

# What's Happening to Americans' Income?

April marks the beginning of the fifth consecutive year of U.S. economic expansion. Gross domestic product (GDP) growth has averaged 3.1 percent since the recession's trough, job growth in 1994 was the highest in a decade, unemployment is hovering around historic lows, and the consumer price index through 1994 registered its best four-year performance since the early 1960s.

Despite this good news, many recent media reports have painted a bleak picture of the average American worker's prospects. These reports cite studies that claim wages and incomes are falling, that economic progress is not keeping pace with past rates and that everyone is not sharing equally in the economy's gains. In light of these conflicting views on the economy, it is understandable that many people are asking, What's the truth?

A thorough assessment of Americans' living standards must include a host of considerations that matter to people, such as leisure time, working conditions, life expectancy, pollution, crime and other aspects of life (see Cox and Alm 1994). Clearly, more than purely pecuniary considerations—wages, earnings, income—matter to people. However, the bulk of the recent studies have focused solely on monetary measures of Americans' well-being. This article, therefore, focuses narrowly on money issues in an attempt to sort through some of the conflicting information.

## GDP and Consumption: The Long View

We begin by looking at GDP—the broadest and most long-standing of the aggregate output and income statistics.<sup>1</sup> Much of the hand-wringing has been over GDP's apparently lackluster performance over the past two decades, particularly as compared with the 1950s and 1960s. Chart 1 shows per capita real GDP (red line), which is the inflation-adjusted measure of the economy's output per person, over the period 1869–1994. Per capita real GDP growth averaged 2.1 percent annually over the 1954–73 period, then slowed to 1.6 percent through 1989.<sup>2</sup> The latter growth rate is a half-point less, which represents a significant slowdown. However, the rate of growth during the 1954–73 period was quite high by historical standards. As Chart 1 shows, over the 84 years from 1869 through 1953, per capita real GDP growth averaged 1.6 percent annually—a rate virtually identical to that of the 1974–89 period, *not* that of 1954–73.<sup>3</sup>

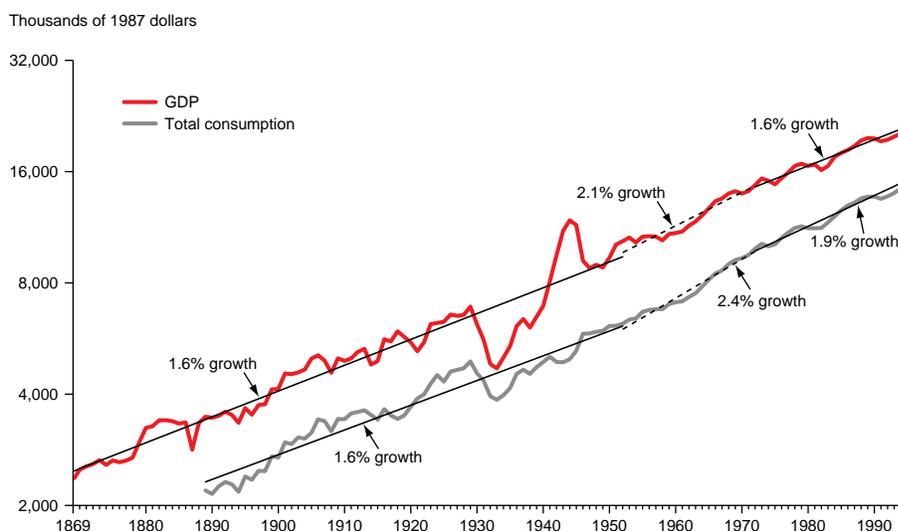
More recently, GDP has been recovering from the 1990–91 recession. After stalling during 1989 and 1990, and subsequently turning down, per capita real GDP hit a trough in the fourth quarter of 1991.<sup>4</sup>

Since then, per capita real GDP has grown at an average annual rate of 2.5 percent (nearly 3 percent in 1994), well above the 1.6-percent growth needed to eventually restore GDP to its long-term trend.

In this light, America's recent economic progress appears much less subpar. Indeed, the country's period of abnormal growth is arguably the 1950s and '60s, an era during which the United States rose to the position of dominant industrial leader of the world, while consumers sought to catch up from the paucity of the Great Depression and World War II.<sup>5</sup>

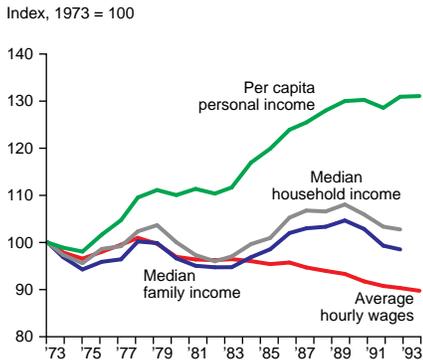
We look next at consumption. Presumably, consumption, and not production, is the end goal of economic activity, and it is households' consumption experience from which their impressions of living standards are formed. The data show (*Chart 1*) that consumer spending rose even faster (2.4 percent) than GDP during the 1950s and 1960s, as the vast military expenditures of World War II (and later the Korean War) were steadily pruned from the government's budget. With labor and industry freed from the yoke of heavy government control, factories turned to producing cars rather than tanks and the like, and the share of output going to private con-

**Chart 1**  
Per Capita Real GDP and Consumption, 1869–1994



NOTE: The broken lines represent above-trend growth rates during the 1954–73 period.

**Chart 2**  
Four Measures of Americans' Well-Being, 1973–93  
(Inflation-adjusted)



sumer goods rose from 56 percent in 1953 to more than 63 percent by 1973. And that's not all. Research has found that households regard about 23 percent of government nondefense spending as consumption; thus, consumers' effective *total* share of production rose from 58 percent in 1953 to nearly 68 percent by 1973.<sup>6</sup>

In effect, the paring down of military expenditures from 13.2 percent of GDP in 1953 to 5.7 percent by 1973 boosted consumption growth by nearly 0.4 percent annually over those two decades. Clearly, this boost could be transitory, at best, but it nonetheless helped feed the consumer euphoria of the era. No such boost was enjoyed subsequently, even with the dissolution of the Soviet Union. The end of the Cold War has resulted in a paring down of military expenditures to 4.7 percent of GDP, but that represents a relatively small gain for consumers.<sup>7</sup> Thus, again, the statistics highlight the uniqueness of the 1954–73 experience.

With these historical perspectives on GDP and consumption, America's more recent economic performance may look less subpar. Still, skeptics cite other statistics that paint a bleak picture of the nation's recent economic progress. Chart 2 shows four measures of Americans' monetary well-being frequently cited by economic reports. These are per capita personal income, median family income, median household

income and average hourly wages.<sup>8</sup> As the chart shows, one can preach four distinctly different sermons on Americans' recent economic progress, depending on the statistic wielded. For example, per capita real personal income increased by an average of 1.4 percent a year from 1974 through 1993. During that same period, on an annual basis, median family income increased only a tenth of a percentage point, median household income *fell* about a tenth of a percentage point, and average wages fell by one-half a percentage point. This represents a sharp contrast for four economic series that a lay audience would generally expect to be interchangeable.

### Income, Wages and Total Compensation: Resolving the Conflict

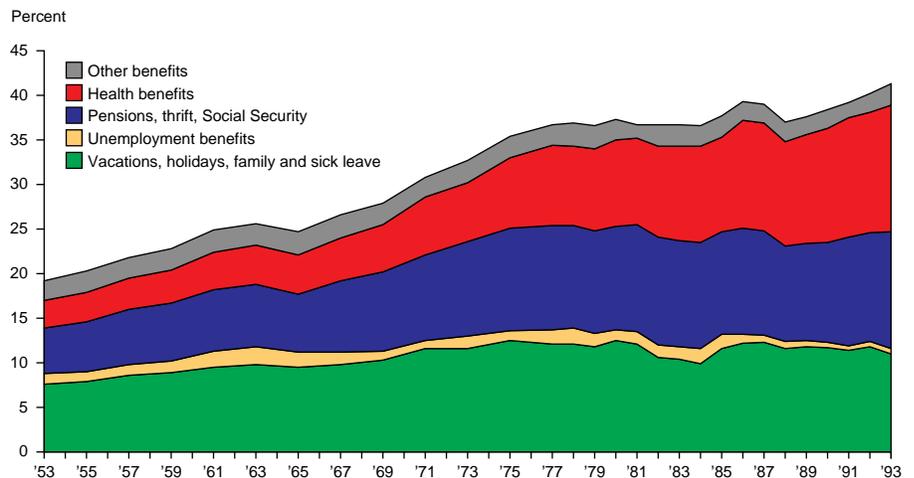
There are many quirks in economic statistics that can cause hidden biases when aggregate data are used to gauge economic progress. Changes in the population's size, work habits, social habits or age distribution; changes in the way we get paid; or changes in the goods that we produce can all cause the interpretation of the economic variables we measure today to differ from yesterday. The size of the average U.S. family has declined markedly over the past 20 years,

more people participate in the labor force, the average workweek is shorter, the labor force is younger, employee benefits are higher, and so on. Such changes distort year-to-year comparisons of virtually every aggregate statistic, making comparisons difficult and inviting many different conclusions from the data. Thus, it is important to sort through this economic puzzle to determine what's really happening to Americans' monetary well-being.

For the purpose of comparing today with yesterday, two of the most severely tainted economic aggregates are median household income and median family income. Today's households are nearly 15 percent smaller than yesterday's (average household size was 3.01 persons in 1973 versus 2.63 today), and, therefore, household income is spread over fewer people.<sup>9</sup> The upshot is that the household income statistics significantly understate the true income gains for comparable households today versus yesterday. Similarly, the median family income statistics for yesterday's Brady Bunch cannot be compared with those of today's Murphy Brown with any measure of accuracy.

Also severely tainted are the simple wage data, their biggest bias being that they ignore employee benefits.<sup>10</sup> Employee benefits have

**Chart 3**  
Employee Benefits as a Percentage of Payroll, 1953–93



SOURCE OF PRIMARY DATA: U.S. Chamber of Commerce, *Employee Benefits Report* (various years) and *Employee Benefits Historical Data, 1951–1979*.

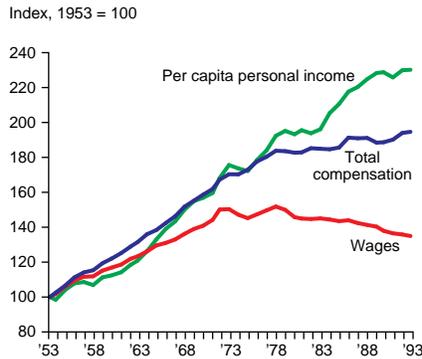
grown from just 20 percent of payroll in 1953 to more than 41 percent today. As Chart 3 shows, the proportion of payroll devoted to health benefits rose from 3 percent in 1953 to more than 14 percent recently. Retirement and savings benefits went from 5 percent of payroll in 1953 to 13 percent in 1993. Payments for time not worked, which includes vacations and holidays, sick leave, military leave and family leave, went from 7.5 to 11 percent of payroll over the same period.

Benefits are a form of employee compensation. Like wages, workers value benefits and even bargain for them. Indeed, since benefits are often untaxed (or are taxed at a substantially lower rate than wage income), employees may be willing to give up more than a dollar in wage income to receive a dollar's worth of benefits. This means, in terms of the data, that the rise in employee benefits may have resulted in a more-than-equal decline in wages, again distorting the armchair analyst's ability to gauge well-being by looking simply at the wage data.

Once employee benefits are added to the raw wage data, the story becomes a bit more optimistic (*Chart 4*). As mentioned earlier, from 1974 to 1993, real wages fell about a half percentage point a year. However, real total compensation, which includes wages *and* benefits, rose about a half percentage point a year. Add to this the fact that today's labor force is roughly two years younger than that two decades ago, and the wage gain figures look even less subpar.<sup>11</sup>

A better gauge of economic well-being is per capita real personal income. Roughly speaking, per capita real personal income is the (inflation-adjusted) sum of all income-related receipts and disbursements—wages, rents, interest, profits and government transfers, less taxes—per person in society. It lacks the problems of household and family income because the economic unit is of a fixed size (one person), and it lacks the problems of the wage data

**Chart 4**  
Per Capita Personal Income, Total Compensation and Hourly Wages, 1953–93  
(Inflation-adjusted)



because it measures more than simply wage income.

Personal income is essentially just the payment side of GDP (the main substantive difference being allowances for depreciation), and it behaves accordingly. Per capita real personal income grew at a 1.65-percent rate over the 1974–89 period, virtually identical to the 1.64-percent growth in per capita real GDP.<sup>12</sup>

Per capita real personal income, though, is not devoid of hidden distortions, such as those stemming from changes in the labor force participation rate or annual hours worked. Over the past two decades the average workweek has declined by 2.4 hours, and American workers have added seven days of vacations and holidays annually, yielding roughly a 180-hour reduction in average time worked per year.<sup>13</sup> In essence, Americans have taken a portion of their progress in the form of leisure rather than income, lowering the income and GDP growth numbers from what they otherwise could have been.

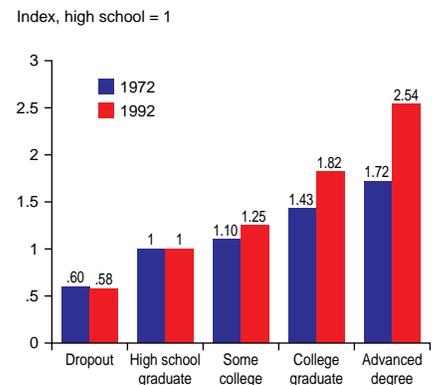
### The Return to Education: Widening the Income Distribution

One major issue remains: the sharply slower growth in employee compensation (wages plus benefits) as compared with income. From 1974 to 1993, total compensation grew at a 0.7-percent rate, as compared with 1.4 percent for per capita personal income (*Chart 4*). In

essence, the gap widened between income and compensation. It should be noted that data on wages and compensation pertain to only production and nonsupervisory workers, or about 63 percent of the work force, whereas the income data cover all workers. The widening gap tells us that the share of income paid for production and nonsupervisory work is declining, while the share paid elsewhere—to professionals, supervisors, managers and owners—is growing.

One explanation appears to be the rising return to human capital. In an increasingly information- and service-oriented economy, business capital has come to encompass not just physical plant and machinery but, more and more, intellectual capital as well.<sup>14</sup> As Chart 5 shows, the workers reaping most of the economic gains have been those at the higher end of the education spectrum. The income premium to education is substantial and has grown markedly over the past two decades. In 1992, college graduates made an average of 82 percent more than high school graduates, up from only 43 percent in 1972. The really big returns to education these days come with advanced degrees—Ph.D.'s, M.D.'s, J.D.'s, CPAs and so on. In 1972, people with advanced degrees earned 72 percent more income than high school graduates. By 1992, they made 2.5 times more. Today, high

**Chart 5**  
The Education Premium: Index of Income By Educational Attainment, 1972 and 1992



school dropouts earn scarcely half as much as high school grads, and the gap is widening.

## Summary

In the public arena, reports can produce shock waves long before the facts are determined. Recent economic reports have been no exception. Economic doomsday stories have proliferated from grossly superficial analyses based on highly aggregated wage and income statistics. A more careful examination of the data that takes into account just a few of the surrounding factors—the increase in employee benefits, the decline in median household or family size, the shortening in the average workweek and so on—shows a generally much less bleak view of Americans' progress in living standards.<sup>15</sup> Indeed, from the perspective of the two broadest and most long-term economic aggregates—per capita real GDP and consumption—Americans' recent gains are generally right on par with those garnered historically. The case for alarm thus has little merit.

Aggregate statistics, of course, reflect averages. Some people have gained more, others less. But one thing can be said conclusively: the income of the well-educated has grown substantially faster than that of the less-educated over the past two decades. Clearly, education is one of the most effective ways Americans can increase their income potential.

— W. Michael Cox  
Beverly J. Fox

## Notes

<sup>1</sup> In 1991, the Department of Commerce switched from gross national product (GNP) to GDP as its generally preferred measure of aggregate economic activity. Chart 1 uses GNP data since GDP data are not available before 1947. Because the difference between the GNP and GDP series is negligible (less than one-tenth of 1 percent on average), the distinction is unimportant here and is henceforth ignored.

<sup>2</sup> The average growth rates of per capita real GDP during the periods 1869–1953, 1954–73 and 1974–89 were estimated by regressing the log of per capita real GDP on a constant and time for each of the three separate periods. The same is true for consumption, beginning in 1889. Available GDP data begin in 1869, and consumption and government purchases data begin in 1889. The years 1953, 1973 and 1989 were chosen since they represent business-cycle peaks.

<sup>3</sup> More precisely, per capita real GDP growth averaged 1.61 percent, 2.08 percent and 1.64 percent, respectively, over the three successive periods. Thus, growth during the 1974–89 period was actually slightly higher than that during 1869–1953.

<sup>4</sup> Per capita real GDP hit a trough in the fourth quarter of 1991, later than the official GDP trough, as the recovery's initial GDP gains fell short of simple population growth.

<sup>5</sup> See Wynne (1992a and 1992b).

<sup>6</sup> The government purchases many different types of items, from tanks to school lunches. Clearly, some goods provided publicly—food stamps, rent subsidies, school lunches, Medicare and so on—are of a consumer nature and may be viewed by households as equivalent to those they could buy privately. Following the research of Kormendi (1983) and Aschauer (1985), we assume that approximately 23 percent of government nondefense purchases are viewed by households as equivalent to private consumption.

<sup>7</sup> Growth in total real consumption averaged 1.6 percent annually during the 1889–1953 period and 1.9 percent during the 1974–89 period but jumped to over 2.4 percent during 1954–73.

<sup>8</sup> Each of the series cited henceforth—per capita personal income, median household income, median family income, average hourly wages and total compensation—are deflated using the CPI-UX1 consumer price index.

<sup>9</sup> More specifically, the data show that in 1973, the average household had 1.34 adults (members age 18 or older) in the labor force, 0.67 adults not participating in the labor force and one child. For 1993, these numbers are 1.34, 0.60 and 0.69, respectively.

<sup>10</sup> Another problem with the wage data is that they do not measure take-home pay, as affected by tax rates and transfer payments. Adjustment for these factors is beyond the scope of this article.

<sup>11</sup> As the age of the work force declines, so does the level of experience and, hence, income and wages, yet the aggregate measures unavoidably conceal this change. We make no attempt to adjust for the age factor here.

<sup>12</sup> See note 3.

<sup>13</sup> See Cox and Alm (1994) for more details.

<sup>14</sup> See Cox and Alm (1995) for a broad examination of the growth of the service sector and what it portends.

<sup>15</sup> Two other major income data adjustments needed are for taxes (and transfers) and improvements in product quality. The Department of Labor recently began an extensive study to determine the extent (if any) to which price indexes are overstated due to an under-recognition of the gains in product quality. Overstatement of inflation would be tantamount to understatement of the gains in virtually every series on Americans' monetary well-being—real GDP, consumption, wages, compensation and income.

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