The interaction between employee benefits and workers' earnings can affect future retirement income levels, the ability to finance health care or disability, and individual financial decisions.

Earnings as an Employee Benefit: Growth and Distribution

Earnings represent the bulk of American workers' total compensation package. Wages and salaries surpassed $2 trillion and represented 83 percent of total compensation in 1986.

Recent evidence of stagnating wage rates and declining family income has led some to suggest that the middle class is disappearing. This conclusion is largely grounded on the dampening of average wage growth caused by demographic and industrial shifts. Higher education and greater work experience, though, have largely offset this decline. There has, however, been some redistribution of family income in the U.S. The number of households headed by women, with their generally lower wages, has increased, while today's elderly have higher incomes and experience less poverty.

Not typically included in current workers' income estimates are the value of employer-provided benefits such as Social Security, health insurance, and pension benefits, which contribute substantially to the well-being of most workers. Employee benefits represented almost 17 percent of total compensation in 1986, totaling more than $400 billion in employer spending.

The interaction between employee benefits and workers' earnings can affect future retirement income levels and individual financial decisions. For example, greater real wage growth produces higher Social Security benefit payments for future retirees, increasing the likelihood that they will have greater discretionary income for other expenses such as postretirement medical and long-term care. Higher income levels also encourage employees to participate in voluntary retirement programs because they have more money to save.
Introduction

Earnings are the most direct benefit of employment. Other employee benefits have grown as a percentage of compensation during the past 30 years, but earnings continue to represent the lion’s share of the compensation package. In 1986 wages and salaries reached $2 trillion and represented 83 percent of total compensation. In the aggregate, earnings make up almost one-half of the Gross National Product. Earnings drive the economy by facilitating the purchase of current goods and services and by providing tax revenues for government operations. If the growth in wages and salaries stagnates and productivity weakens, the nation’s future may be adversely affected.

In 1986 wages and salaries reached $2 trillion and represented 83 percent of total compensation. In the aggregate, earnings make up almost one-half of the Gross National Product.

From an economic perspective, the distribution of earnings among workers (how total earnings are shared) is important and reflects workers’ productivity in different jobs. Productivity is a consequence both of workers’ skills and capabilities and of the technology that enables them to enhance their output.

The distribution of earnings is also important from a social welfare perspective. As Americans, we pride ourselves on providing opportunities for economic advancement, a decent standard of living for all workers, and programs to reduce poverty among the less fortunate.

This Issue Brief investigates the growth and distribution of earnings in recent years. Studies on trends in the earnings distribution are compared and evaluated to determine whether earnings have become more or less equally distributed across the population. Trends in average earnings are also reviewed within the context of recent changes in the work force, including the shift toward service-sector jobs, the influx of women and minorities into the labor force, and the aging of the baby-boom generation.

Recent interest in the distribution of wage and salary income partly derives from concerns about changes in the distribution of family income. Some analysts have suggested that while retirees are now enjoying a rising standard of living, children and young families are losing ground. The distribution of family income has also been affected by demographic changes, including more two-earner families and families headed by women. This Issue Brief reviews trends in average family income, analyzes distributional changes, and investigates the demographic shifts.

Wages and salaries are only one component of compensation. Employers also pay for legally required benefits such as Social Security and discretionary benefits such as retirement plans and health insurance. Interactions among the many components of employee compensation have important ramifications for all Americans.

The final section of this Issue Brief investigates the relationship between earnings and benefits and, in particular, the effect of earnings growth on Social Security, the private pension system, and health insurance.

Has the Distribution of Earnings Changed?

A 1986 study for the Joint Economic Committee of Congress sparked considerable controversy by claiming that nearly 6 out of 10 “new jobs” (58 percent) paid less than $7,100 a year (Bluestone and Harrison, 1986).

Bluestone and Harrison based their findings on an analysis of the U.S. Census Bureau’s annual March income supplement to the Current Population Survey (CPS), which asks individuals: (1) if they worked the year before and (2) if so, how much they earned. Bluestone and Harrison used these data to investigate changes in earnings between 1973–1979 and 1979–1984. Starting with 1973, they separated workers into three strata, or groups: a middle-income group representing those earning between 50 and 200 percent of median earnings, a lower-income group of wage and salary workers with earnings below that range, and an upper-income group earning more than 200 percent of the median. The 1973 median was updated for 1979 and 1984 using the Consumer Price Index (CPI) for all urban wage earners.
While the study actually tracked changes in employment and not new jobs, the findings were immediately disputed for a host of other reasons.

Some analysts criticized Bluestone and Harrison for their choice of inflation index. Before 1983, the Consumer Price Index (CPI) for all urban workers was strongly influenced by fluctuations in the housing market caused by mortgage interest rates. This overvaluation of housing artificially inflated the number of middle and low earners in later years. Several researchers advise using the new CPI, which values housing costs more accurately through rental equivalences, or the Personal Consumption Expenditure (PCE) deflator, which has always used a rental measure of housing. Using the PCE, Bluestone and Harrison found later that only 37 percent of the change in employment between 1979 and 1984 was attributable to the lowest earnings stratum, or group, rather than the 58 percent share originally reported.

The Bluestone-Harrison study has also been criticized for selecting years that are particularly sensitive to business cycle conditions. Their later period (1979–1984) included a severe recession and fewer years of recovery than their first period (1973–1979). Critics suggest that the periods selected make it difficult to distinguish fluctuations in wages due to the business cycle from long-run movements toward lower-paying jobs. In recent years, both median real hourly earnings of full-time workers and average real hourly earnings of all workers have moved strongly with the business cycle (chart 1).

Though Bluestone and Harrison report substantial changes in the distribution of “new jobs” by earnings category, relatively modest changes are reported in the distribution of total employment. According to Bluestone and Harrison, the percentage of “new jobs” in the low-earnings group increased from 20 percent between 1973 and 1979 to almost 60 percent between 1979 and 1984. The share of total employment in the low-earnings group increased little between 1973 and 1984, from 31.8 percent to 32.4 percent, and the employment share of those in the high-earnings group declined slightly, from 16.6 to 14.9 percent.

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Chart 1


* Deflated by the PCE. Dotted, vertical lines represent business troughs.
Similar research by Kosters and Ross (1987a) shows that the distribution of earnings was relatively stable between 1967–1985. They report that the percentage of “jobs” (that is, employment) in the low-earning group decreased from 31.4 percent to 28.9 percent during this period, and the percentage in the high group increased from 29.4 percent to 33.4 percent.²

Within this overall framework, two questions become apparent: (1) has the earnings distribution changed in relation to average earnings, and (2) have average earnings changed? Real average hourly earnings have not increased much since 1972 compared with earlier years (chart 2). Kosters and Ross (1987b) find that real average hourly earnings (PCE deflated) grew at a 1.98 percent annual rate between 1952 and 1972 but declined by 0.24 percent yearly between 1972 and 1985. Similarly, real total compensation grew 2.40 percent annually between 1952 and 1972 (with faster gains in the first part of the period) and slackened to a 0.77 percent yearly rate between 1972 and 1985. Kosters and Ross relate the slowdown in compensation to declines in productivity growth over the same period and note that neither slowdown is well understood. Other researchers (e.g., Levy, 1987) concur that the growth rate for real wages and salaries has been declining since 1973.

In sum, the evidence does not indicate that the distribution of earnings around the average has changed in

² Kosters and Ross also use March CPS income survey data, but they define their groups differently. Kosters and Ross use median earnings for each respective year and break employment into thirds according to breakpoints at 50 percent and 150 percent of the median. Kosters and Ross note that current-year medians eliminate sensitivity to the choice of the deflator used to project the base-year median forward.
Have Changes in the Work Force Affected Earnings?

The work force profile has been changing (table 1). In 1970 women made up 38 percent of the work force. By 1986, 44 percent of all workers were women. The baby-boom generation, which started entering the labor force in the late 1960s, also represents an ever-growing contingent of new workers. The industrial mix of employment has shifted away from manufacturing as the share of jobs in the service-producing industries rose from 60 percent in 1970 to 70 percent in 1986 (DOL, 1987).

Some believe that the influx of women, minorities, and youth into the labor force spurred the "creation" of low wage jobs. Low-wage job growth is also blamed on faster growth in service-producing employment and slower growth in manufacturing. The effect of these industrial and demographic changes, however, is much more complicated than first appears.

Table 1
Characteristics of the Employed Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Industry</th>
<th>Sex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goods-producing</td>
<td>Service-producing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>40.4%</td>
<td>59.6%</td>
<td>62.3%</td>
<td>37.7%</td>
</tr>
<tr>
<td>1971</td>
<td>39.3%</td>
<td>60.7</td>
<td>62.2</td>
<td>37.8</td>
</tr>
<tr>
<td>1972</td>
<td>39.2%</td>
<td>60.8</td>
<td>60.0</td>
<td>38.0</td>
</tr>
<tr>
<td>1973</td>
<td>39.5%</td>
<td>60.5</td>
<td>60.0</td>
<td>38.4</td>
</tr>
<tr>
<td>1974</td>
<td>38.7%</td>
<td>61.3</td>
<td>60.5</td>
<td>38.9</td>
</tr>
<tr>
<td>1975</td>
<td>36.3%</td>
<td>63.7</td>
<td>60.4</td>
<td>39.6</td>
</tr>
<tr>
<td>1976</td>
<td>36.2%</td>
<td>63.8</td>
<td>59.9</td>
<td>40.1</td>
</tr>
<tr>
<td>1977</td>
<td>36.2%</td>
<td>63.9</td>
<td>59.5</td>
<td>40.5</td>
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<tr>
<td>1978</td>
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<td>64.0</td>
<td>58.8</td>
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<tr>
<td>1979</td>
<td>35.8%</td>
<td>64.2</td>
<td>58.3</td>
<td>41.7</td>
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<tr>
<td>1980</td>
<td>34.6%</td>
<td>65.5</td>
<td>57.6</td>
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<tr>
<td>1981</td>
<td>33.9%</td>
<td>66.1</td>
<td>57.2</td>
<td>42.8</td>
</tr>
<tr>
<td>1982</td>
<td>32.3%</td>
<td>67.7</td>
<td>56.5</td>
<td>43.5</td>
</tr>
<tr>
<td>1983</td>
<td>31.4%</td>
<td>68.6</td>
<td>56.3</td>
<td>43.7</td>
</tr>
<tr>
<td>1984</td>
<td>31.5%</td>
<td>68.5</td>
<td>56.3</td>
<td>43.7</td>
</tr>
<tr>
<td>1985</td>
<td>30.6%</td>
<td>69.4</td>
<td>55.9</td>
<td>44.1</td>
</tr>
<tr>
<td>1986</td>
<td>29.8%</td>
<td>70.2</td>
<td>55.6</td>
<td>44.4</td>
</tr>
</tbody>
</table>


* Tabulations of establishment data of total private, nonagricultural payrolls.

* Tabulations of the civilian noninstitutional population 16 years old and over.

recent years, but it does show that average compensation has grown more slowly. Indeed, the initial acceptance of the Bluestone and Harrison findings may have stemmed from perceptions of slower wage growth. The slowdown in the growth of compensation and the decline of average real wage rates during the 1970s are well documented. The reasons for these trends need to be understood, however, to evaluate the impact of slower wage growth on the economy and society.
The Shift toward Services

Private service-producing employment has grown from 29 million workers in 1965 to 58 million workers in 1986. For that reason, some have suggested that the U.S. is becoming a low-wage country without an industrial, or goods-producing, base of its own (Brown, 1986). This conclusion assumes that service jobs are low paying and that industrial output is declining.

While earnings in the service-producing sector are lower than earnings in the goods-producing sector, earnings in the former sector have been growing faster during the past 20 years. In constant 1982 dollars, manufacturing production and nonsupervisory workers earned an average of $7.33 per hour in 1965 and $8.52 by 1986, a real increase of 16 percent. By comparison, service-sector wages\(^4\) grew from $5.76 to $7.15 during the same period, a real increase of 24 percent.

\(^4\) The service sector (in contrast to the service-producing sector or industries) includes business and personal services, but excludes transportation, utilities, trade, finance, insurance, and real estate.

Equally important, the service-producing sector includes a variety of occupations, from hamburger flipper to corporate lawyer. The distribution of earnings in this sector covers as broad a range as goods-producing jobs (chart 3). Employment in services is not simply concentrated at the high and low ends of the wage distribution scale.

Finally, growth in service-sector employment does not mean that goods-producing employment has declined. Employment in manufacturing remained fairly steady between 1965 and 1986, growing from 18 million to 19 million, with a high of 21 million in 1979. Employment in all goods-producing industries grew from 22 million to 25 million workers during the same period (DOL, 1987). Kutscher and Personick (1986) note that output in the goods-producing sector reached a new high in 1984 due to gains in productivity. Labor productivity in manufacturing increased at an average annual rate of 2.8 percent since 1948. In contrast, labor productivity in the service-producing sector increased at an average annual rate of 1.9 percent (Kendrick, 1985). With

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**Chart 3**

*Distribution of Full-time and Part-time Nonagricultural Wage and Salary Workers 15 Years and Over by Annual Earnings and Work Sector, 1985*

![Graph showing distribution of earnings by work sector](chart3.png)

productivity growing more rapidly in the goods-producing industries than in the service-producing sector and average wages growing faster in the service-producing sector, growth in this sector may have been in the higher paying service jobs.

Labor productivity in manufacturing increased at an average annual rate of 2.8 percent since 1948. In contrast, labor productivity in the service-producing sector increased at an average annual rate of 1.9 percent.

Shifts in employment among industries have also affected earnings growth (Kosters and Ross, 1987b). Based on changes in employment by industry alone, real average earnings between 1972 and 1985 would have declined by 15 cents instead of the 2-cent annual increase actually registered. Kosters and Ross studied the effects of occupation changes on the distribution of earnings, showing shifts in employment toward occupations with higher weekly earnings and, at the same time, toward jobs in the lower-paid third of each occupation. These simultaneous changes mean that it is more difficult to analyze how earnings have changed:

Similar offsetting movements [within occupations] may be occurring within industries. Consequently, estimates of the effects on overall average wages or earnings derived from occupations or industry averages cannot provide definite evidence on whether shifts in employment shares are resulting in jobs with better or worse average pay than earlier patterns (Kosters and Ross, 1987b).

The shift toward service-sector jobs has no clear effect on the distribution of earnings or on average earnings.

Women in the Labor Force

The increased labor force participation of women may also contribute to lower average earnings. Only 46 percent of women age 16 or over were in the work force in 1975 compared to 55 percent in 1986 (DOL, 1987). But the wage differential between men and women has narrowed somewhat. Women’s hourly wages as a percentage of men’s increased from 60 percent in 1976 to 64 percent in 1983. By 1987, women’s wages had reached 70 percent of men’s.

Growing educational attainment and work experience by women has helped reduce the male-female wage gap (Smith and Ward, 1984 and O’Neill, 1985). Greater education has led to a higher female labor force participation rate and a higher ratio of female to male earnings. While men tend to work longer than women for their current employer, this difference decreased from 2.7 years in 1963 to 1.5 years in 1981 (table 2).

Minorities in the Work Force

An increasing proportion of lower-paid minority workers might have contributed to recent changes in the distribution of earnings, yet the number of black workers grew relatively slowly in recent years. In the past, as blacks moved out of the South between 1940 and 1980, securing jobs in government and in manufacturing in the North, their earnings increased in relation to whites. The ratio of average annual earnings of black men to white men was 42 percent in 1940 and 69 percent in 1980 (Pear, 1986). The earnings of black women have increased even more dramatically compared to white women. In 1956 the earnings of black women were only 56.1 percent of those of white women. This ratio increased to 90.9 percent by 1983 (Smith and Ward, 1984).

The Effect of the Baby Boom

Growth in real median income slowed with the influx of the baby boomers into the labor force in the 1970s.

5 Among 25–34 year olds who are high school graduates, women’s hourly wages as a percentage of men’s are 69 percent, whereas for those women with postgraduate degrees hourly wages are 78 percent of men’s (Smith and Ward, 1984). It should also be noted that only 38 percent of women with equal to or less than an eighth grade education are in the labor force, compared to a 78 percent rate for women with four or more years of college (DOL, 1985).

6 The effect on wage rates of our most recent immigrant minority groups, Hispanics and Asians, is more difficult to estimate since adequate data are not available.
The Effect of Industrial and Demographic Shifts on Wages

Severall studies estimating the effects of larger generational size on the earnings of that group conclude that larger generations have lower earnings than smaller generations (Freeman, 1979; Plantes, 1978; and Welch, 1979). Studies also agree that this “earnings penalty” is relatively greater in careers, when the workers are in their early 20’s, and diminishes as they age (Russell, 1982).

The Effect of Industrial and Demographic Shifts on Wages

Real average hourly wages declined by 16 cents between 1972 and 1985 owing to the participation of more women and younger workers in the labor force, contend Kosters and Ross. Their study indicates that industrial shifts led to an additional 15-cent loss in real wages between 1972 and 1985. But other factors mitigated these pressures. Changes in average weekly hours are estimated to have raised average hourly earnings 5 cents between 1972 and 1985, while improvements in education raised real wages by 33 cents. After accounting for these shifts in the composition of the work force, Kosters and Ross show the total effect of these changes as a slight 5-cent decline in wages between 1972 and 1985.

Shifting industrial opportunities and changing workforce demographics have thus influenced earnings growth over the past 20 to 30 years, and, on the whole, little growth in earnings has occurred since 1972. Slowing productivity gains have undoubtedly dampened real wage-rate advances, and changing labor force demographics of women and youth have lowered average wages. Gains in work-force experience and education achieved by these groups, however, have helped to shrink the disparity between their wages and those of other members of the work force.
Has the Distribution of Family Income Changed?

The well-being of the population depends to a large extent on the income families have available to purchase goods and services and to save. Earnings are the most important source of income for most workers and for most families before retirement. But family structure in this country has become more diverse. In the past, the distribution of family income was likely to mirror that of earnings. This is less likely to be true today. Thus, trends in family income are as important as trends in wages to the understanding of changes in the welfare of the nation.

From 1947 to 1973, the nation benefited from an extended period of prosperity (chart 4). Few were concerned about issues of income distribution as gains in real income were widespread. Attention was focused instead on specific population groups, such as minorities and the elderly. In recent years, concerns about the income distribution have reemerged. Between 1973 and 1984, analysts observed a shift toward lower real income as, for example, median family income declined from $28,200 to $26,400 (Levy, 1987).

Does this mean that the middle class, families with income around the median, is vanishing as some have suggested? The term "middle class" may imply more to some people than a measure of family income. As family income increased over the post-World War II period, middle-class expectations also appear to have risen. Because income growth during the 1970s did not keep pace with prior gains, the disparity between rising middle-class expectations and reality, rather than actual changes in the distribution of income, may have led some to conclude that the middle class was shrinking.

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Chart 4
Median Income of Families and Unrelated Individuals, 1947–1986

<table>
<thead>
<tr>
<th>Year</th>
<th>Income (1984 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>10000</td>
</tr>
<tr>
<td>1952</td>
<td>11000</td>
</tr>
<tr>
<td>1957</td>
<td>12000</td>
</tr>
<tr>
<td>1962</td>
<td>13000</td>
</tr>
<tr>
<td>1967</td>
<td>14000</td>
</tr>
<tr>
<td>1972</td>
<td>15000</td>
</tr>
<tr>
<td>1977</td>
<td>16000</td>
</tr>
<tr>
<td>1982</td>
<td>17000</td>
</tr>
<tr>
<td>1986</td>
<td>18000</td>
</tr>
</tbody>
</table>

Radner (1987) quantifies changes in pretax distribution of income using the standard measure for this type of analysis, the Gini concentration ratio. The lower the ratio, the more equal the distribution. He reports that the Gini coefficient rose from 0.38 in 1967 for all families to 0.40 in 1984, suggesting that income was less equal. Different trends are reported for older and younger families, however. For families headed by an individual aged 65 or older, the Gini ratio fell from 0.46 in 1967 to 0.42 in 1984. For families headed by an individual under age 65, the ratio rose from 0.36 to 0.40. Simply stated, Radner found that incomes were becoming less equal among younger families and more equal among older families. He also found a decline in equality for most younger age groups.

Because income growth during the 1970s did not keep pace with prior gains, the disparity between rising middle-class expectations and reality, rather than actual changes in the distribution of income, may have led some to conclude that the middle class was shrinking.

Radner’s analysis is similar to that of a recent Congressional Budget Office (CBO) study, which also reports a less even distribution of income (U.S. Congress, 1987). The CBO calculations show that the Gini ratio for pretax family income rose from a range of 0.44 to 0.45 in 1977 to a range of 0.48 to 0.49 in 1984. Slightly more change is projected on a pretax basis for 1988. On an aftertax basis, the CBO cites Gini ratios of 0.42 for 1977 and 0.47 for 1984. But the report suggests that the aftertax income distribution will remain virtually unchanged between 1984 and 1988.

Nevertheless, other analysts have reached quite different qualitative conclusions from the same quantitative data (table 3). For instance, Levy (1987) reports that the distribution of family income remained relatively stable over the past 40 years, with the middle class growing from 52.0 percent to 52.4 percent between 1947 and 1984. In contrast, Bradbury (1986) indicates that since 1973, changes in the distribution of family income by quintile (fifths) reflect a shift away from the middle class and toward the upper and lower ends of the income distribution, with the middle class shrinking from 53.4 percent in 1973 to 52.4 percent in 1984. Burtless (1987) states:

Compared with the 1949–69 period, the country has not done especially well in the past 15 years. Real family income has grown little, absolute poverty has risen, and inequality has gotten worse.

Changes in the demographic structure of the population and in the prevalence of federal income support programs have influenced the distribution of family income. The rising income of the elderly, led by the expansion of Social Security and employer-sponsored pensions, has improved the relative position of older families. In contrast, younger families are now more often headed by women. Female-headed families tend

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**Table 3**

Percentage Share of Aggregate Income by Groups of Families and Unrelated Individuals, *Selected Years 1947–1984*

<table>
<thead>
<tr>
<th>Year</th>
<th>Poorest 1/5</th>
<th>Middle 3/5</th>
<th>Richest 1/5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>5.0%</td>
<td>52.0%</td>
<td>43.0%</td>
</tr>
<tr>
<td>1959</td>
<td>4.9%</td>
<td>54.0%</td>
<td>41.1%</td>
</tr>
<tr>
<td>1969</td>
<td>5.6%</td>
<td>53.8%</td>
<td>40.6%</td>
</tr>
<tr>
<td>1973</td>
<td>5.5%</td>
<td>53.4%</td>
<td>41.1%</td>
</tr>
<tr>
<td>1979</td>
<td>5.2%</td>
<td>53.1%</td>
<td>41.7%</td>
</tr>
<tr>
<td>1984</td>
<td>4.7%</td>
<td>52.4%</td>
<td>42.9%</td>
</tr>
</tbody>
</table>


*Unrelated individuals are persons 15 years old and over (other than inmates of institutions) who are not living with any relatives. An unrelated individual may (1) constitute a one-person household, (2) be part of a household including one or more other families or unrelated individuals, or (3) reside in group quarters such as a rooming house.*

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8 A ratio of 0 represents complete equality; a ratio of 1 represents complete inequality.
to have lower incomes, whether from earnings or from other sources, and female heads of families are also less likely to work than male family heads. Families also have become smaller as the proportion of retirees, single person households, and female-headed families has increased. Smaller families forgo some economies of scale in housing and food.

Levy found that young families in 1984 were less likely than their counterparts during the 1970s to have rising incomes, and older families were less likely to have a severe decline in income after retirement.

Bradbury (1986) quantified the effect of several of these demographic changes on median family income. She found that decreasing family size accounted for one-fifth of the decline in median family income. Yet, even among families of similar size, median family income declined and, according to Bradbury, the percentage of families with middle-class income (defined in the study as $20,000 to $49,999 in constant 1984 dollars) fell between 1973 and 1984. Bradbury concluded that the increased prevalence of smaller families, combined with female-headed families, could account for 60 percent of the decline in median family income. In combination with other changes that offset this decline, however, including the emergence of the dual-earner family, she could account for only 10 percent of the decline in family income between 1973 and 1984. Bradbury concludes that the decline in family income could be attributed to variables that she did not include in her study, such as changes in industry and occupation, changes in the unemployment rate and inflation, and the expansion or contraction of government programs.

The distribution of family income can also be studied over a family’s life cycle. Family income might be expected to rise with the wage earner’s age until retirement. Levy (1987) found that young families in 1984 were less likely than their counterparts during the 1970s to have rising incomes, and older families were less likely to have a severe decline in income after retirement. If younger families continue to see little income growth, the income distribution as well as the average income level may be adversely affected in the future.

Recent data may be cause for renewed optimism for higher family income in the future. Family income in 1986 rose to $29,500, up 4 percent from 1985 ($28,400) and up 11 percent from 1982 ($26,600) (all figures given in 1984 dollars). The Census Bureau expects the number of families with a head of household between age 45 and 54 to grow significantly over the next 10 years as the baby boom ages. This age group has traditionally had the highest reported income.

Stagnating real wages of workers have affected the growth of family income. While some families have benefited from the increased earning power of women in the labor force, the number of female-headed families, with generally lower wages, has increased as well. In contrast, the elderly have higher income and experience less poverty than ever before. While younger families have not had as rapid income growth as earlier generations, the aging of the baby boom will still tend to raise average family income in the future.

On balance, claims that the middle class is shrinking appear unfounded. Nevertheless, improved income among the elderly and greater poverty among single women and children may lead to future struggles in the policy arena, particularly if workers’ real wages continue to stagnate. These strains will become more intense if the nation continues to have overly optimistic income expectations during a period when public funds are scarce.

How Wages and Employee Benefits Interact

Wage and salary payments represent only a part of total compensation. Employee benefits—mandatory, such as Social Security, or voluntary, such as health and pen-

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9 Women who are widowed, divorced, or married with spouse absent are less likely to participate in the work force than men in similar circumstances at all age levels. The unemployment rate among married men (wife present) is 4.3 percent, compared to 10.4 percent for women who maintain families.
ension benefits—provide a substantial increment to wage income for the vast majority of American households. Combined, all benefits accounted for 16.4 percent of total compensation in 1986, according to U.S. Commerce Department data. The value of health insurance is not included in current measures of income, and health insurance coverage has grown substantially over the past 30 years. Similarly, the value of pension benefits being earned by the current working population is not counted as current income. Yet because more workers are currently accruing pension benefits, baby-boom retirees can expect to have higher pensions than current retirees (Andrews and Chollet, 1987).

Social Security and Earnings

Many of the interactions between Social Security retirement benefits and earnings are well known. Policymakers are concerned about the implications of stagnant wage growth on the Social Security system. Because Social Security operates on a pay-as-you-go basis, current workers pay for the benefits of current retirees. The Social Security trust funds operate as contingency reserves. The tax rate for Social Security's retirement and disability program, Old Age, Survivors and Disability Insurance (OASDI), currently equals 6.06 percent of taxable payroll for both employers and

<table>
<thead>
<tr>
<th>Calendar Years</th>
<th>Ultimate Annual Percentage Increase in Wages-CPI*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.0%–4.0%</td>
</tr>
<tr>
<td>Average income rate</td>
<td></td>
</tr>
<tr>
<td>1987–2011</td>
<td>12.62%</td>
</tr>
<tr>
<td>2012–2036</td>
<td>13.00</td>
</tr>
<tr>
<td>2037–2061</td>
<td>13.16</td>
</tr>
<tr>
<td>1987–2061</td>
<td>12.93</td>
</tr>
<tr>
<td>Average cost rate</td>
<td></td>
</tr>
<tr>
<td>1987–2011</td>
<td>10.87%</td>
</tr>
<tr>
<td>2012–2036</td>
<td>15.13</td>
</tr>
<tr>
<td>2037–2061</td>
<td>17.08</td>
</tr>
<tr>
<td>1987–2061</td>
<td>14.36</td>
</tr>
<tr>
<td>Balance</td>
<td></td>
</tr>
<tr>
<td>1987–2011</td>
<td>+1.75%</td>
</tr>
<tr>
<td>2012–2036</td>
<td>−2.13</td>
</tr>
<tr>
<td>2037–2061</td>
<td>−3.92</td>
</tr>
<tr>
<td>1987–2061</td>
<td>−1.43</td>
</tr>
</tbody>
</table>


* The first value in each pair is the assumed ultimate annual percentage increase in average wages in covered employment. The second value is the assumed annual percentage increase in the Consumer Price Index. The difference between the two values is the real-wage differential.
employees. The rate is scheduled to increase to 6.20 percent in 1990. In 1988, earnings up to $45,000 are subject to the payroll tax, and this limit is indexed to inflation. The income received by Social Security from taxes equals the dollar value of earnings subject to taxation times the payroll tax rate.

If taxable earnings are lower than the Social Security Administration expects, the income it receives will be lower. The 1987 report of the Board of Trustees of Social Security provides information on the sensitivity of these tax rates to differences in wage growth. In the analysis the trustees use their intermediate, or alternative II-B (neither optimistic nor pessimistic) assumptions for birth rates, death rates, the cost of living, changes in the rate of growth in wages, etc. The CPI is assumed to rise at a 4 percent annual rate. The difference between wages and inflation ranges from 1 percent per annum to 2.5 percent (table 4).

Differences in real wage growth produce considerable differences in the amount of wages subject to the payroll tax. While the average income rate or tax rate (the ratio of payroll taxes to the taxable wage base) varies relatively little since it is based on current taxes, the average cost rate (the ratio of benefit payments to the taxable wage base) varies much more since Social Security benefits are based on earnings over an entire career and earnings or payments are indexed to the CPI. As a consequence, greater real wage growth produces higher benefit payments. The most pessimistic assumption provided by the Social Security Trustees is a one percent differential between wage growth and the CPI. During the late 1970s and early 1980s, however, wages lagged inflation by a considerable margin. Should real wage growth lag inflation for any period of time, current contributions would lag benefits that were earned when wage growth was more robust.

An increase in the payroll tax could have further ramifications for wages. Researchers have sought to determine how the payroll tax affects wages, prices, and profits. Taxes that are directly paid by the employee through payroll deductions simply reduce take-home pay. However, many believe that the long-run impact of raising the employer's share of the payroll tax is to reduce the amount of compensation paid as wages (Hamermesh, 1979; Hagans and Harmon, 1980; Halpern and Munnell, 1980; Dye, 1984). Although other studies suggest that higher payroll taxes may reduce profits or raise product prices, many analysts consider a long-run wage-reduction effect likely. Long-run reduction in real wage growth, moreover, would further reduce the taxable wage base under Social Security.

Differences in real wage growth produce considerable differences in the amount of wages subject to payroll tax.

Social Security benefits are determined by career wages. If future retirees' real wages grow less rapidly, future benefit payments will be lower than they would be under a situation of more rapid wage increases. If the distribution of earnings also shifts toward low-wage workers, the distribution of benefits will be affected as well. Because of the weighted benefit formula under Social Security, retirees with a work history of low wages receive more generous benefits in relation to their earnings (higher replacement rates) but lower benefits in dollar terms than retirees who earned higher wages. If benefits for the baby-boom generation are lower than currently anticipated due to a slowdown in real wage growth or to a redistribution of earnings, less discretionary income will be available to those retirees to pay for other benefits such as post-retirement medical insurance and long-term health care. Furthermore, under such a scenario, workers in the 21st century

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10 The self-employed must pay both portions of the tax themselves.
11 Lower tax rates apply to tips and multiple-employer wages above the tax base.
12 Many feel that the Social Security Administration's intermediate assumptions are actually optimistic.
13 The original alternative II-B assumption was set at 1.5 percent.
14 The 1983 Social Security Amendments now prevent benefit payments from growing faster than inflation as they did during the 1970s, because cost-of-living adjustments are limited to the lower of price or wage increases.
15 Policy interest in this issue ran highest during the period of double-digit inflation in the 1970s.
would have fewer resources to devote to the elderly without sacrificing improvements in their own standard of living. Consequently, the rate of growth of real wages is crucial to the well-being of the elderly and to the health of the Social Security program.

Earnings and Medicare

Medicare Hospital Insurance (HI) (Part A) is also funded through an earnings-based payroll tax. Medicare HI covers acute health-care expenditures, including hospital care and skilled nursing care. Medicare is available to all Social Security recipients aged 65 and older and those who qualify for Social Security retirement benefits at age 65.

If wages and salaries grow more slowly than anticipated, Medicare revenue will be less than anticipated. Consequently, a slowdown in real wage gains will reduce revenue and deplete the HI Trust Fund.

Like the Social Security's retirement program, Medicare is funded on a pay-as-you go basis, with current workers insuring that hospital benefits are paid for current retirees. Medicare HI taxes currently are assessed as a payroll tax at a 1.45 percent rate on all wages and salaries up to $45,000. Both employers and employees pay the same percentage share. The self-employed pay both parts themselves.

If wages and salaries grow more slowly than anticipated, Medicare revenue will be less than anticipated. Consequently, a slowdown in real wage gains will reduce revenue and deplete the HI Trust Fund. Under less optimistic assumptions, that decline will appear in 1991. Many suspect that the latter scenario may reflect reality more closely. Differences in real wage growth would affect the HI program much as it would the OASDI trust fund. If the difference between inflation and wage growth were less than the one percent assumed in the least optimistic scenario, the trust fund could start to run out of money considerably before 1991 even if no changes occurred in any of the other economic and demographic assumptions.

In the long run, some mitigating factors could reduce program costs if real wages stagnated. In particular, provider reimbursements under HI are based on a system in which hospitals are paid a predetermined amount for each admission according to the patient's diagnosis. Increases in Medicare payments for each diagnosis related group (DRG) are attributable, in part, to increases in hospital workers' earnings and the cost of hospital supplies. If earnings growth lags, hospital workers and others who manufacture hospital supplies may also find their wages growing more slowly. This slowdown would help constrain the cost increases that determine increases in Medicare payments, reducing program outlays in the coming year.

Yet reduced inflation in hospital wages and supplies would probably provide only limited relief to the HI Trust Fund. Medicare expenditures will continue to be driven by the size of the growing retiree population, which will increase steadily regardless of the trend in real wage growth. Furthermore, increases in the cost of hospital services are closely related to improvements in technology and other nonlabor costs. Inflation in health care costs has persistently risen faster than the CPI in recent years.

Employer-sponsored Pensions

The future of the employer-sponsored pension system is also tied to real wages. Unlike Social Security, employer-sponsored pensions are prefunded, and future benefits are not dependent on the wages of future workers. But employer-sponsored pensions are not mandated, and they depend on voluntary employer and employee contributions. A number of studies have found that employer-sponsored pension plans are more likely to be provided to full-time workers in medium

16 Medicare Supplementary Medical Insurance (SMI or Part B) covers ambulatory physician services and is financed through premiums paid by beneficiaries and through general revenues.
and large businesses (Mellow, 1982; Dorsey, 1982; Andrews, 1985). While the evidence is not conclusive, increasing real wage rates over the past 30 years may have been an important influence on the growth of the private-sector pension system (Albert, 1987). Consequently, a slackening in real wage growth, combined with employment growth in sectors of the economy with relative low pension coverage rates, might tend to discourage the establishment of new pension plans.

Employers also offer their employees contributory plans as a supplement to other types of pension income. One of the principal components of the new Federal Employees Retirement System is a contributory 401(k) thrift-savings plan. Tax-deferred savings plans in the private sector have exhibited remarkable growth, with 401(k) arrangements now covering 33 percent of all full-time employees in medium and large firms (DOL, 1987). There is substantial participation in these plans at all income levels, but workers are more likely to participate as their income rises (Andrews, 1985; EBRI, 1987a; TIAA, 1987). Consequently, greater real wage growth could encourage more workers to take advantage of contributory arrangements and accept greater responsibility for their own retirement income.

Unlike Social Security taxes, employers' pension contributions usually do not seem to result in direct trade-offs with wages (Mitchell and Pozzebon, 1986). While the evidence is mixed, employers provide pensions for a number of reasons, including their desire not to lose skilled workers. Consequently, vested pension benefits typically become available only at termination of employment or retirement.

Earnings and Health Insurance

In 1985, 76 percent of nonfarm workers under retirement age had employer-provided health insurance (EBRI, 1987b). Employers generally make health insurance their first benefit, possibly adding a pension plan at a later stage. Higher earnings encourage both the employer and the individual to provide or buy health insurance. Studies show that as income rises, people are willing to spend more on health insurance (Holmer, 1984) and are more likely to purchase health insurance if they are not covered by an employer plan (Chollet, 1984). Health insurance coverage provided on the job relates less to worker and family income than do individual decisions to purchase insurance when employers do not provide coverage.

Health insurance has increased rapidly as a share of total compensation, in part because health care costs have persistently risen faster than overall inflation. Although researchers have focused on the effect of health care costs on the demand for different types of health insurance (Holmer, 1984), no research has been conducted on how health insurance costs affect prices, wages, profits, or employment. Nevertheless, increasing health-care costs may have put downward pressure on wages, to keep compensation payments manageable. Studies show that while total compensation has risen over the past 10–15 years, wage payments have slipped.

Health insurance coverage provided on the job relates less to worker and family income than do individual decisions to purchase insurance when employers do not provide coverage.

The share of compensation devoted to health insurance may also have risen as more small firms have provided health benefits and more lower-paid employees have been included in health insurance plans. Health insurance premiums, which usually do not vary directly with wages, may vary by age, and they generally make up a greater share of compensation for low-wage workers.

Health care costs for low-wage workers have recently been examined in the context of proposals to mandate health care coverage for all workers. Low rates of real wage growth may discourage voluntary employer provision of health insurance coverage and encourage public mandating. If mandating is comparable to increasing the minimum wage for low-wage workers, employment among those workers may be reduced by 2 to 6 percent (Chollet, 1987).
Conclusion

Employee benefits such as Social Security, pensions, health insurance, and disability protection are an important component of total compensation. Wage growth and industrial growth during the 1950s, 1960s, and 1970s contributed to the expansion of employee benefit plan coverage. The 1980s have seen changes in wage patterns that may also affect the future provision of employee benefits.

Fears of a shrinking middle class in a society of high taxes and low wages may be based on accurate perceptions of stagnating wage rates and declining family income.

Fears of a shrinking middle class in a society of high taxes and low wages may be based on accurate perceptions of stagnating wage rates and declining family income. These concerns also reflect the awareness that increased income inequality could change the fabric of American society, reducing economic opportunity and the chance to achieve the American dream. As a consequence, some analysts have started to propose expanded taxation of Social Security benefits and the taxation of employer-provided benefits such as pensions, health insurance contributions, and other non-cash compensation. However, the changes that have actually taken place have been far less dramatic than sometimes is reported.

Recent trends in income and wages reflect a gradual restructuring of our society. While family income may be rising again, declining family income marked the 1973–1984 period, particularly for younger age groups. The average age for heads of families became younger as members of the baby-boom generation established their own households, and these younger families had lower average incomes. While income tends to rise with age, the baby-boom generation may be handicapped in the labor market because of its size.

More families are now headed by women. These families tend to have lower incomes than male-headed and two-earner families because of their lower labor-force participation rates and lower earnings. Yet, paradoxically, the increase in female-headed families may have been encouraged by the increased labor-force participation of women and gains made in women’s earnings. In contrast, an increasing number of married couples are dual earners with smaller families, trends that may have changed the distribution of income among married family units and raised per capita income. In the case of the elderly, smaller families indicate that more retirees are financially capable of maintaining independent households. The income of the elderly has generally improved and has become more equally distributed.

The income distribution of American families appears to be less equal than it was in the past. Existing analysis, however, has not established the extent to which this difference is a result of changes in labor-force participation, lower median earnings, demographic shifts, and/or changes in income from public-sector programs. A review of recent studies on earnings suggests that the trend in earnings has not changed the distribution of family income. Shifts in the distribution and level of earnings seem relatively small and strongly related to the business cycle.

The growth in wages and compensation has leveled off since the early 1970s, mirroring trends in labor productivity, but wage growth has been slower than compensation growth. Labor costs to employers are more accurately portrayed by total compensation costs. Nonwage compensation also improves the well-being of workers, with pension contributions and health insurance payments its most important elements. Neither benefits from programs such as food stamps nor public or private health insurance are included in most estimates of family income.

Wages and benefits are interconnected. Greater wage growth is favorable to both public and private health and retirement programs. Higher wages ease Social Security financing and lead to higher benefit levels, giving both workers and retirees greater discretionary income to spend for existing benefits and benefit improvements. From a macroeconomic perspective,
higher wages act as an incentive for employees to demand health and pension coverage from employers. Higher wages also tend to encourage greater voluntary worker participation in employer-sponsored plans. Furthermore, greater discretionary income would facilitate the financing of new benefits, including retiree health benefits and long-term care. Many look to improvements in these areas as a means to achieve a more humane society.

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