# Reducing Retirement Inequality

## Building Wealth and Old-Age Resilience

Edited by

Olivia S. Mitchell
and
Nikolai Roussanov

OXFORD
UNIVERSITY PRESS

OXFORD
UNIVERSITY PRESS

Great Clarendon Street, Oxford, OX2 6DP,
United Kingdom

Oxford University Press is a department of the University of Oxford.
It furthers the University's objective of excellence in research, scholarship,
and education by publishing worldwide. Oxford is a registered trade mark of
Oxford University Press in the UK and in certain other countries

© Pension Research Council, The Wharton School, The University of Pennsylvania 2025

The moral rights of the authors have been asserted

This is an open access publication, available online and distributed under the terms of a
Creative Commons Attribution-Non Commercial-No Derivatives 4.0
International licence (CC BY-NC-ND 4.0), a copy of which is available at
https://creativecommons.org/licenses/by-nc-nd/4.0/.
Subject to this licence, all rights are reserved.

Enquiries concerning reproduction outside the scope of this licence should be sent
to the Rights Department, Oxford University Press, at the address above.

Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America

British Library Cataloguing in Publication Data
Data available

Library of Congress Control Number: 2024947061

ISBN 9780198939030

DOI: 10.1093/oso/9780198939030.001.0001

Printed and bound by
CPI Group (UK) Ltd, Croydon, CR0 4YY

Cover image: iStock.com/Angelina Bambina.

Links to third party websites are provided by Oxford in good faith and
for information only. Oxford disclaims any responsibility for the materials
contained in any third party website referenced in this work.

# Contents

*List of Figures* ix
*List of Tables* xii
*Notes on Contributors* xv
*Companion Website* xxii

1. Diversity, Inclusion, and Inequality in Retirement Well-Being 1
*Olivia S. Mitchell and Nikolai Roussanov*

**Part I. Retirement Wealth Inequality**

2. Retirement Assets and the Wealth Gaps for Black and Hispanic Households 17
*Gustavo Suarez, Jeffrey Thompson, and Alice Henriques Volz*

3. Changes in Racial Gaps in Retirement Security over Time 53
*Karen Dynan and Douglas Elmendorf*

4. Understanding Trends in Hispanic and African American Retirement Preparedness in the US 79
*Edward N. Wolff*

5. Wills, Wealth, and Race 107
*Jean-Pierre Aubry, Alicia H. Munnell, and Gal Wettstein*

**Part II. The Roles of Housing, Expectations, and Social Security**

6. The Racial Wealth Gap and the Legacy of Racially Restrictive Housing Covenants 135
*Larry Santucci*

7. Racial and Ethnic Differences in Longevity Perceptions and Implications for Financial Decision-Making 153
*Abigail Hurwitz, Olivia S. Mitchell, and Orly Sade*

8. Social Security and the Racial Wealth Gap 171
*Sylvain Catherine and Natasha Sarin*

## Part III. Differential Access to Financial and Human Capital Markets

9. Financial Inclusion and Retirement Preparedness in the United States 191
*Vicki L. Bogan*

10. How Racial Differences in Housing Returns Shape Retirement Security 210
*Amir Kermani and Francis Wong*

11. Racial Differences in Debt Delinquencies and Implications for Retirement Preparedness 228
*Mingli Zhong and Jennifer Andre*

12. Understanding Financial Vulnerability Among Asians, Blacks, and Hispanics in the United States 242
*Annamaria Lusardi, Olivia S. Mitchell, Alessia Sconti, and Andrea Sticha*

## Part IV. Narrowing the Gaps

13. Tax Policy to Reduce Racial Retirement Wealth Inequality 283
*Carl Davis and Brakeyshia Samms*

14. Improving the Financial Security of Workers of Color through Employee Financial Wellness Programs 305
*John J. Kalamarides*

15. Enhancing Retirement Wealth and Reducing Retiree Inequality 318
*David C. John, J. Mark Iwry, and William G. Gale*

16. Would Baby Bonds Reduce Racial Retirement Wealth Inequality? 338
*Naomi Zewde*

*The Pension Research Council* 347
*Index* 351

Chapter 2

# Retirement Assets and the Wealth Gaps for Black and Hispanic Households

*Gustavo Suarez, Jeffrey Thompson, and Alice Henriques Volz*

One key motivation for saving over the life cycle is to prepare for retirement. In part, due to notoriously low savings rates of many American households, policymakers have long been concerned about the adequacy of income of the country's seniors. Increasingly, attention is also being paid to disparities in retirement savings and wealth by race. Large and persistent disparities in wealth by race are well documented (e.g., Bhutta et al. 2020b), but most of the widely cited statistics measuring these disparities exclude retirement assets that are disproportionately important for racial minorities. For example, defined benefit (DB) pensions remain a vital resource for Black families, in part due to those workers' relatively larger representation in public sector employment. However, DB pensions are not reflected in the standard definition of 'market wealth' nor net worth measured in the Survey of Consumer Finances (SCF), which reports all assets, less debts, that families own and generally have the ability to sell or transfer. We add the value of DB pension assets to SCF net worth, referring to this wealth concept as 'private wealth.' The commonly cited statistics also exclude household wealth represented by the net present value of social security benefits, or social security wealth (SSW). Financing consumption in retirement is arguably one of the most important reasons for household saving, and social security also provides the largest source of income for most families in retirement. When we include the asset value of social security, we refer to this wealth concept, developed in Jacobs et al. (2020, 2022), as 'combined wealth.'

We find that, like other types of assets, private retirement savings are distributed unequally by race. Two-thirds of White families (age 40–59) are covered by a defined contribution (DC) pension plan, compared to 43 percent of Black families and 32 percent of Hispanic families. Average private retirement wealth, including assets in both DB and DC plans, amounted

Gustavo Suarez, Jeffrey Thompson, and Alice Henriques Volz, *Retirement Assets and the Wealth Gaps for Black and Hispanic Households*. In: *Reducing Retirement Inequality*. Edited by: Olivia S. Mitchell and Nikolai Roussanov, Oxford University Press. © Pension Research Council (2025). DOI: 10.1093/oso/9780198939030.003.0002

to $408,000 in 2019 for White families, compared to $209,000 for Black families, and $140,000 for Hispanic families.[1]

Our analysis of the SCF sample of families with heads age 40–59 suggests that assessing how retirement assets impact racial disparities in total wealth depends on which resources are included and what distributional statistic is used. On average, both DB and DC assets work to equalize racial disparities in private wealth. White families have more retirement assets, on average, than do Black and Hispanic families, but these assets account for a disproportionately larger share of the balance sheets of non-White families and their inclusion results in lower overall White/non-White wealth ratios. For example, the White/Black ratio of average market wealth was 5.6 in 2019, and the inclusion of DB pension assets lowers the White/Black ratio of average private wealth to 3.8. By contrast, DB and DC assets do not contribute to reduce disparities in private wealth for families located in the middle of the wealth distribution. We refer to these families as 'middle wealth' families, and they are identified by their location in the middle quintile of the race-specific distribution wealth. Private retirement plan assets are very limited for Black and Hispanic families in the middle quintile of their respective wealth distributions; the inclusion of these assets drives White/non-White wealth ratios even higher when we compare middle wealth White and non-White families.

The retirement resource that is most powerfully equalizing for racial disparities—particularly for middle wealth families—is social security. Social security benefits are a nearly universal retirement resource for older households. Indeed, SSW exceeds the combined value of all forms of market wealth for a majority of White, Black, and Hispanic families;[2] and when we evaluate racial wealth disparities using a measure of 'combined' wealth that includes SSW, White/non-White gaps close considerably.[3] For example, the average White/Black wealth ratio falls to 3.3 once we include SSW (see Figure 2.1). The effect of expected social security benefits in reducing race disparities in retirement wealth is consistent with the qualitative findings in Catherine et al. (2025) and Wolff (2025).

These findings may inform policy discussions, as they suggest that changes to DB pension systems and social security, including efforts to maintain their financial health, may have notable implications for the distribution of wealth at retirement, when measuring wealth in terms of combined resources available to support consumption at retirement.

When we evaluate the adequacy of retirement resources among families headed by 40- to 59-year-olds, we find that a considerable number of families would be left in poverty if they were only able to rely on private wealth to sustain themselves. We calculate the annuitized stream of income that private wealth would produce and see that 19 percent of White families would

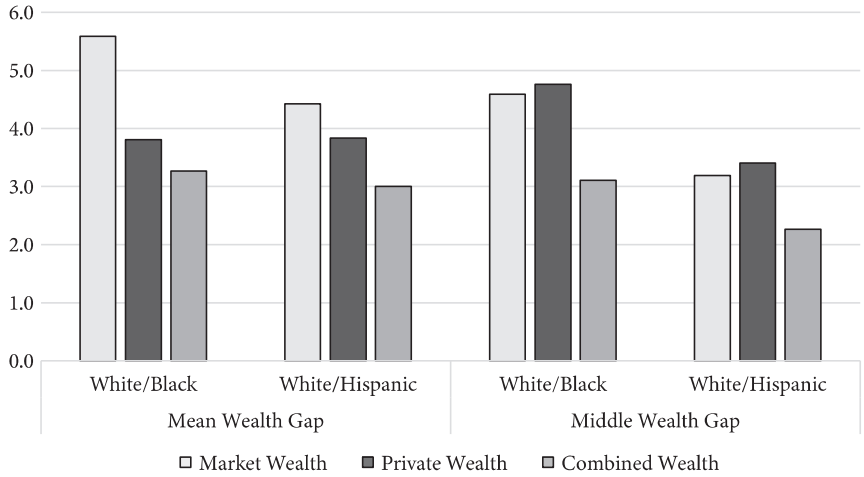


**Figure 2.1** Wealth gaps by race, by wealth concept for average and middle wealth

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65. Middle wealth families are the mean of the middle quintile of the race-specific distribution.
*Source:* Authors' analysis of 2019 Survey of Consumer Finances.

fall below 100 percent of the federal poverty threshold in 2019. Equivalent numbers for Hispanic and Black families are 40 percent and 44 percent, respectively.

Since the most recent wave of the SCF was fielded in 2019 (also used by Catherine et al. 2025, and Wolff 2025), the survey provides little insight into changes in wealth patterns wrought by the pandemic. To provide a perspective on the period after the most recent publicly available wave of the SCF, we assess—in broad strokes—changes in average family wealth by race from the onset of the pandemic through 2023 Q1 using the Distributional Financial Accounts (DFAs) from the Federal Reserve Board of Governors. Estimates from the DFAs suggest that DC balances and family private wealth dipped in 2020 Q2, when the economic stresses of the pandemic were most acute, but rebounded sharply over the remainder of 2020 and most of 2021. Private wealth peaked in late 2021 or early 2022, depending on the racial group, before falling back modestly, but it remains well above 2019 levels for all race groups. Wealth is estimated to have grown somewhat faster for non-White families during this period, driven primarily by slightly faster housing gains and a higher share of housing in total wealth among these families. Declining stock market valuations from the end of 2021 to the third quarter of 2022 reversed some of the post-pandemic gains in family wealth.

## The Importance of Including Defined Benefit Pensions and Social Security alongside Market Wealth

The market wealth concept typically measured in household surveys excludes major resources crucial to retirement. There are reasonable justifications, both conceptual and measurement-related, behind the focus on market wealth. The assets reflected in market wealth concepts, including the 'Bulletin' net worth in the SCF (Bhutta et al. 2020a), can be consumed over time or at any point in time, sold at will, or given away through a gift or bequest. They can also be used as collateral to obtain financing, and they potentially can be accumulated making the holder 'wealthy,' which confers social prestige and potentially economic influence. Also, because of the standard treatment of market assets for taxation, accounting, and transaction purposes, their value is readily measured.

Nevertheless, because the market wealth metric excludes key resources available to families in retirement, it has important shortcomings. Market wealth understates the financial well-being of families with DB pensions as well as those who rely or will rely substantially on social security in retirement (Poterba 2014). Social security benefits alone represent the single largest source of retirement income for more than 60 percent of retired households (Social Security Administration 2016). For almost 15 percent of older households, social security comprises more than 90 percent of their family income (Dushi and Trenkamp. 2021). Because of the extremely broad coverage of the program and the progressivity of the benefit structure, SSW is relatively higher for lower-income households. And, as we will show, the exclusion of DB pensions from market wealth omits a form of wealth particularly important to Black families.

Beyond overlooking valuable resources that can be added to families' balance sheets to arrive at a more comprehensive wealth concept, using market wealth to measure well-being *and* to compare well-being across households is further complicated by the fact that families can substitute between these different retirement saving vehicles. To the extent that the presence of social security or DB plans causes families to save less in DC accounts or other savings plans, market wealth is not just incomplete but also skewed (Feldstein and Pellechio. 1979; Gustman and Steinmeier 1999; Poterba et al. 2011). The presence of both DB pensions and social security may also cause some households, particularly the low-income, to save less for retirement than they would in the absence of these benefits.

Relying on market wealth also skews our understanding of wealth and inequality at any point in time and how these have evolved over time. The expansion of the social security program over time means that it plays a more important role for household finances today than in the past.

Furthermore, the evolution of the US employment-based retirement system in recent decades means that a substantial portion of the savings in account-type plans represents resources transferred out of DB plans and into DC plans (including Individual Retirement Accounts).

Because both SSW and DB pensions, in a relative sense, disproportionately benefit households below the top portion of the wealth distribution, their inclusion significantly alters estimates of wealth distribution. Jacobs et al. (2022) show that, for households headed by someone age 40–59, the top 5 percent's share of combined wealth was 41 percent in 2019, considerably less than the 63 percent held by the top 5 percent of the distribution of market wealth.

Using the combined wealth concept also has important implications for our understanding of racial disparities in wealth. This is due to the importance of social security as a resource for lower-income families, who are disproportionately Black or Hispanic, but also due to the value of DB pensions for non-White families. For example, Black households hold DB plans at similar rates as White households, but they are far less likely than White households to have DC pensions and, overall, have significantly fewer assets in these plans. DB pensions are much less common today than 30 years ago, yet the assets held in DB pensions remain substantial—representing about 15 percent of aggregate household wealth—and are of particular importance for Black families, with a DB share of aggregate private assets of 35 percent. Among Black families, average DB wealth is almost twice as large as the average wealth from all non-housing, non-retirement sources. By contrast, among White families, average DB wealth is less than one-third as large as average non-housing, non-retirement wealth.

## Data and Methods

Because the illiquid, non-market wealth represented by DB pensions and social security is not directly provided in household-level survey data (partly because households are usually unable to estimate the asset value themselves), it is typically excluded from measurement and analysis of wealth distribution. To remedy this, Jacobs et al. (2022) take SCF data, estimate earnings trajectories over the life cycle to predict future social security income streams, and combine these estimated earnings with estimated accrued DB assets and other (market) wealth holdings. We build on their work to analyze racial wealth disparities using their combined wealth concept for a sample of households with heads age 40–59 reaching peak wealth accumulation before drawing down assets in retirement.[4]

In the Appendix we provide an overview of the data and basic methodology for estimating the components of combined wealth, including a

discussion of the SCF and the relevant features of the data we use in our analysis as well as descriptions of the data and methods used to develop estimates of DB pension and social security wealth (see also Jacobs et al. 2020, 2022). In addition, the Appendix includes a description of the Board of Governors 'Distributional Financial Accounts (DFA),' which integrates features of the SCF and the Financial Accounts of the United States (FA), allowing us to estimate the evolution of household wealth by race since 2019 and leading up to 2023 Q1.

## Retirement Wealth and Racial Disparities

### Private wealth composition, distribution, and adequacy

**Average private wealth.** The average of White families' private wealth was $1.3 million in 2019 (2019$), with about one-quarter of assets coming, each, from employment-based retirement assets and housing wealth, and nearly half from non-housing/non-retirement (NHNR) sources (see Table 2.1). Retirement wealth of White families was nearly equally balanced between DC and DB pensions, with average assets of $196,000 and $212,000 respectively. DC pensions, however, were far more common than DB pensions. While nearly two-thirds of White families had DC plans in 2019, the share covered by DB pension was just 27 percent (see Table 2.2). Conditional on coverage, mean DB assets for White families are $790,000, compared to $303,000 for DC plans.

Private wealth among Black families averaged $343,000 and was substantially more tilted toward DB pensions than any other racial group. Thirty-five percent of total Black family private assets was held in DB pensions. Nearly 24 percent of Black families had or expected benefits from a DB pension, nearly equivalent to that of White families and higher than that of Hispanic (18 percent) families. Conditional on plan coverage, DB assets for Black families were $618,000 on average, nearly 80 percent of conditional DB pension assets for White families. Only 43 percent of Black families were covered by DC pension plans; conditional on coverage, the DC assets of Black families ($146,000) were less than half of that held by White families.

Hispanic families held the lowest average private wealth, at $340,000, and they were the most reliant on housing wealth. Housing wealth ($196,000) accounted for 44 percent of mean private assets for Hispanic families. Hispanic families had the lowest rates of coverage by both DC plans (32 percent) and DB pensions (18 percent). Conditional on coverage, DB assets of Hispanic families ($509,000) were around two-thirds to four-fifths of the levels held by White and Black families, respectively, while DC assets were on-par with those of Black families and less than half of what was held by White families.

Among the four asset classes highlighted in Table 2.1, the largest racial gaps (comparing White and non-White families) can be seen in NHNR

Table 2.1a Average private wealth ($) by asset type and race

| | White | Black | Hispanic | Ratio of White to Non-white | |
|---|---|---|---|---|---|
| | | | | White/Black | White/Hispanic |
| Housing wealth | 382,386 | 126,458 | 195,584 | 3.0 | 2.0 |
| Non-housing/non-retirement market assets | 680,059 | 86,565 | 107,037 | 7.9 | 6.4 |
| DC pension assets | 196,254 | 62,029 | 46,643 | 3.2 | 4.2 |
| DB pension assets | 211,645 | 147,321 | 92,953 | 1.4 | 2.3 |
| Debt | 164,680 | 79,309 | 102,060 | 2.1 | 1.6 |
| Total private wealth | 1,305,664 | 343,064 | 340,157 | 3.8 | 3.8 |
| Conditional on plan coverage | | | | | |
| DC pension | 302,672 | 145,952 | 143,743 | 2.1 | 2.1 |
| DB pension | 790,125 | 617,840 | 509,347 | 1.3 | 1.6 |
| **Addendum** | | | | | |
| *Private Retirement Wealth Composition (%)* | | | | | |
| DC pension assets | 0.48 | 0.30 | 0.33 | | |
| DB pension assets | 0.52 | 0.70 | 0.67 | | |
| *Composition of Private Assets (%)* | | | | | |
| Housing wealth | 0.26 | 0.30 | 0.44 | | |
| Non-housing/non-retirement | 0.46 | 0.20 | 0.24 | | |
| DC pension assets | 0.13 | 0.15 | 0.11 | | |
| DB pension assets | 0.14 | 0.35 | 0.21 | | |

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65.
*Source:* Authors' analysis of 2019 Survey of Consumer Finances.

Table 2.1b Private wealth ($) for 'middle wealth' families by asset type and race: mean of race-specific 3rd quintile of total private wealth

| | White | Black | Hispanic | Ratio of White to Non-white | |
|---|---|---|---|---|---|
| | | | | White/Black | White/Hispanic |
| Housing wealth | 232,850 | 99,721 | 109,790 | 2.3 | 2.1 |
| Non-housing/non-retirement market assets | 88,081 | 23,835 | 38,101 | 3.7 | 2.3 |
| DC pension assets | 97,075 | 16,363 | 14,629 | 5.9 | 6.6 |
| DB pension assets | 38,597 | 5,922 | 5,853 | 6.5 | 6.6 |
| Debt | 133,654 | 77,968 | 73,443 | 1.7 | 1.8 |
| Total private wealth | 322,949 | 67,874 | 94,930 | 4.8 | 3.4 |
| Conditional on plan coverage | | | | | |
| DC pension | 131,358 | 35,971 | 53,977 | 3.7 | 2.4 |
| DB pension | 194,344 | 76,866 | 51,031 | 2.5 | 3.8 |
| **Addendum** | | | | | |
| *Private Retirement Wealth Composition (%)* | | | | | |
| DC pension assets | 0.72 | 0.73 | 0.71 | | |
| DB pension assets | 0.28 | 0.27 | 0.29 | | |
| *Composition of Private Assets (%)* | | | | | |
| Housing wealth | 0.51 | 0.68 | 0.65 | | |
| Non-housing/non-retirement | 0.19 | 0.16 | 0.23 | | |
| DC pension assets | 0.21 | 0.11 | 0.09 | | |
| DB pension assets | 0.08 | 0.04 | 0.03 | | |

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) aged 30–65.
*Source:* Authors' analysis of 2019 Survey of Consumer Finances.

TABLE 2.2 Pension coverage by race and year: families with heads age 40–59

A. Pension coverage from respondent current job

| | Defined Contribution Pension Coverage (%) | | | Defined Benefit Pension Coverage (%) | | |
|---|---|---|---|---|---|---|
| | White | Black | Hispanic | White | Black | Hispanic |
| 1989 | 0.39 | 0.18 | 0.23 | 0.46 | 0.34 | 0.27 |
| 1992 | 0.42 | 0.28 | 0.16 | 0.40 | 0.29 | 0.19 |
| 1995 | 0.43 | 0.37 | 0.28 | 0.28 | 0.22 | 0.23 |
| 1998 | 0.48 | 0.35 | 0.26 | 0.26 | 0.15 | 0.15 |
| 2001 | 0.50 | 0.38 | 0.35 | 0.27 | 0.21 | 0.21 |
| 2004 | 0.50 | 0.36 | 0.31 | 0.23 | 0.20 | 0.17 |
| 2007 | 0.51 | 0.40 | 0.32 | 0.25 | 0.24 | 0.16 |
| 2010 | 0.47 | 0.32 | 0.26 | 0.21 | 0.20 | 0.12 |
| 2013 | 0.51 | 0.32 | 0.24 | 0.18 | 0.15 | 0.09 |
| 2016 | 0.51 | 0.32 | 0.28 | 0.16 | 0.14 | 0.13 |
| 2019 | 0.50 | 0.38 | 0.25 | 0.18 | 0.18 | 0.12 |

B. Pension coverage of either respondent or spouse from current or past job

| | Defined Contribution Pension Coverage (%) | | | Defined Benefit Pension Coverage (%) | | |
|---|---|---|---|---|---|---|
| | White | Black | Hispanic | White | Black | Hispanic |
| 1989 | 0.59 | 0.22 | 0.30 | 0.56 | 0.39 | 0.35 |
| 1992 | 0.61 | 0.31 | 0.26 | 0.53 | 0.39 | 0.31 |
| 1995 | 0.62 | 0.40 | 0.39 | 0.43 | 0.38 | 0.37 |
| 1998 | 0.66 | 0.44 | 0.35 | 0.39 | 0.28 | 0.26 |
| 2001 | 0.69 | 0.46 | 0.45 | 0.39 | 0.30 | 0.26 |
| 2004 | 0.67 | 0.39 | 0.35 | 0.36 | 0.29 | 0.22 |
| 2007 | 0.69 | 0.47 | 0.40 | 0.36 | 0.32 | 0.19 |
| 2010 | 0.67 | 0.41 | 0.34 | 0.32 | 0.31 | 0.15 |
| 2013 | 0.67 | 0.42 | 0.30 | 0.31 | 0.25 | 0.12 |
| 2016 | 0.69 | 0.41 | 0.35 | 0.29 | 0.20 | 0.20 |
| 2019 | 0.65 | 0.42 | 0.32 | 0.27 | 0.24 | 0.18 |

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65.
*Source:* Authors' analysis of 1989–2019 Survey of Consumer Finances.

assets, a broad category spanning business ownership, stocks and other directly held financial market assets, vehicles, and art and other valuables. White families, for example, held, on average, eight times as much as the average NHNR assets among Black families, but three times as much housing or DC pension wealth. DB pensions were the most equitably distributed asset class (among those considered here), with a White/Black ratio of 1.4. The average White family held 6.4 times as much NHNR assets as the average Hispanic family. The average White/Hispanic asset ratio was 4.2 for DC pensions, 2.3 for DB pensions, and 2.0 for housing. Overall, the average

differences between White, Black, and Hispanic families were considerably less in housing and employment-based retirement assets than NHNR assets.

**Private wealth of 'middle wealth' families.** When we shift our focus from the average by race group to the wealth held by the families in the middle of the distribution for each race group, wealth levels and the composition of assets are markedly distinct. Private wealth for 'middle wealth' families was $323,000 for White families, $95,000 for Hispanic families, and $68,000 for Black families. Housing accounted for more than half of middle wealth families' total private assets for each race group, ranging from 51 percent among White families to 68 percent among Black families. Middle wealth White families had housing wealth of $233,000, compared to $110,000 for middle wealth Hispanic families and $100,000 for the middle wealth Black families.

Across all races, retirement plans and pensions accounted for less than one-third of all private assets for middle wealth families, ranging from 29 percent for White families to just 12 percent for Hispanic families. For middle wealth families, private retirement wealth was dominated by DC plans; DC plans accounted for more than 70 percent of total retirement assets for White, Black, and Hispanic families. The dominance of DC plans at the middle of the distribution is overwhelmingly a function of plan coverage, as few families in the middle of the distribution were covered by DB pensions. Conditional on coverage, DB pensions held greater assets than DC plans for White ($194,000 vs. $131,000) and Black families ($77,000 vs. $36,000), but not for Hispanic families ($51,000 vs. $54,000).

The role that retirement wealth plays in the distribution of overall wealth differs at the middle of the wealth distribution compared to the average. Rather than playing an equalizing role, accounting for retirement wealth pushes White/Black and White/Hispanic wealth ratios for middle wealth families to even higher levels. Middle wealth White families had 5.9 times as much DC pension wealth as the middle wealth Black families, but only 2.3 times as much housing wealth, and total private wealth was only 4.8 times as large. Retirement wealth accounted for 29 percent of total private wealth for the middle wealth White families, but just 15 percent for Black families, and 12 percent for Hispanic families.

DB pension assets account for a substantial share of average family wealth, yet these plans make a negligible contribution to assets at the middle of the distribution. In the middle quintile, DB plans made up 8 percent for White families, and 4 percent or less for Black and Hispanic families. Even though DB pension assets were just $39,000 for White families in the middle of the wealth distribution, this was 6.5 times greater than that for Black and Hispanic families. This is in stark contrast to the earlier discussion about

the reasonably high share of overall wealth that DB assets comprise. To better understand the discrepancy, we compare DB coverage and average assets by quintile of the race-specific private wealth distribution, since the race-specific averages are driven by the higher quintiles. From the top quintile to the middle of race-specific private wealth quintiles, coverage by a DB plan dropped from three-quarters to less than 10 percent for a middle wealth Black family, while the corresponding drop for White families was from 55 to 20 percent between the top and middle wealth quintiles (see Table 2.3). The fall in average DB assets between the top and middle quintiles for Black families is substantial, as the decline in the fraction of families covered by DB plans between these two quintiles is quite large. Between the top and middle quintiles among Black families, average DB wealth dropped substantially, from $694,000 to $6,000, whereas the drop among White households is $770,000 to $39,000.

**Adequacy of wealth for retirement consumption.** The differences in resources that families hold as they approach retirement will influence disparities in consumption during retirement. There is a substantial literature exploring the adequacy of retirement income. Some authors have identified large shortfalls in the adequacy of retirement savings (Bernheim and Scholz 1992; Haveman et al. 2006; Munnell et al. 2006, 2013, 2015, 2018). Others have concluded that household financial preparation for retirement is in much better shape and that shortfalls are largely concentrated among specific, more vulnerable groups such as single retirees (Engen et al. 1999; Love et al. 2008; Scholz et al. 2006).

One of the methodological factors that differentiate these (and other) studies is how they define 'adequacy.' Adequacy is typically determined by comparing anticipated household income in retirement to their preretirement income. Replacement rates are then deemed 'adequate' if they provide a smoothed level of consumption across working life into retirement with a potential step-down adjustment at the point of retirement.[5] Another approach to defining adequacy assumes declining levels of consumption over the retirement period, based on models where households smooth the marginal utility of consumption over the life cycle using assumptions on preference parameters and changes in consumption when children leave home (Engen et al. 1999; Scholz et al. 2006).

Differences in these first two approaches to defining adequacy go a long way to reconciling competing findings from the more optimistic and pessimistic research on retirement adequacy. When Scholz et al. (2006) assumed a more standard life-cycle rule defining annual retirement consumption as a function of lifetime resources, they found that 49 percent of households had inadequate savings, versus only 16 percent under an assumed declining rate of consumption. Similarly, when Munnell et al.

Table 2.3 Pension coverage and average pension wealth in 2019, by private wealth quintile, race, and pension type: coverage from current or past job for respondent or spouse, families with heads age 40–59

A. Pension coverage by race and private wealth quintile (%)

| | Defined Contribution Pension Coverage | | | Defined Benefit Pension Coverage | | |
|---|---|---|---|---|---|---|
| | White | Black | Hispanic | White | Black | Hispanic |
| 1 | 0.24 | 0.15 | 0.12 | 0.03 | 0.01 | 0.03 |
| 2 | 0.58 | 0.29 | 0.12 | 0.10 | 0.10 | 0.00 |
| 3 | 0.74 | 0.45 | 0.27 | 0.20 | 0.08 | 0.11 |
| 4 | 0.78 | 0.56 | 0.47 | 0.46 | 0.25 | 0.26 |
| 5 | 0.90 | 0.67 | 0.65 | 0.55 | 0.76 | 0.51 |

B. Average pension wealth by race and private wealth quintile ($)

| | Defined Contribution Pension Wealth | | | Defined Benefit Pension Wealth | | |
|---|---|---|---|---|---|---|
| | White | Black | Hispanic | White | Black | Hispanic |
| 1 | 3,985 | 1,881 | 1,645 | 740 | 1,555 | 618 |
| 2 | 28,899 | 3,920 | 1,717 | 6,615 | 1,858 | 0 |
| 3 | 97,075 | 16,363 | 14,629 | 38,597 | 5,922 | 5,853 |
| 4 | 194,173 | 46,156 | 36,691 | 242,833 | 35,377 | 20,910 |
| 5 | 657,952 | 242,727 | 178,821 | 770,166 | 694,055 | 437,959 |

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65. Private wealth quintiles are race-specific.
*Source:* Authors' analysis of 2019 Survey of Consumer Finances.

(2015) adjusted the adequacy rules in the National Retirement Risk Index (NRRI) to incorporate the same optimal rates of asset drawdown as implied by Scholz et al. (2006), the share of households (age 51–61) with inadequate retirement resources fell from 35 to 24 percent. When they further incorporated the assumption Scholz et al. (2006) used about the decline in consumption when children leave the home, the share of households with inadequate savings fell further, to 11.5 percent.

A third adequacy approach is to use an external benchmark to indicate target levels of consumption in retirement (Haveman et al. 2006; Love et al. 2008; Wolff 2002). One implication of the replacement rate or smoothed consumption approaches to defining adequacy is that, because this metric is determined relative to the household's own income history, poor households who are able to maintain the same poverty-level consumption in retirement are considered to have adequate resources. Households with much higher absolute standards of living could then be considered to have inadequate resources.

Most studies using external benchmarks to assess adequacy have used the official poverty thresholds, which vary over time and by household composition. Use of the poverty thresholds, however, has been criticized for

being too low ($14,507 for an elderly couple in 2016) to represent a meaningful well-being standard for retirees. Gould and Cooper (2013) used the Supplemental Poverty Measure (SPM), which reflects healthcare costs and regional differences in cost-of-living. Mutchler et al. (2016) developed the 'Elder Index' based explicitly on costs faced by seniors; this measure varies by household composition, homeownership status, and regional cost differences. Levels associated with this alternative benchmark are much higher than the poverty threshold, resulting in larger shares of current and future retirees falling below adequate levels of retirement income. Hurd and Rohwedder (2011) used observed consumption paths over retirement from panel data as a benchmark, identifying adequacy among recent retirees as sufficient income to afford retirement consumption and still be able to leave a bequest. While the official poverty thresholds are much lower than these other benchmarks, they have been produced consistently for decades and can be used to explore changes in adequacy over time.

We do not take a stand here on the optimal definition of adequacy, so we instead compare potential consumption relative to an external benchmark (as in Haveman et al. 2006; Love et al. 2008; Wolff 2002). We annuitize the entire stock of private wealth (including housing) held by families with heads age 40–59 and compare the estimated annuity amount to the poverty level for elderly households, either one- or two-person households depending on the current marital status of the respondent.[6] Results show substantial differences by race in the share of families whose retirement income would leave them in poverty. Using annuitized private wealth would leave 19 percent of White families below 100 percent of the federal poverty line, compared to 40 percent of Hispanic families, and 44 percent of Black families (see Figure 2.2).

The share of Black and Hispanic families with annuitized private wealth falling below poverty declined somewhat between 1989 and the mid-2000s, while the share for White families was flat. During and immediately following the 2008–2009 financial crisis, the share of families with annuitized private wealth below the poverty line increased substantially for all three race groups and started to fall again after 2013.

## The impact of social security and the distribution of 'combined wealth'

**Level and composition of combined wealth for 'middle wealth' families.** Private assets are not the only resources that families will be able to depend upon to sustain their consumption in retirement. As noted above, social security represents the largest source of retirement income for most older households. Computing combined wealth—by adding to private wealth the asset value implied by the net stream of social security benefit payments—results in a dramatically different distribution of wealth.[7]

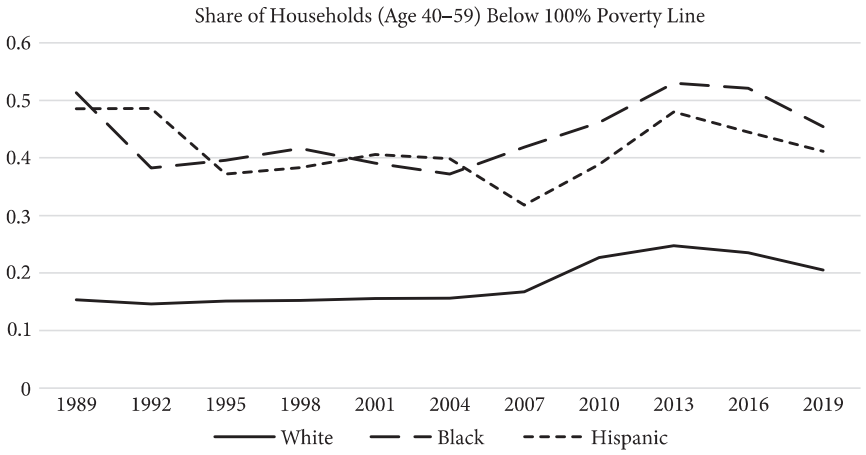


**Figure 2.2** Adequacy of private wealth resources: share of families (40–59) with annuitized wealth below 100 percent of federal poverty line, by race

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65.
*Source:* Authors' analysis of 1989–2019 Survey of Consumer Finances.

In Table 2.4, we show the level of combined wealth, along with the asset composition, for middle wealth families. Combined wealth in 2019 is $563,000 for middle wealth White families, $250,000 for the middle wealth Hispanic families, and $181,000 for the middle wealth Black families.

As Figure 2.3 illustrates, SSW contributes the largest portion of wealth for middle wealth families (in each race group) with heads age 40–59. The share contributed by social security wealth has also grown over time.

For middle wealth White families, SSW was nearly half of estimated combined wealth, versus approximately two-thirds for Black and Hispanic middle wealth families in 2019. This is in comparison to the shares for DB and DC assets, which range between 2–7 percent and 6–17 percent, respectively. The importance of social security is further demonstrated by the percentage of families for whom SSW exceeds the total value of their market wealth. For nearly half of all White families (48 percent) and two-thirds of Black and Hispanic families (64 percent and 66 percent, respectively), the net value of social security exceeded market wealth in 2019 (see Table 2.5).

For a large number of families, SSW also stands out as their single largest asset. For almost four in ten White families in 2019, SSW exceeded the value of each of their other types of assets, including all real estate, any businesses, account-type retirement plans, and DB pensions.[8] For more than half of Black families (52 percent) and Hispanic families (55 percent),

Table 2.4 Composition of combined wealth for 'middle wealth' families by race and year ($2019)

| | 1989 | 1992 | 1995 | 1998 | 2001 | 2004 | 2007 | 2010 | 2013 | 2016 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **White Families** | | | | | | | | | | | |
| Average combined wealth ($) | 509,994 | 546,700 | 484,620 | 523,902 | 605,735 | 630,705 | 570,532 | 500,498 | 490,320 | 500,851 | 563,421 |
| Composition by type (%) | | | | | | | | | | | |
| Market non-retirement wealth | 0.39 | 0.31 | 0.39 | 0.37 | 0.43 | 0.42 | 0.40 | 0.36 | 0.31 | 0.36 | 0.33 |
| Defined contribution pension wealth | 0.07 | 0.06 | 0.07 | 0.10 | 0.12 | 0.15 | 0.14 | 0.13 | 0.17 | 0.18 | 0.17 |
| Defined benefit pension wealth | 0.17 | 0.23 | 0.15 | 0.15 | 0.16 | 0.12 | 0.12 | 0.12 | 0.11 | 0.06 | 0.07 |
| Net social security wealth | 0.37 | 0.40 | 0.39 | 0.38 | 0.30 | 0.31 | 0.34 | 0.39 | 0.41 | 0.40 | 0.43 |
| **Black Families** | | | | | | | | | | | |
| Average combined wealth ($) | 156,718 | 205,365 | 208,457 | 171,691 | 134,550 | 183,801 | 207,862 | 162,123 | 140,028 | 165,378 | 180,701 |
| Composition by type (%) | | | | | | | | | | | |
| Market non-retirement wealth | 0.27 | 0.28 | 0.24 | 0.26 | 0.38 | 0.34 | 0.29 | 0.21 | 0.17 | 0.20 | 0.25 |
| Defined contribution pension wealth | 0.01 | 0.05 | 0.06 | 0.11 | 0.07 | 0.08 | 0.07 | 0.08 | 0.07 | 0.08 | 0.09 |
| Defined benefit pension wealth | 0.07 | 0.09 | 0.04 | 0.03 | 0.03 | 0.07 | 0.05 | 0.05 | 0.03 | 0.01 | 0.03 |
| Net social security wealth | 0.64 | 0.58 | 0.65 | 0.59 | 0.52 | 0.51 | 0.58 | 0.66 | 0.73 | 0.71 | 0.62 |
| **Hispanic Families** | | | | | | | | | | | |
| Average combined wealth ($) | 200,183 | 222,940 | 277,325 | 243,557 | 197,563 | 209,507 | 273,424 | 206,415 | 172,526 | 204,852 | 249,783 |
| Composition by type (%) | | | | | | | | | | | |
| Market non-retirement wealth | 0.22 | 0.21 | 0.26 | 0.28 | 0.35 | 0.34 | 0.42 | 0.25 | 0.17 | 0.18 | 0.30 |
| Defined contribution pension wealth | 0.02 | 0.03 | 0.04 | 0.09 | 0.07 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.06 |
| Defined benefit pension wealth | 0.01 | 0.03 | 0.10 | 0.05 | 0.03 | 0.08 | 0.01 | 0.01 | 0.04 | 0.06 | 0.02 |
| Net social security wealth | 0.75 | 0.73 | 0.59 | 0.59 | 0.55 | 0.55 | 0.53 | 0.70 | 0.75 | 0.71 | 0.62 |

*Note:* 'Middle wealth' families are those in middle quintile of the race-specific distribution of combined wealth. Includes families with heads between age 40–59.

*Source:* Authors' analysis of 1989–2019 Survey of Consumer Finances.

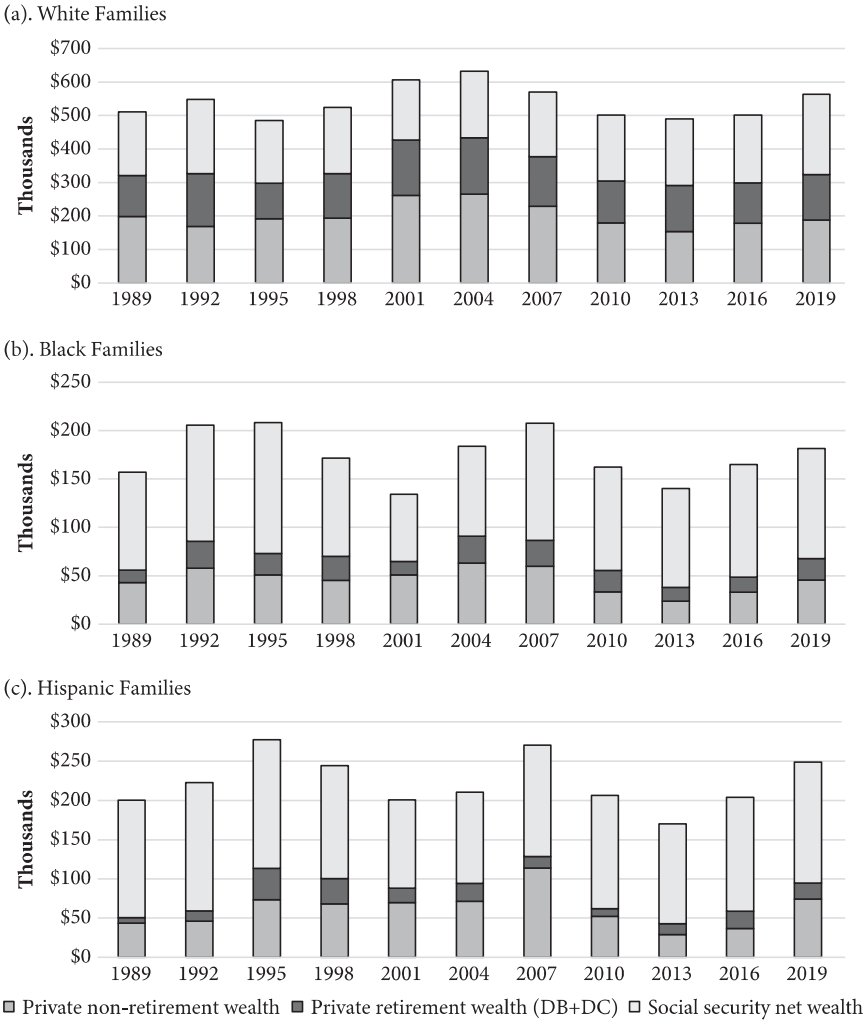


**Figure 2.3** Components of combined wealth by race (mean of race-specific 3rd quintile of private wealth)

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65.
*Source:* Authors' analysis of 1989–2019 Survey of Consumer Finances. Private retirement wealth is sum of Defined Benefit (DB) and Defined Contribution (DC) pension assets.

SSW was similarly their single greatest asset. Similarly, Dynan and Elmendorf (2025) find a substantial contribution of social security benefits to retirement income for Black families in their sample from Panel Study on Income Dynamics. The share of families assigned zero SSW—due to having fewer than 40 quarters of eligible employment or public sector employment

TABLE 2.5 Reliance on social security wealth (SSW) among families with heads age 40–59

| | SSW > Market Wealth* (%) | | | SSW is Largest Asset** (%) | | | Families with No SSW (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | White | Black | Hispanic | White | Black | Hispanic | White | Black | Hispanic |
| 1989 | 0.44 | 0.60 | 0.74 | 0.46 | 0.54 | 0.72 | 0.00 | 0.00 | 0.00 |
| 1992 | 0.51 | 0.60 | 0.80 | 0.49 | 0.54 | 0.73 | 0.00 | 0.00 | 0.00 |
| 1995 | 0.46 | 0.70 | 0.69 | 0.40 | 0.61 | 0.60 | 0.02 | 0.02 | 0.02 |
| 1998 | 0.42 | 0.56 | 0.56 | 0.38 | 0.50 | 0.51 | 0.02 | 0.01 | 0.03 |
| 2001 | 0.34 | 0.48 | 0.55 | 0.32 | 0.40 | 0.49 | 0.02 | 0.00 | 0.05 |
| 2004 | 0.34 | 0.50 | 0.54 | 0.28 | 0.40 | 0.46 | 0.02 | 0.03 | 0.02 |
| 2007 | 0.36 | 0.54 | 0.49 | 0.29 | 0.43 | 0.47 | 0.01 | 0.04 | 0.00 |
| 2010 | 0.45 | 0.61 | 0.67 | 0.34 | 0.46 | 0.53 | 0.01 | 0.03 | 0.02 |
| 2013 | 0.47 | 0.65 | 0.66 | 0.36 | 0.49 | 0.58 | 0.02 | 0.02 | 0.01 |
| 2016 | 0.42 | 0.66 | 0.65 | 0.36 | 0.53 | 0.57 | 0.01 | 0.02 | 0.02 |
| 2019 | 0.48 | 0.64 | 0.66 | 0.39 | 0.52 | 0.55 | 0.02 | 0.03 | 0.00 |

*Includes only households with positive predicted SSW; compares SSW to market wealth.
**Other asset types are clustered into four groupings: real estate, retirement accounts, DB pensions, and businesses.
*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65.
*Source:* Authors' analysis of 1989–2019 Survey of Consumer Finances.

in a state where those workers were not covered by social security—is quite small, accounting for just 1.5 percent of White families and 2.8 percent of Black families in 2019.

In light of the outsized contribution of SSW to the combined wealth of families of all races, it is particularly important to acknowledge that the estimated asset value of social security benefits included in this analysis assumes future benefits and taxes will conform to current law. If future benefits were reduced or tax rates increased in response to concerns over the projected solvency of the social security trust fund, then the wealth levels estimated here would decline. In their analysis of wealth concentration, Jacobs et al. (2022) model a stylized policy response and confirm that—as anticipated—reducing social security benefits and raising payroll taxes reduces wealth disproportionately for lower-wealth families and raises the share of combined wealth that is held by the wealthiest families.

**Racial disparities using combined wealth.** Private wealth, which includes the value of DB pensions, and combined wealth, which also includes social security net wealth, are distributed differently than the standard measure of market wealth. This metric also results in different measures of disparities by race. In this section, we examine racial wealth gaps that incorporate both private and public retirement assets and note how the inclusion of these resources affect our assessment of differences in wealth across race groups.

Looking at average levels of wealth first, White families have 5.6 times as much market wealth as Black families, but 3.8 times as much private wealth and 3.3 times as much combined wealth (see Figure 2.1). Compared to Hispanic families, White families, on average, have 4.4 times as much market wealth, 3.8 times as much private wealth, and 3.0 times as much combined wealth.

Alternatively, we can compare middle-wealth families of each race. Using this approach, White families have 4.6 times more market wealth than Black families, 4.8 times more private wealth, and 3.1 times more combined wealth. This is in part because DB assets tend to be held by Black families that are wealthier than the middle of wealth distribution. Middle-wealth White families have 3.2 times more market wealth than middle-wealth Hispanic families, 3.4 times more private wealth, and 2.3 times more combined wealth. At the middle of the distribution, DB pensions (and DC plans) further exacerbate racial disparities, but SSW strongly reduces disparities.

## Post-pandemic shifts in wealth

**Shifts in overall private wealth.** The most recent cross-section of the SCF available was fielded in 2019. Since that time, there have been many important changes in the economy that have impacted national output, employment, Gross Domestic Product, and wealth. The period of quarantine and restriction on movement and economic activity early in the COVID-19 pandemic response—at the end of the first quarter and into the second quarter of 2020—corresponded with a sharp, but unexpectedly short-duration, negative shock to employment and consumption. Between March and April 2020, total non-farm employment declined 14 percent (see Figure 2.4). Jobs started to return almost immediately, but the initially very rapid pace of job growth in mid-2020 subsequently slowed; the labor market ultimately took until early 2022 before total employment returned to pre-pandemic levels.

Asset markets fared differently than labor markets over the same period. The stock market did experience a short, sharp negative shock, but it rebounded much more quickly than employment. The value of stocks, measured by the Wilshire 5000, fell by one-fifth between February and March 2020, but it returned to rapid growth almost immediately and to pre-pandemic valuations in the second half of 2020. The bull stock market continued through the end of 2021, ending the year nearly 40 percent higher than pre-pandemic levels. From the end of 2021 through the end of 2022 Q3 market valuations slid, losing some of their post-pandemic gains, but were still notably above their levels in February 2020. Housing prices, on the other hand, were flat during the early stages of the pandemic. Starting in the summer of 2020, housing prices entered a period of rapid growth that continued through the middle of 2022. House price growth has flattened since, but prices have not come down.

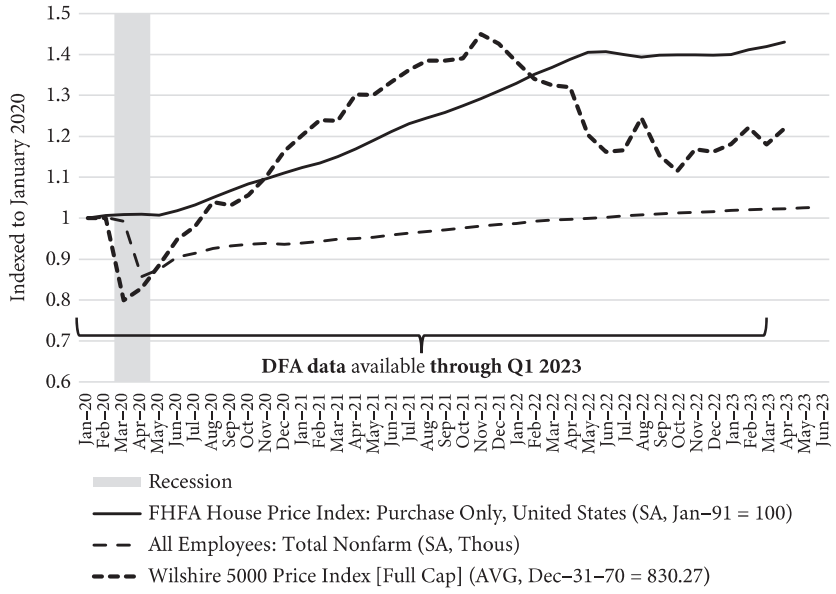


**Figure 2.4** Asset prices and labor market recovery since 2019

*Source:* Authors' compilation of data from Haver Analytics, National Bureau of Economic Research, Federal Housing Finance Agency (FHFA), Bureau of Labor Statistics, Dow Jones. House Price Index and employment data are seasonally adjusted (SA).

While these labor and asset market trends were nation-wide and impacted many households, it is possible that they could have had differential impacts on household wealth by race. We know that there are racial disparities in income, as well as differences in home ownership and portfolio composition, among other differences. In the remainder of this chapter, we use data from the Federal Reserve Board DFAs to assess changes in private wealth, by race, for households with heads age 40–64 between 2019 Q1 and 2022 Q3.[9] These data indicate that the private wealth of the three race groups analyzed here followed similar trajectories, likely resulting in modest changes to the disparities displayed in the preceding sections. If anything, the wealth of Black and Hispanic families rose at a faster rate in 2020 and 2021 than their White and Hispanic counterparts (see Figure 2.5). By the fourth quarter of 2021, the private wealth of Black and Hispanic families was up nearly 60 percent over levels from the first quarter of 2019. Over this same period, White families' wealth rose approximately one-third.

The declines in stock prices in 2022, along with the cooling off in the housing market in mid-2022, initially flattened the growth and then brought losses in wealth for most households. Black families saw modest erosion of

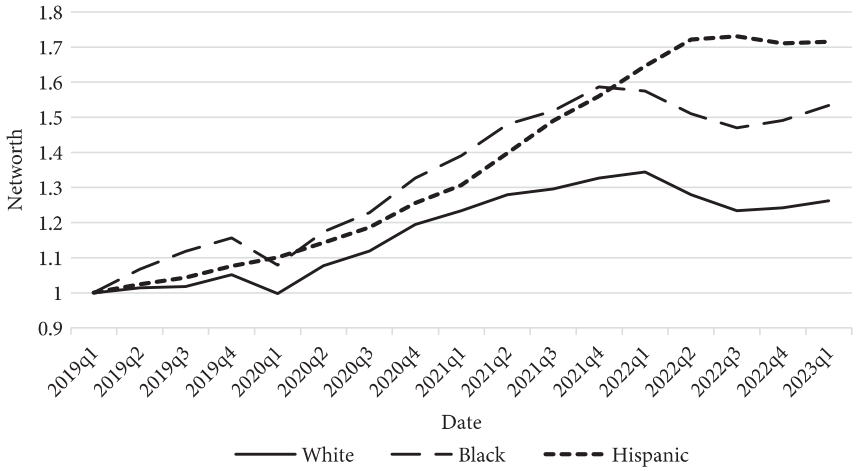


**Figure 2.5** Growth in private wealth since 2019, by race—Distributional Financial Accounts (DFA)

*Source:* Authors' analysis of DFAs for household heads age 40–64.

their post-pandemic wealth gains, ending the period with private wealth up slightly more than 50 percent over 2019 Q1. White families' private wealth levels remained just over 25 percent above 2019 levels. Hispanic families, by contrast, saw their wealth continue to rise through much of 2022, with their private wealth remaining at a level 70 percent greater than 2019 levels through 2023 Q1. These changes in private wealth by race were consistent with average private wealth ratios of 3.1 for White/Black and 2.8 for White/Hispanic, somewhat lower than the ratios of 3.8 reported in the 2019 SCF.[10]

**Shifts in wealth by asset type.** The most dramatic swings among asset types are observed for DC plan balances, which rose quickly (in 2020 and 2021) and then fell even more quickly (in the first three quarters of 2022) along with the stock market (see Figure 2.6a). Black famrelative gains in the period leading up to 2020 Q4 and the largest relative declines in the quarters since. By 2023 Q1, Black family DC balances were up nearly 60 percent over 2019 levels, Hispanic family balances were up nearly 25 percent, and White family balances were up 17 percent.

Following the COVID-19 pandemic, DB pension assets experienced less growth and were less volatile.[11] There was also less variation by race in the change in assets. Average DB assets rose steadily for all race groups, ending up approximately 20 percent over 2019 levels by 2023 Q1 for Hispanic and Black families (Figure 2.6b). White family DB assets also rose steadily but at a modestly slower pace, ending the period up approximately 8 percent over 2019 levels.

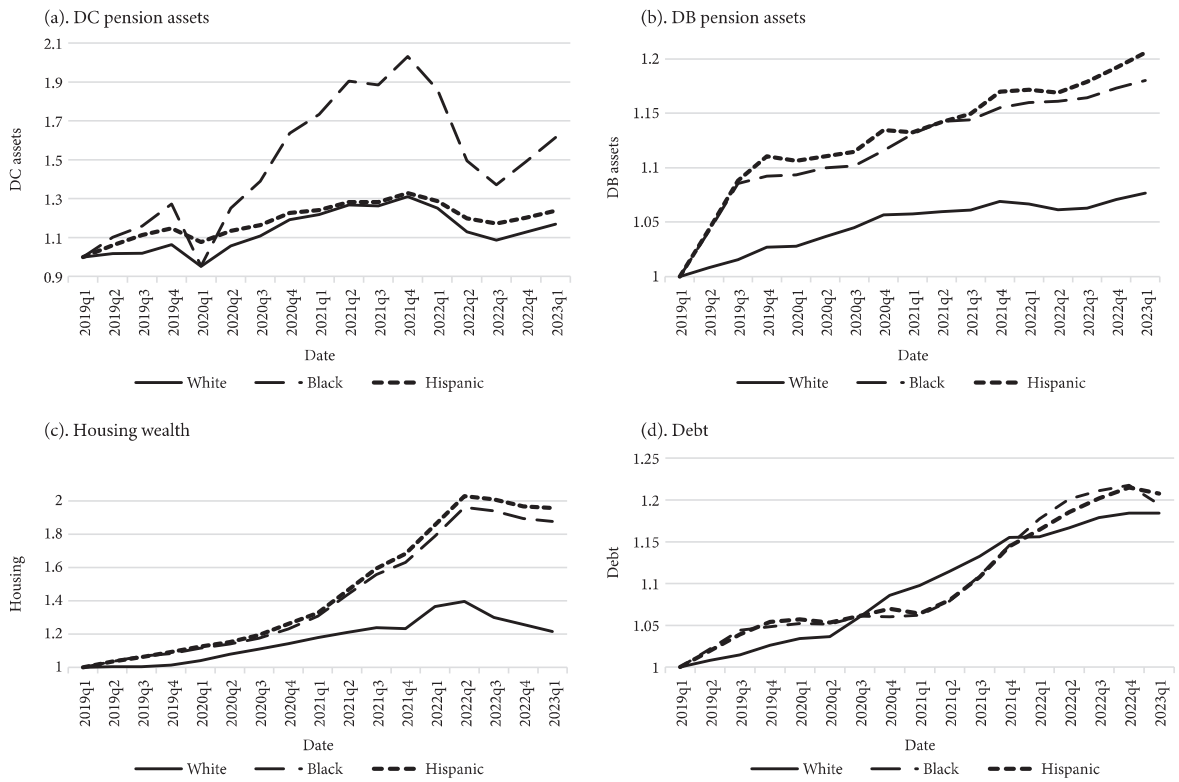


**Figure 2.6** Growth in wealth since 2019, by asset type and race—DFAs

*Source:* Authors' analysis of DFAs, households age 40–64.

Housing assets rose for all races during the pandemic era, with particularly dramatic gains reaped in 2021 and into 2022, before cooling in late 2022. It is important to keep in mind that the rate of home ownership is not even across races, with slightly less than half of Black and Hispanic households and more than three-quarters of White families owning homes. The DFAs do not account for differences in home ownership, estimating instead average housing wealth. The greatest increases were experienced by Hispanic families, where housing wealth nearly doubled between 2019 Q1 and 2023 Q1 (Figure 2.6). Black families saw increases in housing wealth nearly as large over this same period, while White families gained more than 20 percent.

Debt also rose steadily during this period, but with few differences by race. All race groups saw their average outstanding debt rise around 20 percent between 2019 Q1 and 2023 Q1, with Black families at the top of that range and White families at the bottom (Figure 2.6).

## Conclusion

Research exploring racial wealth disparities often seeks to identify the impact of policies yet to be implemented on asset building among lower-wealth racial minorities. This chapter draws attention to the notable reductions in racial wealth disparities from policies already in place but typically not accounted for in the measurement of wealth. More completely accounting for people's existing resources at retirement implies that racial disparities in wealth may be less pronounced than commonly believed.

We show that retirement wealth is distributed unequally by race, similar to other assets. This is particularly the case for DC plans, where White families have substantially greater participation rates and assets (both 'average' and 'middle wealth') than do Black and Hispanic families. Racial gaps in DB pension participation and assets are much smaller for the average family, though not at the middle of the wealth distribution.

Our work shows that DB pensions play an important role in reducing gaps in overall private wealth between average White and Black families. These pensions, often available to state and local government employees as well as federal workers, have been under pressure for their low funding levels. The health of these systems has important implications for state and local government finances, as well as for current and future public sector retirees.

We also show that including the SSW values in measures of retirement wealth results in large reductions in wealth disparities between middle wealth White, Black, and Hispanic families. While many families have relatively little financial wealth, SSW is larger than market wealth for half of White families and two-thirds of Black and Hispanic families. Accordingly,

changes to the social security program could have notable implications for the distribution of retirees' wealth across racial groups.

For the purposes of understanding racial disparities, relying on market wealth—excluding the value of pensions and SSW—is, in some respects, comparable to analyzing poverty using income concepts that exclude taxes and transfers. Pre-tax/transfer income is a useful concept in many applications, but for understanding the level of consumption that households can achieve given current social policies, it is potentially misleading. Similarly, accounting more completely for the resources available to families at retirement may provide a more complete assessment of the impacts of policies that change the ability of households to build wealth. Arguably, one of the most important reasons for saving is to support consumption in retirement, and it is the combined wealth measure that provides a more complete picture of household resources. Of course, SSW and private wealth are not necessarily good substitutes for other purposes, for example, accumulating collateral for access to credit markets or bequests. As a result, both measures of wealth remain relevant concepts.

## Acknowledgements

The authors thank YeJin Ahn and Hope Bodenschatz for excellent research assistance, and Olivia S. Mitchell for valuable comments. The analysis and conclusions herein are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors, the Federal Reserve Bank of Boston, or the Federal Reserve System.

## Notes

1. While this chapter focuses on wealth disparities between White, Black, and Hispanic families, it is also important to acknowledge the wealth of Asian families. Asians are the fourth-largest race group in the US, but the sample sizes for Asian families in the SCF are insufficient to provide reliable statistics in any single year. As a result, Asian families are combined into the 'other' race group in most publicly available data. Separate analysis of the SCF though, shows that Asian families have the highest wealth levels of the major race groups in the US. In 2016–2019, the average market wealth of Asian families was 1.3 times that of White families (Thompson and Volz 2021).
2. Indeed, the present value of current social security participants, all those who have paid into the program, is 76.4 trillion dollars as of the beginning of 2023 (Social Security Administration 2023). This is more than half of total household wealth, estimated to be 142.1 trillion in the Financial Accounts of the United States.

3. Hou and Sanzenbacher (2020, 2021) have similar findings regarding the equalizing role social security plays in wealth disparities by race using a slightly older sample (51–56) from the Health and Retirement Survey.
4. Following Jacobs et al. (2020), focusing on this age group allows the estimation of future work histories to be less dependent on assumptions, as respondents who are 40–59 have already spent significant time in the workforce, reducing the assumptions necessary to predict future labor force participation and social security benefits. In addition, this approach has the added benefit of reducing the impact of the evolving age composition of households, which complicates the interpretation of distributional trends.
5. See Biggs and Springstead (2008) for a discussion of alternative standards of adequacy of replacement rates.
6. Following Love et al. (2008), we calculate annuity values by dividing the present value of combined wealth (net worth, including DC wealth, plus the net present value of social security and DB pension wealth) by the actuarially fair price of an annuity. The price is the sum of the probabilities of surviving to advanced age levels for both respondent and, if present, spouse, and assumes a 3 percent discount rate.
7. For a perspective on retirement wealth that abstracts from DB or DC pension plans and focuses on the wealth form of social security benefits, see Catherine and Sarin (2025).
8. For these calculations, we ignore any debt related to the asset type, for example, mortgage debt associated with home ownership.
9. See Batty et al. (2021) for a discussion of DFA projections during the COVID-19 pandemic.
10. The DFA-based average private wealth ratios are calculated by multiplying average private wealth levels from 2019 (shown in Table 2.1) by 1.26 for White families, 1.53 for Black families, and 1.71 for Hispanic families. It is important to note that this is an estimate, and the 2019 wealth ratios are based on households age 40–59, while the DFA updates are for households age 40–64.
11. Lower volatility is primarily due to how DB pension assets are estimated in the FA, which form the basis for the DFAs. DB assets allocated to households do not fluctuate with the underlying assets that fund the plans held by firms and pension plans, but instead they are valued based on projected benefits accrued up to the quarter of FA release. This is consistent with the Bureau of Economic Analysis' methodology, the source of the household DB assets in the FAs.
12. The unit of analysis in the SCF is the 'primary economic unit' (PEU), which refers to a financially dependent related (by blood, marriage, or unmarried partners) group living together. This concept is distinct from either the household or family unit employed by the Census Bureau, but it is conceptually closer to the latter, and throughout this chapter, PEUs are referred to as 'families.' Single individuals living alone are included and simply considered a family of one. In the SCF, the respondent is the adult in the primary family who is most knowledgeable about the family's finances.
13. The race variable in the public version of the SCF is based on the first answer provided. Very few people give more than one response. As of 2004, respondents,

regardless of race, are also asked a question to determine whether their cultural origins are Hispanic or Latino.

14. The wealth numbers here will differ somewhat from those in Dettling et al. (2017) and Bhutta et al. (2020b), which identify 'White' families as those headed by respondents self-identifying as White, non-Hispanic only; 'Black' as those whose head identifies as Black or African American, non-Hispanic only; and 'Hispanic' as those whose head identifies as Hispanic only.
15. One important exception here is Wolff (2021), but the methodological approach taken by Jacobs et al. (2022) represents a considerable improvement over that earlier work. See note 43 for more detailed comparisons with the methodology and findings in Wolff (2021).
16. This is the approach taken in Wolff (2007, 2014, 2021).
17. Using a public-use version of Sabelhaus and Volz (2019) DB wealth estimates, Madowitz et al. (2020) note that the inclusion of DB pensions reduces the median racial wealth gap.
18. See Jacobs et al. (2020, 2022) for details on the projection methods. Alternative estimates of social security wealth can be constructed using other methods for projecting the earnings of current workers through simulation of earnings paths (Catherine and Sarin 2025) or predictive regressions (Wolff 2025).
19. One concern regarding the methodology of Jacobs et al. (2022) for estimating earnings histories using past-job information from the SCF, particularly when it concerns racial disparities, is that for immigrants we are uncertain whether reported previous work was carried out in the United States and is thus actually eligible in determining social security benefits. This is a greater concern in estimating combined wealth for Hispanic and Asian families than for either Black or White families, but for a variety of reasons, the actual impact on predicted SSW of any group is quite small. Thompson and Volz (2021) calculated that, based on the number of potentially eligible working years in the United States and the progressive elements in the social security benefit formula, the method used in Jacobs et al. (2022) overestimates average benefits among Asian families by only 2 percent and by 1 percent among Hispanic families in 2019. For earlier periods, this overestimation is modestly higher, hitting 4 percent among Asians and 2 percent among Hispanics in 1995. In sum, the potential overestimation of SSW in the SCF due to immigration is quite small on average, and it is becoming smaller over time. Details of the data analysis and calculations behind this assessment are provided by Thompson and Volz (2021).
20. The old-age pension portion of Old Age, Survivors, and Disability Insurance (OASDI), what we refer to here as simply 'social security,' has undergone substantial changes since its inception, including changes to the benefit and eligibility rules and the full retirement age, among others. The most dramatic of the changes relevant to measuring racial disparities, the 1954 inclusion of domestic workers and farm workers, occurred 35 years before our sample period begins and does not impact our estimates of SSW. Other recent changes, namely the 1983 reform that transitioned federal civilian employees from the Civil Service Retirement System into social security and the Federal Employment Retirement System and the 1990 expansion to cover state and local government workers

not covered by plans provided by their employers, can be expected to influence estimates of SSW in the sample period. We are unable to identify federal employees in the SCF and thus apply current OASDI program rules, assuming they are paying into and eligible for benefits from social security over their entire work history. For state and local government employees identified in the SCF through a combination of occupation (e.g., 'teachers') and industries (e.g., public administration), and their coverage by a DB pension, we do not allocate SSW to those living in states where public workers are not covered by social security. As a result of this decision, we do not attribute SSW to federal employees living in those states, as we cannot separately identify them in the SCF. Since only 9 percent of federal workers reside in states that do not extend social security coverage to public workers, and only 3 percent of workers aged 40–59 are employed by the federal government, relatively few SCF families will be affected by this misclassification (authors' analysis of American Community Survey 2018–2019).

21. See Henriques (2018) for a discussion on the impact of the social security claiming age on household SSW.
22. The method of Jacobs et al. (2022) for estimating lifetime earnings projects future earnings out until age 62 or the self-reported planned retirement age, whichever comes first. Due to disability or other reasons, not all workers will actually end up working over that entire period. In those cases, we may overestimate SSW. The implications of this overestimation, however, are likely modest, since our calculated benefits will overstate their lifetime earnings but an individual's Social Security Disability Income (SSDI) or Supplemental Security Income (SSI) payments could also be larger than our calculated benefit.
23. Secondary earners, typically wives, are entitled to their own benefits calculated from their past earnings but also from spousal and survivor benefits. Jacobs et al. (2022) assign spousal benefits to the household if the expected spousal benefits are larger than the wife's worker benefits at age 62. If the duration of the current marriage is less than 10 years at age 62, the wife is not eligible for spousal or survivor benefits. The SCF does not collect information about the durations of all previous marriages; thus, some individuals with more than one marriage may not be accurately assigned dependent benefits from a former spouse.
24. The methodology used to combine the Chetty et al. (2016) with cohort life tables is described in the Appendix to Sabelhaus and Volz (2022).
25. In some states, public employees who are enrolled in a state DB pension plan do not pay into, and are not eligible for benefits from, social security. Our calculation of combined wealth does not allocate any SSW to public employees with DB pensions currently living in those states.
26. In recent work, Sabelhaus and Volz (2022) also estimate SSW for all SCF respondents to study the accumulation of SSW over the life cycle. Previous research estimated SSW to form broader wealth concepts, including work by Kennickell and Sunden (1997), Wolff (2007, 2014, 2021), and Munnell et al. (2018). This literature is discussed at greater length in Sabelhaus and Volz (2022) and Jacobs and Volz (2020, 2022). Their estimation approach for SSW and a wealth concept are slightly different from that of Jacobs et al. (2022), but they reach similar conclusions about the levels and trends of overall wealth inequality.

27. Jacobs et al. (2022, 2020) provide details on the methodology for estimating DB wealth and SSW for the combined-wealth measure used here. They also review methodologies used in other literature that takes a similar approach to expanding the wealth concept. Wolff (2007, 2014, 2021) represents an alternative approach to developing 'augmented wealth,' which includes DB pensions and social security. The work by Jacobs et al. (2022, 2020) represents an advancement on Wolff in estimating both of these asset types. Two improvements by Jacobs et al. (2022, 2020) are the introduction of out-of-sample information that improves the reliability of the predictions and the restriction of the prediction to an age group for which predictions are going to be more reliable. Wolff estimates the asset value of DB pensions for current workers by calculating the present value of the stream of benefits based on expected future pension benefits reported by respondents, assuming standard rates of return and discount rates. Given the inconsistent quality of information that DB pension holders have about future pension benefits, the methodology from Devlin-Foltz et al. (2016) and Sabelhaus and Volz (2022) used by Jacobs et al. (2022, 2020) represents a considerable improvement. The reliability of DB pension information deteriorates the further the respondent is from retirement age; Wolff estimates DB wealth for the entire age distribution, while Jacobs et al. (2020, 2022) restrict their focus to the 40–59 age range, when DB pension information is more salient. Also, the transition into and out of DB plans is expected to be much more extensive among the under-40 age group compared with the 40–59 age group. These methodological advancements extend to the estimation of SSW. The focus on the 40–59 age group improves the quality of the estimation of lifetime earnings. This age group has detailed work history data in the SCF that can be used to construct earnings histories and relatively few future working years over which to predict future earnings. Jacobs et al. (2022, 2020) also use actual earnings-growth data, based on a synthetic panel of cohorts of similar-type workers in the CPS to estimate future earnings. Wolff (2018, 2021) relies on an in-sample prediction of earnings from a repeated cross section of the SCF. The growth in earnings in Wolff's (2018, 2021) future earnings projection is actually driven by cross-sectional variation in earnings by age.

## References

Batty, M.M., J. Bricker, J.S. Briggs, E. Holmquist, S.H. McIntosh, K.B. Moore et al. (2019). 'Introducing the Distributional Financial Accounts of the United States.' Finance and Economics Discussion Series 2019-017. Washington, DC: Board of Governors of the Federal Reserve System.

Batty, M.M., E. Deeken, and A.H. Volz (2021). 'Wealth Inequality and COVID-19: Evidence from the Distributional Financial Accounts.' FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.

Bernheim, B.D. and J.K. Scholz (1992). 'Private Saving and Public Policy.' NBER Working Paper No. w4215. Cambridge, MA: National Bureau of Economic Research.

Bhutta, N., J. Bricker, A.C. Chang, L.J. Dettling, S. Goodman, J.W. Hsu et al. (2020a). 'Changes in US Family Finances from 2016 to 2019: Evidence from the Survey of Consumer Finances.' *Federal Reserve Bulletin* 106(5): 1–25.

Bhutta, N., A.C. Chang, L.J. Dettling, and J.W. Hsu (2020b). 'Disparities in Wealth by Race and Ethnicity in the 2019 Survey of Consumer Finances.' FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.

Biggs, A.G. and G.R. Springstead (2008). 'Alternate Measures of Replacement Rates for Social Security Benefits and Retirement Income.' *Social Security Bulletin* 68(2): 1–19.

Board of Governors of the Federal Reserve (2023). 'Financial Accounts of the United States: Flow of Funds, Balance Sheets and Integrated Macroeconomic Accounts.' First Quarter 2023.

Bricker, J., L.J. Dettling, A. Henriques, J.W. Hsu, L. Jacobs, K.B. Moore et al. (2017). 'Changes in US Family Finances from 2013 to 2016: Evidence from the Survey of Consumer Finances.' *Federal Reserve Bulletin*, 103(3): 103.

Bricker, J., S. Goodman, K.B. Moore, and A.H. Volz (2020). 'Wealth and Income Concentration in the SCF: 1989–2019.' FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.

Bricker, J., A. Henriques, J. Krimmel, and J. Sabelhaus (2016). 'Measuring Income and Wealth at the Top Using Administrative and Survey Data.' *Brookings Papers on Economic Activity* 47(1): 261–321.

Catherine, S. and N. Sarin (2025). 'Social Security and the Racial Wealth Gap.' In O.S. Mitchell and N. Roussanov, eds., *Reducing Retirement Inequality: Building Wealth and Old-Age Resilience.* Oxford, UK: Oxford University Press, pp. 171–190.

Chetty, R., M. Stepner, Abraham, S. Lin, B. Scuderi, N. Turner et al. (2016). 'The Association between Income and Life Expectancy in the United States, 2001–2014.' *Journal of the American Medical Association* 315(16): 1750–1766.

Dettling, L.J., J.W. Hsu, L. Jacobs, K.B. Moore, and J.P. Thompson (2017). 'Recent Trends in Wealth-Holding by Race and Ethnicity: Evidence from the Survey of Consumer Finances.' FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.

Devlin-Foltz, S., A. Henriques, and J. Sabelhaus (2016). 'Is the U.S. Retirement System Contributing to Rising Wealth Inequality?' *Russell Sage Foundation Journal of the Social Sciences* 2(6): 59–85.

Dushi, I. and B. Trenkamp (2021). 'Improving the Measurement of Retirement Income of the Aged Population.' ORES Working Paper Series No. 116. Washington, DC: Social Security Administration Office of Research, Evaluation, and Statistics.

Dynan, K. and D. Elmendorf (2025). 'Changes in Racial Gaps in Retirement Security over Time.' In O.S. Mitchell and N. Roussanov, eds., *Reducing Retirement Inequality: Building Wealth and Old-Age Resilience.* Oxford, UK: Oxford University Press, pp. 53–78.

Engen, E.M., W.G. Gale, and C.E. Uccello (1999). 'The Adequacy of Household Saving.' *Brookings Papers on Economic Activity*, 2: 65–187.

Feldstein, M. and A. Pellechio (1979). 'Social Security and Household Wealth Accumulation: New Microeconometric Evidence.' *Review of Economics and Statistics*, 61: 361–368.

Fisher, J., D. Johnson, T. Smeeding, and J. Thompson (2021). 'Inequality in 3-D: Income, Consumption, and Wealth.' *Review of Income and Wealth*, 68(1): 16–42.

Gould, E. and D. Cooper (2013). 'Financial Security of Elderly Americans at Risk: Proposed Changes to Social Security and Medicare Could Make a Majority of Seniors "Economically Vulnerable."' EPI Briefing Paper No. 362. Washington, DC: Economic Policy Institute.

Gustman, A.L. and T.L. Steinmeier (1999). 'Effects of Pensions on Savings: Analysis with Data from the Health and Retirement Study.' *Carnegie-Rochester Conference Series on Public Policy*, 50: 271–324.

Haveman, R., K. Holden, B. Wolfe, and A. Romanov (2006). 'The Sufficiency of Retirement Savings: A Comparison of Two Cohorts of Retired Workers at the Time of Retirement.' La Follette School Working Paper 2006-019. Madison, WI: La Follette School of Public Affairs at the University of Wisconsin-Madison.

Henriques, A.M. (2018). 'How Does Social Security Claiming Respond to Incentives? Considering Husbands' and Wives' Benefits Separately.' *Journal of Human Resources*, 53(2): 382–413.

Hou, W. and G. Sanzenbacher (2020). 'Social Security is a Great Equalizer.' Center for Retirement Research at Boston College Issue Brief Number 20-2. Boston, MA: Center for Retirement Research at Boston College.

Hou, W. and G. Sanzenbacher (2021). 'Measuring Racial/Ethnic Retirement Wealth Inequality.' *Journal of Retirement*, 8(3): 12–28.

Hurd, M.D. and S. Rohwedder (2011). 'Economic Preparation for Retirement.' In David A. Wise, ed., *Investigations in the Economics of Aging*. Chicago, IL: University of Chicago Press, pp. 77–113.

Jacobs, L., E. Llanes, K. Moore, J. Thompson, and A. Henriques Volz (2020). 'Wealth Distribution and Retirement Preparation Among Early Savers.' Finance and Economics Discussion Series 2020-043. Washington, DC: Board of Governors of the Federal Reserve System.

Jacobs, L., E. Llanes, K. Moore, J. Thompson, and A. Henriques Volz (2022). 'Wealth Concentration in the USA Using an Expanded Measure of Net Worth.' *Oxford Economic Papers*, 74(3): 623–642.

Kakar, V., G. Daniels, and O. Petrovska (2019). 'Does Student Loan Debt Contribute to Racial Wealth Gaps? A Decomposition Analysis.' *Journal of Consumer Affairs*, 53(4): 1920–1947.

Keister, L. and S. Moller (2000). 'Wealth Inequality in the United States.' *Annual Review of Sociology*, 26: 63–81.

Kennickell, A.B. (1999). 'Revisions to the SCF Weighting Methodology: Accounting for Race/Ethnicity and Homeownership.' FRB Working Paper. Washington, DC: Board of Governors of the Federal Reserve System.

Kennickell, A.B. (2006). 'Currents and Undercurrents: Changes in the Distribution of Wealth, 1989– 2004.' Finance and Economics Discussion Series 2006-13. Washington, DC: Board of Governors of the Federal Reserve System.

Kennickell, A.B. and A. E. Sunden (1997). 'Pensions, Social Security, and the Distribution of Wealth.' Finance and Economics Discussion Series 1997-55. Washington, DC: Board of Governors of the Federal Reserve System.

Love, D.A., P.A. Smith, and L.C. McNair (2008). 'A New Look at the Wealth Adequacy of Older U.S. Households.' *Review of Income and Wealth*, 54(4): 616–642.

Madowitz, M., A. Price, and C. Weller (2020). 'Public Work Provides Economic Security for Black Families and Communities.' Center for American Progress Issue Brief. Washington, DC: Center for American Progress.

Munnell, A., W. Hou, and G. Sanzenbacher (2018). 'National Retirement Risk Index Shows Modest Improvement in 2016.' Center for Retirement Research at Boston College Issue Brief 18-1. Boston, MA: Center for Retirement Research at Boston College.

Munnell, A.H., N. Orlova, and A. Webb (2013). 'How Important is Asset Allocation to Americans' Financial Retirement Security?' In O.S. Mitchell and K. Smetters, eds., *The Market for Retirement Financial Advice.* New York, NY: Oxford University Press, pp. 89–106.

Munnell, A.H., M.S. Rutledge, and A. Webb (2015). 'Are Retirees Falling Short? Reconciling the Conflicting Evidence.' Center for Retirement Research at Boston College 15–5. Boston, MA: Center for Retirement Research at Boston College.

Munnell, A.H., A. Webb, and L. Delorme (2006). 'A New National Retirement Risk Index.' Center for Retirement Research at Boston College Issue in Brief 48. Boston, MA: Center for Retirement Research at Boston College.

Mutchler, J., Y. Li, and P. Xu (2016). 'Living below the Line: Economic Insecurity and Older Americans Insecurity in the States 2016.' Center for Social and Demographic Research on Aging Publications Paper 13. Boston, MA: University of Massachusetts, Boston Center for Social and Demographic Research on Aging.

Poterba, J.M. (2014). 'Retirement Security in an Aging Population.' *American Economic Review: Papers and Proceedings*, 104: 1–30.

Poterba, J., S. Venti, and D. Wise (2011). 'The Composition and Drawdown of Wealth in Retirement.' *Journal of Economic Perspectives*, 25: 95–118.

Sabelhaus, J. and A.H. Volz (2019). 'Are Disappearing Employer Pensions Contributing to Rising Wealth Inequality?' FEDS Notes. Washington, DC: Board of Governors of the Federal Reserve System.

Sabelhaus, J. and A.H. Volz (2022). 'Social Security Wealth, Inequality, and Life-Cycle Saving.' In R. Chetty, J.N. Friedman, J.C. Gornick, B. Johnson and A. Kennickell, eds., *Measuring Distribution and Mobility of Income and Wealth.* Chicago, IL: University of Chicago Press, pp. 249–285.

Scholz, J.K., A. Seshadari, and S. Khitatrakun (2006). 'Are Americans Saving "Optimally" for Retirement?' *Journal of Political Economy*, 114(4): 607–643.

Social Security Administration (2016). 'Income of the Aged Chartbook, 2014.' SSA Publication No. 13-11727. Washington, DC: Social Security Administration.

Social Security Administration (2023). 'The 2023 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.' Washington, DC: Social Security Administration

Starr-McCluer, M. and A. Sunden (1999). 'Workers' Knowledge of Their Pension Coverage: A Reevaluation.' In J.C. Haltiwanger, J.I. Lane, J. Spletzer,

J.J. Theeuwes and K.R. Troske, eds., *The Creation and Analysis of Employer–Employee Matched Data*, vol. 241 of *Contributions to Economic Analysis*. Bingley, UK: Emerald, pp. 469–583.

Thompson, J. and G.A. Suarez (2019). 'Accounting for Racial Wealth Disparities in the United States.' Federal Reserve Bank of Boston Research Department Working Papers No. 19-13. Boston, MA: Federal Reserve Bank of Boston.

Thompson, J. and A. Volz (2021). 'A New Look at Racial Disparities Using a More Comprehensive Wealth Measure.' Federal Reserve Bank of Boston Current Policy Perspectives. Boston, MA: Federal Reserve Bank of Boston.

Thompson, J. and C. Weller (2018). 'Wealth Inequality More Pronounced among Asian Americans than among Whites.' *Challenge*, 61(2): 1–31.

Wolff, E.N. (1995). *Top Heavy: A Study of the Increasing Inequality of Wealth in America*, New York, NY: The Twentieth Century Fund Press.

Wolff, E.N. (2002). *Retirement Insecurity: The Income Shortfalls Awaiting the Soon-to-Retire*, Washington, DC: Economic Policy Institute.

Wolff, E.N. (2007). 'The Retirement Wealth of the Baby Boom Generation.' *Journal of Monetary Economics*, 54: 1–40.

Wolff, E.N. (2014). 'Household Wealth Trends in the United States, 1983–2010.' *Oxford Review of Economic Policy*, 30: 21–43.

Wolff, E.N. (2018). 'The Decline of African-American and Hispanic Wealth since the Great Recession.' NBER Working Paper No. 25198. Cambridge, MA: National Bureau of Economic Research.

Wolff, E.N. (2021). 'Household Wealth Trends in the United States, 1962 to 2019: Median Wealth Rebounds . . . But Not Enough.' NBER Working Paper No. 28383. Cambridge, MA: National Bureau of Economic Research.

Wolff, E.N. (2022). 'African-American and Hispanic Income, Wealth and Homeownership since 1989.' *Review of Income and Wealth*, 68: 189–233.

Wolff, E.N. (2025). 'Understanding Trends in Hispanic and African American Retirement Preparedness in the US.' In O.S. Mitchell and N. Roussanov, eds., *Reducing Retirement Inequality: Building Wealth and Old-Age Resilience*. Oxford, UK: Oxford University Press, pp. 79–106.

# Appendix

## Data and Methods

*Gustavo Suarez, Jeffrey Thompson, and Alice Henriques Volz*

**The SCF.** Our main dataset comes from the 11 waves of the Federal Reserve Board's triennial SCF conducted from 1989 through 2019. Several features of the SCF make it appropriate for exploring the distribution of wealth. The survey collects detailed information about households' financial assets and liabilities, and it has employed a consistent design and sample frame since 1989. The SCF also includes information on the value of all financial and non-financial assets, including residential and non-residential real estate and privately held businesses, reported by the respondent at the time of the interview. Questions on household debt cover all types of debt, including credit cards, mortgage debt, student loans, business debts, and other miscellaneous forms of debt.[12] Our analysis uses the SCF as opposed to other household surveys with wealth information for a variety of reasons. For one, the SCF's unique sample design ensures that it includes sufficient numbers of high-net-worth households, allowing the SCF to be fully representative of the nation's wealth held by households. Also, by including households of all ages, the SCFs allows us to examine the adequacy of retirement assets among a somewhat younger group of pre-retirement households (starting at age 40 here), whereas the Health and Retirement Survey includes only families 55 and older.

In addition to collecting data about family finances, the SCF collects basic demographic information pertaining primarily to the respondent (that is, the family head). The survey records the respondent's self-identified race, chosen from among seven options. The exact wording of the telephone version of the survey is as follows: 'Which of these categories do you feel best describe you: White, Black or African American, Hispanic or Latino, Asian, American Indian or Alaska Native, Hawaiian Native or other Pacific Islander, or another race?' Before 1998, respondents could choose only one category. Since 1998, they have been allowed to select multiple categories, but first they are asked to indicate the category with which they identify most strongly (Kennickell 1999).[13]

In the following analysis, we define the race variable to reflect the first option that the respondent chose, starting with the 1998 SCF and for all of the following surveys, in order to avoid any potential complications related to the changes in the race variable in 1998 (allowing for the selection of multiple races) and in 2004 (allowing for the separate identification of Hispanic ethnicity); see the Appendix Table A.2.1.[14]

of the unique design of the SCF, which includes oversampling households with predicted high net worth using tax information from the Internal Revenue Service,

Table A.2.1 Demographic profile of families by race, selected years

| | | 1989/92 | | | 2016/19 | | |
|---|---|---|---|---|---|---|---|
| | | White | Black | Hispanic | White | Black | Hispanic |
| **Age** | Median | 43 | 43 | 40 | 48 | 46 | 44 |
| **Education** | | | | | | | |
| No high school diploma/GED | % | 0.10 | 0.30 | 0.42 | 0.07 | 0.12 | 0.34 |
| High school diploma or GED | % | 0.32 | 0.31 | 0.31 | 0.24 | 0.29 | 0.25 |
| Some college or Assoc. degree | % | 0.24 | 0.21 | 0.20 | 0.28 | 0.35 | 0.23 |
| Bachelor's degree or higher | % | 0.34 | 0.18 | 0.07 | 0.42 | 0.24 | 0.18 |
| | Total observations | 17,833 | 2,102 | 1,244 | 25,020 | 5,216 | 4,290 |
| Home ownership | % | 0.74 | 0.46 | 0.46 | 0.73 | 0.42 | 0.49 |
| Married/partnered | % | 0.69 | 0.38 | 0.65 | 0.66 | 0.38 | 0.62 |
| Households with children under 18 | % | 0.46 | 0.47 | 0.64 | 0.40 | 0.38 | 0.55 |
| Number of children under 18 | Conditional mean | 1.9 | 1.9 | 2.2 | 1.9 | 1.9 | 2 |
| Labor force participation rate of respondent | % | 0.91 | 0.78 | 0.89 | 0.89 | 0.83 | 0.90 |
| Labor force participation rate of spouse (if present) | % | 0.81 | 0.91 | 0.73 | 0.85 | 0.94 | 0.79 |
| Combined years of full-time work | Mean | 40.3 | 31.9 | 37.8 | 46.0 | 34.6 | 37.6 |

*Note:* Includes households with heads age 40–59, with spouse/partners (if present) age 30–65
*Source:* Authors' analysis of Survey of Consumer Finances, selected years.

its data are commonly used to explore wealth concentration at the top of the distribution (Bricker et al. 2016, 2017, 2020; Fisher et al. 2021; Keister and Moller 2000; Kennickell 2006; Wolff 1995, 2021). Since the survey also collects basic household demographic information, it has also been used to explore racial disparities in wealth (Bhutta et al. 2020b; Dettling et al. 2017; Kakar et al. 2019; Thompson and Suarez 2019; Thompson and Weller 2018; Wolff 2022). Indeed, one of the most commonly cited statistics on this topic, that the typical White family has 10 times as much wealth as the typical Black family (10.4 in 2016 among households in the 40–59 age range we study here), comes from analysis of the SCF. Although that number had decreased to 8.6 in 2019, it is still based on the 'Bulletin' concept of market wealth, which nearly every researcher employs when using the SCF to examine racial wealth disparities (Thompson and Volz 2021).[15] By excluding wealth associated with DB pensions and social security benefits, these analyses understate the wealth and resources relied upon particularly by non-White households.

**DB pension benefits.** The SCF includes several detailed questions about DB pensions, though it does not capture the asset value of plan benefits. The survey asks DB plan participants about expected future benefits, but many workers, particularly those further from retirement age, are not familiar with plan details or expected future benefits. It has long been acknowledged that the information collected from these future benefit questions is not necessarily a good reflection of what respondents will actually receive (Starr-McCluer and Sunden 1999). Measures based on answers to questions about expected future DB benefits are not included in Bulletin net worth.

Instead of relying on the expected future benefit responses provided by DB plan participants,[16] we follow Jacobs et al. (2022) and use household-level estimates of DB pension wealth developed by Devlin-Foltz et al. (2016) and updated in Sabelhaus and Volz (2019, 2022). This approach distributes aggregate household sector DB assets from the Financial Accounts of the United States (FA) to both current and future beneficiaries using survey information on benefits currently received for those receiving payments, reported future payments for those with coverage from a past job, and wages and years in the plan for those not yet receiving benefits.

The estimates combine the survey information with real discount rates that fluctuate over time, cohort life tables and differential mortality, and the assumption that current beneficiaries have first claim to DB plan assets. Devlin-Foltz et al. (2016) and Sabelhaus and Volz (2019, 2022) find that including the implied assets from future DB pension benefits modestly reduces inequality in the distribution of wealth, but they do not explore disparities in wealth by race.[17]

**Social security benefits.** Estimating future social security benefits requires information about respondents' full earnings history up to the time of retirement. Estimating earnings histories for respondents and spouses in the SCF, as well as projecting earnings up to the time of claiming social security, is a key contribution from Jacobs et al. (2020, 2022) that we utilize here. To construct those estimates, they apply growth patterns in earnings over the working life among workers observed in the Current Population Survey (CPS). Those estimates of earnings trajectories

are based on synthetic cohort panels of individuals most similar to the SCF respondent and spouse/partner based on birth year, occupation, education level, and sex. Earnings trajectories from the CPS are combined with the answers to the rich set of retrospective work history questions in the SCF to estimate earnings histories over the life cycle for all respondents and their spouse/partners ages 30–65, for all waves of the SCF from 1989 through 2019.[18]

Nevertheless, the earnings projections are not stratified by race. To the extent that workers of any one race are more heavily concentrated in certain occupation and education groups, they will be more likely to follow the earnings trajectories of those groups.[19] Any level differences in earnings across racial groups that are reflected in the earnings and work history data in the SCF will be maintained under these earnings projections, as the historical growth rates and future trajectories are anchored to the data reported by each survey respondent.

Equipped with earnings profiles covering ages 20 and 61 for all individuals, we apply social security benefit calculations for each household.[20] All individuals are assumed to start receiving benefits at age 62, which provides a lower bound for total household net SSW, so that estimated differences across households in SSW are not driven by differential claiming behavior.[21,22]

Future benefits are discounted to the survey year using a 3 percent real discount factor and survival rates that vary by cohort, marital status, and income percentiles (relying on cohort life tables from the Social Security Administration and differential mortality estimates from Chetty et al. 2016).[23,24] This measure of SSW is net of expected future employee contributions. Thus, for every year following the survey, we calculate expected employee tax payments of 6.2 percent and subtract the present value of all future contributions from the gross SSW measure calculated.[25,26]

**Creating the combined-wealth measure.** We create the combined-wealth measure by bringing together (1) the implied wealth of social security benefits, based on earnings projected until the time of retirement net of future contributions, (2) wealth from DB pensions projected to the expected job end date, and (3) market wealth from all assets and debt measured directly in the SCF.[27]

**DFAs.** The DFAs provide quarterly estimates of the distribution of a comprehensive measure of US household wealth. The DFAs integrate two data products produced by the Federal Reserve Board: the Financial Accounts of the United States (FA) which provide quarterly data on aggregate balance sheets of major sectors of the US economy, and the SCF (Board of Governors 2023). The DFAs use distributional information from the SCF to allocate the FA aggregate measures of assets and liabilities to different wealth, income, and other socioeconomic sub-populations. Because the two datasets use somewhat different wealth concepts and are measured at different frequencies, there are three key steps in constructing the DFAs. The first step is to reconcile the concepts and measures used in the two datasets to obtain comparable household balance sheets. The second step is to transform the reconciled SCF balance sheet (which is measured every three years) into an up-to-date, quarterly balance sheet by interpolating the assets and liabilities for each sub-population

on a quarterly basis between SCF surveys and forecasting these balance sheets for each quarter beyond the most recent survey year. The final step is to calculate the shares of assets and liabilities held by the different groups each quarter from this quarterly version of the reconciled SCF data, and then distribute the FA aggregates by applying these shares. For a detailed description of methodology, see Batty et al. (2019).

Since the FAs are updated quarterly, the DFAs are able to provide estimates of the household wealth distribution for the quarters following the most recent SCF. For this study, we estimate a (novel series) using the DFA methodology, creating projections/estimates of wealth by race group only for households headed by someone between ages 40 and 64.