.2	107.8	136.0	137.6	131.7	140.9	144.9	-
Air transportation .....	4511,4521 pt.	71.4	87.6	106.2	104.9	114.9	126.7	131.7	136.3	137.9	146.1	140.8
Petroleum pipelines .....	4612,13	79.5	95.7	93.0	86.0	89.2	94.3	104.5	104.9	107.0	104.9	109.9
Telephone communications .....	4811	62.1	85.9	118.1	124.4	129.1	145.1	143.0	149.8	161.3	165.9	176.7
Gas and electric utilities .....	491,92,93	83.1	94.7	96.2	94.4	89.3	88.4	91.6	90.9	90.6	93.5	97.9
Electric utilities .....	491,493 pt.	77.1	92.9	94.0	93.0	89.5	90.9	94.4	93.5	95.8	100.7	105.6
Gas utilities .....	492,493 pt.	102.1	101.4	102.1	98.1	89.0	81.1	83.6	82.1	74.1	71.6	74.7
Hardware stores .....	5251	-	97.8	111.6	107.5	109.2	111.4	121.1	124.6	137.4	140.3	150.6
Department stores .....	5311	77.5	89.7	103.8	109.9	112.4	119.5	126.6	129.2	135.3	138.5	141.7
Variety stores .....	5331	124.9	122.5	107.8	118.8	113.0	121.5	126.8	118.5	101.1	97.2	93.8
Retail food stores .....	54	107.0	98.8	100.3	97.1	95.5	95.2	95.6	95.8	93.7	92.7	91.8
Grocery stores .....	5411	-	98.6	100.1	97.9	97.9	98.6	100.1	98.4	96.3	93.8	92.1
Retail bakeries .....	546	-	93.1	102.5	97.9	90.6	88.4	78.9	69.8	73.6	78.9	76.9
Franchised new car dealers .....	5511	86.1	95.0	99.6	98.1	100.4	109.4	110.4	109.7	110.7	107.4	111.8
Auto and home supply stores .....	5531	-	89.9	106.7	109.2	107.2	118.9	118.4	124.7	125.6	134.1	136.6
Gasoline service stations .....	5541	74.6	85.3	105.1	106.7	111.8	122.5	129.1	134.3	143.9	139.8	141.5
Apparel and accessory stores .....	56	81.3	105.0	117.9	123.9	126.4	132.9	140.9	146.3	153.5	142.3	141.2
Men's and boys' clothing stores .....	5611	82.7	102.3	107.1	116.4	116.6	119.5	125.1	131.4	135.0	134.0	133.7
Women's ready-to-wear stores .....	5621	76.5	106.5	117.9	127.8	142.0	151.3	158.3	162.8	176.4	166.1	162.8
Family clothing stores .....	5651	75.2	109.5	123.7	132.4	140.7	149.2	145.8	138.5	136.0	128.8	128.0
Shoe stores .....	5661	95.3	95.1	110.3	114.2	110.2	107.9	110.9	118.7	127.5	119.9	118.2
Furniture, furnishings, and equipment stores .....	57	80.1	91.9	107.4	112.6	109.2	118.4	129.4	133.5	144.4	146.8	154.4
Furniture and home furnishings stores .....	571	79.3	90.1	98.0	101.2	97.6	104.1	113.1	108.7	115.5	113.0	111.0
Appliance, radio, television, and music stores .....	572,73	81.2	94.8	124.0	132.4	128.7	143.4	158.5	180.0	198.9	211.9	243.2
Household appliance stores .....	572	-	89.5	109.9	114.9	102.0	111.8	139.2	154.6	177.2	172.1	177.2
Radio, television, and music stores .....	573	-	98.0	131.5	140.5	142.4	159.5	165.9	190.2	206.5	226.7	269.5
Eating and drinking places .....	58	100.6	100.8	99.8	97.3	96.9	95.3	91.1	87.9	89.7	90.7	91.3
Drug and proprietary stores .....	5912	83.4	94.2	107.0	107.6	107.9	110.9	105.7	105.5	104.6	103.8	105.3
Liquor stores .....	5921	-	96.3	102.2	104.0	108.1	101.6	98.7	107.1	98.0	91.6	88.5
Commercial banking .....	602	85.5	90.0	92.7	90.5	93.2	101.3	104.3	109.7	111.8	116.5	-
Hotels, motels, and tourist courts .....	7011	85.1	89.7	95.0	91.6	88.8	95.4	102.1	97.5	92.8	88.0	-
Laundry and cleaning services .....	721	94.7	96.6	91.0	88.4	90.6	90.4	92.3	87.3	85.0	84.1	83.8
Beauty and barber shops .....	7231,41	-	98.7	102.9	109.2	108.3	114.0	103.9	98.6	97.3	99.1	96.0
Beauty shops .....	7231	-	100.1	106.2	114.7	113.1	120.1	112.3	104.1	98.8	100.1	96.2
Automotive repair shops .....	753	-	102.0	95.9	93.3	87.4	86.1	88.3	96.1	93.2	96.1	101.1

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

Country	Annual average		1988			1989			
	1988	1989	II	III	IV	I	II	III	IV
<b>Total labor force basis</b>									
United States .....	5.4	5.2	5.4	5.4	5.2	5.1	5.2	5.2	5.3
Canada .....	7.7	-	7.6	7.8	7.7	7.5	7.6	7.3	7.5
Australia .....	7.2	-	7.4	6.9	6.8	6.6	6.1	6.0	5.9
Japan .....	2.5	-	2.5	2.6	2.4	2.4	2.3	2.3	-
France .....	10.1	-	10.1	10.2	10.0	9.9	9.9	9.9	9.8
Germany .....	6.2	-	6.3	6.2	6.1	5.7	5.6	5.6	5.5
Italy <sup>1, 2</sup> .....	7.8	-	7.7	7.8	7.7	7.6	7.8	7.7	7.5
Sweden .....	1.6	-	1.6	1.6	1.4	1.4	1.3	1.3	1.4
United Kingdom .....	8.2	-	8.6	8.0	7.5	7.0	6.5	6.2	5.8
<b>Civilian labor force basis</b>									
United States .....	5.5	5.3	5.5	5.5	5.3	5.2	5.3	5.3	5.3
Canada .....	7.8	-	7.7	7.8	7.7	7.6	7.6	7.4	7.6
Australia .....	7.2	-	7.5	7.0	6.8	6.6	6.1	6.0	5.9
Japan .....	2.5	-	2.5	2.6	2.4	2.4	2.3	2.3	-
France .....	10.4	-	10.4	10.4	10.2	10.1	10.1	10.2	10.1
Germany .....	6.3	-	6.4	6.3	6.2	5.8	5.7	5.7	5.6
Italy <sup>1, 2</sup> .....	7.9	-	7.9	7.9	7.8	7.8	8.0	7.8	7.7
Sweden .....	1.6	-	1.6	1.6	1.4	1.4	1.3	1.3	1.4
United Kingdom .....	8.3	-	8.6	8.0	7.6	7.0	6.6	6.2	5.9

<sup>1</sup> Quarterly rates are for the first month of the quarter.

<sup>2</sup> Many Italians reported as unemployed did not actively seek work in the past 30 days, and they have been excluded for comparability with U.S. concepts. Inclusion of such persons would about double the Italian unemployment rate in 1985 and earlier years and increase it to 11-12 percent for 1986 onward.

- Data not available.

NOTE: Quarterly figures for France, Germany, and the United Kingdom 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.



**49. Annual data: Employment status of the civilian working-age population, approximating U.S. concepts, 10 countries**

(Numbers in thousands)

Employment status and country	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>Labor force</b>									
United States .....	106,940	108,670	110,204	111,550	113,544	115,461	117,834	119,865	121,669
Canada .....	11,573	11,899	11,926	12,109	12,316	12,532	12,746	13,011	13,275
Australia .....	6,693	6,810	6,910	6,997	7,135	7,300	7,588	7,758	7,974
Japan .....	55,740	56,320	56,980	58,110	58,480	58,820	59,410	60,050	60,860
France .....	22,800	22,950	23,160	23,140	23,300	23,360	23,440	23,540	23,580
Germany .....	26,520	26,650	26,700	26,650	26,760	26,970	27,090	28,360	28,540
Italy .....	21,120	21,320	21,410	21,590	21,670	21,800	22,290	22,350	22,660
Netherlands .....	5,860	6,080	6,140	6,170	6,260	6,280	6,370	6,490	6,540
Sweden .....	4,312	4,327	4,350	4,369	4,385	4,418	4,443	4,480	4,530
United Kingdom .....	26,520	26,590	26,720	26,750	27,170	27,370	27,540	27,860	28,110
<b>Participation rate<sup>1</sup></b>									
United States .....	63.8	63.9	64.0	64.0	64.4	64.8	65.3	65.6	65.9
Canada .....	64.1	64.8	64.1	64.4	64.8	65.3	65.7	66.2	66.7
Australia .....	62.1	61.9	61.7	61.4	61.5	61.6	62.8	63.0	63.3
Japan .....	62.6	62.6	62.7	63.1	62.7	62.3	62.1	61.9	61.9
France .....	57.2	57.1	57.1	56.6	56.6	56.3	56.1	55.8	55.6
Germany .....	53.2	52.9	52.6	52.3	52.4	52.6	52.6	55.0	55.2
Italy .....	48.2	48.3	47.7	47.5	47.3	47.2	47.8	47.9	48.4
Netherlands .....	55.3	56.6	56.5	56.1	56.2	55.7	55.9	56.3	56.2
Sweden .....	66.9	66.8	66.8	66.7	66.6	66.9	67.0	67.3	67.8
United Kingdom .....	62.5	62.2	62.2	61.9	62.5	62.6	62.6	63.0	63.3
<b>Employed</b>									
United States .....	99,303	100,397	99,526	100,834	105,005	107,150	109,597	112,440	114,968
Canada .....	10,708	11,001	10,618	10,675	10,932	11,221	11,531	11,861	12,244
Australia .....	6,284	6,416	6,415	6,300	6,494	6,697	6,974	7,129	7,398
Japan .....	54,600	55,060	55,620	56,550	56,870	57,260	57,740	58,320	59,310
France .....	21,330	21,200	21,240	21,170	20,980	20,920	20,950	21,010	21,140
Germany .....	25,750	25,560	25,140	24,750	24,790	24,960	25,230	26,550	26,730
Italy .....	20,200	20,280	20,250	20,320	20,390	20,490	20,610	20,590	20,870
Netherlands .....	5,510	5,540	5,510	5,410	5,490	5,640	5,730	5,840	5,920
Sweden .....	4,226	4,219	4,213	4,218	4,249	4,293	4,326	4,396	4,458
United Kingdom .....	24,670	23,800	23,720	23,610	23,990	24,310	24,460	25,010	25,780
<b>Employment-population ratio<sup>2</sup></b>									
United States .....	59.2	59.0	57.8	57.9	59.5	60.1	60.7	61.5	62.3
Canada .....	59.3	59.9	57.1	56.8	57.5	58.5	59.4	60.4	61.6
Australia .....	58.3	58.4	57.3	55.3	56.0	56.5	57.7	57.9	58.7
Japan .....	61.3	61.2	61.2	61.4	61.0	60.6	60.4	60.1	60.4
France .....	53.5	52.8	52.3	51.8	51.0	50.4	50.2	49.8	49.9
Germany .....	51.7	50.8	49.6	48.6	48.5	48.7	49.0	51.5	51.7
Italy .....	46.1	45.9	45.2	44.7	44.5	44.4	44.2	44.1	44.6
Netherlands .....	52.0	51.6	50.7	49.2	49.3	50.0	50.2	50.6	50.9
Sweden .....	65.6	65.1	64.7	64.4	64.5	65.0	65.2	66.0	66.7
United Kingdom .....	58.1	55.7	55.2	54.7	55.2	55.6	55.6	56.6	58.0
<b>Unemployed</b>									
United States .....	7,637	8,273	10,678	10,717	8,539	8,312	8,237	7,425	6,701
Canada .....	865	898	1,308	1,434	1,384	1,311	1,215	1,150	1,031
Australia .....	409	394	495	697	641	603	613	629	576
Japan .....	1,140	1,260	1,360	1,560	1,610	1,560	1,670	1,730	1,550
France .....	1,470	1,750	1,920	1,970	2,320	2,440	2,490	2,530	2,440
Germany .....	770	1,090	1,560	1,900	1,970	2,010	1,860	1,800	1,810
Italy .....	920	1,040	1,160	1,270	1,280	1,310	1,680	1,760	1,790
Netherlands .....	350	540	630	760	770	640	640	650	620
Sweden .....	86	108	137	151	136	125	117	84	72
United Kingdom .....	1,850	2,790	3,000	3,140	3,180	3,060	3,080	2,850	2,330
<b>Unemployment rate</b>									
United States .....	7.1	7.6	9.7	9.6	7.5	7.2	7.0	6.2	5.5
Canada .....	7.5	7.5	11.0	11.8	11.2	10.5	9.5	8.8	7.8
Australia .....	6.1	5.8	7.2	10.0	9.0	8.3	8.1	8.1	7.2
Japan .....	2.0	2.2	2.4	2.7	2.8	2.6	2.8	2.9	2.5
France .....	6.4	7.6	8.3	8.5	10.0	10.4	10.6	10.8	10.4
Germany .....	2.9	4.1	5.8	7.1	7.4	7.5	6.9	6.4	6.3
Italy .....	4.4	4.9	5.4	5.9	5.9	6.0	7.5	7.9	7.9
Netherlands .....	6.0	8.9	10.3	12.3	12.3	10.2	10.0	10.0	9.5
Sweden .....	2.0	2.5	3.1	-	3.1	2.8	2.6	1.9	1.6
United Kingdom .....	7.0	10.5	11.2	11.7	11.7	11.2	11.2	10.2	8.3

<sup>1</sup> Labor force as a percent of the civilian working-age population.  
<sup>2</sup> Employment as a percent of the civilian working-age population.

NOTE: See "Notes on the data" for information on breaks in series for Germany, Italy, the Netherlands, and Sweden.

Current Labor Statistics: International Comparisons Data

50. Annual indexes of manufacturing productivity and related measures, 12 countries

(1977=100)

Item and country	1960	1970	1973	1977	1978	1979	1981	1982	1983	1984	1985	1986	1987	1988
<b>Output per hour</b>														
United States .....	60.7	80.2	92.6	100.0	101.6	101.6	104.0	106.6	112.2	118.2	123.5	128.2	132.9	136.5
Canada .....	50.7	75.6	90.3	100.0	101.1	102.0	102.9	98.3	105.4	114.4	117.3	117.7	120.5	124.3
Japan .....	23.2	64.8	83.1	100.0	108.0	114.8	127.2	135.0	142.3	152.5	161.1	163.7	176.5	190.0
Belgium .....	33.0	60.4	78.8	100.0	106.1	112.0	127.6	135.2	148.1	155.0	158.6	164.5	170.5	-
Denmark .....	37.2	65.6	83.3	100.0	101.5	106.5	114.2	114.6	120.2	119.6	120.3	116.2	117.2	117.2
France .....	37.4	71.4	83.8	100.0	104.6	109.7	113.9	122.0	125.1	127.5	132.7	135.2	136.8	144.1
Germany .....	40.3	71.2	84.0	100.0	103.1	108.2	111.0	112.6	119.2	123.7	128.4	128.3	129.9	135.9
Italy .....	37.2	69.8	83.4	100.0	106.5	116.6	125.4	128.5	135.3	148.8	156.8	158.3	162.3	167.1
Netherlands .....	32.4	64.3	81.5	100.0	106.4	112.3	116.9	119.4	127.9	139.2	145.1	144.8	145.9	153.2
Norway .....	54.3	81.3	94.4	100.0	101.2	107.4	108.0	109.2	117.2	124.1	126.8	125.9	132.2	-
Sweden .....	42.3	80.7	94.8	100.0	102.8	110.9	113.2	116.5	125.5	131.0	136.1	136.0	141.8	145.0
United Kingdom .....	55.9	80.3	95.4	100.0	101.4	102.5	107.1	113.5	123.1	129.9	134.1	138.6	147.6	154.9
<b>Output</b>														
United States .....	52.5	78.6	96.3	100.0	106.0	108.1	104.8	98.4	104.7	117.5	122.0	124.7	130.1	138.1
Canada .....	41.3	73.5	93.5	100.0	104.6	108.5	107.4	93.6	99.6	112.5	118.8	121.9	128.5	136.0
Japan .....	19.2	69.9	91.9	100.0	106.7	113.9	129.8	137.3	148.2	165.4	177.0	177.8	190.8	212.3
Belgium .....	41.9	78.6	96.4	100.0	101.4	104.2	105.6	110.1	114.7	118.0	119.6	121.4	123.3	-
Denmark .....	49.2	82.0	95.9	100.0	99.7	105.4	106.6	108.3	115.6	121.0	124.9	125.9	121.1	118.4
France .....	36.5	75.5	96.5	100.0	102.3	105.3	102.9	104.0	103.8	102.6	103.0	102.8	101.8	105.7
Germany .....	50.0	86.6	96.1	100.0	101.8	106.6	104.9	102.4	103.6	106.4	110.0	110.8	111.6	116.3
Italy .....	33.0	69.0	83.5	100.0	104.9	115.7	119.9	118.7	119.7	125.3	129.0	131.9	137.3	145.3
Netherlands .....	44.8	84.4	95.8	100.0	102.8	106.1	106.7	105.0	107.0	113.3	116.7	118.1	118.7	123.8
Norway .....	54.8	86.5	99.2	100.0	97.7	100.5	98.6	96.8	97.2	102.7	106.5	106.9	108.3	-
Sweden .....	52.6	92.5	100.3	100.0	97.3	103.6	100.6	100.1	105.2	111.5	115.3	114.7	119.2	124.0
United Kingdom .....	71.2	94.9	104.7	100.0	100.6	100.5	86.3	86.4	88.8	92.5	94.8	95.6	101.0	108.2
<b>Total hours</b>														
United States .....	86.5	97.9	104.0	100.0	104.3	106.3	100.8	92.3	93.4	99.4	98.7	97.3	97.9	101.2
Canada .....	81.4	97.2	103.6	100.0	103.4	106.3	104.3	95.2	94.5	98.3	101.2	103.6	106.6	109.4
Japan .....	82.7	107.9	110.7	100.0	98.8	99.3	102.0	101.7	104.2	108.5	109.8	108.6	108.1	111.7
Belgium .....	127.1	130.2	122.3	100.0	95.5	93.0	82.8	81.4	77.5	76.1	75.4	73.8	72.3	-
Denmark .....	132.4	125.1	115.2	100.0	98.3	99.0	93.4	94.5	96.2	101.2	103.8	108.4	103.3	101.0
France .....	97.6	105.7	107.9	100.0	97.8	95.9	90.3	85.2	83.0	80.4	77.6	76.1	74.4	73.4
Germany .....	123.8	121.7	114.4	100.0	98.7	98.5	94.6	91.0	86.9	86.1	85.7	86.4	85.9	85.5
Italy .....	88.9	98.9	100.1	100.0	98.5	99.3	95.6	92.4	88.5	84.2	82.3	83.3	84.6	87.0
Netherlands .....	138.4	131.2	117.6	100.0	96.6	94.4	91.2	88.0	83.6	81.4	80.5	81.5	81.3	80.8
Norway .....	101.1	106.4	105.1	100.0	96.5	93.6	91.3	88.6	82.9	82.8	84.0	84.9	81.9	-
Sweden .....	124.4	114.6	105.7	100.0	94.6	93.4	88.9	85.9	83.9	85.1	84.7	84.3	84.0	85.5
United Kingdom .....	127.3	118.1	109.8	100.0	99.1	98.0	80.6	76.2	72.2	71.2	70.7	69.0	68.5	69.8
<b>Compensation per hour</b>														
United States .....	35.6	57.0	68.2	100.0	108.3	118.9	145.7	158.7	162.7	168.1	176.3	184.3	189.2	196.0
Canada .....	27.5	47.9	60.0	100.0	107.6	118.6	151.1	167.0	177.2	185.6	194.4	203.5	214.0	227.1
Japan .....	8.9	33.9	55.1	100.0	106.6	113.4	129.8	136.6	140.7	144.9	151.4	158.9	162.5	171.3
Belgium .....	13.8	34.9	53.5	100.0	107.8	117.4	144.5	150.7	159.8	173.1	183.6	190.8	194.7	-
Denmark .....	12.6	36.3	56.1	100.0	110.2	123.1	149.7	162.9	174.2	184.1	196.5	203.5	225.9	230.1
France .....	15.0	36.3	51.9	100.0	113.0	128.4	172.0	204.0	225.2	244.9	265.4	278.7	291.4	301.9
Germany .....	18.8	48.0	67.5	100.0	107.8	116.1	134.5	141.0	148.3	155.5	164.6	171.5	178.1	185.5
Italy .....	9.2	27.1	41.2	100.0	115.2	139.5	197.9	233.3	273.1	313.3	352.0	367.4	391.2	416.3
Netherlands .....	12.5	39.0	60.5	100.0	108.4	117.0	129.1	137.5	144.5	148.6	156.9	162.2	167.0	172.8
Norway .....	15.8	37.9	54.6	100.0	110.0	116.0	142.8	156.1	173.5	188.3	204.3	224.2	257.4	-
Sweden .....	14.7	38.5	54.2	100.0	111.4	120.1	148.1	158.9	173.3	189.7	212.4	228.7	244.8	261.1
United Kingdom .....	15.2	31.4	47.9	100.0	116.7	139.0	193.4	211.7	226.6	242.3	258.8	277.8	295.7	319.3
<b>Unit labor costs: National currency basis</b>														
United States .....	58.7	71.0	73.7	100.0	106.6	117.0	140.1	148.8	145.1	142.3	142.7	143.8	142.3	143.6
Canada .....	54.2	63.4	66.5	100.0	106.5	116.2	146.7	170.0	168.1	162.3	165.7	172.8	177.5	182.7
Japan .....	38.4	52.3	66.4	100.0	98.7	98.8	102.0	101.2	98.9	95.0	94.0	97.1	92.1	90.2
Belgium .....	41.7	57.8	67.9	100.0	101.6	104.8	113.2	111.5	107.9	111.7	115.8	116.0	114.2	-
Denmark .....	33.8	55.4	67.4	100.0	108.6	115.7	131.1	142.2	144.9	153.9	163.3	175.1	192.8	196.3
France .....	40.2	50.8	62.0	100.0	108.0	117.0	151.0	167.2	179.9	192.0	200.0	206.2	213.0	209.6
Germany .....	46.6	67.4	80.3	100.0	104.5	107.3	121.2	125.2	124.4	125.8	128.3	133.7	137.1	136.4
Italy .....	24.7	38.8	49.4	100.0	108.1	119.7	157.8	181.6	201.9	210.6	224.5	232.0	241.0	249.1
Netherlands .....	38.5	60.7	74.3	100.0	101.8	104.1	110.4	115.2	113.0	106.8	108.1	112.0	114.4	112.8
Norway .....	29.2	46.6	57.8	100.0	108.7	108.1	132.2	142.9	148.0	151.8	161.1	178.1	194.7	-
Sweden .....	34.8	47.7	57.2	100.0	108.4	108.3	130.9	136.3	138.1	144.8	156.1	168.2	172.6	180.0
United Kingdom .....	27.2	39.1	50.2	100.0	115.0	135.6	180.6	186.5	184.1	186.5	193.0	200.4	200.4	206.2
<b>Unit labor costs: U.S. dollar basis</b>														
United States .....	58.7	71.0	73.7	100.0	106.6	117.0	140.1	148.8	145.1	142.3	142.7	143.8	142.3	143.6
Canada .....	59.4	64.5	70.6	100.0	99.3	105.4	130.0	146.3	144.9	133.2	128.9	132.1	142.3	157.8
Japan .....	28.5	39.1	65.6	100.0	126.8	121.3	123.8	108.8	111.5	107.2	105.6	154.4	170.5	188.4
Belgium .....	30.0	41.7	62.7	100.0	115.8	128.1	109.6	87.2	75.6	69.3	69.9	93.1	109.5	-
Denmark .....	29.5	44.4	67.2	100.0	118.4	132.0	110.3	102.3	95.1	89.3	92.5	129.9	169.0	174.8
France .....	40.3	45.2	68.6	100.0	117.9	135.2	136.4	124.9	116.1	108.1	109.5	146.3	174.2	172.9
Germany .....	25.9	42.9	70.4	100.0	121.0	135.9	124.9	119.7	113.1	102.6	101.2	143.0	177.0	180.3
Italy .....	35.1	54.7	75.0	100.0	112.4	127.2	122.4	118.4	117.3	105.9	103.8	137.4	164.0	168.8
Netherlands .....	25.1	41.2	65.6	100.0	115.7	127.4	108.9	105.8	97.1	81.6	80.0	112.2	138.6	139.9
Norway .....	21.8	34.7	53.5	100.0	110.4	113.6	122.5	117.8	107.9	99.0	99.8	124.7	153.7	-
Sweden .....	30.1	41.1	58.7	100.0	107.2	112.9	115.4	96.9	80.4	78.2	81.1	105.4	121.5	131.1
United Kingdom .....	43.7	53.7	70.5	100.0	126.5	164.9	209.6	186.8	160.0	142.9	143.5	168.6	188.3	210.5

## 51. Occupational injury and illness incidence rates by industry, United States

Industry and type of case <sup>1</sup>	Incidence rates per 100 full-time workers <sup>2</sup>								
	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>PRIVATE SECTOR<sup>3</sup></b>									
Total cases .....	8.7	8.3	7.7	7.6	8.0	7.9	7.9	8.3	8.6
Lost workday cases .....	4.0	3.8	3.5	3.4	3.7	3.6	3.6	3.8	4.0
Lost workdays .....	65.2	61.7	58.7	58.5	63.4	64.9	65.8	69.9	76.1
<b>Agriculture, forestry, and fishing<sup>3</sup></b>									
Total cases .....	11.9	12.3	11.8	11.9	12.0	11.4	11.2	11.2	10.9
Lost workday cases .....	5.8	5.9	5.9	6.1	6.1	5.7	5.6	5.7	5.6
Lost workdays .....	82.7	82.8	86.0	90.8	90.7	91.3	93.6	94.1	101.8
<b>Mining</b>									
Total cases .....	11.2	11.6	10.5	8.4	9.7	8.4	7.4	8.5	8.8
Lost workday cases .....	6.5	6.2	5.4	4.5	5.3	4.8	4.1	4.9	5.1
Lost workdays .....	163.6	146.4	137.3	125.1	160.2	145.3	125.9	144.0	152.1
<b>Construction</b>									
Total cases .....	15.7	15.1	14.6	14.8	15.5	15.2	15.2	14.7	14.6
Lost workday cases .....	6.5	6.3	6.0	6.3	6.9	6.8	6.9	6.8	6.8
Lost workdays .....	117.0	113.1	115.7	118.2	128.1	128.9	134.5	135.8	142.2
General building contractors:									
Total cases .....	15.5	15.1	14.1	14.4	15.4	15.2	14.9	14.2	14.0
Lost workday cases .....	6.5	6.1	5.9	6.2	6.9	6.8	6.6	6.5	6.4
Lost workdays .....	113.0	107.1	112.0	113.0	121.3	120.4	122.7	134.0	132.2
Heavy construction contractors:									
Total cases .....	16.3	14.9	15.1	15.4	14.9	14.5	14.7	14.5	15.1
Lost workday cases .....	6.3	6.0	5.8	6.2	6.4	6.3	6.3	6.4	7.0
Lost workdays .....	117.6	106.0	113.1	122.4	131.7	127.3	132.9	139.1	162.3
Special trade contractors:									
Total cases .....	15.5	15.2	14.7	14.8	15.8	15.4	15.6	15.0	14.7
Lost workday cases .....	6.7	6.6	6.2	6.4	7.1	7.0	7.2	7.1	7.0
Lost workdays .....	118.9	119.3	118.6	119.0	130.1	133.3	140.4	135.7	141.1
<b>Manufacturing</b>									
Total cases .....	12.2	11.5	10.2	10.0	10.6	10.4	10.6	11.9	13.1
Lost workday cases .....	5.4	5.1	4.4	4.3	4.7	4.6	4.7	5.3	5.7
Lost workdays .....	86.7	82.0	75.0	73.5	77.9	80.2	85.2	95.5	107.4
<b>Durable goods</b>									
Lumber and wood products:									
Total cases .....	18.6	17.6	16.9	18.3	19.6	18.5	18.9	18.9	19.5
Lost workday cases .....	9.5	9.0	8.3	9.2	9.9	9.3	9.7	9.6	10.0
Lost workdays .....	171.8	158.4	153.3	163.5	172.0	171.4	177.2	176.5	189.1
Furniture and fixtures:									
Total cases .....	16.0	15.1	13.9	14.1	15.3	15.0	15.2	15.4	16.6
Lost workday cases .....	6.6	6.2	5.5	5.7	6.4	6.3	6.3	6.7	7.3
Lost workdays .....	97.6	91.9	85.6	83.0	101.5	100.4	103.0	103.6	115.7
Stone, clay, and glass products:									
Total cases .....	15.0	14.1	13.0	13.1	13.6	13.9	13.6	14.9	16.0
Lost workday cases .....	7.1	6.9	6.1	6.0	6.6	6.7	6.5	7.1	7.5
Lost workdays .....	128.1	122.2	112.2	112.0	120.8	127.8	126.0	135.8	141.0
Primary metal industries:									
Total cases .....	15.2	14.4	12.4	12.4	13.3	12.6	13.6	17.0	19.4
Lost workday cases .....	7.1	6.7	5.4	5.4	6.1	5.7	6.1	7.4	8.2
Lost workdays .....	128.3	121.3	101.6	103.4	115.3	113.8	125.5	145.8	161.3
Fabricated metal products:									
Total cases .....	18.5	17.5	15.3	15.1	16.1	16.3	16.0	17.0	18.8
Lost workday cases .....	8.0	7.5	6.4	6.1	6.7	6.9	6.8	7.2	8.0
Lost workdays .....	118.4	109.9	102.5	96.5	104.9	110.1	115.5	121.9	138.8
Machinery, except electrical:									
Total cases .....	13.7	12.9	10.7	9.8	10.7	10.8	10.7	11.3	12.1
Lost workday cases .....	5.5	5.1	4.2	3.6	4.1	4.2	4.2	4.4	4.7
Lost workdays .....	81.3	74.9	66.0	58.1	65.8	69.3	72.0	72.7	82.8
Electric and electronic equipment:									
Total cases .....	8.0	7.4	6.5	6.3	6.8	6.4	6.4	7.2	8.0
Lost workday cases .....	3.3	3.1	2.7	2.6	2.8	2.7	2.7	3.1	3.3
Lost workdays .....	51.8	48.4	42.2	41.4	45.0	45.7	49.8	55.9	64.6
Transportation equipment:									
Total cases .....	10.6	9.8	9.2	8.4	9.3	9.0	9.6	13.5	17.7
Lost workday cases .....	4.9	4.6	4.0	3.6	4.2	3.9	4.1	5.7	6.6
Lost workdays .....	82.4	78.1	72.2	64.5	68.8	71.6	79.1	105.7	134.2
Instruments and related products:									
Total cases .....	6.8	6.5	5.6	5.2	5.4	5.2	5.3	5.8	6.1
Lost workday cases .....	2.7	2.7	2.3	2.1	2.2	2.2	2.3	2.4	2.6
Lost workdays .....	41.8	39.2	37.0	35.6	37.5	37.9	42.2	43.9	51.5
Miscellaneous manufacturing industries:									
Total cases .....	10.9	10.7	9.9	9.9	10.5	9.7	10.2	10.7	11.3
Lost workday cases .....	4.4	4.4	4.1	4.0	4.3	4.2	4.3	4.6	5.1
Lost workdays .....	67.9	68.3	69.9	66.3	70.2	73.2	70.9	81.5	91.0

See footnotes at end of table.

51. Continued— Occupational injury and illness incidence rates by industry, United States

Industry and type of case <sup>1</sup>	Incidence rates per 100 full-time workers <sup>2</sup>								
	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>Nondurable goods</b>									
<b>Food and kindred products:</b>									
Total cases .....	18.7	17.8	16.7	16.5	16.7	16.7	16.5	17.7	18.5
Lost workday cases .....	9.0	8.6	8.0	7.9	8.1	8.1	8.0	8.6	9.2
Lost workdays .....	136.8	130.7	129.3	131.2	131.6	138.0	137.8	153.7	169.7
<b>Tobacco manufacturing:</b>									
Total cases .....	8.1	8.2	7.2	6.5	7.7	7.3	6.7	8.6	9.3
Lost workday cases .....	3.8	3.9	3.2	3.0	3.2	3.0	2.5	2.5	2.9
Lost workdays .....	45.8	56.8	44.6	42.8	51.7	51.7	45.6	46.4	53.0
<b>Textile mill products:</b>									
Total cases .....	9.1	8.8	7.6	7.4	8.0	7.5	7.8	9.0	9.6
Lost workday cases .....	3.3	3.2	2.8	2.8	3.0	3.0	3.1	3.6	4.0
Lost workdays .....	62.8	59.2	53.8	51.4	54.0	57.4	59.3	65.9	78.8
<b>Apparel and other textile products:</b>									
Total cases .....	6.4	6.3	6.0	6.4	6.7	6.7	6.7	7.4	8.1
Lost workday cases .....	2.2	2.2	2.1	2.4	2.5	2.6	2.7	3.1	3.5
Lost workdays .....	34.9	35.0	36.4	40.6	40.9	44.1	49.4	59.5	68.2
<b>Paper and allied products:</b>									
Total cases .....	12.7	11.6	10.6	10.0	10.4	10.2	10.5	12.8	13.1
Lost workday cases .....	5.8	5.4	4.9	4.5	4.7	4.7	4.7	5.8	5.9
Lost workdays .....	112.3	103.6	99.1	90.3	93.8	94.6	99.5	122.3	124.3
<b>Printing and publishing:</b>									
Total cases .....	6.9	6.7	6.6	6.6	6.5	6.3	6.5	6.7	6.6
Lost workday cases .....	3.1	3.0	2.8	2.9	2.9	2.9	2.9	3.1	3.2
Lost workdays .....	46.5	47.4	45.7	44.6	46.0	49.2	50.8	55.1	59.8
<b>Chemicals and allied products:</b>									
Total cases .....	6.8	6.6	5.7	5.5	5.3	5.1	6.3	7.0	7.0
Lost workday cases .....	3.1	3.0	2.5	2.5	2.4	2.3	2.7	3.1	3.3
Lost workdays .....	50.3	48.1	39.4	42.3	40.8	38.8	49.4	58.8	59.0
<b>Petroleum and coal products:</b>									
Total cases .....	7.2	6.7	5.3	5.5	5.1	5.1	7.1	7.3	7.0
Lost workday cases .....	3.5	2.9	2.5	2.4	2.4	2.4	3.2	3.1	3.2
Lost workdays .....	59.1	51.2	46.4	46.8	53.5	49.9	67.5	65.9	68.4
<b>Rubber and miscellaneous plastics products:</b>									
Total cases .....	15.5	14.6	12.7	13.0	13.6	13.4	14.0	15.9	16.3
Lost workday cases .....	7.4	7.2	6.0	6.2	6.4	6.3	6.6	7.6	8.1
Lost workdays .....	118.6	117.4	100.9	101.4	104.3	107.4	118.2	130.8	142.9
<b>Leather and leather products:</b>									
Total cases .....	11.7	11.5	9.9	10.0	10.5	10.3	10.5	12.4	11.4
Lost workday cases .....	5.0	5.1	4.5	4.4	4.7	4.6	4.8	5.8	5.6
Lost workdays .....	82.7	82.6	86.5	87.3	94.4	88.3	83.4	114.5	128.2
<b>Transportation and public utilities</b>									
Total cases .....	9.4	9.0	8.5	8.2	8.8	8.6	8.2	8.4	8.9
Lost workday cases .....	5.5	5.3	4.9	4.7	5.2	5.0	4.8	4.9	5.1
Lost workdays .....	104.5	100.6	96.7	94.9	105.1	107.1	102.1	108.1	118.6
<b>Wholesale and retail trade</b>									
Total cases .....	7.4	7.3	7.2	7.2	7.4	7.4	7.7	7.7	7.8
Lost workday cases .....	3.2	3.1	3.1	3.1	3.3	3.2	3.3	3.4	3.5
Lost workdays .....	48.7	45.3	45.5	47.8	50.5	50.7	54.0	56.1	60.9
<b>Wholesale trade:</b>									
Total cases .....	8.2	7.7	7.1	7.0	7.2	7.2	7.2	7.4	7.6
Lost workday cases .....	3.9	3.6	3.4	3.2	3.5	3.5	3.6	3.7	3.8
Lost workdays .....	58.2	54.7	52.1	50.6	55.5	59.8	62.5	64.0	69.2
<b>Retail trade:</b>									
Total cases .....	7.1	7.1	7.2	7.3	7.5	7.5	7.8	7.8	7.9
Lost workday cases .....	2.9	2.9	2.9	3.0	3.2	3.1	3.2	3.3	3.4
Lost workdays .....	44.5	41.1	42.6	46.7	48.4	47.0	50.5	52.9	57.6
<b>Finance, insurance, and real estate</b>									
Total cases .....	2.0	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0
Lost workday cases .....	.8	.8	.9	.9	.9	.9	.9	.9	.9
Lost workdays .....	12.2	11.6	13.2	12.8	13.6	15.4	17.1	14.3	17.2
<b>Services</b>									
Total cases .....	5.2	5.0	4.9	5.1	5.2	5.4	5.3	5.5	5.4
Lost workday cases .....	2.3	2.3	2.3	2.4	2.5	2.6	2.5	2.7	2.6
Lost workdays .....	35.8	35.9	35.8	37.0	41.1	45.4	43.0	45.8	47.7

<sup>1</sup> Total cases include fatalities.

<sup>2</sup> The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as: (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays.

EH = total hours worked by all employees during calendar year.  
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year.)

<sup>3</sup> Excludes farms with fewer than 11 employees since 1976.



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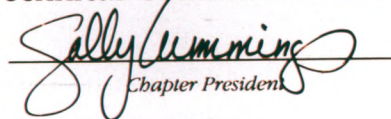
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Employment situation	April 6	March	May 4	April	June 1	May	1; 4-21
Producer Price Indexes	April 13	March	May 11	April	June 14	May	2; 34-37
Consumer Price Index	April 17	March	May 16	April	June 15	May	2; 31-33
Real earnings	April 17	March	May 16	April	June 15	May	14-17
Employment Cost Index	April 24	1st quarter					22-25
Major collective bargaining settlements	April 24	1st quarter					26-29
U.S. Import and Export Price Indexes	April 26	1st quarter	May 24	April	June 28	May	38-43
<b>Productivity and costs:</b>							
Nonfarm business and manufacturing			May 4	1st quarter			2,44-47
Nonfinancial corporations					June 4	1st quarter	2,44-47