CENTER for RETIREMENT RESEARCH at BOSTON COLLEGE

WHY DO LATE BOOMERS HAVE SO LITTLE WEALTH AND HOW WILL EARLY GEN-XERS FARE?

Anqi Chen, Alicia H. Munnell, and Laura D. Quinby

CRR WP 2023-6
May 2023

Center for Retirement Research at Boston College
Haley House
140 Commonwealth Avenue
Chestnut Hill, MA 02467
Tel: 617-552-1762 Fax: 617-552-0191
https://crr.bc.edu

All of the authors are with the Center for Retirement Research at Boston College. Anqi Chen is a senior research economist and the assistant director of savings research. Alicia H. Munnell is the director and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management. Laura D. Quinby is a senior research economist. The research reported herein was pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement and Disability Research Consortium. The findings and conclusions expressed are solely those of the authors and do not represent the views of SSA, any agency of the federal government, or Boston College. The views expressed here do not necessarily reflect the views of the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of the contents of this report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation or favoring by the United States Government or any agency thereof. The authors would like to thank Nilufer Gok for excellent research assistance.

About the Center for Retirement Research

The Center for Retirement Research at Boston College, part of a consortium that includes parallel centers at the National Bureau of Economic Research, the University of Michigan, and the University of Wisconsin-Madison, was established in 1998 through a grant from the U.S. Social Security Administration. The Center's mission is to produce first-class research and forge a strong link between the academic community and decision makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center conducts a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources.

Center for Retirement Research at Boston College
Haley House
140 Commonwealth Avenue
Chestnut Hill, MA 02467
phone: 617-552-1762 Fax: 617-552-0191
https://crr.bc.edu

Affiliated Institutions:
The Brookings Institution
Mathematica – Center for Studying Disability Policy
Syracuse University
Urban Institute

Abstract

Due to changes in the retirement landscape in recent decades, Late Boomers (who are now nearing retirement) would be expected to have less wealth from traditional pensions, Social Security, and housing, but higher 401(k)/IRA assets compared to Mid Boomers at the same age. Strikingly, though, Late Boomers have seen a drop in their 401(k)/IRA assets. The questions are why is their 401(k)/IRA wealth lower and what do the patterns mean for younger cohorts.

The paper found that:

- About a quarter of the drop in wealth was due to a shift to households with lower average 401(k)/IRA balances – a rising share of Black and Hispanic households and a declining share of households that are married and have college degrees.
- Most of the remaining decline is due to a weakened link between work and wealth – even Late Boomers who had a job after the Great Recession earned less, were less likely to participate in a 401(k), and accumulated fewer assets when they did.
- These results have some potential good news for Gen-Xers, given that economic factors linked to the Great Recession, which should abate over time, were the main culprit.

The policy implications of the findings are:

- In considering changes to Social Security, it is important to recognize the that the program has already been cut by the increase in the Full Retirement Age.
- Similarly, other sources of retirement income – mainly 401(k)/IRA saving – have not been increasing.
- Lower wealth households need some way to automatically save for retirement in addition to Social Security.

Introduction

Recent decades have seen a shift from defined benefit (DB) pensions to defined contribution (DC) plans, a rise in Social Security's Full Retirement Age (FRA), and a drop in house values during the Great Recession. Hence, while younger cohorts were expected to reach retirement with less wealth from pensions, Social Security, and housing, increasing DC balances were predicted to offset the gap. However, the numbers for the most recent cohort in the *Health and Retirement Study* (HRS) – the Late Boomers – show not only the expected declines but also an unexpected drop in 401(k)/IRA assets.

The question is why Late Boomers have such a low level of average 401(k)/IRA wealth; how the trends vary by wealth quintile and by race/ethnicity; and what the patterns imply for Early Gen-Xers and subsequent cohorts. This paper attempts to answer these questions using the Federal Reserve's *Survey of Consumer Finances* (SCF), where the construction of "synthetic" cohorts provides some insights on the experience of Late Boomers over their worklife and using the HRS to look at actual patterns of wealth accumulation by cohort. The HRS also serves as the basis for a Oaxaca-Blinder decomposition to evaluate the factors depressing Late Boomer wealth, such as the weak labor market during the Great Recession and changes in the marital and racial composition of cohorts over time.

The discussion proceeds as follows. The first section provides background and results from other studies regarding the trend in wealth across cohorts. The second section describes the data, and the third section lays out the methodology for the decomposition. The fourth section presents the results. The final section concludes that two factors were at play in the decline in the Late Boomers' wealth – a shift in the population towards lower-wealth households and, more importantly, a weakening of the link between work and wealth accumulation. While the demographic shifts will continue to bring down the average for future cohorts, the weakening of the link between work and wealth accumulation appears to reflect the fact that Late Boomers never recovered from the Great Recession. To the extent that the decline in wealth is a Great Recession story, some of the downward pressure on wealth holdings should abate.

Background

The shift from DB plans to 401(k)s/IRAs has been accompanied by a decline in Social Security wealth as the FRA has risen and a sharp drop in housing wealth during the Great

Recession, particularly for Black households.[1] Thus, the expected pattern by cohort is a clear shift away from DB plans, slightly less Social Security wealth, and significantly less housing wealth. Sanguine observers hoped that some of the losses would be offset by higher 401(k)/IRA balances given younger cohorts' greater reliance on these plans. Indeed, the Late Boomers – born 1960-1965 – were the first cohort to enter the labor force just as 401(k)s began to spread in the 1980s and therefore the first with the possibility of lifetime coverage under a DC plan.

The data, however, for the Late Boomers present a much more dismal picture. Comparing the Late Boomers to Mid Boomers reveals not only the predicted declines in Social Security, DB wealth, and housing but also a significant drop in DC assets (see Figure 1). Specifically, 401(k)/IRA balances dropped from an average of $52,300 for the Mid Boomers to $32,700 for Late Boomers. Even more surprising, the pattern is evident across all – except the top – wealth quintiles.[2]

Although we appear to be the first to ring the alarm over the fate of the Late Boomers, other researchers have noted a decline in wealth accumulation across cohorts. Fang, Brown and Weir (2016), using the HRS and supplementary sources to document cohort changes in retirement wealth through 2010, concluded that retirement wealth declined after the turn of the century, in both absolute and relative (to lifetime earnings) terms, as the gain in DC/IRA assets was not enough to offset the loss in DB wealth. Sabelhaus and Volz (2022), using data from the SCF, found a decline in wealth at younger ages for Mid-Late Boomers and Gen-Xers in the lower quintiles of the wealth distribution.

Other researchers have focused more on replacement rates – retirement income as a percentage of pre-retirement earnings – when exploring the future of retirement. The replacement-rate lens for Social Security captures not only the impact of the increase in the FRA but also growth in two-earner couples.[3] Butrica, Cashin, and Uccello (2006) used the MINT model to project economic well-being for retirees in 2022 and 2062, concluding that replacement

[1] Butrica and Uccello (2004) and Hou and Sanzenbacher (2021). The size of the decline in Social Security wealth depends on earnings levels across cohorts, since higher earnings increase benefits and counter the rising FRA.
[2] See Table 4, discussed later.
[3] When most women did not work, the wife who claimed at age 65 was entitled to a benefit equal to 50 percent of that of her husband's, so if the replacement rate for the typical worker was 40 percent, the replacement rate for the couple would be 60 percent. As women went to work, however, the calculation became less obvious, since women were entitled to the larger of the spouse's benefit or the benefit they could earn on their own. When women's earnings were modest, their wages increased the couple's pre-retirement income, but did not increase the total amount the couple received from Social Security. As women's wages became equal to their husband's, the replacement rate for the couple with two typical workers would be 40 percent. See Wu et al (2013)

rates will decline over this period. Butrica, Smith and Iams (2012) projected that retirement income at 67 relative to pre-retirement earnings was likely to decline for Baby Boomers and Gen-Xers in the wake of the increase in the FRA. Gist and Hatch (2014), using data from the *Panel Study of Income Dynamics* (PSID), found that median replacement rates decline steadily over the four birth cohorts from World War II babies to Gen-Xers and that younger generations appear to be considerably less well situated for retirement than baby boomers and earlier cohorts. None of these studies, however, noted any decline in the accumulation of or projected income from 401(k)/IRAs.

Much of the recent studies looking at retirement wealth have focused on the racial/ethnic divide. Hou and Sanzenbacher (2021) and Wolff (2018) both show that the typical Black and Hispanic household has less than half the retirement wealth of their White counterparts and both emphasize that these differences would have been much greater in the absence of the equalizing effects of Social Security. The racial lens, however, obscures the decline in wealth across cohorts and the precipitous drop in the wealth of Late Boomers.

The question is what happened to Late Boomers and what should policymakers expect for Early Gen-Xers? Is the significant drop in the average wealth of Late Boomers a one-shot event or a harbinger of declines to come? Initial analysis of Late Boomer DC wealth suggests that the Great Recession may have taken a toll, with many suffering through a weak labor market during their prime working years.[4] However, prior studies also note other factors that could be driving down balances, including the increasing diversity of near-retirees and the decline in time spent married.[5] If most of the drop in Late Boomer wealth is explained by the Great Recession, then policymakers could expect more positive outcomes for Early Gen-Xers and subsequent generations. If the more structural explanations dominate, then Early Gen-Xers may continue to see a decline in average wealth.

The following analysis explores the work lives of Late Boomers, documents the wealth holdings of older households to take a close look at Late Boomers on the eve of retirement, by wealth quintile, and employs a Oaxaca-Blinder decomposition to determine whether cyclical or structural factors were most important in explaining the sharp decline in wealth of Late Boomers.

[4] Chen, Hou, and Munnell (2020).
[5] Butrica, Smith, and Iams (2014) and Wu et al. (2013). Munnell, Sanzenbacher, and King (2017) demonstrate that younger women are spending less time married. Gist and Hatch (2014) also suggest that rising inequality is concentrating wealth in the top quintiles for younger cohorts.

Data

The analysis uses data from the Federal Reserve's *Survey of Consumer Finances* to explore what may be causing the decline in DC wealth among Late Boomers. It then turns to 1992-2020 data from the *Health and Retirement Study* to calculate total retirement wealth across wealth quintiles by cohort and by race and to define the explanatory variables underlying the decomposition.

Data from the SCF

While the HRS data are excellent for looking at retirement and total wealth for households 50 and older, it provides limited information about what happened to the various cohorts earlier in life. The Federal Reserve's *Survey of Consumer Finances* (SCF) includes households of all ages, has been conducted every three years since 1983, and questions households about their income, wealth, and pension coverage. Although the SCF does not follow the same households over time, it is possible to construct "synthetic" cohorts from these triennial SCF surveys to get a picture of employment, earnings, and wealth trends across the lifecycle

Data from the HRS

While the SCF data provides valuable insight for various cohorts earlier in their careers, the HRS provides more complete measures of retirement wealth (such as Social Security and DB wealth) and has a larger sample to examine variations across racial/ethnic groups. The total number of households in the five cohorts from the HRS cohort to the Late Boomers is 15,984. Limiting the sample to White, Black, and Hispanic households reduced the total by 730, and further adjustments for households with missing or inconsistent data brought the final number of households to 14,085.

The wealth measures used in this study include: 1) Social Security; 2) wealth from employer-sponsored retirement plans (including annuitized DB wealth); and 3) housing and financial wealth. Three different wealth definitions are used throughout: Total wealth includes all three categories listed above; retirement wealth includes just Social Security, DB wealth, and 401(k)/IRA balances; and DC wealth includes just 401(k) and IRA balances.

Social Security. The calculation begins with Social Security wealth, which involves the projection of an individual's wages to establish Average Indexed Monthly Earnings (AIME), the determination of initial benefits at a particular claiming age based on the benefit formula and any required actuarial adjustments. The calculation of the present discounted values of those benefits over the individual's expected lifetime is as follows:

$$EPV_{62} = \sum_{t=62}^{120} P_t \; SSB_t \; (1 + r_t)^{(62-t)} \qquad (1)$$

For this analysis, we use Social Security Wealth variables in the RAND HRS longitudinal file.[6] Decisions are required regarding assumed claiming age and the relevant wave. RAND calculates wealth at three claiming ages – 62, the FRA, and 70. For simplicity and to reflect the reduction in wealth due to the increasing FRA across cohorts, we selected age 62.[7] RAND also calculates wealth for cohort entrance waves 1,4, 7, 10 and 13; wealth for the same respondent may vary across waves as more information becomes available regarding the individual's earnings history. While projections in later waves are probably more accurate, we chose the estimate from the first wave for all cohorts since only one wave is available for the Late Baby Boomers – the focus of this analysis.

The RAND data required adjustments, because RAND HRS excludes Social Security wealth for individuals who are already claiming or above the claiming age. This exclusion, also means that the value of spousal and survivor benefits based on such an individual's earnings history was missing for both the respondent and the spouse.[8] To address these issues, we first filled in Social Security wealth for claiming individuals based on their own earnings history, drawing from information from other waves. Then, we added spouse and survivor Social Security wealth in two steps. The first step involved identifying individuals in the wave 10 who were likely to benefit from the earnings history of their spouse who were not claiming – individuals whose own Social Security wealth was less than half of their spouse's – and calculating the ratio of spouse and survivor wealth to the spouse's Social Security wealth.[9] The

[6] For more details on the calculation of Social Security wealth in the RAND longitudinal file, see Fang and Kapinos (2016).
[7] Interestingly, wealth for a given individual varies relatively little across claiming ages.
[8] This omission was was confirmed by HRS staff via email.
[9] Wave 10 is the best source for calculating the ratio because the HRS started separately reporting Social Security wealth (based on own earnings history) and spouse and survivor Social Security wealth for each individual in the household.

second step involved multiplying the median ratio in step one by the spouse's Social Security wealth for individuals with missing spouse and survivor Social Security wealth. One final adjustment is required for respondents or spouses who started claiming before their entry to the HRS or for those without a wealth calculation in any wave. For these households, we impute household Social Security wealth using the following equation:

$$SSW_{i,c} = \alpha + \boldsymbol{\beta} \boldsymbol{X_{i,c}} + \varepsilon_{i,c} \quad (2)$$

where $\boldsymbol{X_{i,c}}$ includes race, education, household earnings, and whether or not the respondent and spouse ever worked up until the survey year. After these adjustments, Social Security wealth from the RAND HRS looked comparable to results from our own calculations.[10]

Finally, Social Security wealth was discounted back from 62 to the age of the individual in the survey year to make Social Security comparable to other household wealth for those 51-56.[11]

Employer-Sponsored Retirement Plans. For both DB and DC retirement plans, the calculation of wealth is based on data self-reported by HRS household.[12] Respondents who report having a DC plan, such as a 401(k) or 403(b), in either their current job or a previous one are asked for the account balance, including the value of employer and respondent contributions as well as accumulated investment returns. DC pension wealth is therefore simply the total balances of all accounts, plus the balance of any IRA accounts.

DB wealth is based on self-reported estimates of pension income at the participant's expected retirement age. Similar to Social Security, the exercise involves calculating the expected present value of lifetime benefits – implicitly assuming the worker does not retire prior to their expected retirement age – discounting using annual survival probabilities and a rate of

[10] While some spousal and survivor information is available or can be calculated from administrative earnings and benefit records, a substantial percentage were missing information and would have required some form of imputation.

[11] This calculation is not unique, and follows a methodology well established in the literature. For example, see Gustman, Steinmeier, and Tabatabai (2014) or Fang, Brown and Weir (2016). For a detailed methodological description, also see Fang and Kapinos (2016).

[12] Respondents may not be fully aware of all the complexities of the pension benefit features and formulas associated with their plans. Therefore, the HRS also provides employer-produced descriptions of the pension formulas governing benefits, which could be evaluated using special software with their earnings histories. However, it is infeasible to use employer-reported data because those data are not available for the latest HRS cohort. Gustman, Steinmeier, and Tabatabai (2010) compare self-reported with employer-reported plan data. Their comparison reveals substantial misreporting but little evidence of systematic biases. For more detailed discussion, see Munnell et al (2016).

interest.[13] It then apportions those benefits 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.[14]

Non-DC Financial Wealth. Aside from wealth held in employer-sponsored DC plans, this project also considers other sources of financial wealth. Non-DC financial wealth is calculated as the sum of the appropriate wealth components including net value of stock, mutual funds, bonds and bond funds, the value of checking, savings, and money market accounts, certificates of deposit, and government savings bonds, excluding holdings of any of these assets held in DC plans such as 401k and IRAs and less debt. For households where debt exceeds wealth, the measure of non-DC financial wealth is allowed to be negative.

Housing Wealth. The final source of retirement wealth in this project is housing wealth. Housing wealth is the net value of the primary residence, which is calculated as the gross value of the primary residence less any relevant mortgages and home loans. For households where debt exceeds the value of the house, housing wealth is allowed to be negative.

In addition, to the wealth variables, explanatory variables are required for the decomposition. Race/ethnicity, marital status, and number of children are straightforward. If at least one member of the household has a college degree, the household is defined as "college or higher." Years worked is based on the work history available in the public HRS.

Methodology

With these data in hand, the first step is to examine the work lives of "synthetic" SCF cohorts to determine when and why the trajectories of Late Boomers may have changed. The methodology for this exercise involves linking, say, Late Boomers who were born in 1960-1965, across SCF survey years (see Table 1 for the birth years of each cohort). The same calculation is repeated for earlier cohorts.

The next step, using the HRS data, is to simply summarize averages for total wealth, retirement wealth, and 401(k)/IRA holdings across cohorts by wealth quintile and race/ethnicity.

The final step involves using the HRS data for a Oaxaca-Blinder decomposition to assess

[13] As in Mitchell and Moore (1997) and Gustman, Steinmeier, and Tabatabai (2010). We use the Gustman-Steinmeier-Tabatabai pension values for waves 1-10.

[14] Some respondents in the HRS have "non-respondent" spouses, where no data has been collected for the spouse. For these households, we impute both DC and DB wealth using the simple linear regression described above.

the importance of various factors in explaining why Late Boomers have relatively fewer resources than Mid Boomers. The decomposition begins by estimating ordinary least squares regressions – one for each cohort – that link wealth for households in that cohort based on demographic and economic variables:

$$W_{i,c} = \alpha + \beta X_{i,c} + \varepsilon_{i,c} \quad (3)$$

where $W_{i,c}$ equals the total wealth of household i in cohort c. $\beta X_{i,c}$ is the coefficient vector of a set of characteristics that relate to wealth. The demographic variables include race/ethnicity, marital status, number of children, and education. Because of data constraints, the only economic variable included is percentage of household years worked when the head was between ages 42 to 49 – the age of Late Boomers at the beginning of the Great Recession. It would have been nice to include a variable reflecting the earnings trajectories for different cohorts or the number of years covered by a retirement plan, but too much information was missing.

Using these regressions, the difference in mean wealth outcomes between the Late Boomers and either of the other cohorts ($\overline{W_{LB}} - \overline{W_{-LB}}$), can be decomposed as follows:

$$\overline{W_{LB}} - \overline{W_{-LB}} = \beta_{LB}(\overline{X_{LB}} - \overline{X_{-LB}}) + \overline{X_{-LB}}(\beta_{LB} - \beta_{-LB}), \quad (4)$$

where the first term on the right-hand side of the equation predicts what Late Boomers' wealth would have been had they had the demographic and economic characteristics of the older cohort, while the second term measures how much of the raw difference is due to changing relationships between the explanatory variables and total wealth (changes in β across cohorts). The exercise is conducted for total wealth, retirement wealth, and 401(k)/IRA balances. The goal is to determine whether Late Boomer wealth fell mainly due to demographics or cyclical factors in order to provide an early indication of how Early Gen-Xers might fare.

Results

This section presents three groups of results. The first summarizes the work patterns and 401(k)/IRA accumulations for Late Boomers and earlier cohorts in the middle wealth quintile based on the "synthetic" cohorts constructed from the SCF. The second shows the extent to which the decline in average 401(k)/IRA holdings is limited to the middle wealth cohort and how the pattern varies by race. The final group of results summarize the Oaxaca-Blinder decomposition to identify the factors that depress average wealth holdings for Late Boomers.

Patterns from the SCF

Examining Late Boomers across their lifecycle shows that they were not always behind in private retirement savings. In fact, until their mid-40s, Late Boomers held more 401(k)/IRA assets than earlier cohorts at the same age (see Figure 2). Thereafter, however, that pattern changed abruptly; growth ceased and average assets actually dropped. While their balances did start to grow again as they moved into their 50s, their holdings remained significantly below those of earlier cohorts.

Interestingly, the Late Boomer's 40s coincided with the onset of the Great Recession (see Table 1), and this economic calamity appears to have particularly affected them. Their employment rate – that is, the percentage of individuals working – dropped sharply (see Figure 3). More importantly, the percentage of the cohort working did not rebound as the economy recovered. Thus, one explanation for the low level of retirement assets is simply that many Late Boomers ended up permanently unemployed, unable to contribute to their 401(k)s, and likely having to drain accumulated retirement assets to support themselves. But a closer look at those who were employed suggests that the damage went beyond the unemployed.

Even among working households, the Great Recession appears to have taken a greater toll on Late Boomers than earlier cohorts. When Late Boomers reached their 40s, their average earnings flattened out and then declined continuously thereafter, leaving them in their 50s with earnings well below the earnings of Early and Mid Boomers (see Figure 4).

The Late Boomers' lower earnings were accompanied by a decline in the share of these households participating in a 401(k) plan (see Figure 5). As one would expect, initially 401(k) participation rates were much higher for Late Boomers than for those in preceding cohorts, since they were the first cohort to spend their entire careers covered by a DC plan. But participation rates peaked for Late Boomers around age 40 and then began to decline, so that by age 50 their 401(k) participation rates were below those of earlier cohorts.

Finally, even for those working households participating in a 401(k) plan, the trajectory of their 401(k)/IRA balances changed dramatically after the Great Recession. Whereas before the economic collapse their balances exceeded those of earlier cohorts, afterwards they flattened and remained below those of other Boomers (see Figure 6).

In short, the decline in 401(k)/IRA balances for the Late Boomers reflects not only the unemployment caused by the Great Recession but also the deterioration of labor market

outcomes for those who stayed employed. The question is why the Late Boomers were hit so hard. Were their underlying demographics different from earlier cohorts? Were they simply at a vulnerable stage in their career when the Great Recession hit? Or is the 401(k) system simply not working for middle-income households? The answers to these questions have important implications for future cohorts. The SCF data suggest some reasons for hope since average 401(k)/IRA assets for working households in Early, Mid, and Late Gen-Xers and for Early Millennials are slightly higher than those for the Late Boomers (Figure 7).

HRS Results by Cohort

Looking at average HRS wealth by cohort can answer three questions. First, is the overall pattern what one would have expected with regard to Social Security, DB, and housing wealth? Second, do the patterns differ by quintile? Finally, do the patterns differ by race/ethnicity?

Tables 2 and 3 display the averages for total wealth and retirement wealth for the middle quintile. For this quintile, Social Security is the major source of wealth and, as expected, with the increase in the FRA from 65 to 67, the present value of future benefits has declined. Similarly, the shift in employer-sponsored plans from DB to DC is evident in the declining value of average DB wealth. Housing wealth, which took a big hit in the Great Recession, had not recovered from its 2004 peak by 2016 (see Figure 8). Net financial wealth is also down, perhaps also a casualty of the Great Recession.

The component of interest here is the sharp decline in average 401(k)IRA balances from $52,300 for the Mid Boomers to $32,700 for the Late Boomers. This decline is unprecedented; DC assets were generally increasing from the HRS cohort through the Early Boomers as 401(k) coverage spread, and then declined slightly in the wake of the stock market collapse during the Great Recession. Thereafter, even though the stock market increased continuously between 2010 and 2016 (see Figure 9), DC balances plummeted for the Late Boomers.

One obvious question is whether the decline was limited to these middle-wealth households or whether it was evident across the wealth spectrum. The results in Table 4 show that average 401(k)/IRA wealth declined across all wealth quintiles except the top, although the severity of the decline varied by wealth group. For the middle quintile, Late Boomer holdings

were about 65 percent of those for Mid Boomers; but the reductions were much larger for lower wealth quintiles and minimal for households with more wealth

The final issue is the pattern by race. The results are similar to those found by others, with Black and Hispanic households in the middle quintile holding only a fraction of the wealth of their White counterparts (see Tables 5a-5f). Interestingly, however, Late Boomers in these traditionally disadvantaged groups have not experienced the same decline in retirement wealth as Whites. Their Social Security wealth increased compared to that of Mid Boomers, and their 401k)/IRA holdings showed no clear pattern, with an increase for Black households and a decline for Hispanic households. The shift from DB to DC plans produced a decline in DB wealth for White and Black households, but such wealth traditionally represented only a tiny portion of retirement wealth of Black and Hispanic households. With their Social Security wealth holding steady and modest changes elsewhere, retirement wealth for Black and Hispanic households relative to White households actually rose from Mid Boomers to Late Boomers. The same pattern held for housing wealth, which remained steady for Black and Hispanic households but declined for White households.

The fact that the decline in wealth from Mid Boomers to Late Boomers was not driven by a worsening situation for Black and Hispanic households does not mean that the racial composition of the population is not relevant to the decline in wealth from one cohort to the other. Specifically, since Black and Hispanic households have less wealth than their White counterparts, to the extent that non-White households increase as a share of the total, average cohort wealth will decline. Similarly, a decline in marriage rates would mean that a typical household would have less wealth (see Table 6). The following analysis attempts to sort out the impact of any changes in the demographic and economic factors that might have led to the sharp decline in wealth for Late Boomers.

Results from the Decomposition

As discussed, the decomposition begins with ordinary least squares regressions to estimate the relationship between various measures of wealth and demographic and economic variables for the relevant cohorts. The results of these regressions for Early, Mid, and Late Boomers are shown in Tables 7-9. To ensure a large enough sample size, the equations are estimated for the middle three quintiles. The coefficients of the demographic variables – Black

household, Hispanic household, married, college or higher, and number of children – enter the equations with the expected signs and are statistically significant. The economic variable – percentage of household years worked when the head was between ages 42 to 49 – also has a statistically significant positive relationship with wealth accumulation across cohorts and across definitions of wealth.[15]

These equations constitute the basis for the Oaxaca-Blinder decomposition, which could explain the change in wealth between any two cohorts, but the focus here is the change in wealth between the Mid Boomers and the Late Boomers. Thus, we perform the following decomposition outlined in equation (4).:

$$\overline{W_{LB}} - \overline{W_{MB}} = \beta_{LB}(\overline{X_{LB}} - \overline{X_{MB}}) + \overline{X_{MB}}(\beta_{LB} - \beta_{MB})$$

The first step is to estimate Late Boomer wealth ($\overline{W_{LB}}$) and Mid Boomer wealth ($\overline{W_{MB}}$) -- sequentially for total wealth, retirement wealth, and DC wealth – based on the regression results, by multiplying the mean value for each variable by the coefficient. The following discussion focuses on retirement wealth (see Table 11), but, as discussed below, the patterns are similar for total wealth and 401(k)/IRA wealth.

This calculation shows retirement wealth for Mid Boomers is $350,449 and for Late Boomers $299,703 – a difference of $50,745. The challenge is to explain the reasons for this difference.

The first part of the decomposition measures the expected change in Late Boomer retirement wealth if this cohort had the same characteristics as Mid Boomers in terms of share of Black households, Hispanic households, college graduates, married households, number of kids, and percentage of years worked. More specifically, the first part assumes that the coefficients are fixed at the levels in the Late Boomer regression and calculates what would have happened to Late Boomers retirement wealth if the variables changed to Mid Boomer values.

The results (column 2 of Table 11) indicate that if the share of Black Households were equal to that of Mid Boomers, average Late Boomer wealth would have been higher by $585; for Hispanic households the comparable number is $2,676. Similarly, if the share of married households and the college graduates were at the Mid Boomer level, Late Boomers' wealth

[15] The age range of 42-49 is used because that was the age Late Boomers were at the start of the Great Recession (see Table 1) and the earlier SCF analysis showed that employment, earnings, and DC assets of Late Boomers never fully recovered after the Great Recession.

would have been $4,280 and $5,908 more, respectively. Since the number of children did not change very much between cohorts, this variable did not have a statistically significantly coefficient. On the economic side, if Late Boomers had worked as much as Mid Boomers when they were 42 to 49, they would have around $1,339 dollars more in retirement wealth. In all, the change in the demographic and economic characteristics and work activity between Mid to Late Boomers explains $14,788 of the decline in retirement wealth, or 29 percent of the total decline.

The second part of the decomposition (column 3 of Table 11) measures the extent to which a change in the relationship between the explanatory variables and wealth – that is, a change in the coefficients – could have impacted wealth. This exercise assumes that the shares of each variable are fixed at the Mid-Boomer level and predicts what would have happened to retirement wealth if the coefficients changed as they did between Mid Boomers and Late Boomers. This part of the analysis produced three statistically significant coefficients.

The first pertained to the share of households with a Hispanic head. The results indicate that if having a Hispanic head affected Late Boomers' wealth as it did that of Mid Boomers, Late Boomer's retirement wealth would be $4,724 less. That is, the wealth accumulation prospects for Hispanic households improved between these two cohorts.

The second variable with a statistically significant coefficient is the percentage of household years worked for those with a head ages 42-49. Here the impact is very large: if the percentage of years worked affected the wealth of Late Boomers as it did Mid Boomers, Late Boomers would have $55,552 more in retirement wealth. That is, from the Mid Boomers to the Late Boomers, the link between work and wealth accumulation declined significantly.

The final variable where a change in the coefficient affected wealth accumulation is number of children. The results say that if the effect of children on wealth for Late Boomers mirrored that for Mid Boomers, their retirement wealth would have been $13,500 lower. One possible explanation for this anomalous result may be that student loans became a socially acceptable way to pay for college, allowing parents to save more.

The decomposition exercise is also performed for total wealth and for DC wealth (see Tables 10 and 12). Broadening the definition to total wealth increased the magnitudes involved – the difference was $76,700, but the pattern was virtually the same as for retirement wealth. Had Late Boomers had the same race/ethnicity, marital status, and education composition as Mid Boomers, their total wealth would have been higher by about $18,180. Again, most of the action

occurred from the change of the coefficient that relates work to wealth. If that coefficient had not declined, Late Boomers wealth would have been higher. In contrast, if the coefficient relating to children had not declined, Late Boomers total wealth would have been lower.

Narrowing the focus to 401(k)/IRA wealth, of course, reduced the magnitudes involved – the difference to be explained is $11,300, and the decomposition produced basically the same pattern. The changing shares of Black, Hispanic, and married households reduced Late Boomer wealth. In terms of changing coefficients, the decline in the relationship between work and wealth accumulation had the largest impact; between children and wealth also had a sizable effect. A factor that showed up only in the DC wealth equation is a change in the relationship between college and wealth accumulation; the results indicate if the coefficient had not declined Late Boomer DC wealth would have been higher.

The question is what to make of these results. First, the decomposition brings home the fact that one cannot look at the trends in *average* wealth by households without considering the demographics. And as long as non-White households earn less, inherit less, and therefore accumulate less assets than White households, any increase in their share of the total population will bring down any measure of average wealth. Similarly, even if total wealth were increasing, the shift from married to single-person households would produce a decline in average household wealth. And if the percentage of households with a college degree declines, so will wealth accumulation. All those things happened between the Mid Boomers and the Late Boomers

The second important result that persisted throughout was the decline in the relationship between work and wealth accumulation. This pattern is fully consistent with the "synthetic" cohort analysis from the SCF, discussed earlier, which showed that even Late Boomers who had a job after the Great Recession earned less, were less likely to participate in a 401(k) plan, and accumulated fewer assets in those plans. Work, for these middle quintiles of Late Boomers, simply did not produce the boost to wealth accumulation that it had for previous cohorts.

When thinking about what the findings imply for Gen-Xers and subsequent cohorts, it is useful to look at how much of the change in wealth was attributable to the change in shares and how much to the change in coefficients. For total wealth and retirement wealth, the changing demographics accounted for 24-29 percent of the total; the rest attributable to shifting

coefficients – the most important of which was the weakened link between work and wealth. For 401(k)/IRA wealth, the change in shares and the change in coefficients were equally important.

This finding seems like good news for the wealth holdings of future generations. Yes, the racial and marital status shifts will continue to bring down the average even if the relative wealth holdings of each subgroup remain stable. But these factors were not the major source of the decline. The big change was the weakening of the link between work and wealth accumulation for the Late Boomers who were in their 40s during the Great Recession and never recovered. To the extent that the decline in wealth is a Great Recession story, wealth holdings should rebound for future cohorts.

Conclusion

Late Boomers have low levels of wealth regardless of how it is defined – total wealth, retirement wealth, and 401(k)/IRA wealth. A decline in some wealth components had been expected as a result of the rise in Social Security's FRA, the shift from DB to DC plans, and a drop in housing values during the Great Recession. But increasing DC balances were predicted to offset the gap, since Late Boomers were the first generation where workers could have spent their whole career covered by a 401(k) plan. That did not happen; average DC wealth for those in the middle quintile dropped from $52,300 for Mid Boomers to $32,700 for Late Boomers. In fact, declines occurred across all but the top quintile.

A Oaxaca-Blinder decomposition suggests two factors were at play – a change in the composition of households and a weakening for Late Boomers of the link between work and wealth accumulation. This is not a tale of the deteriorating status of Black and Hispanic households; indeed, the wealth of non-White households has increased relative to their White counterparts. But Black and Hispanic households have less wealth than White households, so when they increase as a share of the total households, average cohort wealth will decline. Similarly, a decline in the percentage of households married or with a college degree will bring down the average. For total wealth and retirement wealth, the changing demographics accounted for 24-29 percent of the total decline.

The rest was attributable to shifting coefficients – the most important of which was the weakened link between work and wealth. This pattern is fully consistent with the "synthetic" cohort analysis from the SCF, which showed that even Late Boomers who had a job after the

Great Recession earned less, were less likely to participate in a 401(k) plan, and accumulated fewer assets in those plans. Work, for Late Boomers, simply did not produce the boost to wealth accumulation that it had for previous cohorts.

This finding is potentially good news for the wealth holdings of future generations. While the demographic/education shifts will continue to bring down the average, these factors were not the major source of the decline. The big change was the weakening of the link between work and wealth accumulation for the Late Boomers who were in their 40s during the Great Recession and never recovered. To the extent that the decline in wealth is a Great Recession story, some of the downward pressure on wealth holdings should abate.

References

Butrica, Barbara and Cori Uccello. 2004. "How Will Boomers Fare at Retirement?" Working Paper 2004-05. Washington, DC: AARP Public Policy Institute.

Butrica, Barbara A., David B Cashin, and Cori E Uccello. 2006. "Projections of Economic Well-Being for Social Security Beneficiaries in 2022 and 2062." *Social Security Bulletin* 66(4).

Butrica, Barbara A., Karen E. Smith, and Howard M. Iams. 2012. "This is Not Your Parents' Retirement: Comparing Retirement Income Across Generations. *Social Security Bulletin* 72(1): 37-58.

Chen, Anqi, Wenliang Hou, and Alicia H. Munnell. 2020. "Why Do Late Boomers Have So Little Retirement Wealth" *Issue in Brief* 20-4. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Dushi, Irena, Howard M. Iams, and Brad Trenkamp. 2017. "The Importance of Social Security Benefits to the Income of the Aged Population." *Social Security Bulletin* 77(2): 1-12.

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.

Fang, Chichun and Kandice Kapinos. 2016. "Health and Retirement Study Prospective Social Security Wealth Measures of Pre-Retirees." Version 1.0. Ann Arbor, MI: Institute for Social Research.

Gist, John R. and Megan E. Hatch. 2014. "Retirement Replacement Rates and Retirement Wealth Inequality Among Baby Boomer and Other Birth Cohorts." *The Journal of Retirement* 2(1): 55-69.

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.

Health and Retirement Study. 2022. "RAND HRS Longitudinal File 2018 V2 Public Use Dataset." Produced and Distributed by the University of Michigan with funding from the National Institute on Aging (Grant Number NIA U01AG009740). Ann Arbor, MI.

Hou, Wenliang and Geoffrey T. Sanzenbacher. 2021. "Measuring Racial/Ethnic Retirement Wealth Inequality." *Journal of Retirement* 8(3): 12-28.

Melly Blaise. 2005. “Decomposition of Differences in Distribution Using Quantile Regression.” *Labor Economics* 12(4): 577-590.

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.

Munnell, Alicia H., Geoffrey T. Sanzenbacher, and Sara Ellen King. 2017. “Do Women Still Spend Most of Their Lives Married?” *Issue in Brief* 17-14. Chestnut Hill, MA: Center for Retirement Research.

Munnell, Alicia H., Wenliang Hou, Anthony Webb, and Yinji Li. 2016. “Pension Participation, Wealth, and Income: 1992-2010.” Working Paper 2016-3. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Sabelhaus, John and Alice H. Volz. 2022. “Wealth Inequality and Retirement Preparedness: A Cross-Cohort Perspective.” Working Paper No. 2022-21. Philadelphia, PA: Wharton Pension Research Council.

U.S. Board of Governors of the Federal Reserve System. *Survey of Consumer Finances*, 1989-2019. Washington, DC.

Wolff, Edward N. 2018. “The Decline of African-American and Hispanic Wealth since the Great Recession.” Working Paper 25198. Cambridge, MA: National Bureau of Economic research.

Wu, April Yanyuan, Nadia S. Karamcheva, Alicia H. Munnell, and Patrick J. Purcell. 2013. “How Do Trends in Women’s Labor Force Activity and Marriage Patterns Affect Social Security Replacement Rates?” *Social Security Bulletin* 73(4): 1-24.

Table 1. *Birth Year and Age during Great Recession, by Cohort*

	Birth years	Ages during Great Recession[a]
War Babies	1942-1947	60-67
Early Boomers	1948-1953	54-61
Mid Boomers	1954-1959	48-55
Late Boomers	1960-1965	42-49

[a] Cohort birth years are defined by the HRS. The National Bureau of Economic Research defined December 2007-June 2009 as the dates of the Great Recession.
Sources: Health and Retirement Study (HRS) (1992-2020) and authors' calculations.

Table 2. *Average Total Wealth at Ages 51-56 for Middle Quintile Households by Type, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Component	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
SSW	$221,400	$176,900	$215,700	$249,200	$228,700
DB	72,800	58,100	59,900	30,700	18,300
DC	33,900	55,500	70,100	52,300	32,700
House	104,800	96,000	109,400	74,700	57,000
Financial	35,900	35,600	32,300	9,200	3,800
Total	$468,800	$422,000	$487,300	$416,100	$340,500

Note: Values are rounded to the nearest 100.
Sources: HRS (1992-2020).

Table 3. *Average Retirement Wealth at Ages 51-56 for Middle Quintile Households by Type, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Component	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
SSW	$221,400	$176,900	$215,700	$249,200	$228,700
DB	72,800	58,100	59,900	30,700	18,300
DC	33,900	55,500	70,100	52,300	32,700
Total	$328,100	$290,500	$345,700	$332,200	$279,700

Note: Values are rounded to the nearest 100.
Sources: HRS (1992-2020).

Table 4. *Average DC/IRA Wealth at Ages 51-56 by Quintile, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Quintiles	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
Bottom	$3,300	$2,900	$2,700	$5,100	$1,700
Second	13,000	13,800	20,200	18,500	9,300
Middle	33,900	55,500	70,100	52,300	32,700
Fourth	74,000	115,200	123,500	128,200	123,300
Top	263,500	417,900	504,500	481,300	500,600
Total	$77,500	$120,900	$144,100	$137,100	$133,400

Note: Values are rounded to the nearest 100.
Sources: HRS (1992-2020).

Table 5a. *Average Retirement Wealth at Ages 51-56 for Middle Quintile Households within Race/Ethnicity by HRS Entry Cohort, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
White	$527,205	$498,681	$572,785	$516,785	$423,659
Black	244,463	182,576	192,127	206,717	223,976
Hispanic	205,951	192,472	233,526	230,972	248,157
Wealth ratios					
Black-to-White	46%	37%	34%	40%	53%
Hispanic-to-White	39	39	41	45	59

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

Table 5b. *Average Social Security Wealth at Ages 51-56 for Middle Quintile Households within Race/Ethnicity by HRS Entry Cohort, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
White	$230,191	$186,115	$228,643	$270,929	$244,264
Black	170,515	135,048	133,498	183,325	188,654
Hispanic	159,169	118,638	146,722	182,422	205,482
Wealth ratios					
Black-to-White	74%	73%	58%	68%	77%
Hispanic-to-White	69	64	64	67	84

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

Table 5c. *Average DB Pension Wealth at Ages 51-56 for Middle Quintile Households within Race/Ethnicity by HRS Entry Cohort, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
White	$88,823	$70,169	$79,187	$44,030	$26,495
Black	31,828	17,297	14,547	4,667	3,804
Hispanic	10,266	13,032	16,551	5,091	7,123
Wealth ratios					
Black-to-White	36%	25%	18%	11%	14%
Hispanic-to-White	12	19	21	12	27

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

Table 5d. *Average DC Wealth at Ages 51-56 for Middle Quintile Households within Race/Ethnicity by HRS Entry Cohort, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
White	$43,516	$74,958	$89,790	$75,830	$67,265
Black	5,362	6,468	10,882	6,707	13,606
Hispanic	1,651	7,893	7,660	14,738	9,284
Wealth ratios					
Black-to-White	12%	9%	12%	9%	20%
Hispanic-to-White	4	11	9	19	14

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

Table 5e. *Average Net Housing Wealth at Ages 51-56 for Middle Quintile Households within Race/Ethnicity by HRS Entry Cohort, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
White	$118,761	$113,671	$124,594	$107,009	$73,709
Black	35,952	27,663	28,742	16,715	19,692
Hispanic	33,290	58,034	58,929	29,778	27,861
Wealth ratios					
Black-to-White	30%	24%	23%	16%	27%
Hispanic-to-White	28	51	47	28	38

Note: Housing wealth is equity net of mortgage debt.
Source: Authors' calculations from HRS (1992-2016).

Table 5f. *Average Non-DC Financial Wealth at Ages 51-56 for Middle Quintile Households within Race/Ethnicity by HRS Entry Cohort, 2020 Dollars*

	HRS cohort				
	1992	1998	2004	2010	2016
Race	HRS	War Babies	Early Boomers	Mid Boomers	Late Boomers
White	$45,914	$53,768	$50,572	$18,987	$11,926
Black	804	(3,900)	4,458	(4,696)	(1,781)
Hispanic	1,576	(5,125)	3,664	(1,057)	(1,592)
Wealth ratios					
Black-to-White	2%		9%		
Hispanic-to-White	3		7		

Note: Blank spaces for wealth ratios indicate that the ratio was negative due to debt in excess of wealth among non-White households.
Source: Authors' calculations from HRS (1992-2016).

Table 6. *Descriptive Statistics by Cohort*

	Early Boomers	Mid Boomers	Late Boomers
Race			
White	79%	76%	68%
Black	12	14	16
Hispanic	9	11	16
Education			
HS or less	30	30	33
Some college	31	32	33
College or more	38	37	34
Marital status			
Single	37	38	42
Married	64	62	58
Number of kids	2.33	2.38	2.38
Percent of years worked – 42 to 49	88	86	85

Sources: HRS (1992-2020).

Table 7. *OLS Regressions of Total Wealth for Middle Quintiles, by Cohort*

	(1)	(1)	(2)
Variables	Early Boomers	Mid Boomers	Late Boomers
Black	-103,143***	-70,763***	-41,948***
	(23,373)	(14,596)	(11,488)
Hispanic	-68,663***	-99,929***	-54,571***
	(25,534)	(16,040)	(11,073)
Married	94,837***	117,059***	124,868***
	(16,219)	(11,045)	(9,077)
College or higher	125,725***	99,279***	90,906***
	(14,524)	(10,008)	(9,226)
Children	-11,638**	-13,793***	-1,187
	(4,539)	(3,027)	(2,384)
Percent worked – (42-49)	78,686**	154,404***	104,888***
	(37,133)	(20,701)	(16,323)
Constant	385,432***	260,482***	203,634***
	(39,697)	(22,243)	(18,316)
Observations	1,183	1,781	1,684
R-squared	0.122	0.174	0.184

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05.
Source: Authors' calculations from HRS (1992-2020).

Table 8. *OLS Regressions of Retirement Wealth for Middle Quintiles, by Cohort*

	(1)	(1)	(2)
Variables	Early Boomers	Mid Boomers	Late Boomers
Black	-40,401**	-30,587***	-20,377**
	(17,921)	(11,402)	(8,811)
Hispanic	-84,372***	-83,239***	-36,673***
	(19,578)	(12,530)	(8,493)
Married	111,018***	128,538***	127,007***
	(12,436)	(8,628)	(6,962)
College or higher	72,890***	74,199***	70,417***
	(11,136)	(7,818)	(7,076)
Children	-5,215	-5,830**	-403.0
	(3,480)	(2,364)	(1,828)
Percent worked – (42-49)	109,490***	147,585***	84,674***
	(28,471)	(16,171)	(12,519)
Constant	177,941***	132,498***	134,965***
	(30,437)	(17,376)	(14,048)
Observations	1,183	1,781	1,684
R-squared	0.128	0.211	0.234

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05.
Source: Authors' calculations from HRS (1992-2020).

Table 9. *OLS Regressions of 401(k)/IRA Wealth for Middle Quintiles, by Cohort*

	(1)	(1)	(2)
Variables	Early Boomers	Mid Boomers	Late Boomers
Black	-37,619***	-28,014***	-24,930***
	(9,729)	(6,402)	(6,201)
Hispanic	-34,320***	-36,739***	-29,435***
	(10,629)	(7,035)	(5,977)
Married	5,501	17,370***	2,802
	(6,752)	(4,844)	(4,899)
College or higher	26,127***	42,292***	38,111***
	(6,046)	(4,389)	(4,980)
Children	-2,817	-5,038***	-1,144
	(1,889)	(1,327)	(1,287)
Percent worked – (42-49)	29,590*	48,809***	23,312***
	(15,457)	(9,079)	(8,811)
Constant	44,010***	16,556*	34,169***
	(16,525)	(9,756)	(9,886)
Observations	1,183	1,781	1,684
R-squared	0.048	0.116	0.073

Notes: Standard errors in parentheses. *** p<0.01, * p<0.1.
Source: Authors' calculations from HRS (1992-2020).

Table 10. *Oaxaca-Blinder Decomposition of the Change in Total Wealth between Middle Quintiles of Mid and Late Boomers*

	(1)	(2)	(3)
Variables	Differential	Effect of change in proportions	Effect of change in coefficients
Black		1,204**	-3,500
		(589.5)	(2,267)
Hispanic		3,981***	-4,601**
		(1,030)	(2,004)
Married		5,525***	2,835
		(1,529)	(4,609)
College or higher		5,808***	-5,418
		(2,038)	(9,919)
Children		2.356	-31,373***
		(70.47)	(9,602)
Percent worked (42-49)		1,659*	43,723*
		(918.6)	(23,280)
Total		18,180***	58,514***
		(2,886)	(6,319)
Prediction for Mid Boomers	458,589***		
	(5,147)		
Prediction for Late Boomers	381,896***		
	(4,447)		
Difference	76,694***		
	(6,802)		
Constant			56,848**
			(28,814)
Observations	3,465	3,465	3,465

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' calculations from HRS (1992-2020).

Table 11. *Oaxaca-Blinder Decomposition of the Change in Retirement Wealth between Middle Quintiles of Mid and Late Boomers*

	(1)	(2)	(3)
Variables	Differential	Effect of change in proportions	Effect of change in coefficients
Black		584.7*	-1,240
		(346.8)	(1,752)
Hispanic		2,676***	-4,724***
		(753.5)	(1,571)
Married		4,280***	1,280
		(1,183)	(3,570)
College or higher		5,908***	1,062
		(2,054)	(7,692)
Children		0.800	-13,506*
		(24.15)	(7,442)
Percent worked (42-49)		1,339*	55,552***
		(738.7)	(18,062)
Total		14,788***	35,957***
		(2,531)	(4,892)
Prediction for Mid Boomers	350,449***		
	(4,113)		
Prediction for Late Boomers	299,703***		
	(3,520)		
Difference	50,745***		
	(5,413)		
Constant			-2,467
			(22,344)
Observations	3,465	3,465	3,465

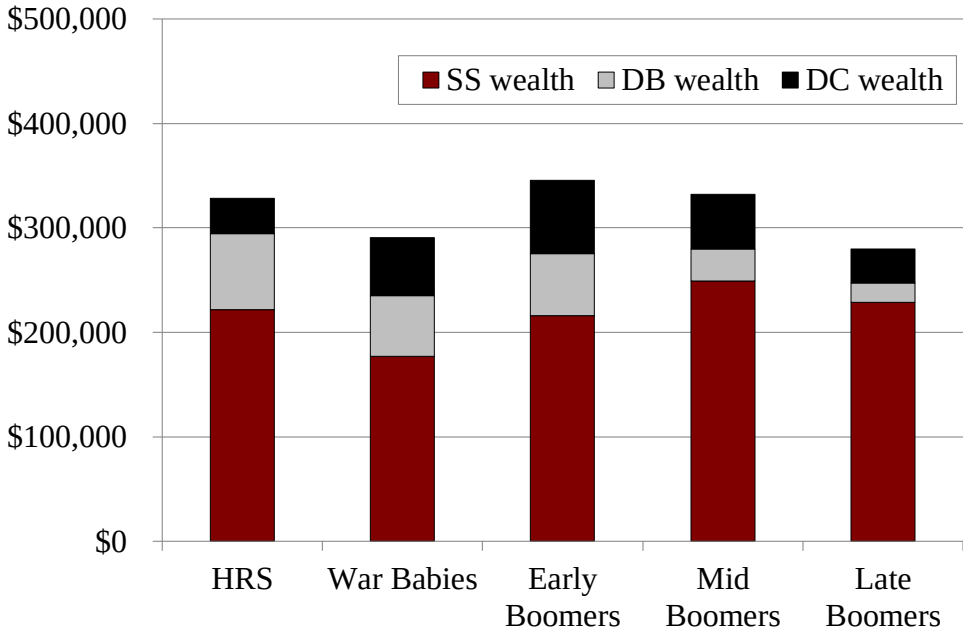
Notes: Standard errors in parentheses. *** p<0.01, * p<0.1.
Source: Authors' calculations from HRS (1992-2020).

Table 12. *Oaxaca-Blinder Decomposition of the Change in 401(k)/IRA Wealth between Middle Quintiles of Mid and Late Boomers*

	(1)	(2)	(3)
Variables	Differential	Effect of change in proportions	Effect of change in coefficients
Black		715.3**	-374.7
		(340.6)	(1,083)
Hispanic		2,147***	-741.0
		(555.5)	(937.9)
Married		2,316***	1,416
		(668.9)	(2,248)
College or higher		130.3	10,107**
		(232.3)	(4,783)
Children		2.271	-9,691**
		(67.83)	(4,604)
Percent worked (42-49)		368.7	22,514**
		(240.4)	(11,172)
Total		5,681***	5,618*
		(1,024)	(3,055)
Prediction for Mid Boomers	66,355***		
	(2,182)		
Prediction for Late Boomers	55,057***		
	(2,252)		
Difference	11,298***		
	(3,135)		
Constant			-17,613
			(13,889)
Observations	3,465	3,465	3,465

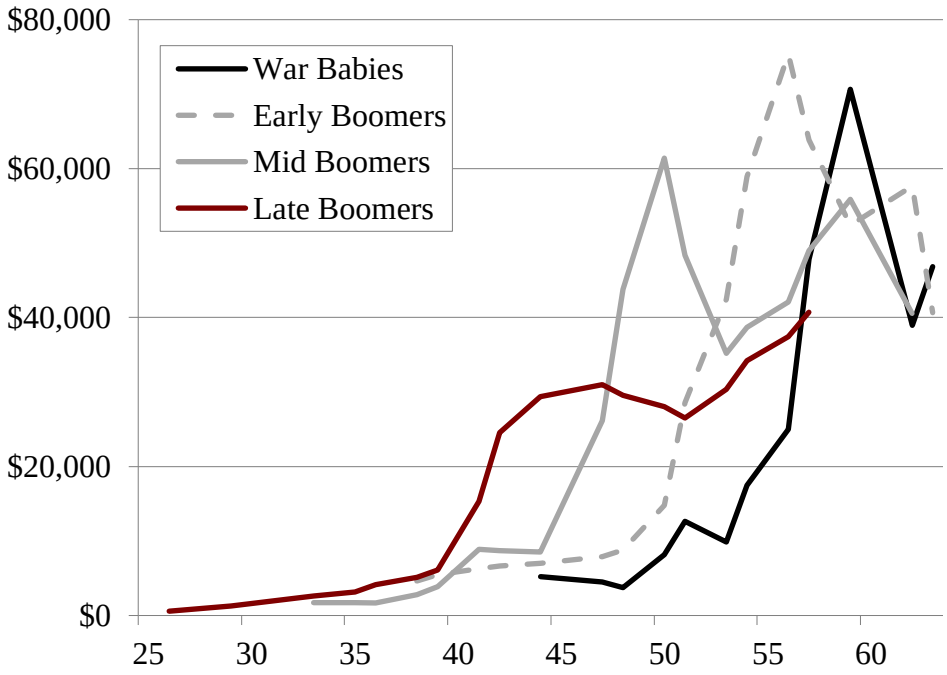
Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
Source: Authors' calculations from HRS (1992-2020).

Figure 1. *Retirement Assets at Ages 51-56 for Households in the Middle Wealth Quintile, by Type of Asset and Cohort, 2020 Dollars*



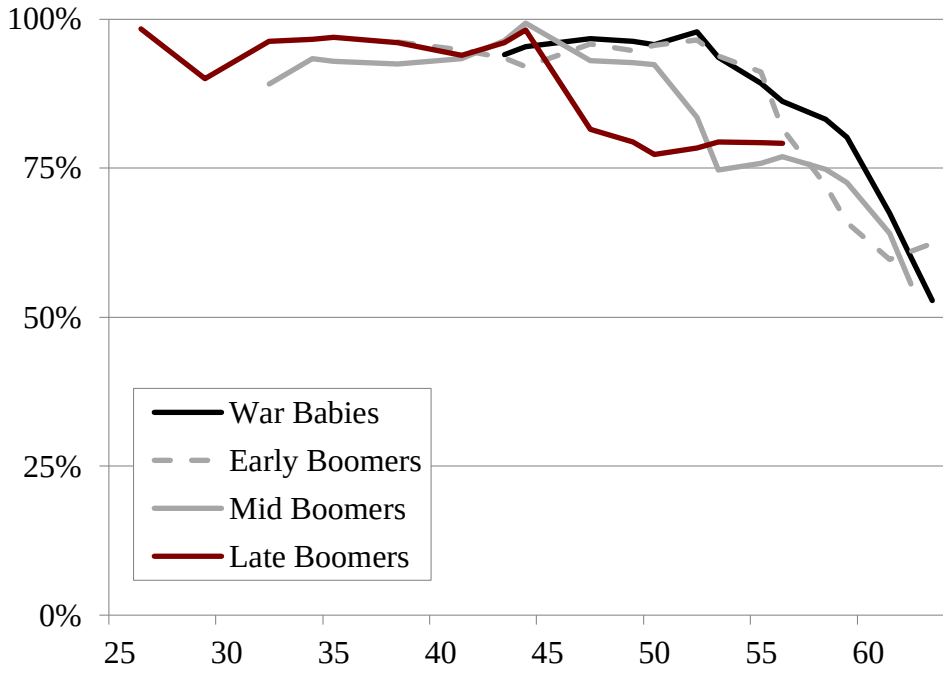
Source: Authors' calculation from HRS (1992-2020).

Figure 2. *Average 401(k)/IRA Assets for SCF Households in the Middle Wealth Quintile, by Cohort, 2019 Dollars*



Source: Authors' calculations using the *Survey of Consumer Finances* (SCF) (1989-2019).

Figure 3. *Share of SCF Individuals Ages 25-64 Who Are Working, by Cohort*

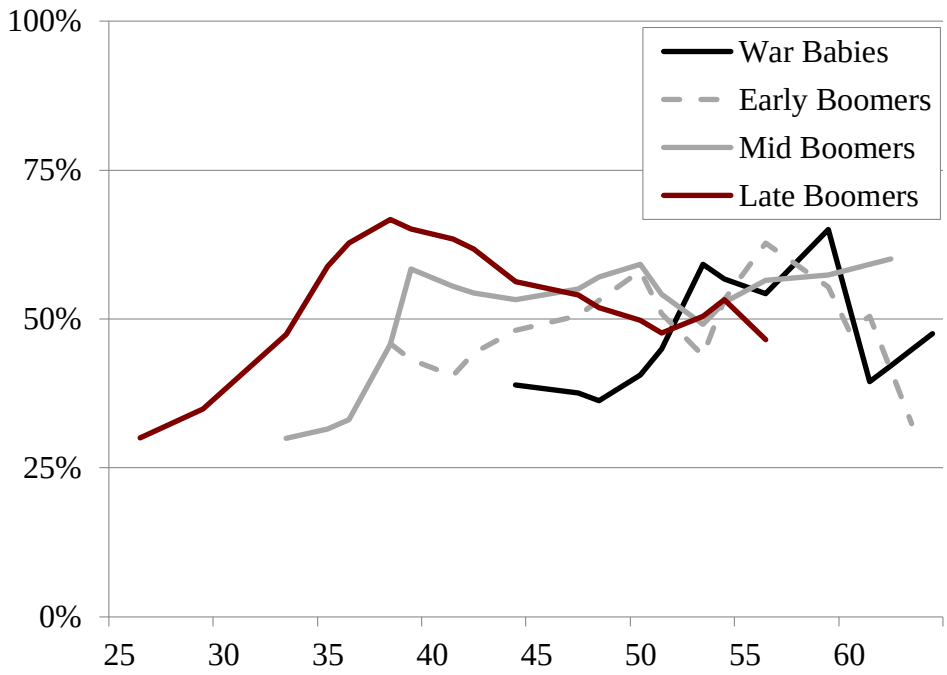


Source: Authors' calculations using SCF (1989-2019).

Figure 4. *Average Earnings for SCF Working Households in the Middle Wealth Quintile, by Cohort, 2019 Dollars*

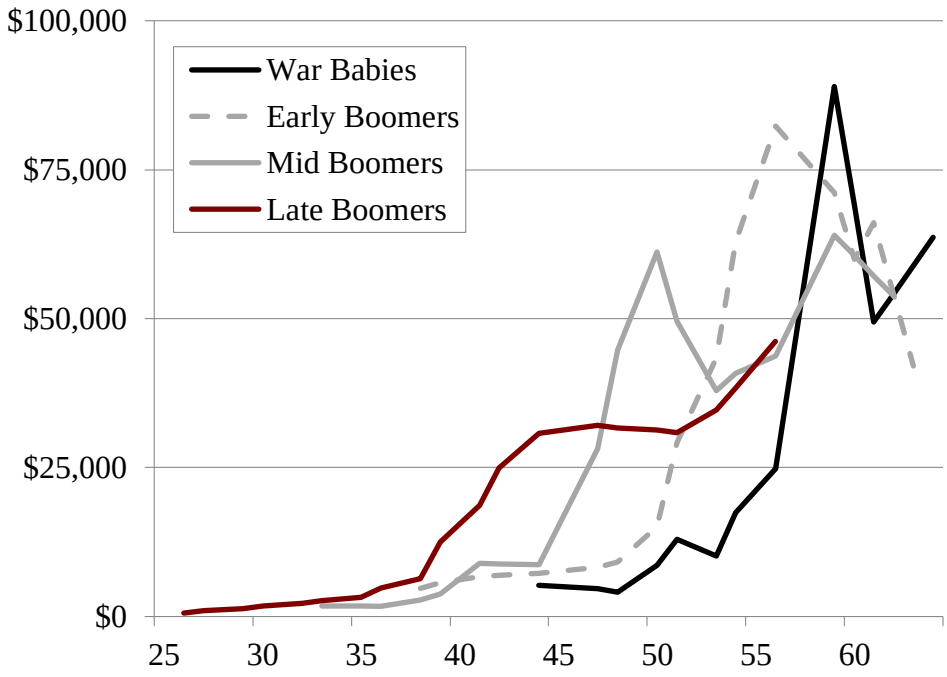
Source: Authors' calculations using SCF (1989-2019).

Figure 5. *Percentage of SCF Working Households in the Middle Wealth Quintile Participating in a 401(k) Plan at Their Current Job, by Cohort*



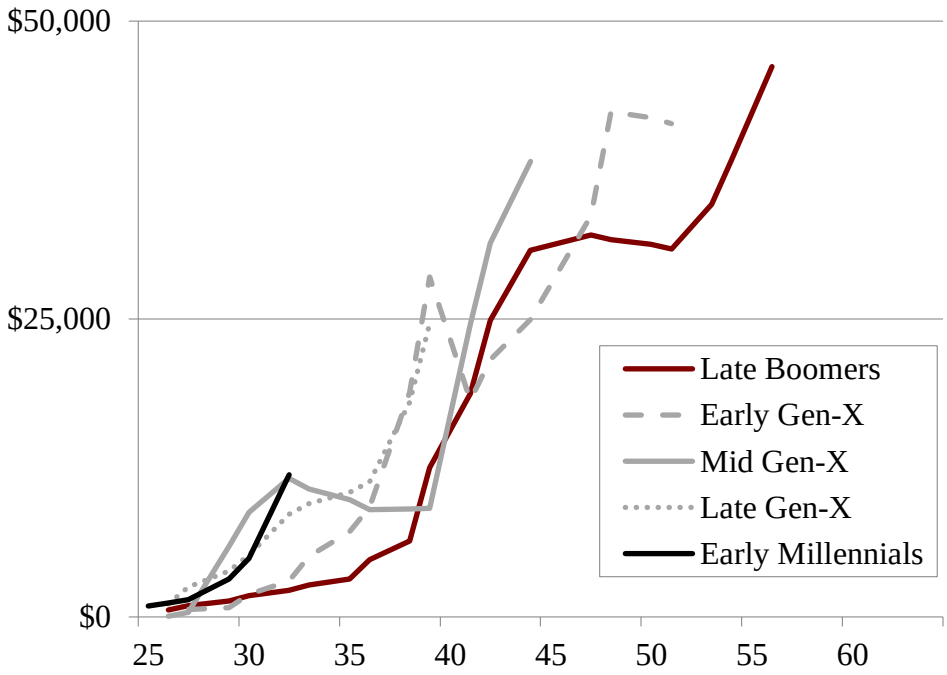
Source: Authors' calculations using SCF (1989-2019).

Figure 6. *Average 401(k)/IRA Assets for SCF Working Households with a Balance in the Middle Wealth Quintile, by Cohort, 2019 Dollars*



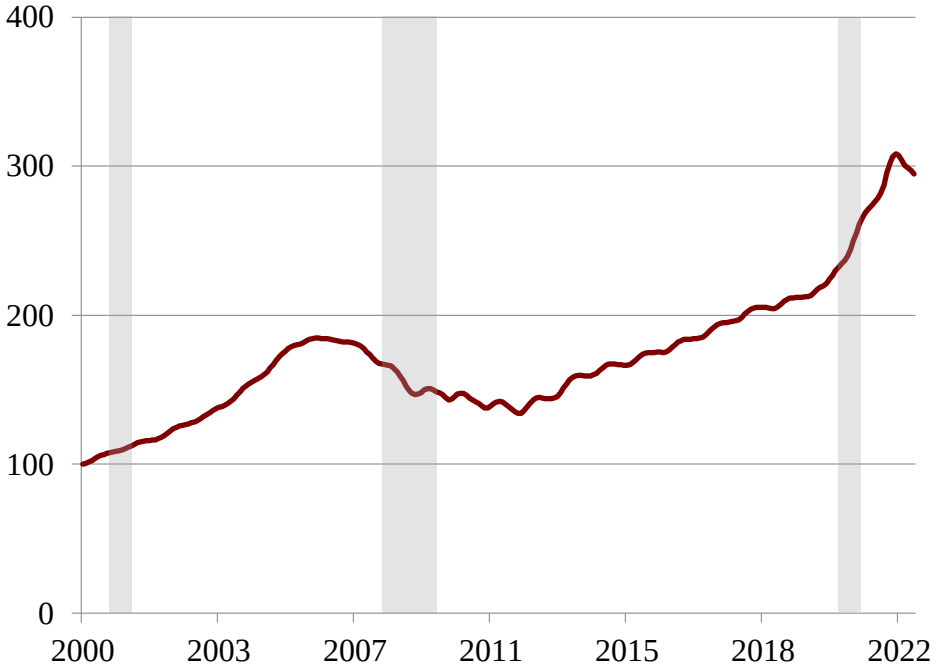
Source: Authors' calculations using SCF (1989-2019).

Figure 7. *Average 401(k)/IRA Assets for SCF Working Households with a Balance in the Middle Wealth Quintile, by Cohort, 2019 Dollars*



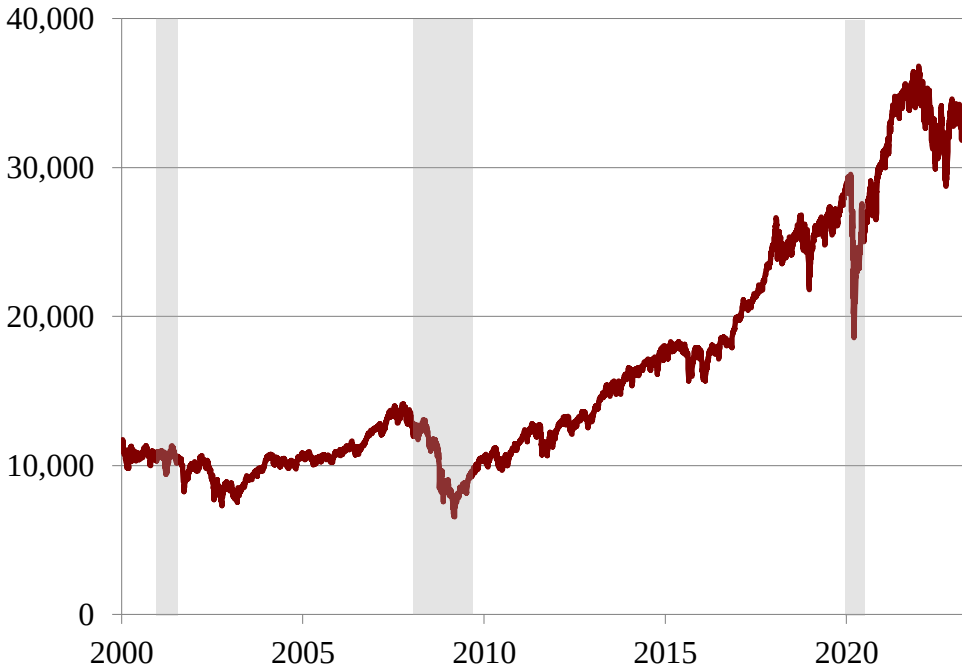
Source: Authors' calculations using SCF (1989-2019).

Figure 8. *S&P/Case-Shiller U.S. National Home Price Index, January 2000-December 2022*



Notes: Index value of 100 in January 2000. Gray areas are recessions as defined by the National Bureau of Economic Research (NBER).
Source: Federal Reserve Bank of St. Louis (2023).

Figure 9. *Dow Jones Industrial Average, January 2000-March 2023*



Note: Gray areas are recessions as defined by the NBER.
Source: Federal Reserve Bank of St. Louis (2023).

RECENT WORKING PAPERS FROM THE CENTER FOR RETIREMENT RESEARCH AT BOSTON COLLEGE

The Importance of Schools in Driving Children's Applications for Disability Benefits
Michael Levere, Jeffrey Hemmeter, and David Wittenburg, March 2023

Does the Drop in Child SSI Applications and Awards During COVID Vary by Locality?
Michael Levere, Jeffrey Hemmeter, and David Wittenburg, March 2023

What Factors Drive Racial Disparities in Housing Wealth Accumulation?
Siyan Liu and Laura D. Quinby, March 2023

What Matters for Annuity Demand: Objective Life Expectancy or Subjective Survival Pessimism?
Karolos Arapakis and Gal Wettstein, January 2023

How Will COVID Affect the Completed Fertility Rate?
Anqi Chen, Nilufer Gok, and Alicia H. Munnell, January 2023

County-Level Drivers of Disability Benefit Claims in Times of COVID-19
R. Vincent Pohl and David R. Mann, December 2022

Health, Disability, and the Evolving Nature of Work
Barbara A. Butrica and Stipica Mudrazija, December 2022

Racial Disparities in COVID-19 Experiences among Older Adults with Disabling Conditions
Marisa Shenk, Amal Harrati, Bernadette Hicks, and Ana Quiñones, December 2022

What Is the Risk to OASI Benefits from Unpaid Student Loans?
Gal Wettstein and Siyan Liu, November 2022

How Does Local Cost-Of-Living Affect Retirement for Low and Moderate Earners?
Laura D. Quinby and Gal Wettstein, November 2022

Did the Stimulus Checks Improve Household Balance Sheets?
Andrew G. Biggs, Anqi Chen, and Alicia H. Munnell, November 2022

Technology and Disability: The Relationship Between Broadband Access and Disability Insurance Awards
Barbara A. Butrica and Jonathan Schwabish, October 2022

All working papers are available on the Center for Retirement Research website (https://crr.bc.edu) and can be requested by e-mail (crr@bc.edu) or phone (617-552-1762).