

Taking Account...

Study compares key personal income measures

Two of the most closely watched measures of U.S. household income are the Census Bureau measure of the median income of families and the Bureau of Economic Analysis (BEA) measure of personal income. These measures provide different portraits of household income growth during the past several decades.

From 1969 to 2009, the Census Bureau measure of real median family income (money income) increased at an average annual rate of 0.52 percent. A different picture is portrayed by a comparable measure published by BEA. The Bureau publishes a real per capita personal income statistical series, which adjusts personal income for inflation and population change. This measure increased at an average annual rate of 1.86 percent from 1969 to 2009—1.34 percentage points higher than the Census Bureau measure.

In a paper presented at the January 2012 meeting of the Federal Committee on Statistical Methodology Research, BEA economist Arnold J. Katz explored reasons for the different growth rates of the two measures for 1969–2009:

- **Deflators.** The BEA measure uses BEA's implicit price deflator for personal consumption expenditures, while the Census Bureau measure uses a general consumer price index. On average, this

difference accounts for 0.17 percentage point of the difference between the growth rates of the measures.

- **Different populations.** The BEA measure covers the entire personal sector while the Census Bureau measure covers only families. Broadening the population to include the incomes of unrelated individuals accounts for 0.43 percentage point of the difference between the two growth rates.

- **Demographics.** Changes in the income distribution and demographic factors may affect the measures differently. Measuring family income by means rather than medians accounts for 0.39 percentage point of the difference between the two growth rates; an increasing inequality of incomes causes means to increase faster than medians.

- **Conceptual differences.** Adjustments to the BEA measure of personal income to make it conceptually similar to the Census Bureau measure of money income account for 0.41 percentage point of the difference between the two growth rates.

- **Unexplained measurement error.** BEA relies mainly on administrative records, while the Census Bureau relies on a sample survey. The key issue is the amount of unreported income reflected in each measure. Surprisingly, for the entire 40-year period, this

unexplained error is negligible; it accounts for only –0.06 percentage point of the difference between the two growth rates. However, it is substantial on a decade-by-decade basis.

From 1969 to 1999, most of the difference between the BEA and Census Bureau measures was due to demographic factors; increasing income inequality between families caused median family income to increase much more slowly than mean family income. Conceptual differences also played an important role; this was largely due to the sharp increases in the share of personal income in the form of in-kind transfers and employee benefits, which are not counted in the Census Bureau measure.

From 1999 to 2009, the effects of conceptual adjustments and the use of mean rather than median incomes were not as significant. The effect of broadening the bases was also relatively minor. In the end, most of the gap seems related to unexplained measurement error. The analysis reveals that much of the difference is concentrated in two components: property income and pension payments received. So far, a complete explanation for this has proved elusive. Nevertheless, there is some data that suggests that the divergence in measures of income from capital may have been caused, in part, by the large increase in income from S corporations and partnerships during the past decade.