Discussion

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■ Petska - Strudler Paper

Using a <u>consistent</u> definition of income, Petska and Strudler analyze the distribution of individual income shares and tax shares over the 1979 to 1996 time period. The authors find a dramatic increase in the share of income accruing to the top 1 percent of the income distribution (income shares rose from 9.6 percent to 16.5 percent), as well as a substantial increase in the share of individual income taxes paid by the top 1 percent (tax liability rose from 19.8 percent to 31.7 percent).

The paper is very well done. One of the best features of the study is its use of a consistent definition of income, referred to as "retrospective income." Because the components of retrospective income do not vary over time, changes in income shares can be attributed to real changes in cash flows, and not to measurement inconsistencies. In contrast, the components of adjusted gross income (AGI) depend on tax law. For example, prior to TRA86, only 40 percent of long-term capital gains were included in AGI, but after TRA86, 100 percent of long-term capital gains were included in AGI. As a result, a taxpayer's pre-1986 AGI will not equal his or her post-1986 AGI even if all the pre-1986 components of AGI hold at exactly the same real level across years.

The authors highlight the advantage of using a consistent income measure by comparing their results for the 1979 to 1989 time period to those found in an earlier study by Feenberg and Poterba. Like Petska and Strudler, the Feenberg and Poterba study shows very dramatic income growth for the top 1 percent of the income distribution. However, because Feenberg and Poterba use AGI to define income, it is not clear how much of their measured income growth is due to the increase in the amount of capital gains included in AGI after TRA86.

For tax years after 1986, the two studies have <u>very</u> comparable shares of income accruing to the top 1 percent of the income distribution (within two tenths of a percentage point of one another). However, for tax years before 1986, the two studies show fairly different income shares accruing to the top 1 percent. The largest difference is for 1986 where Petska and Strudler measure the top one percent as having 15.25 percent of income, and Feenberg and Poterba measure the top 1 percent as having only 11.79 percent of income.

Suggested Improvements in Retrospective Income

Consistency is one key attribute of a good income measure. Foremost, however, the measure should rank well by accurately measuring an individual's well-being vis-a-vis the rest of the population. The following are some areas where retrospective income may not measure well-being very well.

Capital gain realizations

Retrospective income includes capital gain realizations, not capital gain accruals. Accruals are the correct measure of annual income. The absence of capital gain realizations does not mean a taxpayer is not benefiting from accruing capital gains. Similarly, realized capital gains may represent income accrued in previous years, and large realizations may place some taxpayers "too high" on the income scale relative to their lifetimes or permanent income positions. Likewise, retrospective income does not include pension or individual retirement account accruals, both of which represent income and an increase in well-being to the owner.

Social Security benefits

The absence of Social Security benefits is also a potential source of measurement bias. For the most part (other than unemployment compensation), retrospective income does not include transfer income. Although transfer income is a small component of total income (less than 10 percent of Treasury's income measure), it represents a substantial proportion of total income for lower-income families (in Treasury analyses, transfer

income is about half of family economic income for the lowest income quintile and about a quarter for the second lowest quintile).

Wage deferrals

Retrospective income does not include wage deferrals, even though these deferrals are available on the tax data (at least in recent years) and are a source of income.

Other Considerations

Unit of analysis

The study includes all returns and ranks dependent returns, single returns, and joint returns together, without any adjustment for living arrangements or economies of scale. The typical dependent's own income is low; therefore, most dependents will fall on the low end of the income distribution. A dependent's actual welfare, however, is "dependent" on the resources of the family to which he or she is attached. To improve the welfare ranking, the dependents in the analysis should be dropped or attached to their family units.

In addition, by ranking single returns with joint returns, the authors have implicitly assumed that the welfare of a single person living on an income of $50,000 is equivalent to the welfare of two people (on a joint return) living on an income of $50,000. While there are probably economies of scale from living in the same household, perfect economies of scale are not likely. Moreover, not properly accounting for economies of scale may bias the results of a time series analysis if the proportion of units of a particular size varies over time. In general, singles tend to have relatively low incomes, whereas joints tend to have relatively high incomes. As discussed by Nutter, Young, and Wilkie (1997 National Tax Association conference paper), the number of returns filed by singles has increased over time relative to the number of returns filed by joints. Their results show that the increased relative number of single filers accounts for part of the measured increase in income inequality found in studies using returns as the unit of analysis.

Cohort effects

Baby boomers are closing in on the top of their life cycle in latter years of the time period under study. Do the authors have a sense of the degree to which the results are being driven by cohort effects?

Business cycle effects

The latter years are "boom" years. Should we expect a continuing upward trend? In boom years, the level of unemployment drops, and the number of taxpayers required to file a return would presumably rise. More taxpayers on the bottom of the income distribution shift the decile breaks. Does the number of returns as a percent of the working-age population increase significantly during the boom years?

Other taxes

This study addresses Federal individual income taxes, but tax burden as a whole cannot be properly addressed without considering all taxes. The Federal individual income tax is less than half of the total Federal burden (measured on a long-run law basis at 2000 levels), and the distribution of individual income tax shares is fairly different from the distribution of payroll tax, excise tax, corporate income tax, and estate and gift tax shares. Moreover, tax laws governing the other Federal taxes have also changed over the time period. For example, the cap on the OASDI portion of the payroll tax rose from $22,900 in 1979 to $62,700 in 1996, and the cap on the HI portion was lifted in 1994.

This paper raises many interesting issues, some of which the authors may address in future work. It also makes an important contribution by providing evidence of the bias which can occur if researchers use inconsistent income measures, such as AGI, in time series analysis.

■ Utendorf Paper

Using Social Security Administration (SSA) data, Utendorf describes and measures changes in earnings and the distribution of earnings over the 1981 to 1995

period. He finds that earnings inequality has continued to grow in recent years, as evidenced by statistically larger S-Gini coefficients in the 1992 to 1995 period. The increase in earnings inequality is caused by a growing share of earnings received by the top decile of the earnings distribution.

As the author points out, the SSA data were collected for the purpose of effectively administering the Social Security benefit program, not for conducting research. Utendorf and his research colleagues at SSA have spent a considerable amount of effort making the data suitable for research purposes. Their efforts would seem well worth it. SSA records are arguably the best data for exploring the evolution of earnings over time. They provide historical third party reporting on earnings for high-income earners as opposed to the more common self-reported or top-coded earnings data available in public-use files. Because of privacy issues, SSA data are not widely available. As a result, Utendorf's research and that of his colleagues are that much more important; they are the only means of disseminating the information stored in the SSA data to the rest of the research community.

Utendorf presents his results on growing earnings inequality using Gini indices. The paper includes very nice, concise yet thorough, descriptions of the traditional Gini index, S-Gini index, and Gini decomposition. The S-Gini allows the analyst to subjectively adjust the sensitivity of the index to inequality at different places in the income distribution. The paper presents results based on equal weights being given to all observations in the income distribution. The author chooses equal weighting because it allows him to decompose the index between within-group and between-group inequality measures. As an aside, it would be interesting to see how the general (not decomposed) results would differ if the S-Gini were more sensitive to inequality at the low end where, as a matter of policy, there may be a lower tolerance for inequality.

Although the SSA data provide very good information on earnings histories and, therefore, earnings inequality over time, it would be misleading to draw a strict association between an increase in earnings in-

equality and an increase in welfare inequality. A study that focuses on earning can give us a sense of how well-being is changing over time but not a complete picture.

To understand how earnings as a measure of well-being might fall short, consider Treasury's family economic income (FEI) measure, a very broad-based pre-tax, post-transfer income measure. In total, labor income comprises about 71 percent of FEI (2000 levels). Capital income accounts for 22 percent, and transfer income accounts for 7 percent. Labor income is the dominant component, but the distribution of labor income is not the same as the distribution of capital income and transfer income. Although capital income, on average, is 22 percent of income, it accounts for 47 percent of income for the top 1 percent of families but only 6 percent for the lowest quintile of families. Likewise, although transfer income is only 7 percent of total FEI, it accounts for 49 percent of income for the lowest quintile but only 0.5 percent for the top 1 percent of families. Not including capital and transfer income in a distributional analysis will affect rankings.

Other Data Limitations

Hours worked

The other significant data limitation (other than lack of demographic and education information cited by the author) is the lack of information on hours worked. To the extent that hours worked are chosen and not imposed, part-time and part-year employment lowers earnings but not necessarily welfare. Looking at Table 3a on the distribution by age group, the young and the old have the highest "within-group" Ginis, but this may be entirely a function of part-time or part-year work. How would the Gini index vary across years if groups with higher incidences of part-year, part-time work (the young, the old, women) were dropped from the analysis? Such sensitivity analyses would remove most individuals with "lower-earnings-by-choice" and, thus, some of the possible changes in work preferences over time. The limitation of such an analysis is the fact that these groups might also be more likely to suffer from earnings inequality that is not a function of choice.

Unit of analysis

The results are fairly dramatic by themselves. It would be interesting to consider how they would change if the author had information on family formation. High-income earners tend to marry other high-income earners. If both spouses continue to work, then the results are more dramatic if shown on a family basis (adjusting for economies of scale in living together).

Explanations for Increasing Divergence in Earnings Over Time

The author points to the fact that education may be an increasingly important factor in determining earnings, and this may be one cause of the earnings divergence. A couple other causes might include demographic changes and business cycle fluctuations.

Demographic changes

As life expectancies increase, older people may push back their age of retirement (increasing the number of years they spend at the peak of their life-cycle earnings), and retired persons may be more able (with regard to health) to take part-time, hobby-type work at low pay. The former would show up as an increase in the number of elderly with high earnings and the latter as an increase in the number of elderly with low earnings. If either or both are occurring to some extent, then the Gini index would register an increase in earnings inequality, and yet neither scenario has necessarily negative welfare implications.

Business cycle

In recent years with a very healthy economy and phenomenally low unemployment, marginal worker may find themselves employable, and all other workers may find themselves with earnings increases. As some potential workers move from transfer income support to earnings, they show up in the data as "very low income" at the same time that existing workers move up the earnings scale. Earnings inequality would increase, but the move is not "welfare decreasing."

Other Comments

In reference to Table 2a, the author cites earnings shares from 1981 and 1995 as evidence that there has been a "large increase in the share of earnings garnered by the decile at the top of the earnings distribution." In the table, 1981 appears to be an outlier. The earnings share for the top decile was 30.78 percent in 1981 and then jumps to 33.14 percent in 1982 and moves less than 1.5 percentage points a year from 1982 through 1995. I would be hesitant to use 1981 as a base year for determining a trend.

In discussing the within-group inequality results, the author questions why the 25 to 34 age group has the lowest within-group inequality Gini for every year in the sample. The answer may have to do with life-cycle effects and part-time/part-year work. The under-25 and 55-and-over age groups will presumably have significant within-group inequality because of the prevalence of part-time and part-year work. The 35 to 54 age group will have significant within-group inequality because they are at the height of their earnings profile where the effect of educational attainment on wages will be most pronounced. In contrast, the 25 to 34 age group would presumably include two types of people, those with little education but significant work experience and others with high-education but little work experience. The within-group inequality results may be capturing the fact that the earnings profiles for these two types of people are crossing in this age range.

This study is very interesting and raises many questions. In future work, the author expects to be able to match the SSA data with public-use files containing information on educational attainment and household characteristics which he hopes will further explain some of the continuing increases in earnings inequality. Such links may also explain the variance in within-group inequality across age cohorts. It should prove to be a rich research agenda.