Consumer debt and poverty measurement

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Debt has become a big problem for U.S. households. According to the Federal Reserve, total consumer debt (which excludes home mortgages and home equity loans) is currently around $2.6 trillion, or $11,000 per adult. Over the past two decades, consumer debt has grown at an annual rate of 4.1 percent—much faster than the 0.6 percent growth of median household income. This has pushed debt-to-income ratios to record levels and has created severe financial hardship for many Americans.

Rising consumer debt also affects economic measures. Median household income (adjusted for inflation) is usually assumed to measure the economic well-being of a typical family. But when more income must go to pay interest on past debt, less money is available to buy goods and services. High interest payments mean that living standards for U.S. households are lower than median household income would suggest, and that more people in the United States have disposable income below the poverty line than is indicated by current poverty measures.

Measuring poverty

The United States is one of the few countries in the world with an official national poverty rate. It was developed in the early 1960s by Mollie Orshansky of the Social Security Administration. Orshansky was given this task by President Johnson, who was about to declare war on poverty and wanted to be able to show his progress on this battlefield.

Orshansky's assignment was to find the minimal income that would enable households to survive during one year. She began with U.S. Agriculture Department data on the minimum food requirements for families of different sizes; she then calculated the cost of purchasing this food. Next, using 1950s surveys of household expenditures, Orshansky found that families, on average, spent one-third of their income on food. So she multiplied the cost of a minimum food budget for each family type by three to arrive at its poverty threshold. These thresholds represent the minimum income needed by families to survive during the year, and the poverty rate measures the fraction of families that fail to meet this threshold. Each year, poverty thresholds are increased by the annual rate of inflation. The official poverty thresholds in the United States thus represent a fixed and constant real living standard. The national poverty rate is the percentage of all households that fall below their poverty threshold.

This methodology has been repeatedly challenged. Harrell Rodgers contended the food requirements used in the official poverty thresholds were designed for short-term, emergency situations only; they could not meet a family's nutritional needs for an entire year.[1] Harold Watts argued that a pretax poverty measure is problematic because, while the poor paid no income taxes and virtually no Social Security taxes in the early 1960s, they faced a considerable tax burden by the 1970s and 1980s.[2] Although the Earned Income Tax Credit has substantially reduced the tax burden on the poor, for single individuals who are not eligible for a large EITC, this problem still exists.

Finally, many have argued that what constitutes minimal necessity changes over time. For example, private baths, telephones, and television sets were not regarded as necessities in the 1920s or the 1930s, but they are today. Similarly, child care was not a necessity in the 1950s or 1960s, but as more and more families have two earners, or a single head of household, child care has become an important family expenditure. For this reason, some critics prefer a relative definition of poverty to the absolute definition used by the federal government. Typically, relative definitions of poverty take poverty thresholds to be some fraction of the average or median income at a particular time and in a particular place.

Other critics claimed that the official poverty line overstates real poverty. Rose Friedman argued that families below their poverty threshold enjoy most of the amenities that most Americans take for granted.[3] Since they receive free education, own TVs and cars, and live in homes with indoor plumbing and electricity, they should not be classified as poor. Edgar Browning points out that poor families receive many in-kind benefits from the government, such as food stamps (providing subsidized food), Medicaid (providing free medical care), and housing vouchers (subsidizing rents).[4] These improve living standards, but are not counted as part of household income and so do not affect whether a family gets counted as poor.

These debates have generated many suggestions for improving how we calculate poverty, as well as many alternative poverty measures. A National Academy of Sciences report suggested varying poverty thresholds by geographic area to take account of different costs of living in different parts of the country.[5] It also suggested that government benefits and taxes should be taken into account when measuring poverty and that expenses for work-related child care and out-of-pocket medical costs should be subtracted from available income. Based on this report and subsequent research, a new supplemental poverty measure is to be published by the Census Bureau beginning in the fall of 2011. The new measure will initially be published along with the 2010 income and poverty statistics that contain the official poverty measure, then annually thereafter.[6]

Ignored in all this is the issue of the rising indebtedness of American households. Poverty lines are supposed to represent the money income necessary to survive during the year. When Orshansky developed the U.S. poverty thresholds, most poor and middle class households lacked access to credit. Today, this is no longer true. As credit has become more easily available, many low- and middle-income households now have substantial consumer debt and must pay interest on that debt.

While debt has short-term benefits (it enables households to purchase the goods and services needed for their day-to-day survival), it also has long-term costs. Money used to pay interest on past debt cannot be used to purchase things now. These payments thus reduce the money that a household can use to purchase necessities during the year. As a result, many households have income levels above their poverty threshold, but they are effectively "debt poor" because interest payments on their consumer debt prevents them from being able to afford basic necessities. These households are not counted as poor according to the official poverty measure.

Correcting this problem is important because, for a number of reasons, figures such as the U.S. poverty rate do matter. Who we count as poor, and how close households are to their poverty threshold, determines eligibility for a wide variety of government programs and benefits, such as Medicaid, food stamps, school lunch programs, the Supplemental Special Nutrition Program for Women, Infants, and Children (WIC), and housing assistance. Numbers also affect empirical research on poverty, especially estimates of the consequences of poverty and estimates of the factors that lead to greater poverty. For example, studies of the impact of poverty on crime, and studies of the impact of growing up poor on future health and future incomes, may be suspect if they employ a flawed definition of poverty. Likewise, studies of the impact of economic growth and/or unemployment on poverty rates will contain biased estimates. Finally, it is important to remember that poverty figures refer to real people who are struggling to meet their basic needs.

Data on consumer debt

To correct official poverty estimates for interest payments on consumer debt, we rely on data compiled by the Federal Reserve Board. Every third year since 1983, the Federal Reserve has collected detailed information on assets, liabilities, debt payments, income, employment, saving behavior, and other variables from around 4,000 U.S. households. Known as the Survey of Consumer Finances (SCF), these datasets contain information on both consumer debt and the interest that households pay on this debt.[7]

Types of consumer debt

Consumer debt falls into one of five categories: (1) motor vehicle loans, (2) education loans, (3) installment loans, (4) credit cards, and (5) other debt. The first three are installment loans because they have a fixed number of payments of a given amount, which will pay off this debt. Credit cards, in contrast, only require a minimum payment on the balance each month. Again, home mortgages and home equity loans are not included in consumer debt.

Motor vehicle loans

Households finance motor vehicles in one of three ways: purchasing them outright, leasing, or taking out a loan. Between 1969 and 2006, the number of registered personal motor vehicles increased 129 percent (from 62 million to nearly 143 million), while the availability of public transportation increased only 32 percent.[8] As motor vehicles are expensive to buy and many families wish to own more than one, most of these purchases are financed.

The average amount of inflation-adjusted motor vehicle debt has gone from almost $5,000 in the 1962–63 surveys to around $20,000 in 2007. Roughly 40 percent of households had motor vehicle debt in 2007 compared to 25 percent in 1983 and 20 percent in 1962–63.

Education loans

Large education debt is a relatively new phenomenon. Reduced government grants and financial aid to students and to schools has led to both a rapid growth of student loans and to a rise in tuition costs, financed to a large extent by loans.[9] Student loan debt is often viewed as an investment, yielding income in the future. However, students may not reap significant financial returns for their investment because of labor market competition and high interest rates. Federal Stafford loans currently charge an interest rate of 6.8 percent, with even higher rates for private loans.

Average inflation-adjusted student loan debt more than doubled between 1995 and 2007 for those under 40 years old (from $4,272 to $9,664 per person), and nearly doubled for people under 30 (from $5,957 to $11,436 per person). Note that these are averages over all respondents, including those who incurred little or no student loan debt.

Installment loans

Traditional installment loans were the first type of consumer credit to become widely available.[10] They made it possible for people to purchase a variety of goods and services, from cars and sewing machines to computers and vacations, without having to save the money beforehand. This is the only category of consumer debt that has not experienced rapid growth in the past several decades, although it still increased 34 percent between 1989 and 2007, from $7,181 to $9,609 in constant dollars. The relatively small growth rate in this category is probably because many items previously bought using an installment loan can now be charged with a credit card.

Credit cards

Credit card debt must be paid in full each month to avoid interest charges. Our analysis only considers revolving credit card debt, which is the outstanding balance after paying last month's bills.[11] We do not include people who pay their credit card balances in full every month, thus avoiding interest charges.

Credit card interest rates are usually much higher than interest rates on installment loans. In 2007, the national average was 15 percent, more than double the average installment loan interest rate of roughly 7 percent.[12] Credit card interest rates are also likely to rise over time. Introductory teaser rates rise after a short period of time (usually one year or less); rates can rise even more if a borrower misses a payment or exceeds the card's credit limit.

Credit cards have become a popular means of payment in the U.S. economy. According to the SCF data, the average household has four credit cards. In 2007, credit cards were used to charge over $2.2 trillion.[13] Average revolving credit card debt rose by more than 100 percent in real terms from 1983 to 2007 ($1,700 to over $3,500). This growth resulted from a combination of high interest rates and the growing availability and use of credit cards.[14]

Other consumer debt

Debt resulting from payday loans, medical expenses, and other miscellaneous debt such as loans against pensions and life insurance are counted as "other consumer debt" by the SCF. These debts include both installment and non-installment loans. This debt category almost tripled from 1983 to 2007, rising from around $3,000 to $10,000. The SCF has no data on why this type of debt has increased or which of its parts have increased the most.

Interest on consumer debt

We also calculate interest payments on consumer debt for each household. We multiply the total amount of consumer debt in each category by its annual interest rate, then sum these five figures to get the total interest on consumer debt that each household pays during the year. These expenditures do not go to repay the principal or help get the household out of debt; they are just the interest payments necessary to service past debt.

Since home equity loans are not included in consumer debt, these interest estimates exclude all interest payments made on such loans, which have grown rapidly in the past several decades. Many of these loans were taken out to maintain household living standards in the face of declining real incomes. Mian and Sufi estimate that each additional dollar of home equity leads to 25–30 cents additional home equity borrowing, and that 30 percent of this borrowing is used to finance consumption.[15] Canner and colleagues find that 26 percent of all home mortgage refinancing in the early 2000s went to pay off other debt and that 16 percent went to finance additional spending.[16]

Our estimates also exclude various fees on credit cards, such as late fees and over-the-limit fees, which have been growing rapidly.[17] Since these fees are part of the cost of borrowing money, and since they reduce the household income available to purchase goods and services during the year, these costs should also be deducted from household income when computing poverty rates.

In addition, our estimates ignore the trend towards leasing motor vehicles rather than purchasing them and then financing the purchase. This hurts households in the long run since they lack an asset at the end of the lease period. In some measures of household financial obligations, lease payments are treated on par with payments on loans for the purchase of a motor vehicle.[18] Furthermore, some people lease with the intent to try out the vehicle and purchase it later. For these individuals, lease payments are partly interest payments.

Finally, our estimates are based on individual reports of indebtedness and interest payments on consumer debt. People are usually reluctant to disclose how much debt they actually have. For all of these reasons, the SCF understates the true consumer debt problem facing U.S. households and thus our revised calculations of poverty rates taking into account consumer debt are still underestimates.

New poverty estimates

In order to calculate our revised poverty rates, we follow the official federal methodology. Using the Census's Poverty Thresholds and SCF datasets, we analyzed eight different family sizes (from single to married with three children) and compared their incomes to the poverty thresholds to determine how many were poor. These eight groups comprise over 90 percent of U.S. households. We ignore larger households because of the small sample size for such families. Since poverty rates generally rise with family size, this again makes our estimates conservative.

We next subtract from each household's income the amount it spent on interest payments to service its consumer debt. Comparing this figure with government poverty thresholds, we can determine the interest-adjusted number of poor, and the interest-adjusted poverty rate. We estimate that the poverty rate for households in 2006 including the debt poor was 13.4 percent, compared to the 12.3 percent reported by the government. Thus we estimate that there are over 4 million debt-poor Americans, people who were not classified as poor by the government in 2006 but who did not have sufficient income to purchase the goods and services necessary for survival according to the official definition of poverty.

As Table 1 shows, the fraction of the population that is debt poor has increased from around half a percentage point in

Table 1
Official Government Poverty Rates
and Interest-Adjusted Poverty Rates

SCF Survey Year	Government Poverty Rate	Debt Poor	Total Poor
1983	15.0%	0.5%	15.5%
1986	14.0	0.5	14.5
1989	13.0	0.8	13.8
1992	14.2	0.6	14.8
1995	14.5	0.8	15.3
1998	13.3	0.7	14.0
2001	11.3	0.5	11.8
2004	12.5	0.9	13.4
2007	12.3	1.1	13.4

Notes: Authors' calculations using Federal Reserve's *Survey of Consumer Finances, 2009*. Government poverty data comes from the U.S. Census Bureau, *Income, Poverty, and Health Insurance Coverage in the United States: 2007* (Washington, DC: Government Printing Office, 2009).

the 1980s to more than one percentage point in 2006. With the ongoing economic crisis, these figures should continue to rise.

This trend likely stems from several factors. First, for many American workers, wages have been stagnating or falling. Households have tried to make up for this through increased borrowing. The ready availability of credit made this easier to do. Second, position or relative consumption has become increasingly important as income inequality has increased.[19] To finance the increased spending necessary to "keep up with the Joneses," households must resort to borrowing. Finally, the price of higher education has greatly increased over the past several decades. Young people are graduating with more debt, which also increases the possibility that they will need to borrow more in order to finance consumption when they start working.

Conclusion

We have argued that our economic data on poverty is flawed because it ignores interest payments on consumer debt. We have used conservative estimates to count the debt poor in the United States over time. We calculate that around 4 million Americans are currently debt poor and that this number has been increasing and is likely to continue to rise.■

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[1]H. R. Rodgers Jr., *American Poverty in a New Era of Reform* (Armonk, NY: M.E. Sharpe, 2000).

[2]H. W. Watts, "Have Our Measures of Poverty Become Poorer?" *Focus* 9, No. 2 (1986): 18–23.

[3]R. Friedman, *Poverty: Definition and Perspective* (Washington, DC: American Enterprise Institute, 1965).

[4]E. Browning, *Redistribution and the Welfare State* (Washington, DC: American Enterprise Institute, 1975).

[5]C. Citro and R. Michael, Eds., *Measuring Poverty: A New Approach*, (Washington, DC: National Academy Press, 1995).

[6]More information on the proposed Supplemental Poverty Measure can be found at the Census Bureau Web site, http://www.census.gov/hhes/www/povmeas/povmeas.html.

[7]All data was collected early in the calendar year. Debt data is therefore for the present month, but income data is from the previous year. We refer to each dataset by the collection year. All figures are shown in 2007 dollars, the last collection year.

[8]U.S. Department of Transportation, National Household Travel Survey 2009, available at http://nhts.ornl.gov/index.shtml.

[9]R. H. Scott, "Extra Credit: A Post Keynesian Perspective on Student Loans," presented at the Allied Social Science Association meeting in Atlanta, Georgia, January 2010.

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[11]We include all types of bank and store credit cards, but exclude debit cards.

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[18]K. Dynan, K. Johnson, and K. Pence, "Recent Changes to a Measure of U.S. Household Debt Service," *Federal Reserve Bulletin* 89 (2003): 417–426.

[19]See R. Frank, *Falling Behind: How Rising Inequality Harms the Middle Class* (Berkeley, CA: University of California Press, 2007).