Social Security is a great equalizer

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Persistent link: http://hdl.handle.net/2345/bc-ir:108896

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SOCIAL SECURITY IS A GREAT EQUALIZER

BY WENLIANG HOU AND GEOFFREY T. SANZENBACHER*

Introduction

As the U.S. population becomes more diverse, it will be increasingly important for policymakers addressing Social Security's solvency to understand the extent to which various racial and ethnic groups rely on Social Security versus other sources of retirement wealth. Yet, to date, studies on retirement wealth have tended not to focus on race and ethnicity and have largely ignored the role of Social Security. This *brief,* based on a recent paper, uses data from the *Health and Retirement Study* (HRS) to document the retirement resources of white, black, and Hispanic households at various points in the wealth distribution for five cohorts of 51-56 year olds between 1992 and 2016.[1]

The discussion proceeds as follows. The first section explains the calculation of retirement wealth. The second section shows how Social Security reduces retirement wealth inequality by race and ethnicity for typical households in each cohort. The third section looks at the impact of Social Security on retirement wealth inequality across wealth quintiles in a single year. The fourth section shifts from wealth to income to examine replacement rates – the ratio of projected retirement income to pre-retirement earnings. The final section concludes that, as policymakers consider changes to bring Social Security into fiscal balance, the distributional impact of any benefit cuts with respect to minority groups may be worth considering.

Calculating Retirement Wealth

The data source for calculating retirement wealth is the *Health and Retirement Study* (HRS), a biennial longitudinal survey of American households over age 50. Wealth for HRS respondents is defined broadly to include resources from: 1) Social Security; 2) employer-sponsored retirement plans (defined benefit (DB) and defined contribution (DC)); 3) non-DC financial wealth; and 4) housing wealth. The analysis covers five birth cohorts, including the recently added Late Boomer cohort (born 1960-1965). To allow a comparison between this youngest cohort and the others, the focus is on households at ages 51-56 who joined the HRS surveys in 1992, 1998, 2004, 2010 and 2016. The samples are separated into three racial/ethnic groups: 1) non-Hispanic white; 2) non-Hispanic black; and 3) Hispanic.[2]

The measures of Social Security, DB wealth, DC wealth, non-DC financial wealth, and housing wealth are calculated as follows.

Social Security. Data on Social Security benefits come from the Social Security Administration's (SSA) *Summary and Detailed Earnings Data*, which are linked to records for a subsample of the HRS data. To convert Social Security benefits – an income stream – into a wealth measure requires calculating the expected present value (EPV) at age 65. This calculation relies on survival probabilities from SSA life tables by birth year and sex and uses the long-run projected

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interest rate from the *Social Security Trustees Report* as of the year the individual first entered the HRS. Once the EPV at age 65 is calculated, it is further discounted back from age 65 to the age at the survey year.[3] If the respondent is married and eligible for spousal and survivor benefits, the benefit components are weighted by the appropriate survival probabilities and converted to an EPV as described above. Finally, to facilitate a comparison to other wealth that the household has accumulated by ages 51-56, Social Security wealth is prorated based on the ratio of earnings in the household's early 50s to its lifetime earnings.[4]

Defined Benefit Wealth. DB wealth is based on self-reported estimates of pension income at the participant's expected retirement age. Similar to Social Security, this expected income stream is transformed into a wealth measure by calculating the EPV of lifetime benefits.[5] This measure of DB wealth is then apportioned between past and projected service, based on self-reported years of tenure for past service and years from current age to expected retirement age for future service.

Defined Contribution Wealth. Respondents who report having a DC plan, such as a 401(k), in a current or previous job are asked for the account balance. DC wealth is simply the combined total of all accounts, plus any IRA accounts.

Non-DC Financial Wealth. Non-DC financial wealth includes the net value of stocks, mutual funds, bonds and bond funds along with the value of checking, savings, and money market accounts, certificates of deposit, and government savings bonds, excluding any of these assets held in DC plans and subtracting any debt. For households where debt exceeds wealth, the measure of non-DC financial wealth is allowed to be negative.

Housing Wealth. Housing wealth is the net value of the primary residence, which is the gross value less any relevant mortgages and home loans. For households where debt exceeds equity, housing wealth is allowed to be negative.

Retirement Wealth by Cohort

Table 1 shows retirement wealth – for now, excluding Social Security – for the typical household – defined as the average within the middle quintile of the retirement wealth distribution by race and cohort.[6] The non-Social Security retirement wealth held by white households averages about 7 times that of blacks and about 5 times that of Hispanics.

Table 1. Retirement Wealth (Excluding Social Security) at Ages 51-56 for Middle-Quintile Households within Race by Cohort, 2016 Dollars
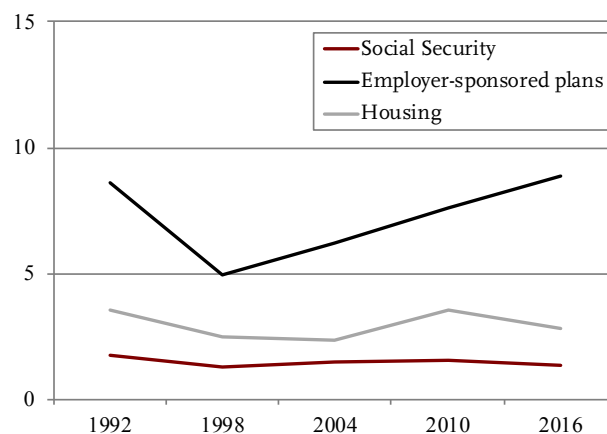
	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Baby	Early Boomer	Mid Boomer	Late Boomer
White	$255,200	$292,100	$297,200	$239,600	$176,900
Black	54,500	49,000	50,400	23,200	24,300
Hispanic	43,900	63,700	75,500	43,800	35,000
Wealth ratios					
White-to-black	4.7	6.0	5.9	10.3	7.3
White-to-Hispanic	5.8	4.6	3.9	5.5	5.1

Source: Authors' calculations from University of Michigan, *Health and Retirement Study* (HRS) (1992-2016).

Adding in Social Security wealth changes the picture dramatically (see Table 2 on the next page). Under this more complete measure, retirement wealth for white households drops to about 2.5 times that of minority households. Social Security has such a powerful effect because the program is nearly universal and its benefit formula is progressive.[7] A universal program allows minority workers to build up credits as they move from job to job. This constancy differs from employer-sponsored retirement plans, where minorities often work for employers that do not provide coverage. A progressive benefit formula provides much higher benefits relative to earnings for lower-wage workers than for their higher-wage counterparts. Since blacks and Hispanics earn significantly less than whites, their Social Security benefits are a much higher percentage of their pre-retirement earnings.

Race	HRS cohort				
	1992	1998	2004	2010	2016
	HRS	War Baby	Early Boomer	Mid Boomer	Late Boomer
White	$449,100	$525,600	$520,200	$469,500	$377,800
Black	177,200	207,100	173,700	180,800	172,700
Hispanic	155,500	248,700	226,500	194,100	186,000
Wealth ratios					
White-to-black	2.5	2.5	3.0	2.6	2.2
White-to-Hispanic	2.9	2.1	2.3	2.4	2.0

Source: Authors' calculations from HRS (1992-2016).

It is also helpful to take a closer look at the wealth ratios for three individual components of retirement wealth: Social Security, employer-sponsored plans, and housing wealth (see Figures 1a and 1b). Three takeaways emerge from the two figures. First, Social Security has always been a much more equally dis-

FIGURE 1A. RATIO OF WHITE-TO-BLACK RETIREMENT WEALTH AT AGES 51-56 BY SOURCE

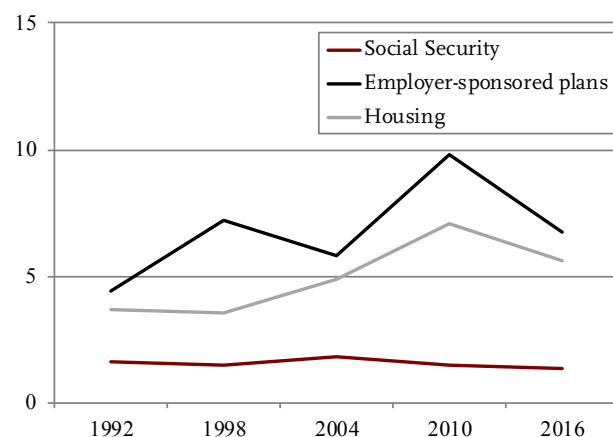*Source:* Authors' calculations from HRS (1992-2016).

tributed source of wealth than employer plans and housing. Second, compared to black households in particular, white households' wealth in employer-sponsored plans has risen as DC plans have become the norm – consistent with findings from prior research.[8] Finally, housing wealth became more un-equal in 2010, immediately after the Great Recession, but by 2016 this gap had narrowed a bit. The next question is what the story looks like at other points in the retirement wealth distribution.

FIGURE 1B. RATIO OF WHITE-TO-HISPANIC RETIREMENT WEALTH AT AGES 51-56 BY SOURCE

Source: Authors' calculations from HRS (1992-2016).

Retirement Wealth by Quintile (2016)

For a fuller picture of retirement wealth by race at a given point in time, this analysis looks at the distribution of wealth by quintile in 2016 for the Late Boomer cohort. (Results for other years are similar.) As in the cohort analysis, the first table shows retirement wealth excluding Social Security (see Table 3 on the next page). The discrepancy by race is enormous for the first three quintiles and declines as wealth levels rise. But, even in the top two quintiles, white households still have 2 to 4 times as much wealth as black and Hispanic households.

TABLE 3. RETIREMENT WEALTH (EXCLUDING SOCIAL SECURITY) AT AGES 51-56 FOR LATE BOOMER HOUSEHOLDS BY WEALTH QUINTILE WITHIN RACE, 2016

	Within race retirement wealth quintile				
Race	Bottom	Second	Third	Fourth	Top
White	$100	$50,700	$176,900	$527,600	$1,610,900
Black	-10,300	4,700	24,300	136,200	724,700
Hispanic	-7,000	6,200	35,000	123,200	605,900
Wealth ratios					
White-to-black	N/A	10.8	7.3	3.9	2.2
White-to-Hispanic	N/A	8.2	5.1	4.3	2.7

Source: Authors' calculations from HRS (2016).

Adding in Social Security dramatically reduces the ratio of white-to-black and white-to-Hispanic retirement wealth for the bottom three quintiles and slightly reduces the ratio for the top two quintiles (see Table 4). As a result, wealth ratios look remarkably consistent across the board, showing that white households have about twice as much wealth as their black and Hispanic counterparts.

TABLE 4. RETIREMENT WEALTH (INCLUDING SOCIAL SECURITY) AT AGES 51-56 FOR LATE BOOMER HOUSEHOLDS BY WEALTH QUINTILE WITHIN RACE, 2016

	Within race retirement wealth quintile				
Race	Bottom	Second	Third	Fourth	Top
White	$88,900	$216,600	$377,800	$750,300	$1,873,700
Black	20,600	96,700	172,700	306,100	915,800
Hispanic	37,400	110,900	186,000	302,200	802,700
Wealth ratios					
White-to-black	4.3	2.2	2.2	2.5	2.0
White-to-Hispanic	2.4	2.0	2.0	2.5	2.3

Source: Authors' calculations from HRS (2016).

From Wealth to Income

While the level and distribution of retirement wealth is interesting, the ultimate purpose of that wealth is to allow households to maintain their standard of living in retirement. Therefore, it is also useful to look at replacement rates, which are the ratios of the retirement income that could be generated by each household's resources divided by its pre-retirement income.

To calculate this ratio, the stock of wealth needs to be converted to an annual flow. For Social Security and DB wealth, this conversion involves prorating the annual benefit flows used above in the wealth calculation to reflect the accruals by ages 51-56. DC and non-DC financial wealth are assumed to grow at the market rate of return until age 65 and are then used to purchase a single-life immediate annuity with the market value. Although few households voluntarily annuitize wealth, annuities are a proxy for a sustainable withdrawal rate.[9] Household retirement income – the numerator in the replacement rate calculation – is the sum of the incomes from all sources. For the denominator, the analysis uses the average of the highest five years of significant earnings between 51 and 56, summed across members of a household when appropriate.[10]

TABLE 5. REPLACEMENT RATE AT AGES 51-56 FOR MIDDLE-QUINTILE HOUSEHOLDS WITHIN RACE BY COHORT

	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Baby	Early Boomer	Mid Boomer	Late Boomer
White	53%	63%	65%	58%	51%
Black	35	39	39	39	42
Hispanic	29	49	49	46	48

Source: Authors' calculations from HRS (1992-2016).

Table 5 (above) shows how replacement rates have evolved over five cohorts for the typical household. (Note that the numbers reflect only the wealth accrued by households in their mid-50s, so the replacement rates presented here are lower than if the rates

were measured at retirement.) The basic point is that inequality in retirement wealth does not translate to the same amount of inequality in replacement rates. In 2016, the typical white household had a replacement rate of about 51 percent based on income from all sources of retirement wealth. The typical black and Hispanic households were at 42 percent and 48 percent respectively. So, compared to white households, replacement rates for black and Hispanic households were much more equal than retirement wealth itself.[11] The reason for this relative equality is *inequality* in income. For example, in 2016, the typical household earnings from the denominator of the replacement rate for white households was $69,200 – it was $41,650 for black households and $37,700 for Hispanic households. So, in moving from retirement wealth to replacement rates, blacks and Hispanics have a lower earnings target than whites and their higher replacement rates from Social Security benefits significantly narrow the overall inequality gap.

Conclusion

The typical white household has more than twice the retirement wealth of the typical black and Hispanic household. But this inequality is still less extreme than measures of wealth that ignore Social Security. The reason is simple: Social Security is the most equal and most important form of retirement wealth for minority households.

In the near future, as policymakers begin to consider options to bring Social Security into fiscal balance, it may be worth considering the effect of any potential changes on the distribution of retirement wealth. Some policies that would reduce benefits, such as increases in the Full Retirement Age, would tend to increase retirement wealth inequality.

Endnotes

1 Hou and Sanzenbacher (2020).

2 The age, race, and ethnicity for couples is defined as that of the household financial respondent in the HRS survey.

3 This calculation follows a methodology well established in the literature. For example, see Gustman, Steinmeier, and Tabatabai (2014) or Fang, Brown and Weir (2016).

4 For more details on the calculation of Social Security wealth, see Hou and Sanzenbacher (2020).

5 This estimation follows Mitchell and Moore (1997) and Gustman, Steinmeier, and Tabatabai (2010).

6 A more common approach would be to simply show the median retirement wealth. However, when looking at a specific source of income, the median is often zero, especially for minority households.

7 See Devlin-Foltz, Henriques, and Sabelhaus (2016).

8 The annuity rate is the market annuity rate based on historical data from the Annuity Shopper (2016).

9 The estimates follow Goss et al. (2014) in defining earnings in excess of $100 a year as significant. If the household has substantial earnings in less than five years, the average is based on the number of years available.

10 The pattern is similar if housing wealth – which is seldom annuitized – is excluded from the calculation.

11 A portion of state and local government workers are not covered by Social Security.

References

Annuity Shopper. 2016. *Annuity Shopper Buyer's Guide* 31(1). Englishtown, NJ. Available at: https://www. immediateannuities.com/annuity-shopper/

Devlin-Foltz, Sebastian, Alice Henriques, and John Sabelhaus. 2016. "Is the U.S. Retirement System Contributing to Rising Wealth Inequality?" *RSF: The Russell Sage Foundation Journal of the Social Sciences* 2(6): 59-85.

Fang, Chichun, Charles Brown, and David Weir. 2016. "Cohort Changes in Social Security Benefits and Pension Wealth." Working Paper 2016-350. Ann Arbor, MI: University of Michigan Retirement Research Center.

Goss, Stephen C., Michael Clingman, Alice Wade, and Karen Glenn. 2014. "Replacement Rates for Retirees: What Makes Sense for Planning and Evaluation." Actuarial Note 155. Washington, DC: U.S. Social Security Administration.

Gustman, Alan L., Thomas L. Steinmeier, and Nahid Tabatabai. 2010. *Pensions in the Health and Retirement Study.* Cambridge, MA: Harvard University Press.

Gustman, Alan L., Thomas L. Steinmeier, and Nahid Tabatabai. 2014. "The Great Recession, Decline and Rebound in Household Wealth for the Near Retirement Population." Working Paper 20584. Cambridge, MA: National Bureau of Economic Research.

Hou, Wenliang and Geoffrey T. Sanzenbacher. 2020. "Measuring Racial/Ethnic Retirement Wealth Inequality." Working Paper 2020-2. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Mitchell, Olivia S. and James F. Moore. 1997. "Retirement Wealth Accumulation and Decumulation: New Developments and Outstanding Opportunities." Working Paper 6178. Cambridge, MA: National Bureau of Economic Research.

University of Michigan. *Health and Retirement Study.* "RAND HRS Longitudinal File 2016 V1 Public Use Dataset." (Including data from 1992-2016) Ann Arbor, MI.

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