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Analyzing Economic Mobility: Measuring Inequality and Economic Mobility

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A new report by the Congressional Budget Office (CBO) offers new proof that many of America's poorest citizens are doing better than they were 14 years ago. Between 1991 and 2005, the average annual income of the poorest households with children increased by 35 percent, adjusted for inflation—a bit over 2 percent per year.

This flies in the face of other income measures, such as declining median income, that suggest widening inequality and raises questions about how best to measure economic inequality and mobility. This matters because the development of public policy addressing inequality and mobility requires nuance.

Economists analyze inequality and mobility primarily by calculating income, earnings, or wealth holdings across the population. Each measurement allows individuals to be compared to their peers (relative inequality or mobility) and tracked over time (absolute inequality or mobility). Although these three measurements are highly related, an individual's position within the three distributions is not necessarily the same. No single measure presents an accurate picture of overall inequality or mobility.

Who Are the Rich and Poor? Labeling the rich and the poor is not straightforward. Distributions of income, earnings, and wealth—the major indicators of economic status—are correlated but do not mirror one another.

According to a research paper published by the Federal Reserve Bank of Minneapolis, age is one of the principal factors in determining a person's earnings, wealth, and income relative to others in the income distribution.[2] In this paper, earnings include wages, salaries, and most business income; wealth is net worth, including financial and real assets, savings, and income from investments; and income is all before-tax revenue, including transfers.[3]

The average age of those in the bottom 20 percent of the earnings distribution (or bottom quintile) is 66.4 years, suggesting that many in this quintile are retired. Similarly, in the bottom quintile of income, the average age is 52.8 years, old enough to indicate that many are retired, which affects the quintile's average income and hours worked per person. The average age of people in the bottom quintile of wealth, however, is 39.5 years, an age when individuals are typically still acquiring assets. Further supporting the argument that age is an important contributor to inequality, the average ages of those in the top quintiles of earnings, income, and wealth are 45.3, 48, and 56.3, respectively.[4] Average earnings and income tend to peak while people are in their forties, while people accumulate wealth throughout their lives.[5]

This paper, in its entirety, can be found at:
www.heritage.org/Research/Welfare/wm1478.cfm

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Additional differences between earnings, income, and wealth become apparent when comparing the locations of individuals across the three distributions. Households at the bottom of the earnings quintile account for a large share of wealth (18.8 percent). Another way of looking at this is to compare where a person would be when ranked by income and by wealth. If we ranked this same low-income "average" person by this person's wealth holdings, it would easily put him in the top of the fourth quintile of wealth.[6] Similarly, a household with the average wealth of those in the bottom 1 percent of the earnings distribution (comprised primarily of negative earnings) would be located near the very top (90th to 95th percentile) of the wealth distribution.[7]

The large wealth holdings of the income- and earnings-poor suggest that a single measure of inequality or mobility does not tell the whole story.

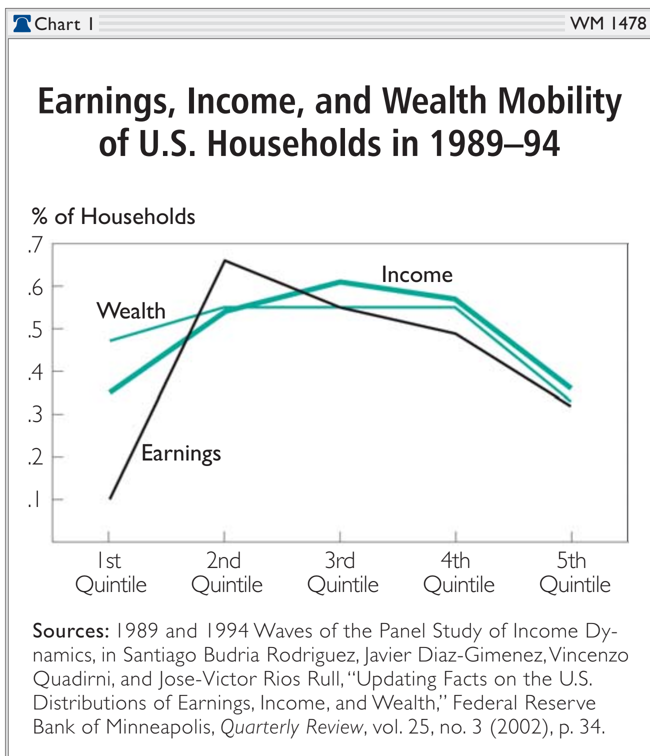
Mobility Depends on the Measurement. Economic mobility is a dynamic process. As people move from one rung of economic achievement to another, their earnings, income, and wealth do not necessarily hold constant. Thus, the three measures of economic mobility must be analyzed together to explain an individual's economic condition.

This dynamic characteristic of economic mobility prevents the use of a single indicator or metric of economic mobility to measure economic changes during a worker's life and between generations of workers. Changes in the amount of relative mobility vary according to the measurement used and are usually expressed as the percentage of people who move to a different earnings, income, or wealth quintile during a time period—two years in the Federal Reserve paper. Few people moving to a different quintile define low mobility, while many people moving to different quintiles reflects high mobility.

Overall, the measurements ranked from lowest to highest in terms of mobility are earnings, wealth, and income. However, mobility is not constant along the distributions of these measurements. For example, earnings mobility is very low for those at the very bottom of the quintile, but mobility increases steadily starting at the beginning of the next quintile. This could be because individuals at the very bottom of the earnings quintile are business owners in financial distress or households that hold tremendous amounts of wealth and choose to substitute capital earnings for labor earnings.[8] Earnings mobility remains very high until the middle of the second quintile, though income mobility becomes greater at that point.[9] Chart 1 illustrates the levels of earnings, wealth, and income mobility at each quintile.

Contrary to popular expectation, earnings, income, and wealth mobility are lowest for the top quintile, even lower than income and wealth mobility in the very bottom quintile. This may be because individuals in the top and bottom quintiles have only one direction in which to move. This is not the same, however, as saying that those in the bottom and top quintiles have an economic condition that is more persistent. Moreover, income mobility reaches its peak in the middle of the third quintile, while wealth mobility remains constant from the beginning of the second quintile to the end of the

1. *Ibid.*, p. 30.
2. The study categorizes households within the lowest quintile of the income distribution as being the nation's poorest. See Congressional Budget Office, "Changes in the Economic Resources of Low-Income Households with Children," *Economic and Budget Issue Brief*, May 2007, p. 1.
3. Santiago Budria Rodriguez, Javier Diaz-Gimenez, Vincenzo Quadirni, and Jose-Victor Rios Rull, "Updated Facts on the U.S. Distributions of Earnings, Income, and Wealth," Federal Reserve Bank of Minneapolis, *Quarterly Review* 25, no. 3 (2002), p. 3.
4. *Ibid.*, p. 15.
5. *Ibid.*, p. 20.
6. The amount of wealth held by the bottom quintile is more than any other quintile except the top quintile, which holds just over half of the total wealth. *Ibid.*, pp. 6 and 19.
7. *Ibid.*, pp. 6 and 19–22.
8. *Ibid.*, pp. 6 and 11.
9. *Ibid.*, p. 34.

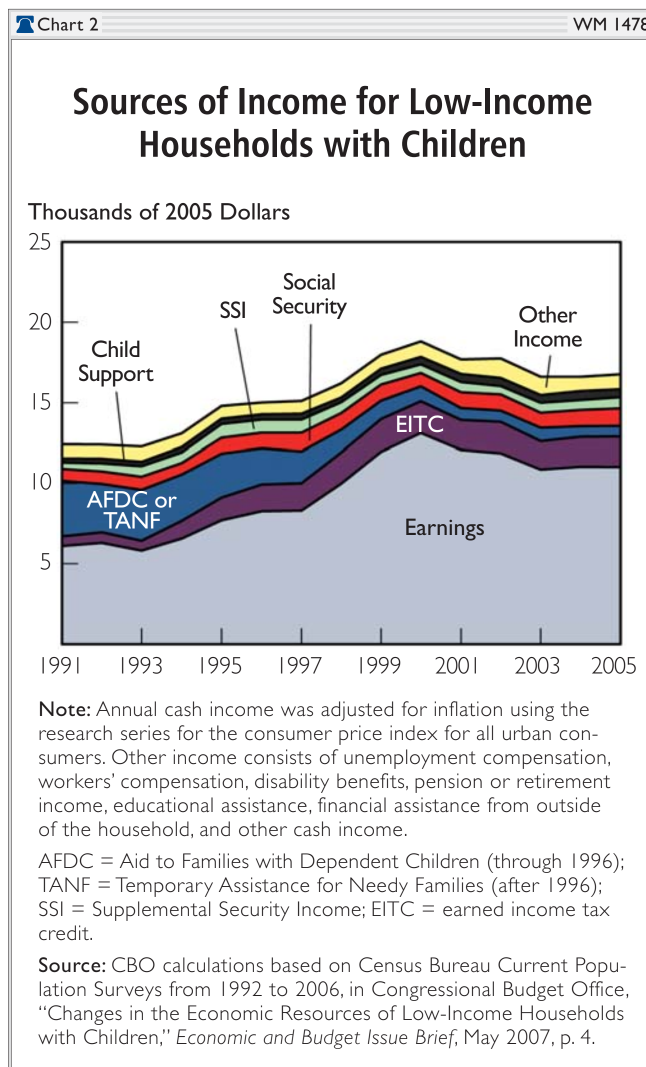


Sources: 1989 and 1994 Waves of the Panel Study of Income Dynamics, in Santiago Budria Rodriguez, Javier Diaz-Gimenez, Vincenzo Quadirni, and Jose-Victor Rios Rull, "Updating Facts on the U.S. Distributions of Earnings, Income, and Wealth," Federal Reserve Bank of Minneapolis, *Quarterly Review*, vol. 25, no. 3 (2002), p. 34.

fourth quintile. Earnings mobility is the lowest of all three measures and continues to fall after reaching its peak at the beginning of the second quintile.

Measurements of mobility, like those for inequality, are sensitive to where one falls along a distribution. By income or wealth, persistence is the norm within the bottom and top quintiles, but mobility is higher for the middle quintiles. Earnings tell a different story: Mobility is low in the bottom quintile and high in the second quintile, but lower for the rest of the distribution. In order to grasp the totality of mobility, all three dimensions should be incorporated. The proper mobility measurement depends on the subgroup being analyzed.

Why Earnings and Not Income? The CBO's economists chose to measure income mobility using earnings plus additional forms of earned and unearned income.[10] Because they looked at households with children, which are more likely to be younger than the norm, earnings or income were more appropriate than wealth in studying these households' absolute mobility. Furthermore, because the majority of those within this group rely on labor earnings (e.g., wages and salaries) and unearned income—often various kinds of welfare benefits such as the Earned Income Tax Credit and Temporary Assistance for Needy Families—not income from investments, earnings is preferable to income in determining absolute mobility. (See Chart 2.)



Note: Annual cash income was adjusted for inflation using the research series for the consumer price index for all urban consumers. Other income consists of unemployment compensation, workers' compensation, disability benefits, pension or retirement income, educational assistance, financial assistance from outside of the household, and other cash income.

AFDC = Aid to Families with Dependent Children (through 1996); TANF = Temporary Assistance for Needy Families (after 1996); SSI = Supplemental Security Income; EITC = earned income tax credit.

Source: CBO calculations based on Census Bureau Current Population Surveys from 1992 to 2006, in Congressional Budget Office, "Changes in the Economic Resources of Low-Income Households with Children," *Economic and Budget Issue Brief*, May 2007, p. 4.

10. The CBO's additional sources of income include Aid to Families with Disabilities (AFDC), Temporary Assistance for Needy Families (TANF), Earned Income Tax Credit (EITC), Social Security, Supplemental Security Income, child support, unemployment compensation, workers' compensation, disability benefits, pension or retirement income, educational assistance, financial assistance from outside the household, and other forms of cash income. Congressional Budget Office, "Changes in the Economic Resources," p. 2.

Among this demographic, earnings have steadily increased since 1991. Most of this growth occurred during the late 1990s; increases have since slowed but remain high. Since 1991, unearned income has remained relatively stable.[11]

Conclusion. There is no comprehensive measure of economic inequality and mobility, but several metrics, used together, can give a more complete picture. Looking exclusively at income inequality or mobility is not enough. Income, earnings, and wealth all contribute to an accurate assessment of inequality and mobility in America.

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11. "As importance of AFDC or TANF payments was declining, the importance of the EITC was increasing." Congressional Budget Office, "Changes in the Economic Resources," p. 3–4.