WORKING PAPER
Executive Summary

NOVEMBER 2011, WP 2011-21

CENTER *for* RETIREMENT RESEARCH *at* BOSTON COLLEGE

HOW DOES THE PERSONAL INCOME TAX AFFECT THE PROGRESSIVITY OF OASI BENEFITS?

BY NORMA B. COE, ZHENYA KARAMCHEVA, RICHARD KOPCKE, AND ALICIA H. MUNNELL

The Old Age and Survivors Insurance (OASI) program is *designed* to be progressive. Taxes are a flat percentage of a worker's earnings up to maximum taxable earnings, but the progressive benefit formula replaces a smaller share of pre-retirement earnings as earnings increase. The goal is to produce an outcome in which the ratio of benefits received to payroll taxes paid is lower for high-income individuals.

Yet, *in practice*, the OASI program has been much less progressive than intended. One issue is that people with higher incomes tend to live longer, which can increase the value of their benefits relative to those with low incomes, albeit by a small amount (Harris and Sabelhaus 2005). Much more importantly, while the program redistributes income from workers with higher incomes to those with lower incomes, most of it goes from men to women, who are often married to high-earning men. The result is that the amount of redistribution is halved when calculated at the household level (Gustman and Steinmeier 2001). In addition, analysts who use an increasingly comprehensive definition of family income, ultimately including home production, find that OASI benefits might have little effect on the distribution of income (Brown, Coronado, and Fullerton 2009).

None of the assessments of OASI progressivity to date, however, take into account the interaction between personal income taxes and the program's formulas for collecting contributions and paying benefits. Workers currently pay direct OASI contributions equal to 5.3 percent of their covered earnings.[1] Because these contributions are not exempt from taxes, each dollar of contribution costs one dollar of disposable income. Employers also pay contributions equal to 5.3 percent of covered earnings. The employers' contributions are essentially payments made on behalf of workers out of workers' pre-tax income (Hammermesh and Rees 1993; Piketty and Saez 2007). This "tax deduction" for employer contributions tends to benefit high-income workers the most.

At the same time, a portion of Social Security benefits has been subject to income taxation since 1984, and this portion rises for households with greater retirement income. The strong progressivity of the income taxation of benefits makes benefits after income taxes even more progressive than the formula for benefits alone suggests. This interaction between income taxes and the OASI program has been examined in studies of typical families but not in the context of actual workers' experiences (Goodman and Liebman 2008).

This study calculates the impact of federal income taxes on the progressivity of the OASI program. It uses *Health and Retirement Study* (HRS) data linked with the Social Security Earnings Records to estimate OASI contributions and benefits for individuals and households, before and after income taxes

[1] The total taxation for OASI and Disability Insurance (DI) programs is 6.2 percent of wages. We are following the literature and examining OASI separately, and thus only take into account the 5.3 percent portion.

It uses two measures of progressivity: redistribution by decile (the difference between the share of total benefits received and the share of total taxes paid) and "effective progression" (the change in the Gini coefficient). Under both measures, the results for the first cohort of the HRS (born 1931-1941) without the income tax are exactly what others have found: Social Security is progressive on an individual basis but only half as progressive on a household basis. Adding income taxes could make the program more or less progressive. On the one hand, the tax treatment of contributions makes the system even less progressive than generally reported. On the other hand, the taxation of benefits makes it more progressive. The net result is that adding the personal income tax to the analysis makes Social Security more progressive at both the individual and household level (see Table 4). However, the household-level progressivity measures remain about half that of the individual-level progressivity.

Re-estimating the progressivity measures for later cohorts shows less of a reduction in progressivity between the individual- and household-level analyses, and a greater impact of taxation on the progressivity measures. The reasons are twofold. First, most of the redistribution at the individual level is from men to women, with the money often going to the non-working wives of high earners. The labor force participation of married women has increased dramatically. The HRS cohort would have women only at the beginning of this major social change; later cohorts have a much larger percentage of married women who will have spent most of their lives in the labor force. The more married women work, the more they will earn their own benefits and the less redistribution will go in their direction. The second time-sensitive phenomenon is the taxation of Social Security benefits. The income thresholds are not indexed for growth in average wages or even for inflation, so over time a significantly higher percentage of recipients have become subject to tax. The increasing taxation of benefits makes Social Security more progressive.

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement Research Consortium (RRC). The opinions and conclusions expressed are solely those of the authors and do not represent the views of SSA, any agency of the federal government, the RRC, or Boston College.

Center for Retirement Research at Boston College
Hovey House, 140 Commonwealth Avenue, Chestnut Hill, MA 02467-3808
phone 617.552.1762 fax 617.552.0191 crr@bc.edu crr.bc.edu