Comments on "Recent Trends in the Size Distribution of Household Wealth,"
by Edward N. Wolff, *Journal of Economic Perspectives*, v. 12, no. 3, Summer 1998, pp.131-150

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In his paper, Professor Wolff presents a view of the wealth distribution in the U.S. However, his results are quite sensitive to a set of questionable assumptions that are not revealed to the reader. Moreover, he gives no indication of the precision of his estimates. As a simple example of the importance of these issues, consider the following. Based on calculations using data from the Surveys of Consumer Finances (SCF), the author states "median wealth declined by 17 percent from 1989 to 1995" (no confidence interval is given to evaluate the change). Using the SCF data without adjustments, I estimate that 1989 median net worth was $57,000 (in 1995 dollars) with a standard error due to sampling and imputation of $5,000, and the median in 1995 was $55,000 with a standard error of $2,600. Obviously, this difference in medians is not 17 percent. Moreover, the difference is not statistically significant. If the data adjustments in the paper make this much difference, they are worth making clear.

In his other work, the author follows the seemingly innocuous practice of forcing implied SCF aggregates to match aggregate estimates in the Federal Reserve's flow of funds account (FFA) for similar categories.[1] This approach raises many questions. First, because the adjustments are applied independently to each of the asset and liability components in the survey, relationships between items in household balance sheets may be very distorted. Among others, Robert Avery [1989] has taken issue with this approach. Second, the matching of survey and FFA variables is not straightforward. As noted by Rochelle Antoniewicz [1996], differences between the two data systems require sophisticated assumptions and a very careful matching of many categories. Third, some categories in the SCF do not exist in the FFA—some of these are items, such as loans between households, that "net out" in the aggregate. Fourth, much of the estimate of household wealth is a residual in the FFA, and one might reasonably suppose this practice forces a disproportionate fraction of the measurement errors into the household sector. Finally, the "household sector" as normally defined in the FFA includes non-profit institutions, and one must make assumptions about the behavior of non-profits to separate "true" households. Thus, for all these reasons, one might at least hesitate before enforcing exact identity between the two independent statistical systems.

However, even assuming that no comparability issues were involved, and that the FFA estimates were guaranteed to be exactly correct, there are many ways of enforcing identity in the aggregate implications of the SCF and the FFA. Uniformly rescaling an item, as the author does, assumes implicitly that every household in the survey uniformly mis-reported (under-reported or over-reported) the item. To my knowledge, the author has not motivated this type of adjustment by reference to any behavioral or statistical hypotheses, and I see nothing obvious in the data to support it. An alternative extreme approach might be to assume that there is mis-coverage of various groups in the SCF and to adjust the weights of individual households (say using raking adjustments) to enforce the FFA totals. This approach has the advantage of at least preserving

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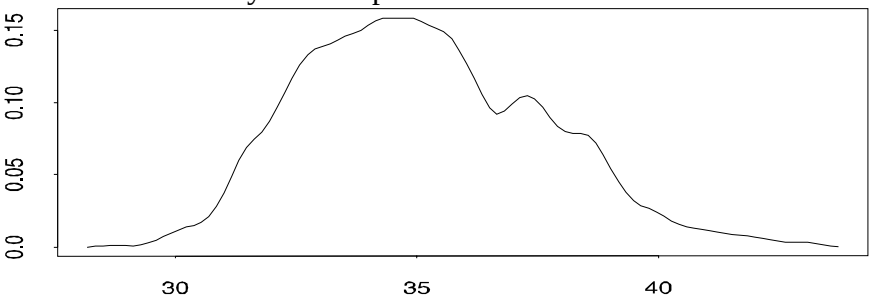
[1]Typically, an aggregate estimate for a given variable is computed as $\sum$ (i=1 to N) $w_i x_i$, where N is the number of survey observations, w_i is the survey weight for observation i, and x_i is the value for case i of the variable being aggregated.

Figure 1: Distribution with respect to sampling error of the percent of net worth held by the one percent wealthiest households in 1995



relationships between asset and liability variables at the household level. There are numerous other hybrid approaches. If anyone has insights into possible systematic differences between the two statistical systems to be able to choose any of these adjustments, it would be useful to share those insights in the interest of improving the measurement processes in the FFA and the SCF.

As in other areas of economics, one cannot draw a proper inference from point estimates without reference to some indication of the precision of the estimates. Even if one entirely accepted the author's adjustments of SCF figures to FFA totals, this treatment of the data would remove only one source of uncertainty. Sample surveys are inherently statistical processes, and much effort in statistics has been devoted to characterizing at least some of the consequent uncertainty. When the estimands of interest are as narrow as concentration ratios, consideration of statistical significance is particularly important. As far as I know, the only instances of such calculations for the U.S. wealth distribution are given in Weicher [1996], Kennickell and Woodburn [1997] (KW) and related papers by those authors. As a straightforward example of the importance of variability, figure 1 shows an estimate of the distribution of the share of total net worth held by the one percent wealthiest households in 1995. For simplicity, the distribution is taken with respect to sampling error alone.[2] The mean of the distribution (the usual point estimate) is 35.1 percent—compared with the 38.5 percent the author reports. However, it is obvious from the figure that the estimate has substantial variation: the standard error is about 2.4 percentage points. This estimate implies a confidence interval of about ±4.7 percentage points—a very substantial interval.

References

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[2]Typically, in formal significance calculations I also account for imputation error. For the sake of graphical simplicity, I omit that source of error here.

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