

WORKING PAPER

Executive Summary

JULY 2013, WP 2013-16

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HOW DO THE CHANGING LABOR SUPPLY BEHAVIOR AND MARRIAGE PATTERNS OF WOMEN AFFECT SOCIAL SECURITY REPLACEMENT RATES?

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The *Social Security Trustees Report* (U.S. Social Security Administration 2012a) states that replacement rates for the medium earner rose from about 30 percent in the 1970s to 40 percent in the 1980s, where they remain today. But replacement rates for individuals and households depend on more than Social Security provisions. They also depend on labor force activity and household arrangements.

While an extensive literature has explored how policy changes affect the Social Security program, only a few have focused on the impacts of demographic factors – importantly, the changing role of women.¹ Compared to 30 years ago, women today have higher levels of education, increased labor force participation, more stable career trajectories, higher salaries, and a higher probability of being divorced or never married.

This paper explores how the changing lives of women affect Social Security replacement rates and, in turn, the program's finances. The analysis starts with trends in replacement rates for current retirees based on the *Health and Retirement Study* (HRS), which contains lifetime earnings profiles of actual workers and provides details of workers' demographics and marital status. It then uses the *Modeling Income in the Near Term* (MINT) microsimulation model to project changes in replacement rates for future cohorts. The paper extends previous studies in that it makes use of rich data sources to produce replacement rates across a broad range of cohorts: Depression Era (born 1931-41), War Baby (1942-47), Early Baby Boomers (1948-53), Middle Baby Boomers (1954-59), Late Baby Boomers (1960-65), and Generation X (1966-75). Moreover, information on actual workers makes it possible to examine changes in replacement rates within cohorts by marital status and by income distribution.

¹ Some recent examples include Butrica, Iams, and Sandell (1999), Butrica and Iams (2000), Favreault, Sammartino, and Steuerle (2002), and Iams et al. (2009). Earlier work includes U.S. Department of Health, Education, and Welfare (1979), Burkhauser and Holden, eds. (1982), Congressional Budget Office (1986), Ferber (1993), Harrington Meyer (1996), Ross and Upp (1993), and U.S. Department of Health and Human Services (1985).

Further, the paper decomposes the reasons behind changes in the replacement rates into contributing factors, such as labor supply, marital patterns, and the extension of the Full Retirement Age (FRA) and Social Security claiming decisions, using a Blinder-Oaxaca-decomposition method. This approach not only isolates the impact of the changing lives of women from other factors, but allows us to quantify how these sweeping changes in women's lives have contributed to the changes in replacement rates over time.

This paper focuses on replacement rates – benefits as a percent of pre-retirement earnings. As wages have risen over time, so have the level of Social Security benefits; therefore relative measures such as replacement rates, rather than absolute measures, are more appropriate when assessing the degree to which the program helps retirees maintain their standard of living in retirement. Of course, Social Security is only one component of retirement income, and therefore Social Security replacement rates alone do not provide a complete measure of retirement income adequacy. However, because Social Security is the largest source of retirement income for a majority of retirees, the Social Security replacement rate is an important measure of retirement income adequacy.

The findings can be summarized as follows. First, the changing role of women has led to a marked decrease in the proportion of pre-retirement income that Social Security replaces at both the household- and individual-level, and the decline will continue for future retirees. Second, changes at the aggregate level mask the more complex relationship by marital status. The change is relatively modest for the never married, but larger for married, divorced, and widowed households. And the decline in replacement rates for couples is largest for households with husbands' earnings in the top tercile. At the individual level, the decline in replacement rates is most dramatic for widows, and the decline is more pronounced for women than for men.

Third, the decomposition analysis shows that changes in labor force participation, including increased labor supply and earnings, account for more than a third of the difference in replacement rates between individuals born in the early 1930s and Generation Xers (born 1966-75). While marital patterns have also changed dramatically over time, the impact of this factor is relatively small. However, differences in the FRA and claiming behaviors across cohorts also explain a significant fraction of the change in replacement rates. Nevertheless, up to 30 percent of the change across cohorts cannot be attributed to differences in mean characteristics identified in our analysis and remain "unexplained." These unexplained differences could be driven in part by the underlying assumptions used for the projection, as the explanatory power of the models is significantly higher for comparisons of cohorts who have already claimed Social Security benefits or will do so in the near future. As cohorts get further apart, the explanatory power of the models declines.²

² Results related to later cohorts are subject to the uncertainty associated with the projection and should be interpreted with caution.