

The Progressivity of Social Security

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Early architects of the Social Security program clearly intended the program to improve the status of the poor elderly, designing the program at least in part to “prevent destitution and dependency” (Report of the Committee on Economic Security, 1935). The program is still widely viewed as “progressive,” due to the fact that, all else equal, its non-linear benefit formula provides a higher replacement rate to individuals with lower lifetime earnings. In recent years, however, a small literature has emerged which has begun to question the extent to which the Old-Age Survivors Insurance (OASI) program, the retirement portion of Social Security, is successful at redistributing income in a progressive manner.

Determining the extent of income-based redistribution in the Social Security system is a more complex exercise than it first appears, for at least four related reasons. First, there are many possible metrics that one can use to measure progressivity. Second, the definition of “income” matters, such as whether we consider an individual based only on his or her own earnings, or whether we consider spousal earnings as well. Third, for any given measure and any definition of income, the extent of progressivity may change across cohorts due to changing economic conditions, such as the increasing labor force participation rates of women. Finally, a proper accounting of the extent of redistribution must consider not just the Social Security program rules, but also a wide array of “real life” heterogeneity, such as variation in earnings levels, earnings variability, marital status, and mortality rates, just to name a few. This paper evaluates the progressivity of Social Security across many of these dimensions.

For example, the study evaluates progressivity across several definitions of income. We begin with a simple model of individual lifetime earnings, and then expand from there to incorporate important features such as the correlation between mortality and socioeconomic status, “potential” earnings (which accounts for the fact that some high income individuals may choose to consume their income in the form of non-labor market activities), and the pooling of spousal resources within a household. We examine the importance of each feature of the model individually and in combination, allowing us to learn how the various features interact.

We consider three measures of progressivity: (i) a measure of “effective progression,” which is based on the comparison of before- and after-tax Gini coefficients, (ii) comparisons of Social Security net tax rates (taxes paid minus benefits received as a percent of income) across income quintiles, and (iii) the fraction of individuals in each income quintile that receive positive net transfers from Social Security. The first of these measures is designed to capture the degree of overall progressivity of the system, which may be an appropriate measure for those who are most concerned with the overall degree of income inequality across the full income distribution. The second and third measures allow one to focus more directly on whether Social Security helps the lowest income individuals.

Finally, for each measure of income and each definition of progressivity, we also explore how the degree of progressivity differs across cohorts. In particular, we compare the pre-baby boom generation

to the baby boom generation, which differ along multiple dimensions, the most important of which is the degree of labor force attachment of married women.

There are four key findings. First, when progressivity is measured using comprehensive concepts of income, the Social Security system exhibits less overall progressivity than when it is evaluated using more narrow definitions of income. Indeed, when evaluated using the most comprehensive measure of income (which accounts for both potential earnings as well as within-household resource sharing), the Social Security retirement program exhibits virtually no overall progressivity as measured by a comparison of Gini coefficients before and after accounting for the presence of Social Security. Second, the absence of progressivity in more inclusive measures of income is driven largely by households in the middle and upper part of the income distribution, which masks the presence of positive, if small, net transfers to the lowest income households. Third, even when there is redistribution occurring, it is not efficiently targeted, with many high income households receiving net transfers, and many low income households paying net taxes. Fourth, the extent to which progressivity differs across cohorts depends on the income concept used.

The full working paper is available on our website www.nber.org/programs/ag/rrc/books&papers.html as paper NB06-10.

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