Wealth of two nations:
The U.S. racial wealth gap, 1860-2020[*]

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May 24, 2022

Abstract

The racial wealth gap is the largest of the economic disparities between Black and white Americans, with a white-to-Black per capita wealth ratio of 6 to 1. It is also among the most persistent. In this paper, we construct the first continuous series on white-to-Black per capita wealth ratios from 1860 to 2020, drawing on historical census data, early state tax records, and historical waves of the Survey of Consumer Finances, among other sources. Incorporating these data into a parsimonious model of wealth accumulation for each racial group, we document the role played by initial conditions, income growth, savings behavior, and capital returns in the evolution of the gap. Given vastly different starting conditions under slavery, racial wealth convergence would remain a distant scenario, even if wealth-accumulating conditions had been equal across the two groups since Emancipation. Relative to this equal-conditions benchmark, we find that observed convergence has followed an even slower path over the last 150 years, with convergence stalling after 1950. Since the 1980s, the wealth gap has widened again as capital gains have predominantly benefited white households, and income convergence has stopped.

"Thus, the efforts to provide the freedman with land and tools ended, and by 1870 he was left to shift for himself amid new and dangerous social surroundings. No such curious and reckless experiment in emancipation has been made in modern times."

- W.E.B. Du Bois (1901), *The Negro Landholder of Georgia.*

1 Introduction

In a speech to Congress in 1920, U.S. Senator Selden Spencer (R-MO) lauded the amount of wealth accumulated by Black Americans since the Civil War, stating that it "surpassed any progress under any like circumstances in the history of the world."[1] One hundred years after this sanguine assessment, however, the racial wealth gap remains the largest of the economic gaps between Black and white Americans. In 2019, Black Americans held just 17 cents on average for every white dollar of wealth. By comparison, the income gap is 50 cents to the dollar.[2] What's more, the racial wealth gap has shown remarkable stability over the last several decades, with little indication of further convergence. Although there is a large literature on the contemporary racial wealth gap, much less is known about the evolution of the wealth gap over the full post-Emancipation period.

To address this lack of information, we introduce the first continuous time series of white-to-Black per capita wealth ratios in the U.S. over the past 160 years. Our large-scale data collection and harmonization effort fills in about 100 years of missing data on the national racial wealth gap, from the 1880s to the 1980s, when most modern wealth surveys with information on race begin. We do this by digitizing 50 years of data on Black wealth, from the 1860s to the 1910s, from southern state tax reports and combining this with information from the complete-count digitized censuses of 1860 and 1870. We extend this time series through the mid-20th century using historical estimates of total Black and national wealth, verified using the census of agriculture and population and household survey data from the 1930s. Finally, we draw on newly compiled data from historical and modern waves of the Survey of Consumer Finances to complete our coverage from 1949 to 2019 (the SCF+, see Kuhn, Schularick, and Steins (2020)). Our new series of white-to-Black per capita wealth ratios is now publicly available.[3]

Our data show that the most dramatic episode of racial wealth convergence occurred in the first 50 years after Emancipation. This initially rapid convergence gave way to much slower declines in the wealth gap in the second half of the 20th century. From a starting point of nearly 60 to 1, the white-to-Black per capita wealth ratio fell to 10 to 1 by 1920, and to 7 to 1 by the 1950s.

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[1]From Senator Spencer's statement in favor of a commission on racial issues discussed during the 66th Congress (see Spencer (1920)).

[2]Authors' calculations using the Survey of Consumer Finances.

[3]The data and our full replication archive can be accessed at www.elloraderenoncourt.com/us-inequality-data. Note, we define white wealth as the difference between total wealth and Black wealth given historical data constraints. In per capita terms, non-Black wealth and white wealth are extremely close over this full historical period. For simplicity, we refer to this non-Black-to-Black wealth gap as the racial wealth gap or the gap between white and Black Americans.

70 years later the wealth gap remains at a similar magnitude of 6 to 1. We demonstrate that both this "hockey-stick" pattern of convergence and the large enduring gap today can be broadly rationalized by a parsimonious model of wealth accumulation for each racial group, where savings from income and capital gains are the drivers of wealth growth. Even under equal conditions for wealth accumulation after slavery, in other words, identical savings rates and capital gains across the two groups, our convergence model portends a racial wealth gap of 3 to 1 today. The main reason for such a large and lasting gap is the enormous difference in initial wealth between Black and white Americans on the eve of the Civil War.

Compared to this equal-conditions benchmark, wealth convergence has progressed more slowly between 1870 and the present. We use our model to quantify the racial gaps in savings rates and capital gains consistent with the observed speed of convergence. Slower savings-induced wealth accumulation by Black Americans can explain the convergence dynamics over most of the past 150 years. More recently, however, racial differences in capital gains have played the more dominant role in shaping the wealth gap. Should existing differences in wealth-accumulating conditions persist, racial wealth convergence will not only stop altogether, but will even reverse course.

Our data allow us to document patterns in the speed of convergence over time. We compare observed growth rates of the wealth gap to growth rates derived from our equal-conditions benchmark, in which Black and white Americans enjoy equal savings rates and capital gains. Although Black wealth growth outpaced that of white Americans' between 1870 and 1930, the rate of convergence in these years lags far behind what would be expected had the two groups enjoyed equal conditions for wealth accumulation. Indeed, the historical record is rife with instances of expropriation of Black wealth, exclusion of Black Americans from the political process, and legally sanctioned segregation and discrimination in land, labor, and capital markets. All of these factors likely contributed to sluggish convergence over this period.

During the 1960s through the 1980s, convergence regains speed, exceeding what would be predicted by our equal-conditions benchmark. The dismantling of Jim Crow through Black activism and civil rights legislation, expansions of the social safety net, and improved labor standards during this period may have boosted wealth-accumulating conditions for Black Americans. Although the wealth gap remained sizable in these decades, it remained on track to converge. From today's vantage point, however, these gains were short-lived. Starting in the 1980s, we document a widening of the racial gap in capital gains as well as a complete stalling of income convergence. These forces have caused the wealth gap to leave the convergence path altogether and to start increasing again.

We shed light on mechanisms behind the recent re-divergence of the wealth gap using the SCF+, which covers the entire post-World War II period. In line with the macroeconomic dynamics of the wealth distribution, we find that the combination of high wealth-to-income ratios and portfolio differences between Black and white Americans has played a key role in the dynamics of the racial wealth gap since the 1980s (Kuhn, Schularick, and Steins, 2020). For example, Black households hold nearly two thirds of their wealth in housing and very little in equity. While housing wealth

has appreciated since 1950, stock equity has appreciated by five times as much. These large price increases in equity markets have led to disproportionate capital gains for the wealthiest Americans, a group that is almost exclusively white. Gains for wealthy white households have caused average white wealth to rise relative to average Black wealth, linking the evolution of the racial wealth gap to the overall rise in wealth inequality in the U.S.

Our long-run view of the racial wealth gap underscores the importance of slavery and post-slavery institutions for the persistence of the wealth gap. Until the 1860s, the vast majority of Black Americans were enslaved – contributing to building the nation's wealth while being legally barred from accumulating wealth themselves. As a result, at the time of Emancipation, Black Americans embarked on freedom with extremely low levels of wealth compared to white Americans. Furthermore, post-slavery wealth accumulation by Black Americans occurred under highly unequal circumstances. Growth in Black wealth lagged behind the benchmark in which Black and white Americans faced equal opportunities for wealth accumulation, consistent with nearly 100 years of explicit capital and labor market exclusion after slavery. Our data and simulation exercises show that erasing these traces of initial gaps and more than 100 years of differences in wealth-accumulating conditions would take more than 100 years in the future. Since the 1980s, meanwhile, rising capital gains and high wealth-to-income ratios have instead led the wealth gap to widen again.

Our findings contribute to a robust discussion of what policies can close the racial wealth gap. Several studies have emphasized the importance of racial income convergence, housing policies, or financial inclusion in closing the racial wealth gap (Aliprantis, Carroll, and Young, 2021; Gupta, Hansman, and Mabille, 2021; Kermani and Wong, 2021; Boerma and Karabarbounis, 2021).[4] Others discuss the role of financial regulation, assistance to families with children, and reparations for slavery in mitigating racial wealth inequality (Palladino, 2022; Nam, Famighetti, and Hamilton, 2021; Darity Jr. and Mullen, 2020; Zewde, 2020). Our study emphasizes the outsized role played by initial conditions under slavery in determining the speed of convergence between Black and white wealth. In light of these findings, we conclude that policies that redistribute large stocks of wealth, like reparations, lead to immediate reductions in racial wealth inequality while policies targeting portfolio composition can return us to a convergence path, but one that could take hundreds of years to play out. Nevertheless, we argue these approaches are complementary, as policies that redistribute stocks of wealth without addressing racial gaps in savings and capital gains have but a transient effect on the wealth gap.

Previous literature: Our paper contributes to two strands of the existing literature on the racial wealth gap in the U.S. Our long-run national series complements work on racial wealth disparities in the South in the immediate post-Emancipation decades that relied mainly on state-level tax records (e.g., Margo (1984)). We summarize this literature in detail in Section 2. A much

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[4]Boerma and Karabarbounis (2021) conclude that entrepreneurship subsidies are more effective than reparations because of pessimistic beliefs caused by historical discrimination in the financial sector. Kermani and Wong (2021) document substantial racial disparities in housing returns arising from distressed home sales, such as foreclosures, which particular forms of loan modification and mortgage restructuring could mitigate.

larger literature focuses on the modern racial wealth gap from the 1980s onwards.[5] This work has documented the role of marriage and family structure, income and demographics, differences in permanent income, inheritance, life-cycle effects, and the role of the Great Recession in shaping the gap in recent decades. Our long-run perspective contributes to this body of work by placing today's stagnant racial wealth gap in context: stalled convergence follows from initial conditions in the wealth gap and long-standing racial differences in the drivers of wealth accumulation.

We also contribute to the growing literature on the long-run dynamics of wealth inequality by bringing to light starkly different trajectories of wealth accumulation across racial groups within a country. Several studies have documented patterns in overall wealth inequality in various countries from the 18th to 21st centuries (Piketty, 2013; Piketty and Zucman, 2014; Saez and Zucman, 2016; Kuhn, Schularick, and Steins, 2020; Assouad, 2021; Garbinti, Goupille-Lebret, and Piketty, 2021; Smith et al., 2019; Saez and Zucman, 2020; Alvaredo, Atkinson, and Morelli, 2018; Artola Blanco, Bauluz, and Martınez-Toledano, 2021; Waldenström, 2017; Waldenström, 2016; Bartels and Morelli, 2021; Madsen, 2019). We adapt the accounting framework of wealth accumulation prevalent in this literature to racial groups in the U.S. who have faced vastly different historical institutions that have cast a long shadow on their respective wealth trajectories. We believe this framework can be applied to many post-slavery or post-colonial societies where certain groups faced severe limitations on their ability to accumulate wealth, thus shaping wealth trajectories for centuries to come.

The rest of our paper is structured as follows. We provide historical background on the racial wealth gap in Section 2. Section 3 then describes the construction of our long-run series on per capita white-to-Black wealth ratios and presents the final series. In Section 4, we introduce a framework for wealth accumulation by racial group and use this to interpret trends in the wealth gap since Emancipation, focusing particularly on the role of savings-induced versus capital-gains-induced wealth accumulation. Section 5 discusses the policy implications of our findings, and Section 6 concludes. An appendix with details on data construction, additional results, and extensive sensitivity analyses follows.

2 Historical background on the racial wealth gap

On the eve of the U.S. Civil War, nearly 4 million out of a total population of 4.4 million Black Americans were enslaved. Relegated to the status of property themselves, the enslaved had no legal right to acquire or hold property, or to earn or save from the fruits of their labor. What wealth that can be attributed to the Black population at the time was concentrated in the hands of a small number of free Black Americans. These property holders were distributed between a planter class in the Lower South, craftsmen and entrepreneurs in the Upper South, and merchants and real estate owners in the North (Schweninger, 1989; 1990; Walker 1983; Berlin 1975). The Civil War

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[5]An incomplete list of such works include Meschede et al. (2016), Pfeffer and Killewald (2019), Altonji, Doraszelski, and Segal (2000), Altonji and Doraszelski (2005), Barsky et al. (2002), Charles and Hurst (2002), Chiteji and Stafford (1999), Gittleman and Wolff (2004), and Wolff (2001).

induced a shift in the composition of southern Black wealth holders away from planters and towards an emergent class of emancipated farmers, skilled artisans, and small business owners (Gatewood, 1988; Du Bois, 1899, 1901).

Studies of Black wealth accumulation and racial wealth gaps in the decades after Emancipation paint a picture of remarkable progress by Black Americans against a backdrop of equally remarkable hostility. After the repeated failure of Reconstruction-era proposals for land provision to freed persons, the vast majority of the formerly enslaved embarked on freedom "landless, homeless... without money or tools" and in circumstances where "starvation or practical reenslavement awaited them" (Du Bois, 1901). Drawing on taxation reports from Georgia, the state with the largest Black population at the time, Du Bois (1901) notes that, nevertheless, the majority of counties in the state witnessed increases in Black property holding. Margo (1984) uses similar data from Louisiana, North Carolina, Virginia, and Kentucky and likewise finds sustained increases in Black wealth in all five states.[6] The higher growth rate in Black wealth compared to white led to declines in the per capita racial wealth gap in these areas (Higgs, 1982; Margo, 1984). A study by Canaday (2008) matches individual property holders from tax lists for Calhoun County, South Carolina to complete-count census data and finds that both Black men and women experience faster wealth accumulation than white individuals between 1910 and 1919. This convergence occurred not only in the absence of federal redistributive policy, but in the context of a proliferation of Jim Crow laws throughout the South.

Several scholars have modeled and empirically tested the role of Civil-War-era policy choices and discrimination in the dynamics of racial wealth inequality in this period and beyond. Miller (2020) studies the impact of land grants to Black families in the Cherokee Nation after Emancipation and finds subsequent reductions in the racial wealth gap in the Nation relative to the rest of the South. Using property tax data from Virginia, Spriggs (1984) examines the pace of Black wealth accumulation in that state, noting that discrimination in land and labor markets inhibited racial wealth convergence in the decades after the Civil War.[7] DeCanio (1979) uses a theoretical model to show that the redistribution of "40 acres and a mule" to Black families would have substantially improved their relative position, but in the best-case scenario would have only allowed Black families to eventually achieve half of per capita white wealth.

Evidence on racial wealth dynamics beyond the early 20th century tend to come from studies of housing or real estate wealth, given the lack of data on other property during this time period. Akbar et al. (2019) document how neighborhood racial transition in ten northern cities during the first Great Migration led to changes in rental and house prices that eroded the value of Black homes and thus posed a barrier to Black wealth accumulation in the early to mid-20th century. Collins and Margo (2011) trace the evolution of the national racial homeownership gap from 1870 to 2007.

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[6]Margo (1984) argues that part of this growth may be due to discriminatory over-assessment of Black-owned property for tax purposes – a pattern that has been documented in tax assessment today (Avenancio-León and Howard, 2019).

[7]Collins, Holtkamp, and Wanamaker (2022) and Collins and Wanamaker (Forthcoming) also document substantial racial gaps in intergenerational transmission of wealth and land-ownership after Emancipation.

However, this measure of housing inequality does not incorporate the self-reported value of homes, available starting in 1930.[8] Francis et al. (forthcoming) estimate Black land loss from 1920 to 2017 by combining information on declines in acreage owned by Black farmers with compounded land values over time. The loss they estimate is significant, equal to about $326 billion in today's dollars.

Additional evidence on mid-20th century racial wealth gaps can be found in Kuhn, Schularick, and Steins (2020). The authors harmonize the historical and modern files of the Survey of Consumer Finances(SCF), creating a new dataset of household level wealth and income information for the U.S. from 1949 to 2019. Although primarily focused on the role of asset prices and portfolio composition in wealth dynamics in the postwar period, the authors also provide a brief analysis of the racial wealth gap confirming stability and persistence in this gap over the postwar period.

This body of prior work provides important insights on racial wealth inequality for time periods not covered in modern survey data. Yet data constraints for the historical period limit coverage to specific states, regions, or counties; specific time periods; or specific types of property. What has been lacking is a unified picture of white-to-Black wealth gaps in the nation as a whole, from the pre-Civil-War era to the present. The value of this long-run, national perspective is that it places existing snapshots of the racial wealth gap in context. The picture that emerges from the new long-run series we build in this paper is a highly regular trajectory of wealth convergence that can be rationalized by a standard wealth accumulation model. In the next section, we describe the construction of our series in detail and present our resulting estimates.

3   The long-run racial wealth gap series: construction and results

Our long-run series of white-to-Black per capita wealth ratios draws on numerous sources.[9] For the period from 1860 to 1922, we use a combination of complete-count digitized census data, state tax data, and national reports. For the period after 1922 until 1950, we rely on estimates for aggregate Black wealth from Monroe Nathan Work's *The Negro Year Book*, in combination with estimates of national wealth for these years. For 1950 onwards, we rely on historical and modern waves of the SCF (SCF+). A full description of these data sources is in Appendix A. Below we describe how we construct wealth gap estimates for the different time periods and compile the final data series.

For 1860, we calculate wealth as the sum of real and personal property values reported by household heads in the census.[10] To compute per capita wealth for the Black population, we

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[8]We extend Collins and Margo (2011) and provide a time series of the housing wealth gap in Appendix G.

[9]We refer to the racial gap as the white-to-Black gap as a shorthand. As noted in footnote [3], our measure is the broadly equivalent non-Black-to-Black per capita ratio—see Section 3.2 for a comparison of the two.

[10]The 1850, 1860, and 1870 censuses are the only censuses that recorded wealth of the population. In 1850, enumerators collected information on real estate wealth only. In 1860 and 1870, questions on personal property were added to the census. According to census enumerator questionnaire instructions in 1860, personal property valuations were to include "the value of bonds, mortgages, notes, slaves, live stock, plate, jewels, or furniture; in fine, the value of whatever constitutes the personal wealth of individuals." See https://usa.ipums.org/usa-action/variables/PERSPROP. The 1870 instructions regarding personal property were similar, but as this census was taken after abolition of slavery, they no longer referenced slave wealth.

include the enslaved and assume zero wealth for this group.[11] For the count of the enslaved in 1860 we aggregate county-level statistics from Haines (2010) and confirm that these match the number for the enslaved from the U.S. Census's Black population report covering 1790 to 1915 (Cummings and Hill, 1918): a total of 3,953,760 enslaved Black individuals (89% of the total Black population). We also assign zero wealth to all observations missing wealth data. For top-coded observations, we impute wealth using the distribution of wealth at the top in 1913 from Saez and Zucman (2016), the earliest year for which such an estimate is available. Details on the imputation are provided in Appendix B.1. Using these data, we compute per capita wealth for the non-Black and Black populations and take the ratio as our estimate for the racial wealth gap in 1860.

We proceed similarly for our estimates of wealth in 1870, but there are two differences worth noting. First, the formerly enslaved were enumerated in the population census for the first time, so we are able to measure per capita Black wealth directly using census data. Second, enumerators were instructed to record personal property values for those with at least $100 in personal property. Thus, in addition to top-coding, the 1870 Census also exhibits censoring from below. We check the significance of this bottom-censoring for our estimates by imputing average personal property below the $100 threshold for 1870 (see Appendix B.2 for details). The effects of the imputation are very minor as we estimate that most households below the threshold for personal property indeed had no wealth at all. To address top-coding, we apply the same approach we use for 1860. To calculate white wealth, we turn to the census report "Wealth, Public Debt, and Taxation" (hereafter "wealth report"), which was published in 1922 and contains estimates of total taxable national wealth from 1860 to 1922. We subtract Black wealth from these measures to obtain total non-Black wealth.[12] Dividing Black and non-Black wealth by the populations for each and taking the ratio, we arrive at our racial wealth gap estimate for 1870.

Between 1870 and 1950, microdata on wealth are not readily available. For the period from 1870 to 1922, we extrapolate Black wealth using information from state auditor reports. We digitize assessed wealth and tax payments data by race from Arkansas, Georgia, Kentucky, Louisiana, North Carolina, and Virginia reports.[13] These are the only states we are aware of that tabulated this information for their Black and white populations separately. Appendix A.1 provides more details on these reports and our digitization. A key assumption in using these data to estimate the growth rate of Black wealth is that the trajectory of Black wealth in these states is a reasonable proxy for the trajectory of Black wealth in the nation as a whole. Southern states were home to the vast majority of the U.S. Black population until the early 20th century and as of 1900, 41% of the Black population lived in the six states in question. Importantly, this set of states includes both the Lower and Upper South, which differed in their economic structure and demographics in both the

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[11]This is a conservative assumption in that we do not take into account the debt implied by a lifetime in bondage.

[12]We calculate total wealth in 1870 using the wealth report instead of the census because total wealth in the report exceeds aggregate wealth in the census. Nevertheless, if we estimate white wealth using census instead, the resulting racial gap is only slightly lower than when using the wealth report.

[13]Reports from these states were used in Du Bois (1901), Higgs (1982), and Margo (1984), discussed in Section 2. We also digitize tabulations from Georgia comptroller reports from Du Bois (1901).

antebellum and postbellum period.[14] Nevertheless, in Section 3.2, we discuss alternative estimates of the growth rate and check for systematic regional differences in Black wealth accumulation during this period.

We estimate the growth rate of aggregate Black wealth in these states by regressing log wealth on a time trend and state fixed effects. Our estimated coefficient on the time trend, 0.054, serves as our estimate of the average growth rate for Black wealth after 1870. Appendix B.3 provides additional details including our regression equation and a comparison of raw and predicted wealth in Appendix Figure B.1. We find that after 1870, the prediction and raw data align closely. We calculate aggregate Black wealth from the 1870 census and extrapolate forward to 1922 using our estimated wealth growth rate. We stop in 1922 because it is the last year for which we have estimates of national wealth from the wealth report. We construct non-Black wealth as before, as the difference between national wealth and the wealth of the Black population. We construct per capita wealth for the Black and non-Black populations by dividing each group's total wealth by their estimated population from census (linearly interpolated for the intercensal years). Using these estimates for per capita wealth, we calculate the racial wealth gap as before.

For the years between 1922 and 1940, we take estimates of aggregate Black wealth in the U.S. from Monroe Nathan Work's *The Negro Year Book*, a series of annual reports on Black economic progress covering topics such as business, education, wealth, politics, and social organizations. Estimates of Black wealth are available for three years within this window: 1926, 1930, and 1936. We combine Work's estimates with national wealth estimates from Saez and Zucman (2016) to construct the level of wealth of the white population. As before, we subtract Black wealth from total wealth and divide non-Black and Black wealth by the populations for each respective group to arrive at per capita wealth estimates. In describing Black wealth accumulation during this period, Work appears to draw on state auditor reports, which record assessed property values. As ratios of assessed to market values of wealth for this time period are less than one and sometimes as low as 50%, we adjust the wealth gap constructed from these estimates downwards by an adjustment factor derived from average wealth ratios on either end of the 1926-1936 window (see Appendix B.4 for details).[15] In Section 3.2, we check our adjusted estimate against alternative estimates of the wealth gap derived from a variety of different data sources.

For the period starting in 1950, we rely on data from the SCF+. To increase precision, we calculate three-wave moving averages of Black and non-Black household average wealth and household sizes over time. We compute the time series of average per capita wealth by dividing these smoothed average household wealth estimates by the number of household members. Based on these per capita estimates for wealth of the Black and non-Black population, we construct the racial wealth gap from 1950 to the present.

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[14]The Lower South was more agricultural and contained the cotton belt while the Upper South was more urbanized and had a more diversified economy (see Du Bois (1901) and Schweninger (1990)).

[15]We present the full series alongside the unadjusted 1926, 1930, and 1936 estimates in Appendix Figure B.3. The diamonds show the unadjusted wealth gap based on the original data from Work. Absent this adjustment, we would have a larger wealth gap estimate for these years.

3.1 Racial wealth gap estimates from 1860-2020

Figure 1 presents our final time series of the white-to-Black per capita wealth gap starting from 1860 to 2020. Overall, we observe a hockey-stick shape of convergence, where the pace of convergence was fast in the early decades after Emancipation, then slowed down considerably afterwards. In 1860, before Emancipation, the white-to-Black per capita wealth ratio was 56:1, corresponding to the average Black American owning less than 2 cents for every white dollar of wealth. This large wealth gap can be explained by the fact that 89% of the Black population was enslaved in 1860 and thus legally barred from any form of wealth holding. We then observe a steep drop in the racial wealth gap between 1860 and 1870, the first post-Emancipation census, with the gap falling to a level of 23:1, or a more than a 50% decrease relative to 1860.

The abolition of slavery in the U.S. eliminated what wealth slaveholders held in enslaved individuals. It also afforded the formerly enslaved an opportunity to accumulate wealth for the first time. How much of the decrease in the wealth gap in the decade of the Civil War can be attributed to the elimination of slave wealth versus wealth accumulation by the newly emancipated? Using an estimate of total slave wealth from the Historical Statistics of the United States (Sutch, 1988), we calculate that slave wealth made up around 15% of total wealth in 1860.[16] If we subtract slave wealth from white wealth in 1860, the wealth gap falls from 56:1 to 47:1. Thus, all else equal, eliminating slave wealth would reduce the gap by 9, or 25% of the total drop of 34 (from 56 to 22). In other words, slave wealth cannot account for the entire reduction in the wealth gap from 1860 to 1870. Instead, it is the higher relative growth rate of Black wealth that drives convergence.[17]

Greater relative growth in Black wealth continues in the late 19th and early 20th century, but at a slower pace. In the 50 years after 1870, the gap fell by 50% again, to 10 to 1 in 1920. This continued convergence occurred in a period that saw initial enforcement of the Black Americans' rights during Reconstruction give way to a retrenchment of the racial order by the end of the 19th century. The Union Army withdrew from the South in 1877, and the former slave-holding elite recovered their positions at the helm of southern politics and society. Starting in the 1890s, former Confederate states passed numerous Jim Crow laws greatly curtailing the newly won social, political, and economic rights of Black Americans, and the early 1920s saw a revival of the KKK. Yet even as the Jim Crow regime reached a crescendo, the racial wealth gap continued to fall, declining a further by 10% to 9 to 1 by 1930.[18]

During the decade of the Great Depression, we estimate a relatively stable gap of about 9 to 1 despite the fact that New Deal era relief and social insurance policy tended to exclude regions or sectors with a large representation of Black workers (Katznelson, 2005). The 1940s through

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[16]Data on slave wealth are available at: https://hsus.cambridge.org/HSUSWeb/toc/showTable.do?id=Bb209-218.

[17]According to census, Black per capita wealth tripled between 1860 and 1870, from approximately $13 per person to $39 per person, while white wealth increased by 18%. Thus, Black wealth grew 2.5 times faster than white wealth over this decade.

[18]For a history of the Reconstruction and post-Reconstruction periods, see, e.g., Du Bois (1935), Woodward (1957), Kousser (1974), and Foner (1988).

the 1970s saw dramatic changes in the landscape of racial progress and discrimination, as well as an acceleration of Black migration from the South to the North during the Great Migration. Yet such changes, notable for their influence on racial income gaps, appear to have had little impact on racial wealth convergence from a long-run point of view. Indeed, the last 70 years are instead characterized by stagnation in the gap, at a level between 5 and 7, and, in the most recent decades, the wealth gap has actually widened rather than continue to close.

3.2 Robustness of long-run wealth gap series

The extremely regular shape of convergence that emerges from the data begs the question of what could be the drivers of racial wealth differences in the post-Emancipation era. Before answering this question, we describe a range of sensitivity checks we perform on our new long-run series. Our conclusion from these checks is that our baseline estimates are consistent with the alternative data that can be used to validate the level and trend of the racial wealth gap over the last 150 years. We also demonstrate the robustness of our findings to different estimation approaches, wherever applicable.

Definition of white   Our baseline series measures the ratio between per capita wealth of the non-Black population and the Black population, which we call the white-to-Black per capita wealth gap. Historically, the non-Black, non-white share of the population in the U.S. was small, but today's non-Black non-white population is much larger. To the extent that non-Black, non-white populations have lower wealth than white Americans, we understate the white-to-Black wealth gap by including these groups. We produce an alternative series that directly measures per capita white wealth in 1860, 1870, and from 1950-2020 (see Appendix Figure C.2). As expected, this alternative measure of the wealth gap is almost identical to our baseline measure up to the modern period. Using white per capita wealth as opposed to non-Black per capita wealth does not alter our estimate of the wealth gap between 1870 and 1970. The post-1970 wealth gap is larger when restricting to white individuals for the non-Black population. Thus, if anything, our baseline series understates the white-to-Black wealth ratio in the more recent period.

Gross wealth vs. net wealth   Prior to 1950, we are unable to consistently measure and subtract debt from our measures of wealth, thus these estimates of the wealth gap reflect gaps in gross wealth or total assets as opposed to net wealth. After 1950, we are able construct measures of net wealth. Historically, access to credit was highly restricted. We estimate that debt made up 33% of GDP while the debt-to-GDP ratio today exceeds 100%. In the early 20th century, Black homeowners were less likely to have mortgages than white, due to their concentration in the South where mortgage rates were lower than in other regions of the country. As southern financial institutions developed, and Black emigration from the region increased, however, mortgage holding rates among homeowners equalized across the two groups (Collins and Margo, 2001).

We check the sensitivity of our wealth gap estimates to the inclusion of debt in two ways. First, we provide a lower bound wealth gap estimate for 1870 that assigns our estimates of total national debt entirely to the non-Black population, bringing the total wealth gap down from 23 to 20 (see Appendix Figure C.3).[19] Second, we present an alternative series that focuses only on assets and ignores debt in the post-1950 period as well (see Appendix Figure C.4). The asset gap is lower than the total gap. This measure of the gap, however, ignores greater debt levels among Black individuals, of whom a greater proportion have negative net worth compared to white. We discuss the distribution of debt holding in greater detail in Section 4.3.

Role of household size Fluctuations in the per capita wealth gap could stem from differences in fertility and household size across the two groups. In particular, if Black households are smaller than white households on average, the per capita wealth gap will be smaller than the per household gap. On the other hand, if Black households are larger, the opposite is true. We assess this by first examining differences in household size between the two groups from 1870 to the present (see Appendix Figure C.5). From 1880 to 1950, average household size for the two groups was nearly identical. In 1870, Black households were smaller than white households on average, and larger between 1940 and 2000. At the peak of these differences in 1960, Black households had on average one additional person compared to white households.

We then construct the per household racial wealth gap (see Appendix Figure C.6). Differences in the per capita and per household gap follow the trend of the differences in household size. The per household wealth gap is slightly smaller than the per capita wealth gap between 1950 and 1990, after which it is slightly larger. Nevertheless, we conclude that the role of household size in the full evolution of the wealth gap has been limited.

Robustness of estimated growth rate for historical Black wealth, 1870-1922 We provide several checks on our estimate of the Black wealth growth rate from 1870 to 1922, the full details of which are provided in Appendix Section C.1. First, we assess the representativeness of the six southern states directly by comparing real property wealth growth rates for the Black population in those states versus in the nation as a whole, using census data. The 1870 Census contains measures of real wealth. In 1930, the census collected information on home values of owner-occupied homes. We use this as our proxy for real wealth in the early 20th century. Appendix Figure C.8 shows that the average growth rate across the southern states with tax records is very similar to the national growth rate.

Next, we provide an alternative growth rate estimate based on the evolution of Black church property values over roughly the same period. Because Black churches were formed by Black

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[19]Information on debt-holding by race is unavailable for this period. We also conduct an additional exercise using the distribution of home-mortgage holding across Black and white households in 1900 to assign national debt to the two groups, assuming an equal allocation of debt, conditional on having a home mortgage. Using this approach, we arrive at a wealth gap for 1870 that is almost identical to our original estimate.

congregations buying buildings or plots of land and fundraising within the community for building improvements and other purchases, the value of the church's property reflected the prosperity of the local community. Additionally, Black churches were present wherever there was a sizable Black community, including in northern states and states not covered by our tax data. We measure Black church property values using data from the census of religious bodies. The time trend in church wealth over this period is 0.055, very close to the growth rates we estimate using the tax data. Details, including additional historical background and our estimation approach, are provided in Appendix Section C.1.2.

Finally, we also use the upper and lower bounds of our estimated growth rate from the state tax data to compute lower and upper bounds of Black wealth in this period. This produces lower and upper bounds for our wealth gap for the period 1870 to 1922, which we show in Appendix Figure D.1 in Appendix D.

Alternative wealth gap estimates from census for the interwar period We also provide an alternative measure of the wealth gap in 1930, 1936, and 1940, the period for which we draw on estimates from Monroe Work's *The Negro Year Book* in our baseline series. For 1930 and 1940, we produce an alternative estimate of the wealth gap by combining data on housing wealth from the census of population and farm wealth from the census of agriculture. Appendix Figure D.1 depicts our benchmark series alongside an alternative wealth gap estimate based on these data. The wealth gap we obtain from combining farm and housing wealth is close to that of our benchmark series: for example, in 1930, we estimate a gap of 9 if including farm and housing wealth while our benchmark estimate is a gap of 9.2.

Finally, we generate an alternative estimate of the wealth gap in 1936 using data from the "Study of Consumer Purchases," a survey conducted by the Bureau of Labor Statistics. This nationally representative survey contains information on households' rental income, business income, home values, and farm values. To construct estimates of Black and white wealth from these data, we apply the capitalization approach of Saez and Zucman (2016) to the various income sources and add housing and farm wealth.[20] Using this approach, we estimate a wealth gap of 9.1. The similarity between this estimate of the wealth gap, which uses an entirely different data source and approach, to our baseline estimate of 8.9, gives us confidence in our measure of the racial wealth gap in these interwar years. Appendix E provides a detailed description of the data and our methodology.

Alternative measures of the racial wealth inequality We provide alternative measures of racial wealth inequality over the historical period in a series of appendices. In Appendix F, we provide two additional data series to document the evolution of Black wealth in the United States over time. First, we present the Black-to-white per capita wealth gap (the inverse of our baseline gap) in Appendix Figure F.1. This view of the wealth gap provides a more detailed view of early

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[20]Here, we only include the value of homeowners' dwelling as our capitalization of rental income captures other sources of housing wealth.

convergence patterns and confirms our finding that convergence occurs until 1980 and reaches a standstill or even reverses thereafter. Second, we show estimates of the Black population's share of national wealth, along with the Black population share (see Appendix Figures F.2 and F.3). Throughout history, Black Americans' share of national wealth has been substantially lower than their share of the population. The wealth share started at below 0.5% of national wealth in 1860 and stands at 2.5% today while the population share is 12.4%.

In Appendix G, we construct white-to-Black homeownership and housing wealth gaps for the whole 150 year period using the census, the American Community Survey (ACS) and SCF+. Convergence in housing wealth by race has followed a similar pattern of convergence as overall wealth (see Appendix Figures G.1 and G.2).

Our primary focus is the per capita or mean wealth gap as we can consistently measure this over the full historical period.[21] However, the SCF+ microdata allow us to dissect the evolution of racial disparities along the household wealth distribution, at least after 1950. In Appendix J, we contrast the mean racial wealth gap to the racial wealth gap at the median and the 90th percentile for the seven decades from 1950 to today (see Appendix Figure J.1). While the wealth gap at the 90th largely follows the levels and trend of the mean wealth gap, the median wealth gap is higher throughout the whole period. The median wealth gap starts at very high levels in 1950, converges dramatically between 1950 and 1970, and stalls after 1980. Today, the median wealth gap today remains 10:1, equivalent to the typical Black household holding just 10 cents for every dollar the typical white household holds.

Finally, we provide evidence on the racial rank gap in wealth through 2020, updating previous estimates from Kuhn, Schularick, and Steins (2020). We define the racial rank gap in wealth following Bayer and Charles (2018), who document Black-white income rank gaps. We measure the position a particular Black household holds in the white household wealth distribution. We measure this gap in rank for households at the median and 90th percentile of the Black household wealth distribution and find that despite reductions in the rank gap over time, gaps remain sizable. The median Black household falls below the 30th percentile in the white household wealth distribution while the 90th percentile Black household falls below the 75th percentile of the white wealth distribution (see Appendix Figure J.2).

4   Conceptual framework for racial wealth convergence: 1870-2020

The gap in per capita wealth between Black and white Americans has followed a hockey-stick pattern of convergence over the long run. Rapid convergence in the post-slavery and Jim Crow era gave way to much slower convergence during periods of known racial progress, such as World War II and the civil rights era. In this section, we develop a stylized theoretical framework of wealth accumulation

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[21]In years where we lack microdata, we are still able estimate or collect data on total wealth for each racial group and divide by their respective populations.

to rationalize the shape of convergence from Emancipation onwards, the point from which most Black Americans were able to accumulate wealth. The framework emphasizes three distinct factors: (i) initial conditions, (ii) savings-induced wealth accumulation, and (iii) capital gains. We use this framework to understand the drivers of wealth convergence depicted in our long-run series (Figure 1).

We model wealth accumulation dynamics following Saez and Zucman (2016), but apply these wealth accumulation functions to Black and white Americans separately. Average wealth for each group evolves according to the below equation:

$$W_{t+1}^j = (1 + q^j)\left[W_t^j + s^j Y_t^j\right], \text{ with } Y_t^j = (1 + g^j) Y_{t-1}^j, \tag{1}$$

and $j = \{b, w\}$ represents the two racial groups (b for Black, and w for white), and W_t^j denotes the real per capita wealth of group j at time t. Wealth accumulation is governed by two key flow parameters: the capital gains rate, q^j, and saving rates of individuals, s^j. Y_t^j is the per capita income of group j at time t, which grows at rate g^j.[22] We make the simplifying assumption of fixing q^j, s^j, and g^j over time.

Combining the law of motion for average Black and white wealth, we get the following law of motion for the white-to-Black wealth ratio (WR):

$$WR_{t+1} \equiv \frac{W_{t+1}^w}{W_{t+1}^b} = WR_t \times \frac{1 + q^w}{1 + q^b} \times \frac{1 + s^w \frac{Y_t^w}{W_t^w}}{1 + s^b \frac{Y_t^b}{W_t^b}}. \tag{2}$$

Taking logs, we can decompose the (log) growth rate of the racial wealth gap from t to $t + 1$ as follows:

$$\log\left(\frac{WR_{t+1}}{WR_t}\right) \approx \underbrace{\left(q^w - q^b\right)}_{\text{Differences in capital gains}} + \underbrace{\left[s^w \frac{Y_t^w}{W_t^w} - s^b \frac{Y_t^b}{W_t^b}\right]}_{\text{Differences in saving}}. \tag{3}$$

Equation (3) shows how two distinct components influence the evolution of the racial wealth gap: (i) racial differences in capital gains and (ii) differences in savings-induced wealth accumulation. Differences in capital gains between Black and white Americans have a one-to-one impact on the growth rate of the racial wealth gap. Hence, even if savings-induced wealth accumulation of Black and white Americans were equal, any difference in capital gains in favor of white individuals would set the racial wealth gap on a diverging path. Compared to this, the effect of saving rate differences on the growth rate of the racial wealth gap is dampened by the level of wealth of each group. Therefore, differences in income growth rates will influence the savings-induced component of the wealth gap, but their effect is scaled by the stock of wealth to which savings flow.

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[22]Note that income is total income, including labor and capital income.

4.1 Wealth convergence under equal q and s: the role of initial conditions

We first use this framework to explore the role of initial conditions on the evolution of the wealth gap. Taking observed income convergence as given, we ask, "How would the racial wealth gap have evolved had Black and white Americans faced equal conditions for wealth accumulation, namely equal q and s?" Equal q and s would imply, for example, that Black and white households had equal access to financial markets and institutions and that both groups were equally able to transmit wealth across generations for the past 150 years. In this case, Equation (3) simplifies to:

$$\log\left(\frac{WR_{t+1}}{WR_t}\right) = s \cdot \left(\frac{Y_t^w}{W_t^w} - \frac{Y_t^b}{W_t^b}\right). \tag{4}$$

It follows that the evolution of the racial wealth gap is then solely driven by (i) racial differences in initial income and wealth levels and (ii) differences in Black and white income growth rates. The higher wealth-to-income ratios are, the smaller the role income convergence and savings play in racial wealth convergence. By contrast, very low levels of wealth of the Black population at the outset of Emancipation imply very strong convergence from initial wealth accumulation.[23] The speed of convergence slows down once the wealth stock increases relative to income flows, such that savings out of income only lead to small changes in the wealth gap.

As mentioned above, when simulating the long-run wealth gap, we allow for heterogeneous income growth across the racial groups. We derive annualized income growth rates from 1870-2020 using data on Black and white per capita income levels from Margo (2016) for 1870 and the SCF+ for 2019. Over the full 150-year period, Black income per capita grew at a higher annualized rate than white (2.3% vs. 2%), indicating income convergence between the two groups over this period. For q and s, we plug in annualized averages of national estimates from Saez and Zucman (2016), which are $q = 1\%$ and $s = 5\%$. For initial values of the racial wealth gap, we use the 1870 white-to-Black per capita wealth ratio from our time series (23:1), and the income ratio (3.6:1) is constructed from historical estimates of Black and white per capita income.[24] We trace out the evolution of the white-to-Black per capita wealth ratio using equation (1) and plugging in the income growth rates, capital gains and savings parameters, and starting conditions listed above.

The solid black line in Figure 2 presents the evolution of the simulated wealth gap with equal wealth accumulation conditions across Black and white individuals. As a comparison, we also plot our wealth gap series as dots. Overall, the simulated wealth gap follows a hockey-stick pattern, very similar to our estimated long-run time series of the racial wealth gap. Convergence is rapid immediately post-Emancipation until the early-to-mid 20th century, after which convergence slows down considerably. This shape is consistent with Black individuals starting from very low initial

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[23]Spriggs (1984) documents a similar pattern when analyzing the racial wealth gap and Black wealth accumulation in post-Emancipation Virginia.

[24]The construction of the 1870 wealth ratio estimate is described in detail in Section 3. The income ratio is calculated using data from Margo (2016). Based on per capita income data from Margo (2016) and our wealth estimate for 1870, the wealth-to-income ratio for white Americans in this year is 6.1:1.

levels of wealth compared to their income and experiencing rising wealth-to-income ratios in the early years. White individuals started with much higher initial wealth in 1870, with a wealth-to-income ratio of 6.1 while Black individuals started with a wealth-to-income ratio of around one. Therefore, in this early period, the contribution of savings to wealth accumulation is extremely high for Black individuals (Equation 4). As Black wealth grows, so do wealth-to-income ratios for Black Americans, and convergence slows down over time.

Our simulation implies that under equal wealth-accumulating conditions over the past 150 years, the wealth gap in 2020 would be 3:1. Thus, even in a stylized scenario with equal capital gains and savings rates across the two groups, the initial wealth difference in 1870 is so large that the gap does not fully disappear after 150 years. Indeed, our framework implies that even by the year 2200, by which time the racial income gap would have closed in our model, we would still have a positive wealth gap of 1.4.

4.2   Drivers of slower convergence: racial gaps in savings and capital gains

Relative to the equal-conditions benchmark, observed convergence has unfolded more slowly, as can be seen in Figure 2. The convergence curve under equal q and s falls below the data points from our long-run series. In our model, slower convergence must stem from racial differences in savings and capital gains, as we have taken income convergence from the data. Lower savings and capital gains for Black Americans can reflect their lower average income and wealth levels compared to white Americans, as well as their historical exclusion from land, housing, and capital markets. We discuss the role of these factors when we explore changes in the speed of convergence over time. First, we use our model and data to provide insights into the magnitude of these gaps in drivers of wealth accumulation.

As a first step, we take our model as given and estimate time-constant racial gaps in q and s that provide the best fit with the data. Fixing white savings rates and capital gains at the national average (i.e., $q^w=1$ and $s^w=5$), we use non-linear least squares to estimate q^b and s^b. Full details are provided in Appendix H. The results suggest that over the full post-1870 period, savings rates of Black Americans have been 1.1 pp smaller than those of white Americans and capital gains 0.2 pp lower. Figure 2 shows that simulating the wealth gap with these estimated values for q^b and s^b tracks the course of observed convergence extremely closely.[25]

The above results shed light on average differences in savings and capital gains between Black and white Americans over the long-run. To better understand dynamics in racial differences in wealth accumulation, we plot the racial wealth gap in logs in Figure 3a. The figure confirms the pattern described in Section 3.1 that the most rapid decline in the wealth gap occurred in the first 30 years after Emancipation. Wealth convergence slows in the first decades of the 20th century, resumes between 1930 and 1980, and stalls thereafter. A comparison of these convergence dynamics

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[25]In Appendix H we show that we get consistent results when using OLS to estimate the q^b and s^b that best fit the evolution of the log wealth gap.

to our equal-conditions benchmark is illustrative. Figure 3b juxtaposes observed growth rates in the wealth gap to those from our simulation for five intervals – 1870-1900, 1900-1930, 1930-1960, 1960-1980, and 1980-2020 – intervals that align well with the major patterns shown in Figure 3a. During the first 60 years after Emancipation (1870-1930), wealth convergence was slower than simulated convergence under equal capital gains and savings rates. From 1870-1900, the observed annual convergence rate was around 2.5% compared to 3% in our simulation, and from 1900 to 1930, the it was around 0.3% compared to 1.4%.

These deviations are in line with a large literature that documents systemic disadvantages faced by Black Americans in the post-Emancipation and Jim Crow era. Although the abolition of slavery signaled an end to the most extreme form of economic exploitation of Black Americans, barriers to Black economic progress were pervasive in the post-Reconstruction era.[26] In the decades after the Civil War, Black Americans were barred from equal access to financial institutions (Baradaran, 2017), frustrated in their attempts to purchase land (Ransom and Sutch, 2001), experienced violent destruction or expropriation of their property (Albright et al., 2021; Cook, 2014; Messer, Shriver, and Adams, 2018), and relegated to highly segregated housing markets (Akbar et al., 2019; Aaronson, Hartley, and Mazumder, 2020). Black Americans were also denied equal access to education and faced extreme labor market discrimination in the post-Civil-War South (Margo, 2007; Wright, 1986). The structure of southern agriculture led to pervasive indebtedness among Black farmers, potentially lowering the incentive to save (Ransom and Sutch, 2001). These conditions are likely to have hindered Black Americans' ability to transmit wealth to future generations, skewed the composition of their wealth towards lower return assets, and to have led to lower returns within asset classes, all of which would imply lower capital gains rates relative to white Americans. In addition, differences in labor market and educational opportunities could slow down income convergence and thus savings-induced wealth convergence.

After 1930, observed racial wealth convergence speeds up and the growth rate in the gap matches that predicted by the model. From 1930 to 1960, Black and white wealth converged at an annual rate of almost 1% (this is almost three times higher than the convergence rate during the period 1900 to 1930), while from 1960 to 1980, we observe even higher convergence rates in the data of approximately 1.5% per year. Stronger convergence in the racial wealth gap during this period concurs with major events affecting Black economic progress and reductions in racial inequality. These include compression of wages and Black occupational upgrading during World War II (Aizer et al., 2020; Collins, 2000; Margo, 2016); the introduction of the Fair Employment Practice Committee in 1941, which represented early attempts to diminish discrimination in the labor market (Collins, 2001); and the Civil Rights Act of 1964, the Voting Rights Act of 1965, and minimum wage legislation in the 1960s (Donohue and Heckman, 1991; Brown, 1984; Aneja and Avenancio-Leon, 2019; Derenoncourt and Montialoux, 2021), which led to relative wage gains for Black workers. Finally,

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[26]A large literature explores the role of post-slavery institutions in the Deep South in perpetuating racial inequality. Recent work in this area includes Baker (forthcoming) and Althoff and Reichardt (2022). Althoff and Reichardt (2022), in particular, document the role of these institutions on persistent gaps in economic outcomes between Black descendants of the American enslaved versus descendants of those who were free before the Civil War.

the Fair Housing Act of 1968 attempted to strike down barriers to homeownership for Black Americans, which may have led to relative improvements in housing outcomes. However, this episode of convergence ends by the 1980s, at which point the racial wealth gap stalls and, most recently, begins to diverge again—a phenomenon we return to in detail in Section 4.3.

Given these patterns in the speed of convergence over time, we examine whether racial differences in capital gains q, savings rate s, and income growth g have changed over this time period as well. We estimate Black and white differentials in these parameters for three periods: 1870 to 1950, 1950 to 1980, and 1980 to 2020. We compute the white-Black difference in annualized income growth rates for all three time periods using data from Margo and the SCF+. We provide white-Black differences in savings rates and capital gains from 1950 onwards using the SCF+. To calculate savings rates for each racial group, we apply the synthetic savings approach of Saez and Zucman (2016).[27] We estimate capital gains for each racial group using the approach of Xavier (2020). For a full description of our estimation method of savings rates and capital gains, see Appendix I.

We report results on dynamics in g, s, and q in Table 1. Income convergence, indicated by larger income growth rates for Black Americans compared to white, was strongest during the period 1870 to 1950. During this 80-year period, Black income grew at an annual rate that was 0.60 pp faster than white income. Strong income convergence continued between 1950 and 1980; Black income grew 0.45 pp faster than white income, consistent with the historical and political forces alluded to above. The post-1980 period is noteworthy for complete stagnation in income convergence, a fact that has been documented in the literature on racial income gaps (see, e.g., Bayer and Charles (2018)).

From 1950 onwards, we document racial gaps in savings rates and capital gains. Despite robust income convergence between 1950 and 1980, white savings rates exceeded those of Black Americans' by 1.43 pp. This gap decreased slightly to 1.15 pp over the 1980-2020 period. Importantly, we uncover a dramatic worsening of the capital gains gap between Black and white Americans over the last 70 years. The first 30 years of this period show no racial gap in capital gains. However, in the last 40 years, white Americans earned 0.65 pp higher capital gains than Black Americans. As indicated in Equation 3, such differences translate directly into increases in the racial wealth gap.

To illustrate this, we use our wealth accumulation model and plug in the estimated values of income growth, savings rates, and capital gains for the post-1980 period. Figure 5 presents our simulation results, which demonstrate how these differences quantitatively translate into the dynamics of the racial wealth gap. We present three scenarios: one where the racial wealth gap evolves with equal wealth-accumulating conditions, one where there are differences in savings rates and capital gains (which we estimate from the data), and a third where there are only differences in savings rates. In all three scenarios, we plug in the estimated post-1980 income growth rates of Black and white Americans.

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[27]We verify these estimated savings rates differentials for the post-1980 period using panel data from the PSID (available from 1984 onwards). Both approaches yield a white-Black savings rate gap of about 1.1%. See Appendix I for more details.

In contrast to the scenario with equal wealth-accumulating conditions (light dashed line), the data show no convergence over this period. If we only accounted for the estimated racial differences in saving rates, without accounting for differences in capital gains, the wealth gap would still be on a path to convergence (solid line). However, if we take into account both lower savings rates and capital gains for Black Americans after 1980, our simulation reproduces the recent divergence in the wealth gap that we observe in the data (dark dashed line). In the next section, we discuss the drivers of this recent divergence in greater detail.

4.3   Divergence post-1980: the importance of portfolio composition

Starting in the 1980s, booming asset markets and rising wealth-to-income ratios have given greater prominence to capital gains over savings flows in the dynamics of the wealth distribution (Piketty, 2013; Piketty and Zucman, 2014; Saez and Zucman, 2016; Kuhn, Schularick, and Steins, 2020). Under these conditions, the portfolio composition of households plays an ever-increasing role in wealth accumulation. In this section, we show that racial differences in portfolio composition combined with asset price dynamics account in large part for the post-1980 evolution of the wealth gap.

In Table 2, we present the average portfolio composition of Black and white households from 1950 to 2019 using SCF+ data. Not only do white households hold far more assets on average, the composition of wealth differs starkly across the two groups. Housing and other non-financial assets make up 67% of the total assets of Black household whereas business wealth amounts to 13% and equity (direct and indirect) make up just 5%.[28] For white households, housing and other non-financial assets make up a much smaller share of their total assets – 41% – while business and stock equity account for 24% and 16%, respectively. Hence, over this full time period, portfolios for white households have been more diversified than those of Black households.[29]

The bottom panel of Table 2 explores the distribution of liabilities across asset class and racial group.[30] Strikingly, despite having less than a fifth the assets of white households, Black household debt is about half the debt of the average white household. This is consistent with Black households being more leveraged. Debt makes up 25% of total asset values for Black Americans, but just 10% of asset value of white households. Examining housing debt specifically, we see that Black households hold more housing debt than white households, 29% of housing value versus 21%. Though the gap in housing debt is smaller, higher levels of leverage in housing imply that Black households' wealth is more exposed to changes in house prices. A given change in housing prices leads to

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[28]Equity includes both direct and indirect holdings in the form of mutual funds. However, this share does not include indirect holdings of equity (or fixed-income assets) in the form of defined-contribution pension plans. After reveiling, equity holdings still account for just 7% of the assets of Black households while making up 18% of the assets of white households.

[29]Table 2 presents averages over the full 1950-2019 period. In Appendix Table J.1, we show that differences in portfolio composition have been highly persistent over time, with white household wealth portfolios consistently more diversified than those of Black households.

[30]For a detailed analysis of the debt composition of U.S. households overall, see Bartscher, Kuhn, Schularick, and Steins (2020).

larger fluctuations in home equity for Black compared to white households and places them at greater risk of foreclosure.[31] In the final row of Table 2, we show differences in educational debt. Compared to housing debt, educational debt makes up a much smaller portion of overall debt, yet racial differences in educational debt holding are striking. For Black households, about 10% of total household debt is educational debt while for white households, educational debt makes up less than 4% of total debt. Furthermore, the average Black household holds more educational debt than the average white—the white-to-Black educational debt ratio is 0.75:1.[32]

Overall, these portfolio differences between Black and white households mean that asset price dynamics will shape the dynamics of the racial wealth gap over time. If housing prices boom (holding everything constant), Black households will benefit more due to their higher exposure to this asset class, and the racial wealth gap will decrease. By contrast a booming stock market will increase the racial wealth gap as Black households benefit substantially less from rising stock prices and the associated capital gains.[33] We illustrate these dynamics by simulating what the racial gap would have been had there been capital gains only in the stock market versus only in the housing market.

We start our counterfactual simulation in the year 1983, the first post-1980 year available in SCF+. For simplicity, we fix initial wealth portfolios and levels in this year and consider the impact of solely changing asset prices, ignoring the contribution of savings and portfolio adjustments to the racial wealth gap over time. The first counterfactual, W_t^{equity}, shows the evolution of wealth if there had been only capital gains in equity markets. The second counterfactual, $W_t^{housing}$, considers the scenario where only housing market capital gains occurred. We also construct W_t^{cg}, which allows for capital gains in both markets. We construct counterfactual wealth series for each racial group as follows[34]:

$$W_t^{equity} = W_{1983} + \sum_{t=1984}^{2019} q_{t,t-1}^{equity} \cdot A_{t-1}^{equity}$$

$$W_t^{housing} = W_{1983} + \sum_{t=1984}^{2019} q_{t,t-1}^{housing} \cdot A_{t-1}^{housing}$$

$$W_t^{cg} = W_{1983} + \sum_{t=1984}^{2019} q_{t,t-1}^{equity} \cdot A_{t-1}^{equity} + \sum_{t=1984}^{2019} q_{t,t-1}^{housing} \cdot A_{t-1}^{housing}, \tag{5}$$

where W_{1983} is mean wealth of the respective group in 1983, while A^{equity} and $A^{housing}$ are the mean values of equity and housing. Because we concentrate on just the contribution of capital gains to wealth accumulation, $A_t^{asset} = A_{1983}^{asset} \prod_{t=2019}^{t} (1 + q_{t,t-1}^{asset})$ for each asset $\in \{equity, housing\}$.

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[31]See Kermani and Wong (2021) for an in-depth analysis of the role of distressed sales and foreclosures in racial differences in housing returns.

[32]These stark differences in educational debt holding likely have implications for debates on student loan forgiveness and the racial incidence of college debt—an important area for further research.

[33]Relatedly, Bartscher, Kuhn, Schularick, and Wachtel (2021) show how different responses of asset prices following monetary policy shocks affect racial differences in total capital gains.

[34]We apply the same equation to both groups therefore we suppress the subscripts for racial group at this time.

Therefore, our counterfactual simulation illustrates how the racial wealth gap would have evolved if Black and white households had only accumulated capital gains on their 1983 wealth portfolios. Finally, we define the capital gains rate in equity and housing markets as $q_{t,t-1}^{equity} = \frac{P_t^{equity}}{P_{t-1}^{equity}} - 1$ and $q_{t,t-1}^{housing} = \frac{P_t^{housing}}{P_{t-1}^{housing}} - 1$, respectively, where P represents the average real price of each asset type. Note that both asset prices are deflated with the CPI with 2019 as the base year. Based on these equations, we construct W_t^{equity}, $W_t^{housing}$, and W_t^{cg} separately for Black and white households and simulate the white-to-Black wealth gap under each scenario.

Figure 4 presents the results for the time period from 1983 to 2019. These simulations highlight the contributions of asset price changes in stock versus housing markets to the evolution of the racial wealth gap. Figure 4a shows the scenario with just stock market gains (W_t^{equity}). We find that capital gains in the stock market contribute to a strong and rapid increase in the racial wealth gap after 1980. Fixing portfolios to their 1983 composition and only allowing capital gains in the stock market to influence the wealth gap, the white-to-Black wealth gap would have increased by 40% between 1983 and 2019 to a level of 8. This exceeds the observed wealth gap by about 20%. By contrast, if there had only been capital gains in the housing market, then the racial wealth gap would have continued to converge. Under this scenario, the wealth gap would be 4.7 today, compared to the observed gap of 6.6, a decrease of 18%. Figure 4b combines the two counterfactual developments and looks at the total effect of housing and stock price developments on the racial wealth gap. We make two observations. First, the counterfactual evolution of the wealth gap under this scenario closely matches the dynamics in the observed wealth gap between 1983 and 2019. The counterfactual series shows a stronger increase for years 1990 and 2010, a period of turbulent movements in asset markets with booms and busts, but tracks the observed wealth gap almost exactly in the period between 2010 and 2019. Overall, our simulation of the wealth gap under housing and stock capital gains increases alone suggests that white households benefited more on net from secular asset price increases since 1980 and that this is due to their greater exposure to equity markets.

4.4   The future of the racial wealth gap

The recent role of capital gains in the widening of the racial wealth gap paints a sobering picture for the future of racial wealth convergence. Wealth concentration increased dramatically over the Covid-19 pandemic, reaching its highest levels since World War II, and the top 0.01% of households now own 36.1% of private wealth (Blanchet, Saez, and Zucman, 2022). The above analysis suggests this has clear implications for the racial wealth gap. Given that there are so few Black households at the top of the wealth distribution, faster growth in wealth at the top will lead to further increases in racial wealth inequality.

To assess the future evolution of the white-to-Black wealth gap under continued racial differences in capital gains and savings, we use our wealth accumulation model from Section 4 to simulate the

wealth gap from 2019 onwards. We simulate two scenarios. In the first, we allow the racial differences in wealth-accumulating conditions that we observe in the 1980s (see bottom panel of Table 1) to continue to persist. Notably, in this simulation, we take into account that income convergence has also stalled. In the second scenario, we model the future of racial wealth convergence under equalized wealth-accumulating conditions ($q^w = q^b$ and $s^w = s^b$), and with the same annualized rate of racial income convergence from the past 150 years.[35] For each scenario, we simulate the racial wealth gap in two future time periods, 2050 and 2200.

Table 3 presents our results. As expected, given current differences in wealth-accumulating conditions, our model predicts that the white-to-Black wealth gap will continue to diverge in the future, following its post-1980 trajectory. By 2200, the gap will increase by more than 50%, reaching a level of 8.4. Additionally, as income convergence has stalled and is even possibly reversing, savings-induced wealth convergence will no longer occur. In the absence of policy interventions or other forces leading to improvements in the relative wealth-accumulating conditions of Black Americans, wealth convergence is not only a distant scenario, but an impossible one.

Compared to this scenario, equal q and s and continued racial income convergence will indeed produce further wealth convergence, closing the wealth gap by 28% by 2050. However, even 180 years from now, by which time income would have converged, the wealth gap will still be nearly 2:1. Thus, this simulation underscores the insights that (i) income convergence is insufficient for wealth convergence and (ii) even with equal flow parameters ($q^w = q^b$ and $s^w = s^b$) it will be centuries before per capita Black and white wealth equalize.

5 Discussion: implications for policy

These patterns in the racial wealth gap raise the question of what policy interventions could meaningfully reduce racial wealth inequality and when. In this section, we use our framework to comment on two distinct policy approaches aimed at closing the racial wealth gap, those that target equalization of flow parameters—savings rates, capital gains, and income via income growth rates—versus policies targeting redistribution or equalization of stocks of wealth. The previous discussion already foreshadows that the former set of policies have limited effects on the racial wealth gap in the near future. By comparison, policies like reparations that involve large transfers that increase the stock of Black wealth have greater immediate impact on the wealth gap.

A large class of commonly discussed policies for reducing racial wealth inequality seek to reduce gaps in capital gains, savings, or income. These include policies that encourage financial diversification or stock equity holding among Black households; policies aimed at financial literacy and retirement or savings behavior; or policies aimed at improving educational and labor market outcomes of Black Americans through improved school quality or reductions in discrimination.[36] Yet,

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[35]Recall that Black income has grown at an annualized rate of 2.3% while white income has grown at a rate of 2.0%, reflecting income convergence between 1870 and today.

[36]Altonji and Doraszelski (2005) explore the extent to which income and demographic factors can explain the

our simulation in Section 4.1 shows that even if wealth accumulation conditions had been equal since 1870, the wealth gap would still be 3 to 1 today, 150 years later, and full convergence would be over 200 more years away. Put differently, to close the racial wealth gap in the immediate term via flow parameters, Black Americans would need substantial advantages in these domains, not mere equality. To close the wealth gap by 2050, for example, they would need more than double the annual capital gain rates of white Americans (5% compared to 2%), a savings rate of 31%, or income growth of nearly 8%.

In contrast to these flow-based policies, proponents of reparations argue for direct payments to Black Americans in recognition of the harms inflicted by slavery and post-slavery institutions. Citing the wealth gap itself as a summary statistic of past harm, Darity Jr. and Mullen (2020) proposes a reparations payment of $267,000 per person for each American descendant of the enslaved, or an amount that would eliminate the average wealth gap between this group and white Americans. We calculate that such a transfer, applied to the eligible number of Black Americans in the form of a helicopter drop, would reduce the overall white-to-Black wealth gap to 1.4.[37]

Importantly, our framework also highlights that in the absence of changes in savings and capital gains gaps, such transfers would have but a transient effect on the wealth gap. Figure 6 presents three different scenarios illustrating the sensitivity of the post-reparations wealth gap to differences in wealth-accumulating conditions across racial groups. If wealth-accumulating conditions were equalized, and Black and white income continued to converge, the post-reparations wealth gap would stabilize (solid line). In the absence of such equalization, the wealth gap would open again (light grey dashed line). Finally, if today's capital gains and saving rates differences – and stagnated income convergence – were to persist, the post-reparations racial wealth gap would widen dramatically (dark dashed line). Within the next 30 years, the gap would increase by 30%, and divergence would continue over time.

The evidence on the effects of large wealth shocks in the past offers a cautionary tale. The elimination of slave wealth had but a temporary effect on the wealthiest slave-holding families of the South. Through social connections and marriage, these families re-consolidated their position

racial wealth gap. Using the PSID, the authors estimate the relationship between different measures of wealth and permanent income and other factors first on the sample of white households and then on the sample of Black households. While the coefficients estimated on the white sample imply that income and other demographics explain the entirety of the wealth gap, those estimated on the Black household sample fall very short of explaining racial wealth differences. In other words, wealth is less responsive to income and education for Black Americans compared to white Americans. The authors conclude a large role could be played by savings and different rates of return. We reach a similar conclusion using a simple reweighting exercise. We calculate a counterfactual 2019 racial wealth gap after (i) reweighting the Black income distribution to match the white income distribution down to the decile (matching mean income by decile) and (ii) reweighting Black non-high-school, high school, and college attainment to match the white educational distribution. Under equalized income, the 2019 wealth gap of 6.6 decreases to a level of 3.6. Under equal education attainment, the gap falls from 6.6 to 5.2. These counterfactual wealth gaps remain economically large, highlighting persistent racial wealth gaps within income and education group.

[37]Per capita wealth equalization could also be achieved through taxes and transfers. In this case, payments of $166,460 to every Black American financed via a 9% tax on white wealth, would equalize white and Black per capita wealth (total payment amount is around $7.13 trillion). A 44% tax on the wealth of the top 0.1% of the wealth distribution (or 27% tax on the top 0.5% wealthiest Americans) would generate the same required revenue.

as economic elites one generation after the Civil War (Ager, Boustan, and Eriksson, 2021). The Chinese Communist and Cultural Revolutions greatly reduced wealth and income inequality in the mid-to-late 20th century; however, scholars have found that the pre-revolution elite have once again emerged on top (Alesina et al., 2020). Finally, those studying the impacts of large wealth transfers have also found their effect to be transient (Bleakley and Ferrie, 2016). This evidence may speak to the evolution of wealth inequality when shocks to the original distribution of wealth do not fundamentally alter the accumulation process.

By contrast, wealth shocks that influence gaps in wealth-accumulating conditions may lead to more persistent change. Miller (2020), which studies the impact of land and capital redistribution to the formerly enslaved in the Cherokee Nation, provides a useful case study.[38] Racial wealth gaps fell in the Nation relative to the rest of the South, and educational outcomes of the next generation also improved. Black farmers in the Cherokee Nation were more likely to plant fruit trees, a more lucrative crop choice than staples like corn, but which have a longer gestational period. This difference in investment choices is suggestive of their greater sense of secure property rights compared to farmers outside the Nation. The question that emerges from this body of evidence is whether reparations policy today would also influence white-Black gaps in savings rates, capital gains, and income, thus potentially reducing racial wealth inequality over a much longer time horizon.

6 Conclusion

Our prior understanding of racial wealth differences has relied on limited snapshots, focused either on particular geographies in the historical period or on recent decades when the gap has barely changed. To address the lack of a comprehensive account of white-Black wealth inequality in the U.S., we assembled a new historical series of white-to-Black per capita wealth ratios from 1860 to 2020. To do this, we drew on numerous data sources, including complete-count historical censuses, state tax data, and 70 years of Survey of Consumer Finances data. Our new long-run series exhibits a clear "hockey-stick" shape of racial wealth convergence. After a period of initial rapid convergence during the first 50 years after the abolition of slavery, racial wealth convergence slowed substantially in the mid-20th century to the point where the wealth gap in 2020 is effectively the same value as it was in 1950.

We show that this basic shape of convergence is well explained by a simple wealth accumulation model that accounts for the initial wealth and income levels of Black and white Americans and the observed income convergence between the two groups. Given extremely low levels of Black wealth under slavery, even modest accumulation can imply a high growth rate for Black wealth that greatly exceeds that of white wealth, thus generating rapid convergence initially. However, as the racial wealth gap decreases, convergence slows and differences in returns on wealth and savings begin to matter more for the shape of convergence. Given existing differences in the wealth-accumulating

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[38]Under an 1866 treaty with the U.S. government, the formerly enslaved in the Cherokee Nation had the right to claim land and were furnished with initial starting capital for their farms (Miller, 2020).

conditions for white and Black individuals, our analysis suggests that full wealth convergence is still an extremely distant or even unattainable scenario. Furthermore, rising asset prices have become an important driver of racial wealth inequality in recent decades. The average white household holds a significant share of their wealth in equity and has therefore benefited from booming stock prices while the average Black household, for whom housing continues to be the most important asset, has been largely left out of these gains.

Our data and framework illustrate the uphill battle faced by policies aimed at equalizing wealth accumulation parameters, such as savings rates and capital gains. Closing the gap generated by centuries of Black Americans' exclusion from wealth-building with just these flow parameters alone is simply a matter of centuries. Reparations payments that equalize stocks of Black and white per capita wealth eliminate this long convergence horizon, which we argue is itself a byproduct of the historical gap. However, if transfers of this kind fail to close gaps in wealth accumulation parameters, our framework indicates the wealth gap will widen again.

An important area for future research is an investigation into what specific combinations of stock- and flow-based policies are most effective at fostering greater racial wealth equality in the future.

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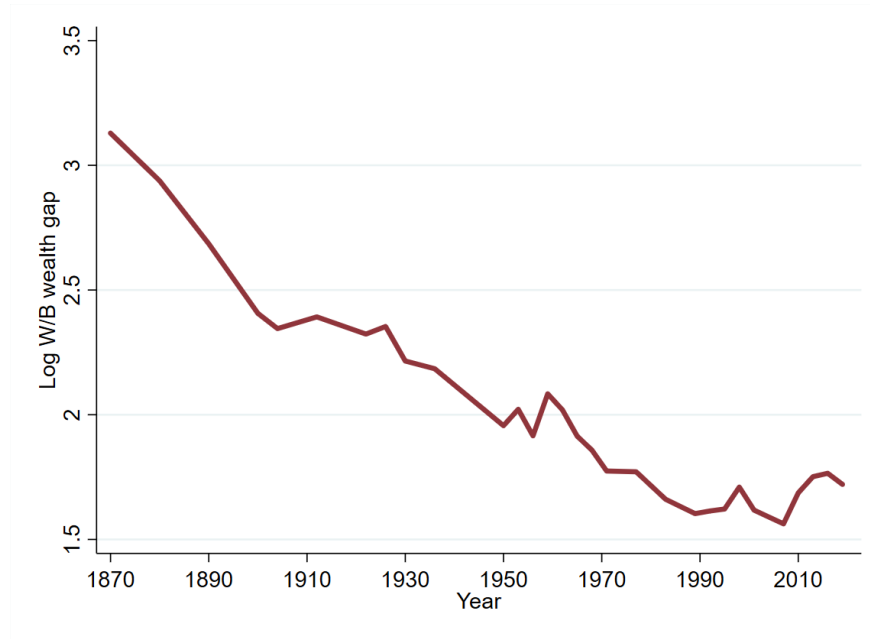Figure 1: White-Black per capita wealth ratio: 1860-2020
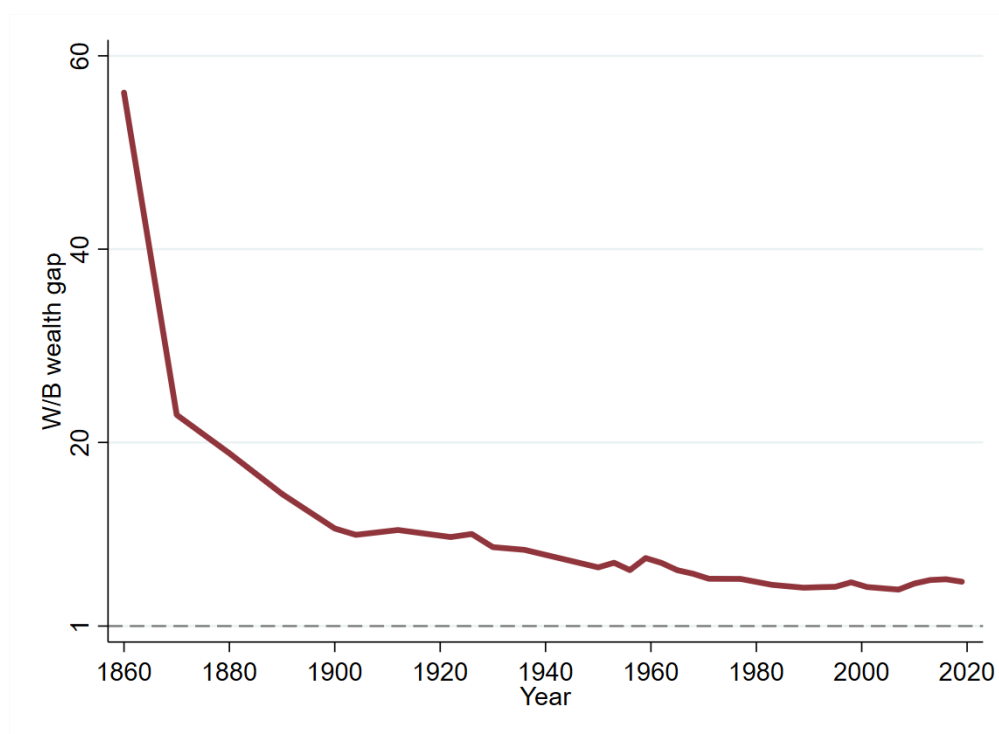
Notes: White-to-Black per capita wealth ratio from 1860 to 2020. Details on the construction of this series are available in Section 3. Data sources: Various, described in Section 3 and Appendix A.

Figure 2: Simulation of the racial wealth gap: 1870-2020
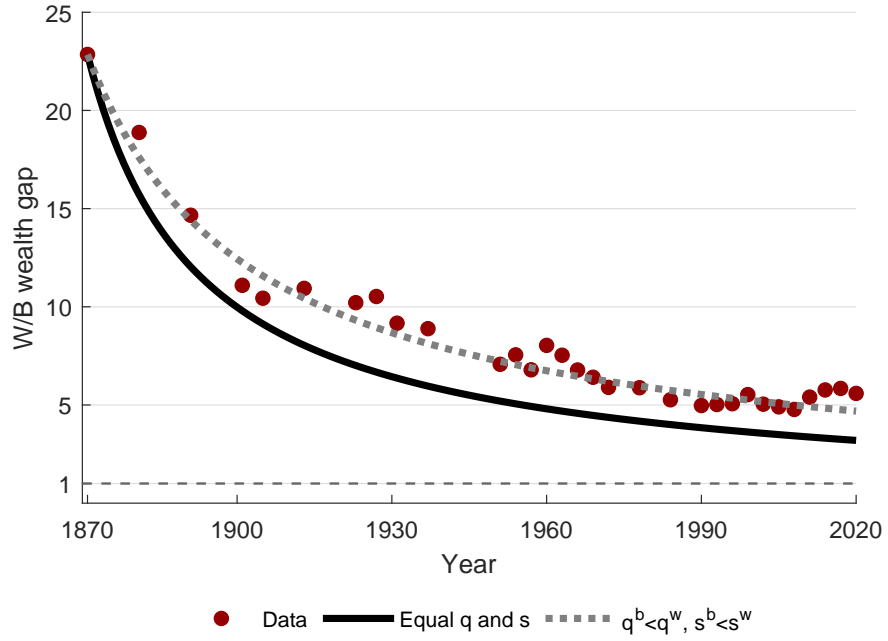
Notes: The solid line traces the path of the wealth gap from our simulation in Section 4, where we assume equal q and s for Black and white individuals throughout the post-1870 period. The dashed line presents the simulation result with q^b and s^b that gives us the best fit with the data. In both simulations, we let Black and white incomes grow according to their respective annualized growth rates calculated using data from Margo (2016) and the SCF+. The dots show the observed white-to-Black per capita wealth ratios from our series. Data sources: Various, described in Section 3 and Appendix A.

Figure 3: Dynamics of racial wealth convergence, 1870-2020

(a) Log wealth gap
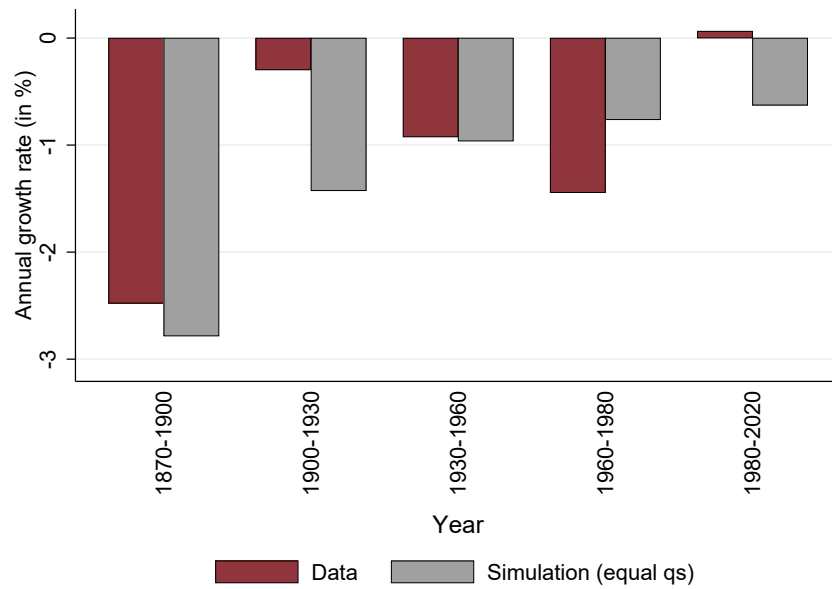
(b) Annual wealth gap growth rates

Notes: Panel (a) presents logs of white-to-Black per capita wealth ratios from 1860 to 2020. Panel (b) shows annual average growth rates of the racial wealth gap for five periods: 1870-1900, 1900-1930, 1930-1960, 1960-1980, and 1980-2020. Data sources: Various, described in Section 3 and Appendix A.

Figure 4: Contribution of capital gains to the racial wealth gap
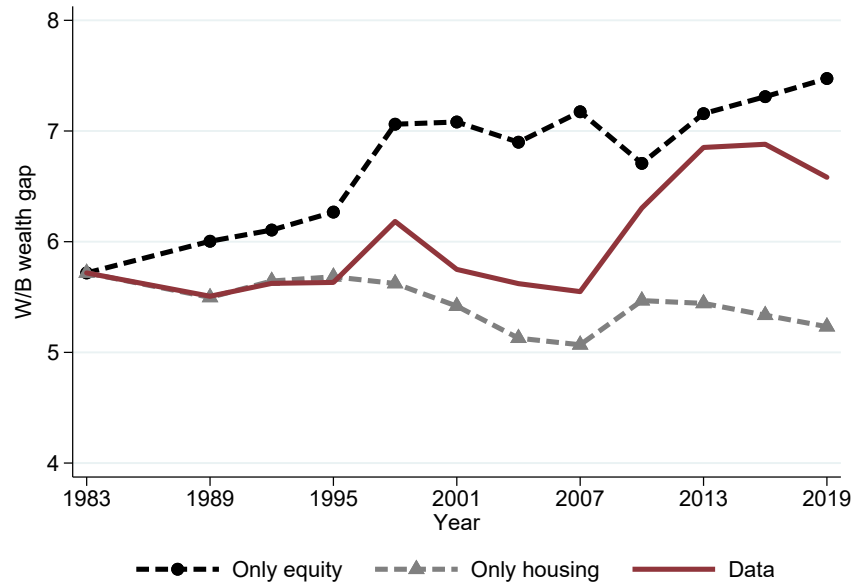
(a) Capital gains from equity and housing separately

(b) Total capital gains from equity and housing

Notes: First panel (a) presents counterfactual and observed white-to-Black per capita wealth gaps. The dashed line with dots shows the per capita wealth gap if there had been only capital gains in equity markets. The dashed line with triangles presents the per capita wealth gap if there had been only capital gains in the housing market. The solid line is the observed per capita white-to-Black wealth gap. In panel (b), the dashed line shows the counterfactual with both housing and equity capital gains while the solid line once again shows the observed wealth gap. Data sources: SCF+ and authors' simulations.

Figure 5: Wealth gap convergence since 1980
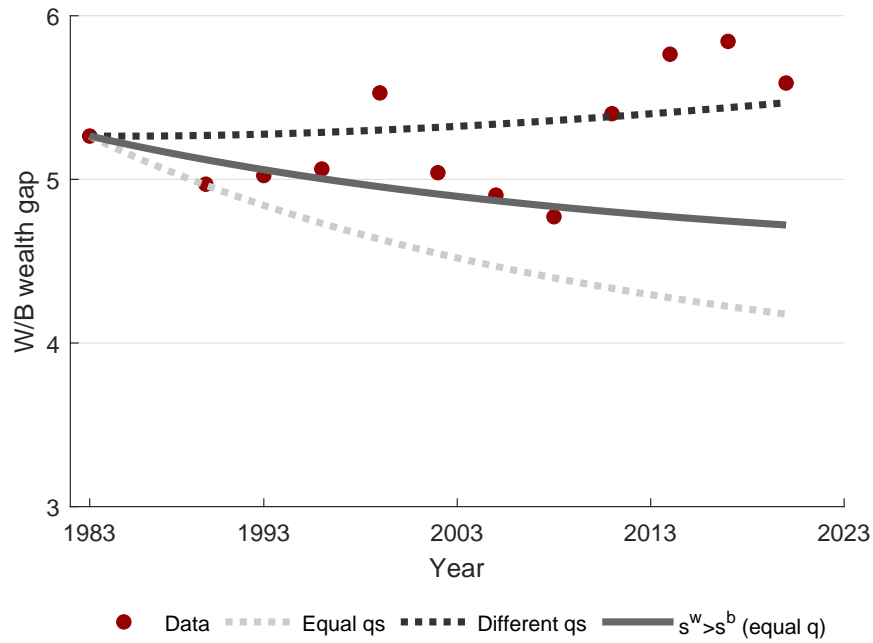
Notes: The simulated white-to-Black per capita wealth gap from 1980s to the present under three different scenarios. The light dashed line presents the convergence path under equal wealth-accumulating conditions (q and s). The solid line shows how the wealth gap would evolve under equal capital gains across Black and white households ($q^w = q^b$), but where white Americans have higher saving rates than Black Americans ($s^w > s^b$). Finally, the dark dashed line is our simulation using estimated values of q and s for Black and white households. Data sources: SCF+ and authors' simulations.

Figure 6: Wealth convergence after reparations
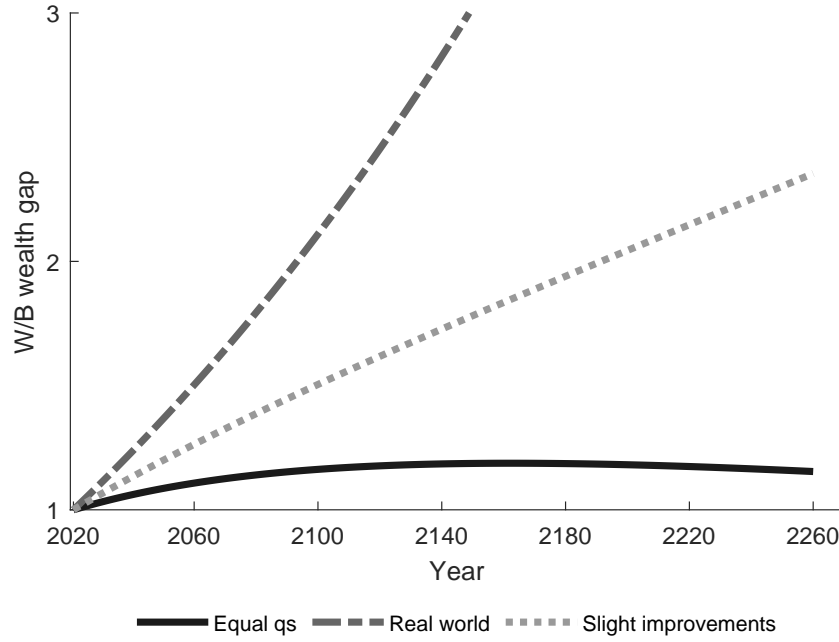
Notes: The simulated white-to-Black per capita wealth gap after reparation payments designed to close the wealth gap in 2020. We present the evolution of the post-reparations wealth gap under three different scenarios. The solid line is the convergence path under equal wealth-accumulating conditions across the two racial groups, and continued income convergence. We also simulate the post-reparations wealth gap using estimated racial differences in wealth-accumulating conditions (q, s, and g) that we observe since the 1980s (dark dashed line). Lastly, the light dashed line represents the convergence path if we assume slightly better wealth-accumulating conditions for Black Americans than we observe in the data ($s^w - s^b = 0.5\%$ and $q^w - q^b = 0.3\%$, as opposed to $s^w - s^b = 1.1\%$ and $q^w - q^b = 0.7\%$). Data sources: Authors' simulations.

Table 1: Changes in wealth-accumulating conditions

	$g^w - g^b$	$s^w - s^b$	$q^w - q^b$
1870-1950	-0.60 p.p.	-	-
1950-1980	-0.45 p.p.	1.43 p.p.	0.00 p.p.
1980-2020	0.07 p.p.	1.15 p.p.	0.65 p.p.
Whole sample period	-0.39 p.p.	1.23 p.p.	0.58 p.p.

Notes: Differences between white and Black income growth ($g^w - g^b$), saving rates ($s^w - s^b$), and capital gains ($q^w - q^b$) over three different historical periods. Data sources: Various, described in Section 3 and Appendix A.

Table 2: Portfolio composition, 1950-2020

	Average value ($)		Asset share		Debt-to-Value ratio	
	Black	White	Black	White	Black	White
Assets						
Other nonfin	8,613	19,099	8%	3%		
Housing	62,611	194,025	59%	38%		
Business	11,248	113,216	13%	24%		
Equity	4,013	72,581	5%	16%		
Liquid assets	7,196	54,391	6%	11%		
Other fin	14,058	61,583	8%	8%		
Liabilities						
Total debt	28,978	55,820			25%	10%
Housing debt	20,364	44,557			29%	21%
Educational debt	2,815	2,104				

Notes: Average portfolio shares of Black and white households over 1950-2020. Columns 1 and 2 presents the average value of assets and liabilities (in $2019); the next two columns present the share each asset class makes up of households' total asset value (summing to 100%); and the next two columns present debt-to-value ratios, for Black and white households separately. The debt-to-value ratio for total debt represents the ratio of total debt to total assets while the debt-to-value ratio for housing debt represents the ratio of housing debt to total housing assets. Data sources: SCF+.

Table 3: Future evolution of the racial wealth gap: 2019-2200

	2019	2050	2200
$q^w > q^b$ and $s^w > s^b$			
Wealth ratio (W/B)	5.58	5.60	8.44
Income ratio (W/B)	2.00	2.06	2.38
Equal conditions			
Wealth ratio (W/B)	5.58	4.02	1.88
Income ratio (W/B)	2.00	1.79	1.00

Notes: The simulated white-to-Black per capita wealth and income ratios in 2019, 2050, and 2200. The first two rows present the racial wealth and income gaps in the scenario with continued racial gaps in wealth-accumulating conditions (capital gains, savings rates, and income growth). The last two rows present the racial wealth and income gaps under equal wealth-accumulating conditions (equal capital gains and savings rates and continued income convergence). Data sources: SCF+ and authors' simulations.

Online appendix for
"The racial wealth gap, 1860-2020"

Appendix A Data sources for historical racial wealth gap series

We investigate the evolution of the racial wealth gap using a variety of national and state-level sources. Specifically, our wealth data were assembled from the complete-count historical U.S. censuses (1860 and 1870); state auditor reports (1860-1917); aggregate Black wealth estimates by Monroe Work (1926-1936); and historical and modern waves of the Survey of Consumer Finances (1949-2019). We take estimates for national wealth from the U.S. Census Bureau's "Wealth, Public Debt, and Taxation" reports published until 1922. Additionally, we use population data from the census as well as the Census Bureau's report on the Black population from 1790 to 1915. In this Appendix, we describe these key data sources in detail.

Complete-count 1860, 1870, 1930, and 1940 U.S. censuses   We obtain our earliest measures of Black and white wealth at the national level from the 1860 and 1870 censuses. We use the IPUMS version of the complete-count censuses for these years (Ruggles et al., 2021). We begin our analysis in 1860 as the 1850 census only recorded real property and not personal property, which included the enslaved and accounted for a significant source of total wealth prior to the Civil War.[39]

Importantly, the 1860 census does not include a count of the enslaved, who were enumerated in separate slave schedules. We aggregate Haines (2010) data on the enslaved Black population by county.[40] The 1870 census is the first full accounting of the Black population in the United States. For the 1870 census, enumerators were instructed to record personal property for those with at least $100 and real property for all. Finally, we obtain home values for the population from the 1930 and 1940 censuses. The 1930 census was the first to ask households about the value of their homes.

Southern state auditor reports, 1860-1917   For the years following Emancipation, we rely on southern state auditor reports analyzed in Du Bois (1901), Higgs (1982), and Margo (1984a) to understand Black wealth accumulation and racial wealth gaps in the South between the Civil War and World War I. We used the website HathiTrust Digital Library (https://www.hathitrust.org/) to access annual tax auditor reports for available Southern states in available years (1860-1917). Data were obtained directly from such reports for the following states: Georgia, Louisiana, North Carolina, Virginia, Kentucky, and Arkansas.

These reports provide either county-level aggregates of assessed wealth by racial group or aggregate tax payments by racial group. In the latter case, we follow Margo (1984a) and impute Black

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[39]We estimate that personal property made up 42% of total wealth in 1860.

[40]These estimates correspond to those in the Census Bureau's 1918 publication "Black Population 1790-1915" (Cummings and Hill, 1918).

and white aggregate wealth by assuming the Black-white ratio of property tax payments equals the wealth ratio and multiplying the former by the state's reported aggregate wealth for that year or an adjacent year. We also included similar data from Georgia, which had been previously assembled by Du Bois (1901) and supplement with total wealth measures from Georgia's tax reports. To complete the early state-level dataset, per capita wealth observations from Margo (1984a) were combined with population figures to calculate aggregate wealth levels by race in years where the corresponding state auditor report was not found online and additional years were taken from Work (1915) and Work (1917). A full description of these data and our digitization follows in Appendix A.1 below.

Black wealth estimates from Monroe Nathan Work's *Negro Year Book*   Monroe Nathan Work (1866-1945) was a sociologist who published an annual encyclopedia on the status of Black Americans called the *The Negro Year Book: An Annual Encyclopedia of the Negro.* For estimates of Black wealth at the national level after 1916, we take estimates from these publications for the years 1926, 1930, and 1936 (Work, 1926; Work, 1931; Work, 1938). Figure A.1 gives an example of the presentation of these types of estimates in his annual reports.

While information on Work's methodology is limited, the estimates seemingly incorporate extensive research conducted by Work on the growth of Black churches, farmlands, businesses, and other assets on top of additional indicators of Black social and economic progress. Notably, Work includes state-level wealth estimates in his yearbooks that are consistent with the data we digitized from state auditor reports, suggesting these state-level records figure prominently in his estimation of national Black wealth. Work's national Black wealth estimates are low compared to the 1870 Census, potentially due to being drawn from assessed rather than market-value-based estimates of wealth; however, once the levels are adjusted, the trend matches well with the data from the census and the SCF+, available from 1949 onwards. More details on these adjustments are provided in Section B and Appendix B.4.

Sources on national wealth in the late 19C and early 20C   For the years between 1870 and 1940, we calculate white wealth as the difference between estimated Black wealth and total wealth in the United States. Given the demographic makeup of the country during this time and patterns of wealth-holding in the census data, we believe this generates a reasonable estimate of national per capita white wealth for this period. We obtain national wealth estimates from the U.S. Census Bureau's "Wealth, Public Debt, and Taxation," covering national and state-level wealth from 1850 to 1922 (United States Bureau of the Census et al., 1924).[41] For the years 1926, 1930, and 1936, we incorporated estimates from Saez and Zucman (2016b) on aggregate wealth in the United States.

Historical and modern waves of the Survey of Consumer Finances (SCF+)   From 1949 to the present, we use harmonized waves of the Survey of Consumer Finances (the SCF+), which

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[41]Early editions were titled "Wealth, Debt, and Taxation."

provides micro-level data on households' socioeconomic characteristics and wealth composition. The SCF+ is an extension of the Survey of Consumer Finances (SCF) provided by Kuhn, Schularick, and Steins (2020). Before the modern SCF, which the U.S. Federal Reserve Board has conducted every three years since 1983, the Survey Research Center of the University of Michigan gathered data on household income and wealth along with their demographics at an annual frequency from 1947 to 1971, and again in 1977. Kuhn, Schularick, and Steins (2020) extract this historical data based on the original codebooks and match the variables across the historical and modern waves. The final dataset allows us to study the joint distribution of income and wealth consistently from 1949 to 2019.

Wealth in the SCF+ comprises marketable net wealth, which is the current value of all marketable assets net the current value of debts. Assets include liquid assets (certificate deposits, checking and savings accounts, call and money market accounts), housing and other real estate, bonds, stocks, corporate and non-corporate equity, and defined contribution retirement accounts. Total liabilities are the sum of housing debt, car loans, education loans, loans for consumer durables, credit card debt, and other non-housing debt. As we focus on marketable wealth, we exclude social security and defined benefit pension claims. Using these data, we compute decadal averages of per capita wealth by race.

A.1   Digitization of state auditor reports

We digitize state auditor reports for six states that assessed wealth (or recorded total tax payments on assessed wealth) separately for the Black and white populations in those states between the 1860s and the early 20th century: Arkansas, Georgia, Kentucky, Louisiana, North Carolina, and Virginia. We have digitized state-level wealth data from the following reports and other sources for each state:

1. Arkansas: Auditor of State (1896; 1898; 1901; 1903; 1904; 1906; 1909; 1911; 1912; 1913).

2. Georgia: Comptroller General of the State of Georgia (1878; 1879; 1882; 1884a; 1884b; 1885; 1888; 1890; 1891; 1892; 1893; 1894; 1895; 1898; 1899; 1900); Du Bois (1901).

3. Kentucky: Auditor of Public Accounts, of the State of Kentucky (1866; 1867; 1869; 1871; 1873); Margo (1984b).

4. Louisiana: Auditor of Public Accounts for the State of Louisiana (1892; 1894; 1896; 1900; 1906; 1908; 1910; 1912; 1914; 1916; 1918).

5. North Carolina: Auditor of the State of North Carolina (1891; 1892; 1893; 1894; 1895; 1896; 1898), State Tax Commission (1903; 1904a; 1904b; 1905; 1906; 1907; 1908; 1909; 1910; 1911; 1912; 1913; 1914; 1915); Margo (1984b).

6. Virginia: Auditor of Public Accounts (1904; 1912); Work (1915; 1917); Margo (1984b).

These reports were originally analyzed by Du Bois (1901) and Higgs (1982) (Georgia only) and Margo (1984a) (the remaining five states) to understand post-Civil-War wealth accumulation by Black Americans as well as Black-white wealth dynamics during this period. Figure A.2 shows an excerpt from the 1903-1905 auditor report for the state of Virginia.

A.1.1   Comparison of historical state wealth ratios to Margo (1984)

Below we compare our estimates for the white-Black per capita wealth ratio derived from our digitization of state auditor reports to those of Margo (1984a). Table A.1 shows that results are broadly similar for most states with Louisiana being the exception. This is due to the fact that the Louisiana state auditor reports exclude data for Orleans Parish, which includes New Orleans. Margo (1984a) assumes that country parish ratios apply to the state overall, for which aggregate wealth is available, and computes the state-wide wealth ratio this way. We use a different approach to account for the possibility of greater wealth holding by Black Americans in New Orleans relative to the country parishes. We take the 1870 Census and compute white-to-Black wealth ratios in New Orleans. We then subtract total country parish wealth from total wealth in Louisiana to derive wealth in New Orleans every year for which tax data are available. Assuming that the white-to-Black wealth ratio in New Orleans holds constant over time, we compute Black and white wealth

in New Orleans using this method and then recompute the per capita wealth ratio for the state of Louisiana using these adjusted measures for aggregate Black and white wealth in the state.

Figure A.3 plots aggregate Black wealth in each of the six states adjusted using the Warren-Pearson Index to the 1910-1914 price level. Each of the six states shows substantial accumulation of Black wealth over this period.

Figure A.4 plots the white-to-Black per capita wealth ratios for each state. The pattern of rapid initial convergence followed by a slowdown that we document in our national series also holds for these six states.

Figure A.1: Excerpt from *The Negro Year Book* (Work, 1922)

Fifty-three Years of Progress
1866-1919

To a very large degree January first, 1866 was the beginning of the opportunity for the Negro in every part of the Nation to make progress. Thirteen days before this, that is, on December the eighteenth, 1865, the Thirteenth Amendment, declaring slavery abolished in the United States was adopted.

The Emancipation Proclamation of 1863 applied only to those states and sections of states then in rebellion against the Federal Government. There were almost a million slaves who were "for the present left precisely as if this proclamation were not issued." The decree of December 18, however, freed all. On and about the first day of the following January the late masters and the late slaves entered into agreements whereby the former were to furnish the land and the latter the labor to the end that both perchance might live and prosper. Thus white and black set to work to rebuild the wasted and devastated South. In this rebuilding the Negro not only tilled the soil of the South, cleared her forests and helped to build her cities, but in fifty-three years he has himself made a most remarkable progress. The extent of this progress is shown in what follows:

Statistical Statement of Negro Progress in Fifty-three Years.

| Economic Progress—	1866	1919	Gain in Fifty-Three Yrs.:
Homes Owned	12,000	600,000	588,000
Farms Operated	20,000	1,000,000	980,000
Businesses Conducted	2,100	50,000	47,900
Wealth Accumulated	20,000,000	$1,100,000,000	$1,080,000,000
Educational Progress—			
Per Cent Literate	10	80	70
Colleges and Normal Schools	15	500	485
Students in Public Schools	100,000	1,800,000	1,700,000
Teachers in all Schools	600	38,000	37,400
Property for Higher Education $	60,000	$ 22,000,000	$ 21,940,000
Annual Expenditures for Education $	700,000	$ 15,000,000	$ 14,300,000
Raised by Negroes $	80,000	$ 1,700,000	$ 1,620,000
Religious Progress—			
Number of Churches	700	43,000	42,300
Number of Communicants	600,000	4,800,000	4,200,000
Number of Sunday Schools	1,000	46,000	39,000
Sunday School Pupils	50,000	2,250,000	2,200,000
Value of Church Property $	1,500,000	$ 85,900,000	$ 84,400,000

Notes: Excerpt from Work, 1922 depicting Work's estimates of total Black wealth in the United states in 1866 and 1919. Data sources: *The Negro Year Book* (Work, 1922).

Figure A.2: Virginia auditor report, 1904

| All money on deposit with any bank or other corporation, firm, or person. Value.	Shares of stocks of incorporated companies.	TOTAL VALUE	Total value of personal property owned by whites.	Total value of personal property owned by negroes.	COUNTIES.
~~,~~~	....	1,193,1--	1,1--,---	2,010	Shenandoah.
29,389	....	570,785	566,695	4,090	Smyth.
45,226	10	1,782,249	1,574,839	207,410	Southampton.
7,282	....	348,807	304,423	44,384	Spotsylvania.
250	....	306,787	290,532	16,255	Stafford.
45,428	4,250	446,656	371,288	75,368	Surry.
34,798	....	609,788	510,358	99,430	Sussex.
97,602	....	1,242,088	1,221,560	20,528	Tazewell.
700	....	353,297	349,011	4,286	Warren.
1,550	....	149,739	115,799	33,940	Warwick.
18,605	....	748,168	739,670	8,498	Washington.
......	....	316,659	266,346	50,313	Westmoreland.
82,159	50	857,007	850,017	6,990	Wise.
103,220	10,000	1,124,340	1,117,860	6,480	Wythe.
3,500	....	252,476	204,429	48,047	York.
114,165	618,523	$80,254,537	$75,901,055	$4,353,482	Total, Counties.

Notes: Excerpt from Virginia's Annual Report of the Auditor of Public Accounts for the year 1904 showing county totals of personal property for white and Black Virginians separately. Data sources: Auditor of Public Accounts (1904).

Figure A.3: Aggregate Black wealth by state, 1860-1920 (in $1910-1914)
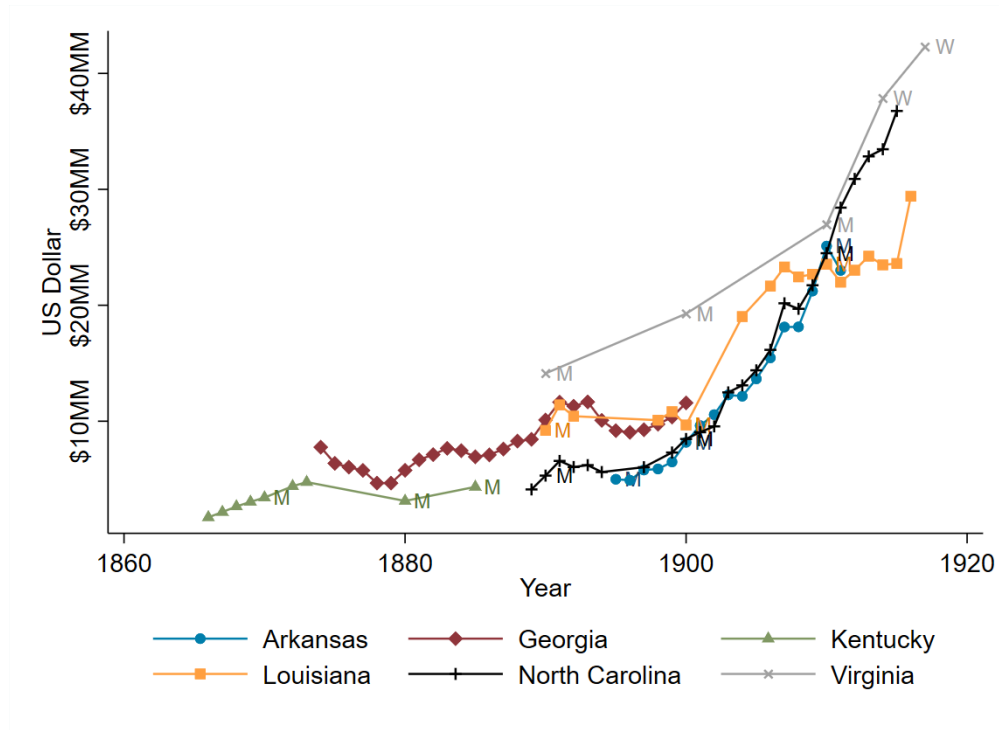
Notes: Measures of aggregate Black wealth for the six southern states with auditor reports recording Black and white wealth or tax payments separately (Arkansas, Georgia, Kentucky, Louisiana, North Carolina, and Virginia). Estimates are adjusted to be in $1910-1914 using the Warren-Pearson Index (United States Bureau of the Census, 1949). Data sources: Southern state auditor reports (see Appendix Section A.1); Du Bois (1901); Margo (1984a): "M"; and Work (1922): "W".

Figure A.4: White-Black per capita wealth ratio by state, 1860-1920
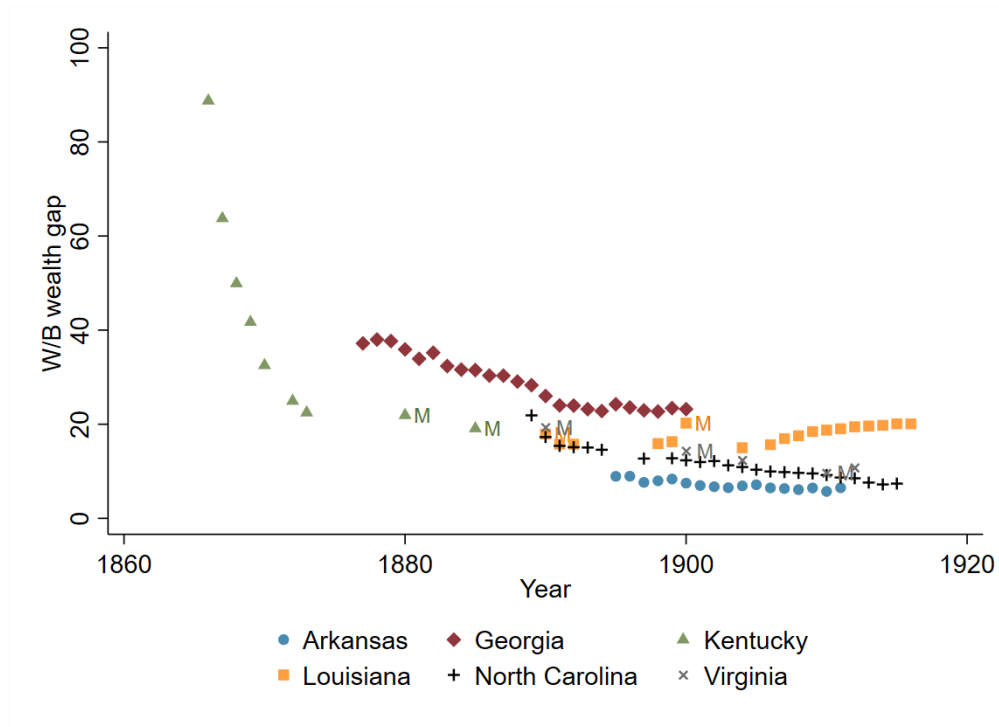
Notes: White-to-Black per capita wealth gaps for the six southern states with auditor reports recording Black and white wealth or tax payments separately (Arkansas, Georgia, Kentucky, Louisiana, North Carolina, and Virginia). Data sources: Southern state auditor reports (see Appendix Section A.1); Du Bois (1901); Cummings and Hill (1918); Margo (1984a): "M"; and Work (1922): "W".

Table A.1: White-Black per capita wealth ratios from state tax records

	1870	1880	1885	1890	1895	1900	1910	1910
Arkansas								
Margo (1984b)						9	7	6
Our estimates						9	7	6
Georgia								
Margo (1984b)								
Our estimates		36	36	32	26	24	23	
Kentucky								
Margo (1984b)	36	22	22	19				
Our estimates	33							
Louisiana								
Margo (1984b)					18		20	25
Our estimates					14		16	19
North Carolina								
Margo (1984b)					17		13	9
Our estimates					17		12	9
Virginia								
Margo (1984b)					19		14	10
Our estimates							13	11

Notes: Wealth gap estimates from state auditor reports. Margo (1984b) refers to the data originally collected from southern state auditor reports and reported for selected years in Table 1 of that paper (Margo, 1984a). Data sources: Our estimates are calculated from a new digitization of the same reports and supplemented with data from Du Bois (1901) on Georgia.

Appendix B Additional details on construction of the historical racial wealth gap series

This appendix provides additional details on the construction of our long-run series.

B.1 Top-coding in the 1860 and 1870 censuses

There are very few top-coded observations in the 1860 and 1870 census (211 in 1860 and 432 in 1870). To adjust for top-coding, we take the earliest available estimates for wealth concentration at the very top of the U.S. wealth distribution from (Saez and Zucman, 2016b). They report that the top 0.01 percent of tax units owned 8.8 percent of total wealth in 1913. To impute wealth levels of top-coded observations, we take national estimates of total taxable wealth from (United States Bureau of the Census et al., 1924), which was $16,159,616,068 dollars in 1860 and use this to derive an estimate for average wealth of the top 0.01 percent of tax units. In the Census data, we consider the household to be equivalent to the tax unit and replace all top coded observations using this estimate for average top wealth. In other words, we estimate that the 533 households in the top 0.01 percent of the population in 1860 held average wealth of 2,668,456 dollars. We proceed with the same steps for 1870 and estimate that the 771 richest households in the top 0.01 percent of the wealth distribution held average wealth of $3,432,867. The estimate for national wealth in 1870 is $30,068,518,507.

B.2 Alternative assumptions around bottom-censoring in the 1870 census

In the first step, we consider the 1860 census data that does not have censoring at 100 dollars for personal property. We use these data to estimate the share of persons with personal wealth of zero conditional on having wealth below 100 dollars. For the Black population, we include the enslaved population of 3,858,866 persons with personal property of 0 dollars. We find that 99.4% of the Black population and 97.5% of the white population in 1860 that report personal property below 100 dollars report zero dollars of personal property. In the entire population only 15.1% of all individuals, 17.3% of white individuals and 1.3% of Black individuals, report positive values for personal property in 1860.

We then consider the 1870 data and find that the recording of personal property in 1870 also contains slightly above 80,000 non-zero observations below 100 dollars whereas there should be none (54,000 white individuals, 26,000 Black individuals). We consider these records as the result of data collectors not following the instructions and also recording values below 100 dollars. Based on these records, we estimate separately for the Black and white population conditional means for personal property below 100 dollars in 1870, i.e., we compute the conditional mean for positive personal property below 100 dollars for Black and white individuals. For Black individuals, we get a mean of 39 dollars and for white individuals a mean of 48 dollars. We impute these means

to a fraction of individuals that according to our 1860 estimates should have non-zero personal property below 100 dollars, i.e., we match the 1860 share for the Black and white population with "true zeros." Before the imputation, average personal property of Black individuals was 15 dollars and it is 15 dollars after the imputation. For white individuals, we have 248 dollars of average personal property before the imputation and 249 dollars including the imputation. The share of individuals with zero wealth in the group of individuals with less than 100 dollars is 99.8% for white individuals before the imputation and it is 97.5% after the imputation. For Black individuals, the share of Black individuals with zero personal property conditional on having less than 100 dollars of personal property is 99.4% after the imputation unchanged from the 99.4% before the imputation. The shares for zero wealth after the imputation are targeted based on the 1860 data.

In both years, we replace missing observations with zeros. In 1860, we replace 2,004 observations for real estate and 1,608 observations for personal property. In 1870, we replace 329 observations for real estate and 355 observations for personal property.

B.3 Estimating Black wealth growth rates from state tax data

We use data from the state auditor reports described in Appendix A.1 to estimate growth rates of Black wealth, which we then use to extrapolate Black wealth as recorded in the 1870 Census until the year 1922, the last year for which we have national wealth estimates from the Census Bureau's "Wealth, Public Debt, and Taxation" report. Specifically, we regress log wealth in state s on a linear time term t and state fixed effects δ_s:

$$\log w_{st} = \alpha + \beta t + \delta_s + \varepsilon_{st}. \tag{6}$$

Figure B.1 plots predicted log wealth ($\hat{\log}_{st} = \hat{\alpha} + \hat{\beta}t + \hat{\delta}_s$) against observed log wealth for the six states using the estimated coefficients from regression equation 7. The figure shows a close fit to the data. Our extrapolation of Black wealth after 1870 using this estimated growth rate ($\hat{\beta}$) is described in Section 3.

B.4 Adjusting estimates from Work (1922)

In this section, we describe our procedure for adjusting our estimates derived from from Work (1926), Work (1931), and Work (1938) and national wealth data from Saez and Zucman (2016a). Incorporating the raw racial wealth gap estimates from combining these sources yields in a large upward jump in the time series for the racial wealth gap when compared to the census data that precedes these points and the SCF+ which follow them. The reason for the higher level of the wealth gap is the low level for Black wealth drawn from Work's publications. There is no similar jump in national wealth estimates when transitioning from data from Saez and Zucman (2016b) to the figures from the Census Bureau's national wealth report.

We surmise that Work's estimates are based on the same state-level tax data we use to estimate Black wealth for the early 20th century. One reason for this is that he describes changes in wealth in the same states for which auditor reports breaking wealth down by racial group are available. Assessed values for tax purposes are substantially below their market value in these years. Appendix Figure B.2 which excerpts from United States Bureau of the Census et al. (1924) shows the ratio of market values to assessed values for the early 20th century. If estimates in Monroe Work are based on tax records, then they will understate on average wealth of the Black population relative to the estimates for total wealth that are used to construct the wealth of the white population as a residual. To adjust for this, we scale the racial wealth gap for these three years by assuming a linear time trend between 1922 and 1950.

We proceed as follows. We first construct the linear time trend between the average wealth gap over the period from 1912 to 1922 as starting point and 1950 and 1953 as the end point of the linear trend. We compare the average wealth gap for 1926, 1930, and 1936 implied by the linear trend to the average wealth gap implied by the original estimates from Work (1922). We take the ratios of these averages as the scaling factor that we then apply to the original Work estimates to adjust them in levels. Using this approach, we keep the time series variation implied by the Work estimates and adjust only their levels over time. The resulting adjustment factor is 0.603, which implies that we scale down the wealth gap by about 40 percent. Reassuringly, adjustment factor is similar to the assessment ratios for taxable wealth depicted in Appendix Figure B.2, the state-level average of which is 57%. The close alignment of the calibrated adjustment factor and the assessment ratio is consistent with the conjecture that Work relied on tax data as a major source for his estimates.

Figure B.3 plots the full series containing adjusted estimates from Work, as well as the unadjusted estimates for 1926, 1930, and 1936.

Figure B.1: Log wealth and predicted log wealth for six southern states
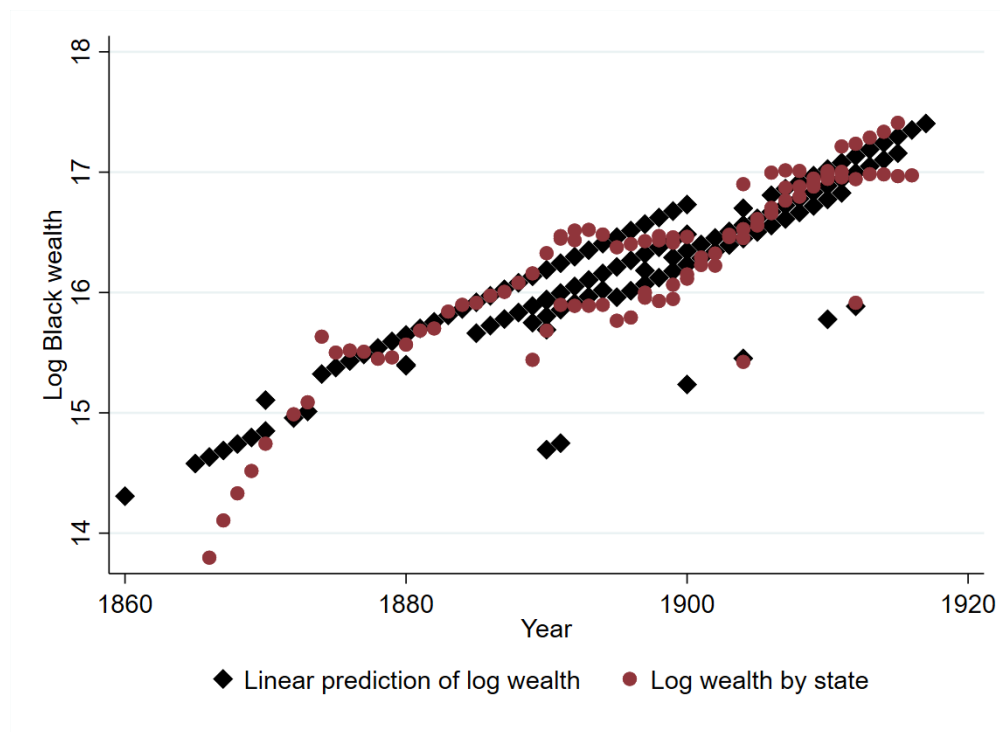
Notes: Log wealth and log wealth predicted using a linear time trend and state fixed effects. States included are Kentucky, North Carolina, Georgia, Arkansas, Virginia, and Louisiana. Data sources: Southern state auditor reports; Du Bois (1901); Work (1922); and Margo (1984a).

Figure B.2: Excerpt from U.S. "Wealth, Public Debt, and Taxation" report

PER CENT OF ESTIMATED TRUE VALUE OF REAL PROPERTY AND IMPROVEMENTS
REPRESENTED BY ASSESSED VALUATIONS

STATE	1922	1912	1904	1900	STATE	1922	1912	1904	1900
Alabama	47.7	40.0	45.9	46.7	Nebraska	70.1	15.0	17.7	13.7
Arizona	81.0	50.0	33.5	34.6	Nevada	50.0	30.0	37.7	36.5
Arkansas	22.6	28.0	38.7	39.4	New Hampshire	79.5	100.0	65.4	65.4
California	46.6	45.1	49.2	51.1	New Jersey	63.2	54.1	54.1	54.1
Colorado	73.6	25.0	40.4	30.8	New Mexico	43.0	25.7	25.7	35.4
Connecticut	63.2	66.7	80.7	80.2	New York	84.8	66.7	90.1	64.6
Delaware	77.5	56.7	56.7	56.6	North Carolina	75.7	60.0	60.0	54.2
District of Columbia	90.8	66.7	66.7	66.7	North Dakota	76.0	17.2	30.6	30.5
Florida	20.0	35.5	35.5	35.7	Ohio	70.2	90.0	46.4	47.6
Georgia	37.9	52.5	52.5	54.0	Oklahoma	62.3	[1] 50.0	25.1	24.5
Idaho	50.0	85.0	41.8	41.7	Oregon	43.5	63.5	30.1	29.8
Illinois	24.1	18.0	14.7	14.1	Pennsylvania	57.8	58.6	58.6	57.5
Indiana	80.2	45.0	60.3	62.1	Rhode Island	80.0	75.2	75.2	75.3
Iowa	12.7	11.7	19.8	20.1	South Carolina	20.3	33.3	46.5	47.1
Kansas	65.7	72.4	22.9	24.4	South Dakota	82.6	46.2	46.2	45.8
Kentucky	71.0	62.2	62.2	62.8	Tennessee	57.8	60.0	61.1	61.8
Louisiana	68.9	40.0	53.3	53.8	Texas	40.2	50.0	48.5	49.3
Maine	52.0	73.8	73.8	73.6	Utah	61.4	33.3	42.8	44.0
Maryland	64.0	65.8	65.8	65.5	Vermont	55.0	70.0	71.8	71.7
Massachusetts	77.5	90.6	90.6	90.4	Virginia	40.7	50.8	55.3	58.1
Michigan	85.2	58.7	62.7	62.7	Washington	28.0	42.3	46.0	47.7
Minnesota	34.7	37.1	37.7	36.6	West Virginia	40.0	49.7	49.7	51.2
Mississippi	44.5	54.8	54.8	54.2	Wisconsin	85.3	75.0	71.0	36.9
Missouri	59.1	40.0	40.5	42.0	Wyoming	72.4	100.0	31.4	30.2
Montana	28.7	43.5	43.5	45.7					

[1] Revised basis; in the report for 1912 the basis used was 25 per cent.

Notes: Excerpt from U.S. "Wealth, Public Debt, and Taxation" report. Data sources: United States Bureau of the Census et al. (1924).

Figure B.3: Historical racial wealth gap series with unadjusted Work estimates

Notes: The white-to-Black per capita wealth gap during 1860-2020, together with the per capita wealth gap in 1926, 1930, and 1936 using unadjusted estimates of national Black wealth from various editions of *The Negro Year Book*. Data sources: Authors' series; Work (1926), Work (1931), and Work (1938); and Saez and Zucman (2016b).

Appendix C Additional results, robustness checks, and sensitivity analyses for wealth gap series

This section presents additional results, robustness checks, and sensitivity analyses for our long-run wealth gap series whose construction is described in Section 3. We provide a summary of these results in Section 3.2 in the main text.

First, we explore the contribution of the abolition of slave wealth to the decline in the racial wealth gap after Emancipation. Figure C.1 presents the racial wealth gap when we exclude slave wealth from our 1860 estimate of white wealth while keeping our measure of per capita Black wealth the same. Excluding white wealth held in enslaved individuals reduces the racial wealth gap to 47 to 1. By comparison, the racial wealth gap in 1870 is 23 to 1. Growth in per capita Black wealth between 1860 and 1870 explains most of the reduction in the wealth gap over these ten years.

Figure C.2 considers the evolution of the racial wealth gap if we consider only the white population instead of the non-Black population in constructing the gap. Separate wealth information for white and non-Black individuals is only available in selected years. However, the differences between the two are nearly negligible in the historical period. In more recent decades, the wealth gap between white and Black Americans is larger than the gap between all non-Black versus Black Americans.

In Figure C.3, we examine the sensitivity of our racial wealth gap estimates to different assumptions around debt holding. Prior to 1950, we only observe gross wealth. We construct a lower bound for the wealth gap between 1860 and 1950 by assigning all observed aggregate debt in those years to the non-Black population. From 1950 onwards, we directly measure wealth net of debt for each racial group using the SCF+. This extreme assumption around debt holding lowers the racial wealth gap slightly in the historical period, with the biggest effects in 1870 (the gap declines from 23 to 20). In Figure C.4, we use the SCF+ microdata to compare the racial asset gap to the gap in net wealth from 1950 to the present. We find the asset gap to be slightly lower than the wealth gap throughout the whole period.

We explore the sensitivity of our racial wealth gap estimates to measuring wealth per capita vs. per household. Figure C.5 plots household size for Black and non-Black households over time. Differences in household size across racial groups are modest until the 1950s and 1960s and converge again in the 2000s. Figure C.6 compares the household-level racial wealth gap to our baseline series, which measures the per capita gap. We find that the two measures track each other closely due to the relatively small differences in household size over this period.

In Figure C.7 we leverage the richness of the SCF+ to compare different versions of the racial wealth gap in a single dataset. Despite some differences in levels, these alternative measures of the wealth gap show similar trends and fluctuations as our baseline series over this 70-year period.

C.1 Robustness of growth rate estimate for historical Black wealth

We rely on estimates of the growth rate of Black wealth to extrapolate its levels after 1870. In this section, we assess the quality and representativeness of our growth rate estimates using alternative data sources.

C.1.1 Comparison of growth rates in tax record states to national growth rates

As a first step, we show that Black wealth growth rates in the six states for which we have tax data are reasonably representative to those in the US as a whole over the same time period. We construct the growth rate in real wealth for the Black population measured as the difference in log real property values and log home values in the 1870 and 1930 censuses, respectively.[42] Figure C.8 shows the results. The dashed line in the figure shows the average across the six states (Kentucky, Arkansas, Virginia, Georgia, Louisiana, and North Carolina). The last bar depicts the national growth rate. We find that with the exception of Kentucky, for which we only have data for the 19th century, wealth growth rates in the six states are very similar to the national growth rate.

C.1.2 Black churches

In a second check, we provide an alternative estimate for Black wealth growth rates using information on the economic characteristics of Black churches. Black churches began forming before the Civil War and became centers of postbellum Black American life. New congregations would either buy land and build a structure for worshipping or would purchase white church buildings (Woodson, 1921; Rabinowitz et al., 1978). Typically, funds for church projects, buildings, and building improvements were raised from the community (Du Bois, 1903). According to Rabinowitz et al. (1978), Black churches became a testament to Black material progress after Emancipation. He writes that "[t]o trace the move of a church from its original building to another larger and more attractive one is to trace 'the progress of the race.'"

To measure the growth in the value of property owned by Black churches, we use data from the census of religious bodies. Table C.1 shows the wealth of Black churches in 1890, 1906, 1916, and 1926. Using these data, we regress log Black church property values on a linear time trend:

$$\log \text{Church Wealth}_t = \gamma + \beta^{\text{Church}} t + \epsilon_t. \tag{7}$$

We estimate an average growth rate ($\hat{\beta^{\text{Church}}}$) of 0.055, very similar to the trend in log Black wealth from the state auditor reports covering a similar period, from 1870 to 1917. This independent estimate of the growth rate from in Black wealth church property values corroborates our estimate from the state tax data.

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[42]We cannot separately identify home values from other real property in 1870, and the 1930 census does not include measures of personal property or real estate wealth beyond home values (for owner-occupied units).

Figure C.1: Wealth ratio, excluding slave wealth in 1860
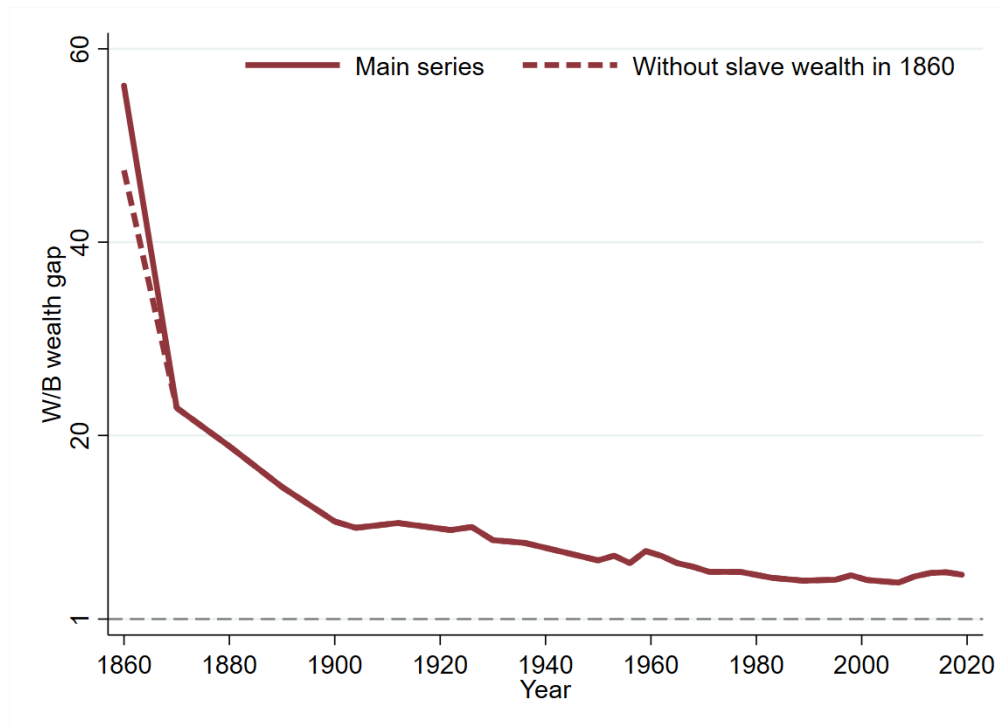
Notes: White-to-Black per capita wealth gap series with and with out slave wealth as part of our measure of white wealth in 1860. The solid line shows our baseline estimate (with slave wealth), and the red dashed line shows the gap when we exclude slave wealth. Data sources: Authors' series of the white-to-Black per capita wealth ratios from 1860 to 2020.

Figure C.2: Wealth ratio, excluding non-Black, non-white population
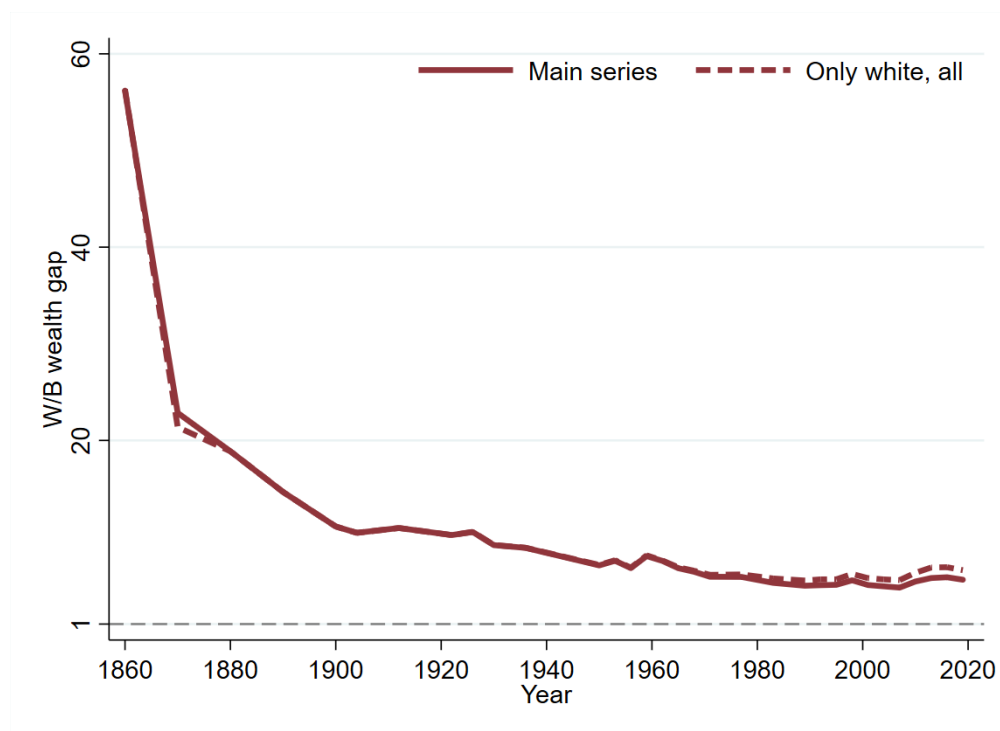
Notes: White-to-Black per capita wealth gap restricting the data to Black and white populations only. The red solid line shows our baseline estimate where we define white per capita wealth as non-Black per capita wealth. The red dashed line shows the wealth gap when we exclude the non-white, non-Black population from the sample for the years when direct measures of white wealth are available (1860, 1870, and 1950-2019. Data sources: Authors' series of the white-to-Black per capita wealth ratios from 1860 to 2020.

Figure C.3: Wealth ratio, adjusting for debt in the historical period
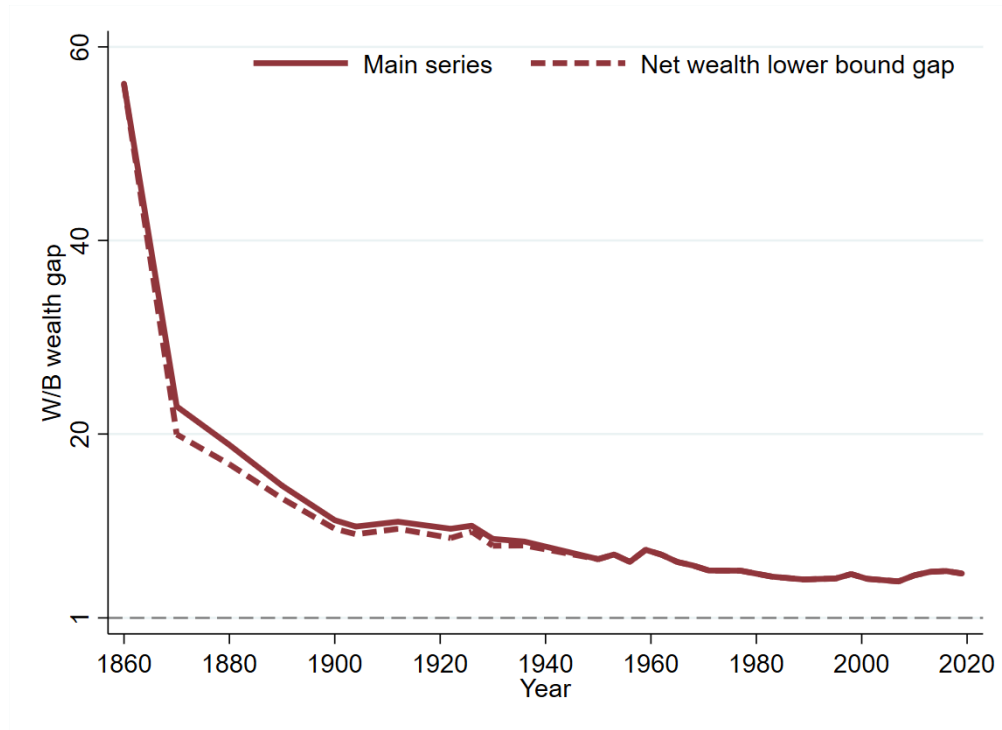
Notes: White-to-Black per capita wealth gap series with debt adjustments for the historical period (1870-1950). The solid line shows our baseline gap, which is the gap in gross wealth for the pre-1950 period. The dashed line shows our lower bound estimate of the wealth gap for this period, constructed by assigning all household debt to the non-Black population. Data sources: Authors' series of the white-to-Black per capita wealth ratios from 1860 to 2020.
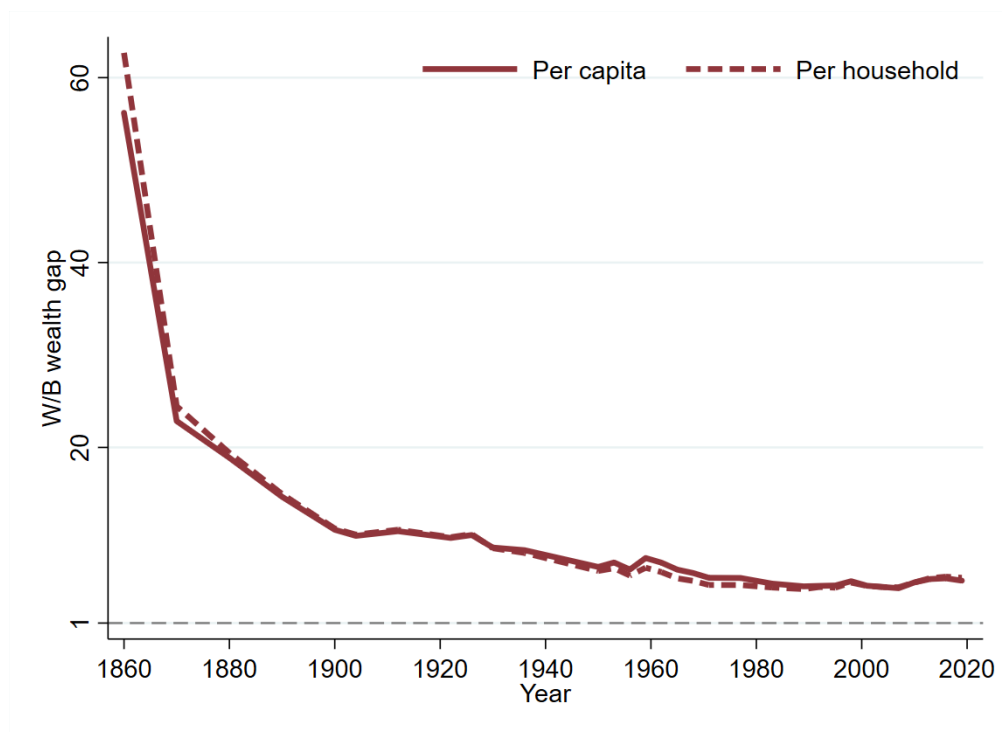
Figure C.4: Wealth ratio, ignoring debt
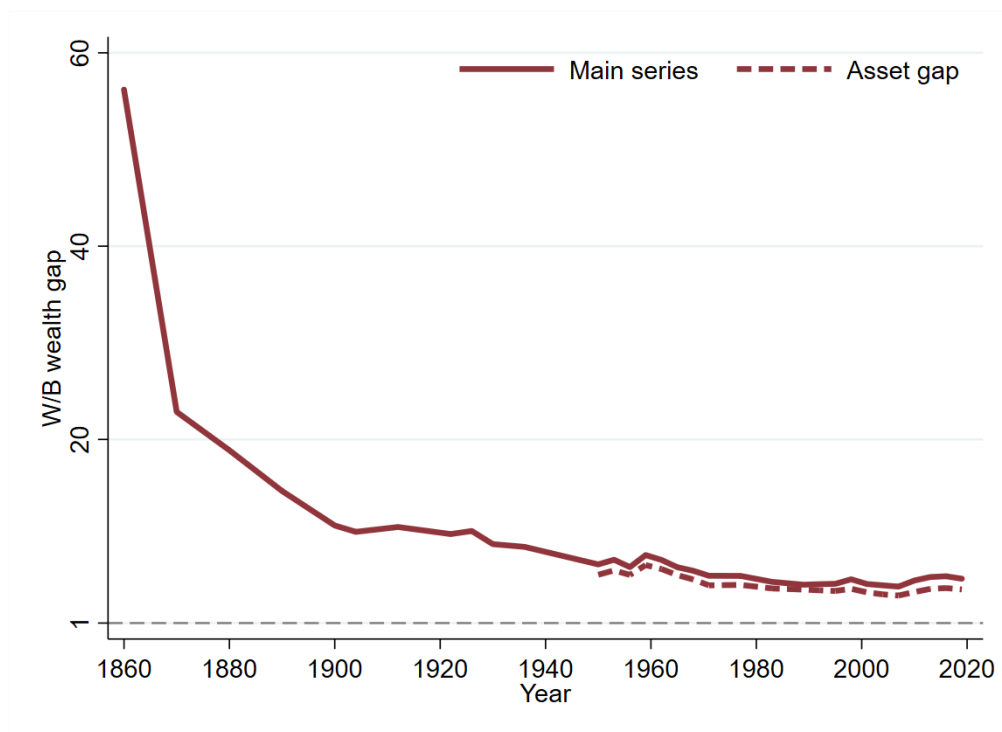
Notes: White-to-Black per capita asset gap series (excluding debt). The solid line shows our baseline series. The dashed line shows the racial asset gap after 1950 using SCF+ microdata. Data sources: Authors' series of the white-to-Black per capita wealth ratios from 1860 to 2020.

Figure C.5: Black and white household sizes, 1870-2020
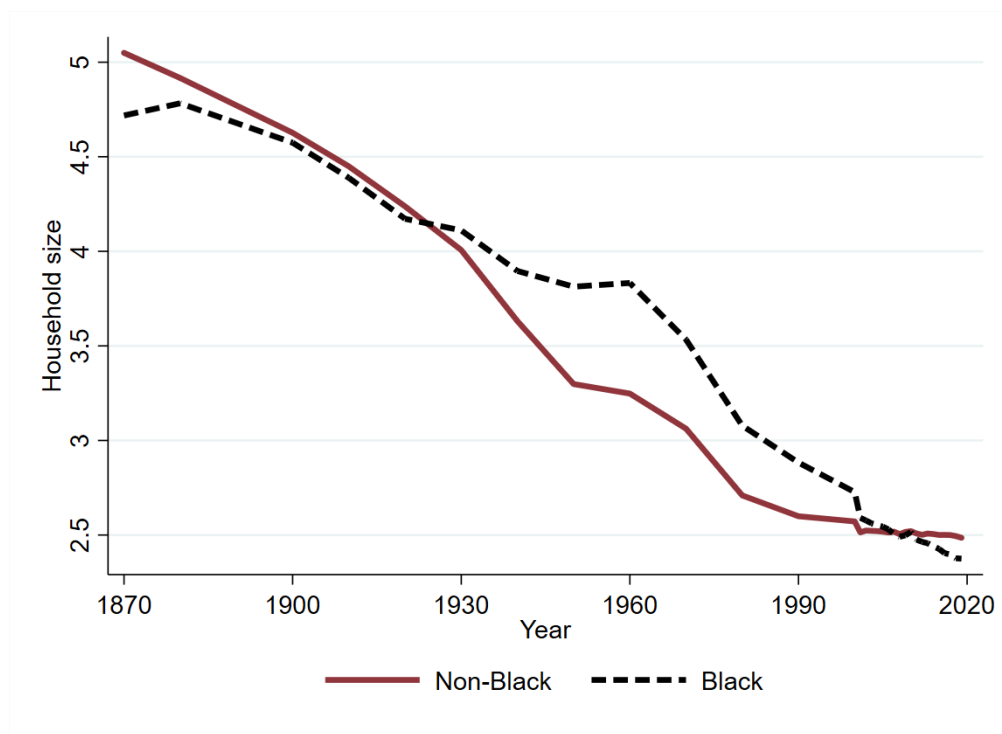
Notes: Household size by racial group from the census. The solid line shows non-Black household size over time. The dashed line shows Black household size. Data sources: Census (Ruggles et al., 2021).

Figure C.6: Per household racial wealth gap

Notes: White-to-Black wealth gap series at the household level. The solid line shows the wealth ratio at the per capita level and the dashed line depicts the household level ratio. Data sources: Authors' series of the white-to-Black per capita wealth ratios from 1860 to 2020.

Figure C.7: Comparison of alternative wealth gap measures since 1950
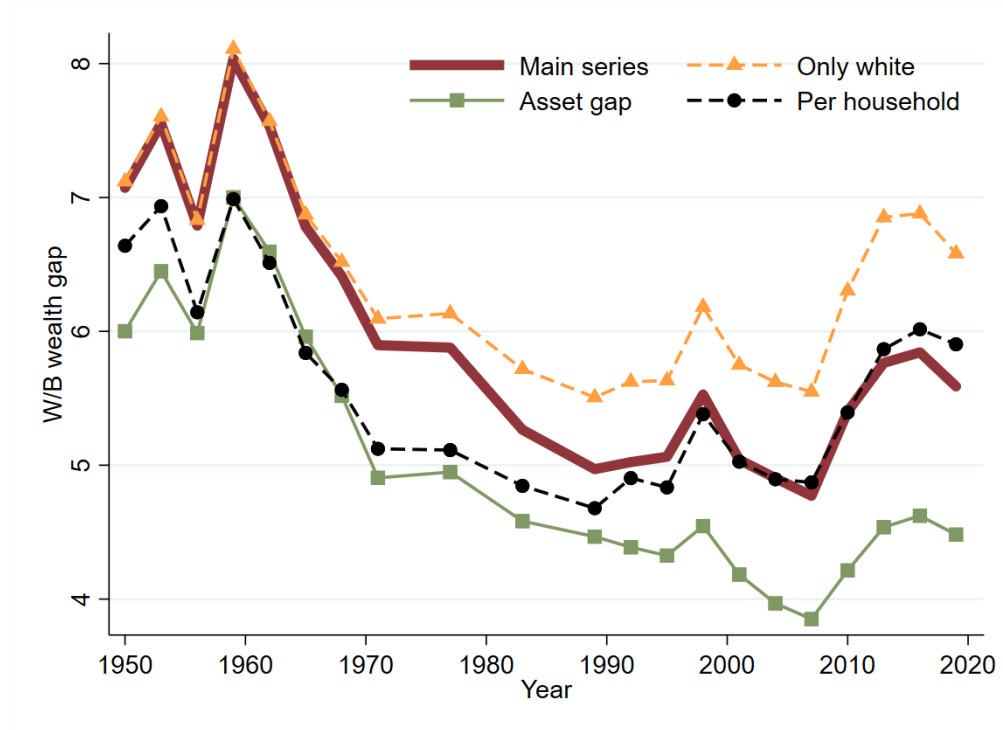
Notes: The figure shows alternative measures of the racial wealth gap from 1950 to 2020. The solid line shows our baseline series. The dashed line with triangles shows the racial wealth gap if non-Black population is restricted to the white population. The solid line with squares shows the racial asset gap, excluding any debt holdings of households. The dashed line with dots shows the racial wealth gap at the household level. Data sources: SCF+.

Figure C.8: Comparison of tax state wealth growth rates to national using census data
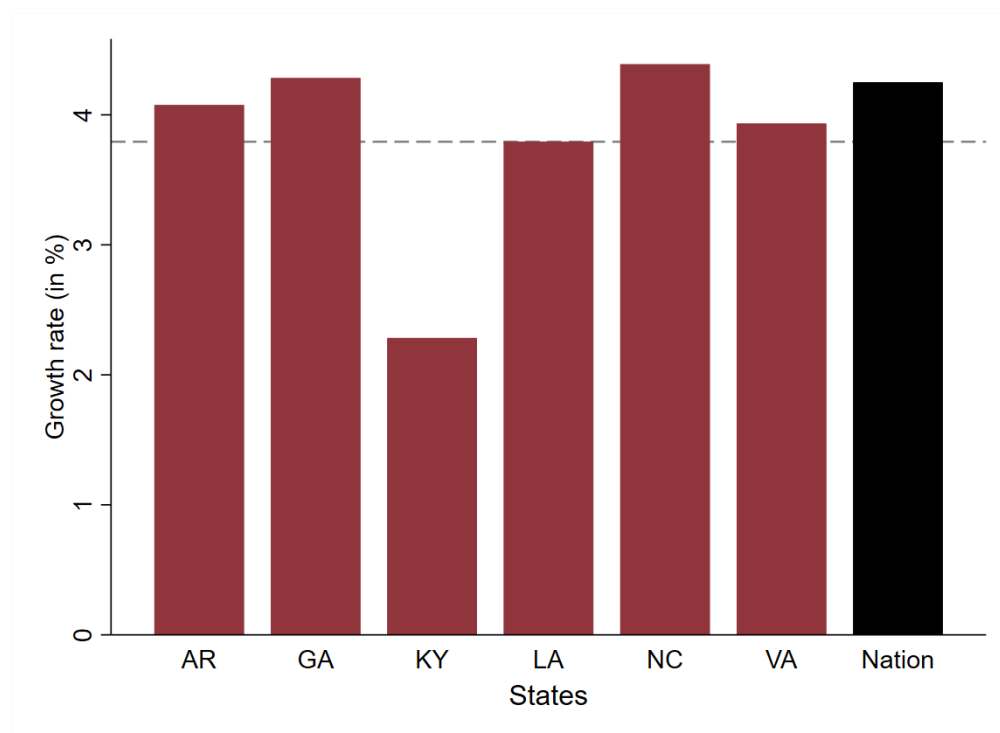
Notes: State-level and national growth rates in real property values. The horizontal dashed line marks the average growth rate across the six southern states with data on wealth by racial group from 1860 to 1917. The states are Kentucky, Arkansas, Virginia, Georgia, Louisiana, and North Carolina. The dashed line shows the average growth rate across the six states. Data sources: 1870 and 1930 complete-count censuses (Ruggles et al., 2021).

Table C.1: Value of Black churches, 1890-1926

	1890	1906	1916	1926
Value of Black churches	$26,626,448	$56,636,159	$86,809,970	$205,782,628

Notes: Data on the value of Black church property from 1890 to 1926. All values are current dollar values. Data sources: Census of religious bodies (United States Bureau of Census, 1992).

Appendix D Alternative wealth gap estimate for 1930

We construct an alternative estimate of the racial wealth gap in 1930 and 1940 combining estimates of total farm value by owner status and racial group from the census of agriculture and home values by race from the census of population. Below, we detail how we construct white and Black farm and housing wealth, followed by a discussion of the financial wealth gap between the two groups, which we do not observe at a national level.

Farm wealth gap   Tabulations of the census of agriculture from 1900 to 1940 provide breakdowns of total farm land and building value by racial group and owner status (owner, manager, or tenant). We calculate white farm wealth as the difference between total farm land and building values across all operated farms regardless of ownership status and total farm land and building values of Black-owned farms. We compute per capita farm wealth gaps from these two measures using the number of non-Black (NB) and Black (B) individuals:

$$\text{Per capita farm wealth gap} = \frac{\text{Farm wealth}^{NB}/\text{Non-Black pop}}{\text{Farm wealth}^{B}/\text{Black pop}},$$

where $\text{Farm wealth}^{NB} = \text{Farm value}^{\text{All}}_{\text{operated}} - \text{Farm value}^{\text{B}}_{\text{owned}}$ and $\text{Farm wealth}^{B} = \text{Farm Value}^{\text{B}}_{\text{owned}}$.

Housing wealth gap   We use the census of population microdata from 1930 and 1940 to calculate housing wealth gaps. The 1930 census is the first census in which enumerators elicited home values from homeowners. We construct per capita housing wealth gaps as follows:

$$\text{Per capita housing wealth gap} = \frac{\text{Housing wealth}^{NB}/\text{Non-Black pop}}{\text{Housing wealth}^{B}/\text{Black pop}}.$$

Thus, we measure the ratio of non-Black-to-Black per capita home values in these years.

We construct an alternative overall wealth gap for 1930 and 1940 by summing farm and housing wealth for each group and calculating the per capita wealth ratio for combined farm and housing wealth. The results are extremely close to our baseline series.

Figure D.1 shows the farm and housing wealth gaps as well as an alternative overall wealth gap that sums farm and housing wealth for each racial group and divides by their respective populations. We calculate an alternative wealth gap in 1930 of 8.8 to one and a gap of 8.5 to 1 in 1940.

A key category of wealth missing from the estimates above is financial wealth. We lack comprehensive data on the financial wealth of Black Americans in these years. To assess how our estimates of the wealth gap in this period would change with the inclusion of financial wealth we examine the gap in the state of Virginia, for which we have data generously shared by Clarke (2019). We describe this exercise below.

Financial wealth We examine the per capita white-to-Black financial wealth gap in Virginia using data on banking, including data on Black banks in the state.

We begin by estimating Black deposit wealth stored in Black banks in Virginia (Clarke, 2019).[43] Afterwards, we take into consideration that not all Black households would have deposited their money in Black banks and scale the deposit wealth estimate by $1/0.27$. The number 0.27 is coming from Pierce (2013), who shows that this was approximately the share of Black customers using Black businesses for various industries in the year 1944. For white bank deposits, we use the Virginia State Banking Commission Report which provides information on total deposits. We subtract this amount from our estimated value of total deposit wealth owned by Black Virginians.

Below is then our measure of deposit wealth gap per capita for each racial group in Virginia:

$$\text{Per capita deposit wealth gap} = \frac{(\text{Dep. wealth}^{NB})/\text{Non-Black pop}}{(\text{Dep. wealth}^{B}/0.27)/\text{Black pop}}.$$

Our final measure of the per capita white-to-Black deposit wealth gap is around 8 in 1920 and 13 in 1930, which we plot in Figure D.1. We now provide an alternative estimate of the wealth gap in 1930 taking into account financial wealth gaps.

For this exercise, we make two assumptions. First, we assume that the Black population in Virginia is representative of the total Black population in the US. Second, we assume that the deposit wealth gap applies to other financial asset classes, such as equity and fixed-income assets.

Under these assumptions, we adjust our measure of the overall wealth gap in 1930 by taking the weighted average of the farm and housing wealth gap with the financial wealth gap calculated using data from Virginia, where the weights are financial wealth's share of overall wealth in 1930, calculated using data from Saez and Zucman (2016a). Figure D.1 plots this alternative overall wealth gap estimate for 1930 that includes financial wealth using the above methodology. The gap is 12 to 1, which is higher than the gap including just farm and housing wealth. Nevertheless, this level of gap is reasonably close to our overall baseline series, particularly taking into account the uncertainty in our wealth gap estimates stemming from our estimates of Black wealth growth rates using southern state tax data.[44]

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[43]We thank Geoff Clarke for providing us with the balance sheet data and valuable advice on calculating Black financial wealth during the early 20th century.

[44]Figure D.1 also plots lower and upper bounds of the white-to-Black wealth gap from 1870 to 1922, the period for which we rely on southern state tax data. We calculate these bounds using the lower bound and upper bound of national Black wealth growth estimated using data from these states (for more details on the method, see Appendix A.1).

Figure D.1: Alternative wealth gap estimate for 1930 and 1940
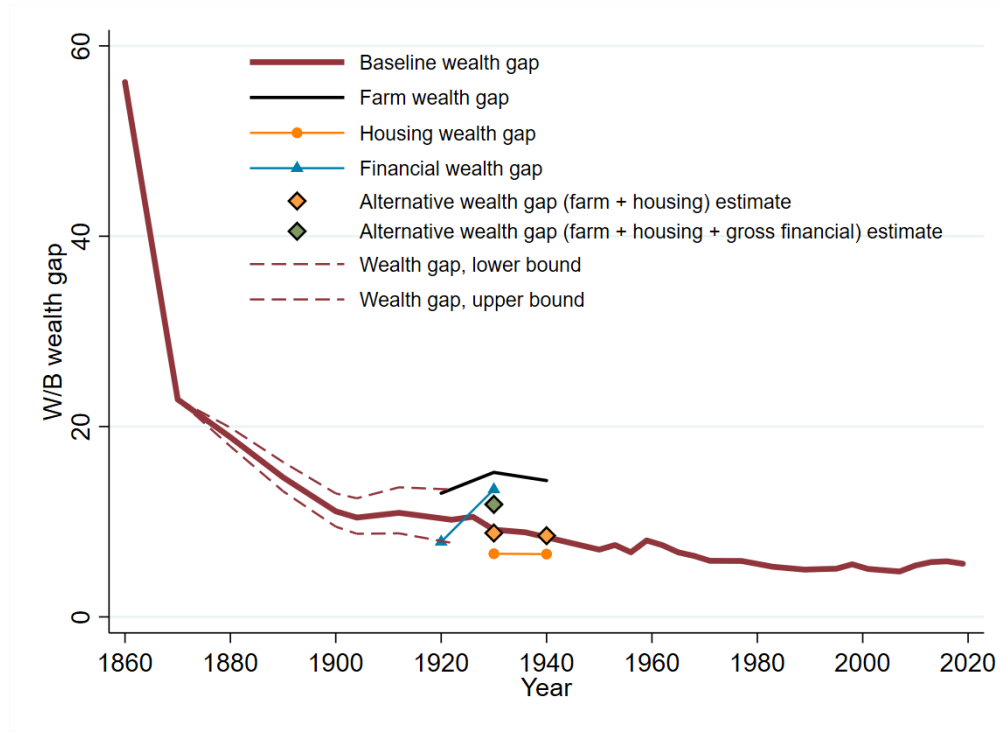
Notes: Alternative wealth gap estimates for 1930 and 1940. The thick solid line is our benchmark white-to-Black per capita wealth gap series. The thin solid line presents the per capita farm wealth gap using values of farm land and buildings from the census of agriculture. The solid line with dots depicts the per capita housing gap using census of population data. The solid line with triangles shows our estimate of the per capita financial wealth gap in Virginia using data on total deposits and deposits at Black banks. The diamond is our alternative per capita wealth gap estimate based on farm and housing wealth. The square is our alternative per capita wealth gap estimate that takes financial wealth into account using estimates of the per capita financial wealth gap in Virginia. The dotted lines present the lower and upper bound of the per capita racial wealth gap based on lower and upper bounds of Black wealth growth rates estimated using southern state tax data. Data sources: Authors' series; complete-count census data (Ruggles et al., 2021); census of agriculture digitized by the authors (United States Bureau of the Census, 1935; United States Bureau of the Census, 1943; United States Bureau of the Census, 1952); Clarke (2019); Saez and Zucman (2016b).

Appendix E Alternative wealth gap estimate for 1936

We use data from the 1935-1936 Study of Consumer Purchases in the United States (SCPS) (Bureau of Labor Statistics, US Department of Labor, 2009) to provide an additional alternative estimate of the white-to-Black per capita racial wealth gap during the 1930s. The SCPS was conducted jointly by the Bureau of Labor Statistics, the Bureau of Home Economics, and the Department of Agriculture, with the aim of documenting the earning and spending habits of Americans based on sampling units that represent the demographic, regional, and economic characteristics of the United States.

In order to obtain a measure of Black and white wealth, we apply the capitalization method of Saez and Zucman (2016b) on the flow variables in the SCPS data.[45] Even though the SCPS does not provide the full range of different capital income sources, we do have separate information on households' (i) rental income, (ii) business income, and (iii) dividend income from stocks, bonds, bank accounts, trust funds, etc., which cover a substantial amount of the total flows. In addition to the flow values, the SCPS also provides information on the value of the household's main dwelling, as well as of farms (for farm owners). We utilize this information as well to complement our final Black and white wealth measure.

Housing wealth Households' are asked to report the rental income on their first and second home. For the capitalization method, it is important that we only consider rental income of tenant-occupied housing. Therefore, we exclude households if they reported to have lived fully in the reported house. Afterwards, we apply the capitalization factor to obtain the stock value for tenant-occupied housing wealth. This we combine with the reported data on the value of the households' main dwelling and thus obtain an estimate for total housing wealth.

Business wealth The SCPS provides data on up to ten household members for labor and/or business income, as well as a separate measure for labor income only. We subtract these two to obtain a clean measure for households' business income.[46]

Financial wealth The information on financial wealth in the SCPS data does not differentiate between asset classes, but only provides the combined interest and dividend income from stocks, bonds, bank accounts, trust funds, etc.. We capitalize this income variable using a capitalization factor that we obtain from combining the capitalization factors of equities with the factor for fixed-income assets. Specifically, we weight the factor for equities by the share of equities in total household wealth relative to the share of fixed-income assets and vice versa for the fixed-income capitalization factor. These two weighted factors are then added together to form the combined

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[45]The capitalization factors for the different asset classes in 1936 can be found on Gabriel Zucman's website: https://gabriel-zucman.eu/uswealth/.

[46]It is not clear from the survey whether business profits other than labor income (from their business) are included in the category "business income".

capitalization factor that is applied to the interest income and dividends variable. Therefore, we assume that the composition of households' portfolios in the SCPS data broadly reflects the composition of U.S. household wealth by asset class in Saez and Zucman (2016b) which we use for weighting the two capitalization factors.[47]

Farm wealth   In the SCPS, we have information on the total acres of farm land and the the share of acres that is owned by the household. Furthermore, households report the value of land and buildings on that farm. We utilize this information to obtain a proxy for the farm wealth of full farm owners.

Alternative wealth gap 1936   After we obtain values of total housing wealth, business wealth, financial wealth, and farm wealth separately for Black and white households, we aggregate all components and divide by their respective population totals to calculate the per capita white-to-Black wealth ratio (WR_{1936}):

$$WR_{1936} = \frac{House^w_{1936} + Bus^w_{1936} + Fin^w_{1936} + Farm^w_{1936}}{House^b_{1936} + Bus^b_{1936} + Fin^b_{1936} + Farm^b_{1936}} \cdot \frac{pop^b_{1936}}{pop^w_{1936}}. \tag{8}$$

.

Table E.1 presents the results. In the first column, we present our benchmark per capita white-to-Black wealth gap of 1936, which is at a level of 9 to 1. In column 2 and 3, we present two estimates of the wealth gap using the SCPS, one without weighting the data (WR_{1936}), and the other employing post-stratification methods to obtain a nationally representative sample (WR^w_{1936}).[48] We find the estimates to be extremely similar. The close alignment between this independent estimate of the racial wealth gap using an alternative data source and methodology corroborates the scaling approach we applied to Black wealth estimates from Work (1926), Work (1931), and Work (1938).

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[47]With the SCPS, we are not able to obtain information on the households' cash holdings. Therefore, our estimated financial wealth gap may be larger than the true gap.

[48]We employ the post-stratification method developed by Berinsky (2006), using income-race-region cells for which we calculate weights such that the SCPS data matches the corresponding proportions of the 1940 U.S. census data. The data is weighted in several steps. First, we construct income (using quartiles to obtain four income groups), race (white, Black), and region (South, Non-South) cells in both the SCPS and the 1940 census data. Secondly, we calculate the proportions of each income-race-region cell for each data set. Lastly, we calculate the cell-specific weights w_c by applying the following formula:

$$w_c = \frac{\pi^C_c}{\pi^{SCPS}_c} \tag{9}$$

with c denoting a specific income-race-region cell and π^C_c and π^{SCPS}_c denoting cell proportions for census and SCPS, respectively. We let $w_i = w_c$ for each household i and by construction, the resulting weights are such that $\sum_i^N \frac{w_i}{N} = 1$. As a robustness check, we also compute weights using only race (white, Black) and region (South, Non-South) for a race-region cell definition. The results remain robust.

Table E.1: Per capita white-to-Black wealth gap in 1936

	1936 (data)	WR_{1936}	WR_{1936}^w
Wealth ratio (W/B)	8.9	9.00	9.15

Notes: Alternative estimate of the racial wealth gap based on data from the Study of Consumer Purchases in the United States (SCPS), 1935-1936. First column presents the white-to-Black per capita wealth gap in 1936 of our baseline series. The wealth ratio in the second column is our estimate from the SCPS without weighting the survey data. The last column presents the results with weights. Data sources: Authors' series; SCPS (Bureau of Labor Statistics, US Department of Labor, 2009).

Appendix F   Black-to-white wealth ratios and Black Americans' share of national wealth, 1860-2020

This section presents two alternative views of the racial wealth gap: the inverse wealth ratio (the ratio of Black-to-white per capita wealth) and Black Americans' share of national wealth.

Black-to-white wealth ratio   Figure F.1 plots the inverse of our baseline wealth gap measure. Rather than depict the white-to-Black per capita wealth ratio, here we plot the Black-to-white per capita ratio. This view of the wealth gap allows for a more nuanced view of the dynamics of the gap during periods with very low levels of Black wealth, such as the late 19th century. We find that the Black-to-white wealth ratio has increased almost linearly from about 0.02 to around 0.17 today. This alternative view of the wealth gap also highlights slow convergence during the height of the Jim Crow era as well as post-1980. Black wealth as a share of white wealth has fluctuated around 17% over the last four decades, with a sharp drop during the Great Recession.

Black share of national wealth   We also construct the time series of Black Americans' share of national wealth from 1860 to the present. Figure F.2 reports the results. In Appendix Figure F.1, we find that per capita Black wealth has represented a growing share of per capita white wealth over time. Figure F.2 instead depicts total Black wealth as a fraction of total national wealth. This measure is affected by per capita Black wealth holding but also by changes in Black Americans' share of the total population. We report the Black population share in Figure F.3.

In 1870, five years after the end of the Civil War, the Black population in the U.S. held just 0.5% of the nation's wealth despite representing 14% of the population. The Black share of wealth increased steadily over the late 19th century but saw little change from 1900 to 1940. The share then increased dramatically from 1950 to 1980. The reason behind the different evolution of the per capita wealth ratio and the wealth share stem from the time series variation in the Black population share over time (Figure F.3). From 1860 to 1940, a period which encompasses the era of mass European migration to the United States (approximately 1880 to 1920), the Black population share of of the U.S. population fell from around 14% to less than 10%. Between 1950 and 1980 the Black population share climbed back up to just under 12%. In the early 20th century, the forces of rapid Black per capita wealth growth and declining Black population share counteracted each other, producing a flat trend in the Black share of national wealth. From 1950 to 1980, continued Black per capita wealth growth and a rebound in the Black share of the population combined to produce a large increase in the Black share of national wealth. Still, by 2020, the Black share of national wealth is low relative to the population share, at 2.5% compared to a population share of over 12%. The Black population share today is still about five times Black Americans' share of national wealth.

Figure F.1: Black-to-white wealth ratio: 1860-2020
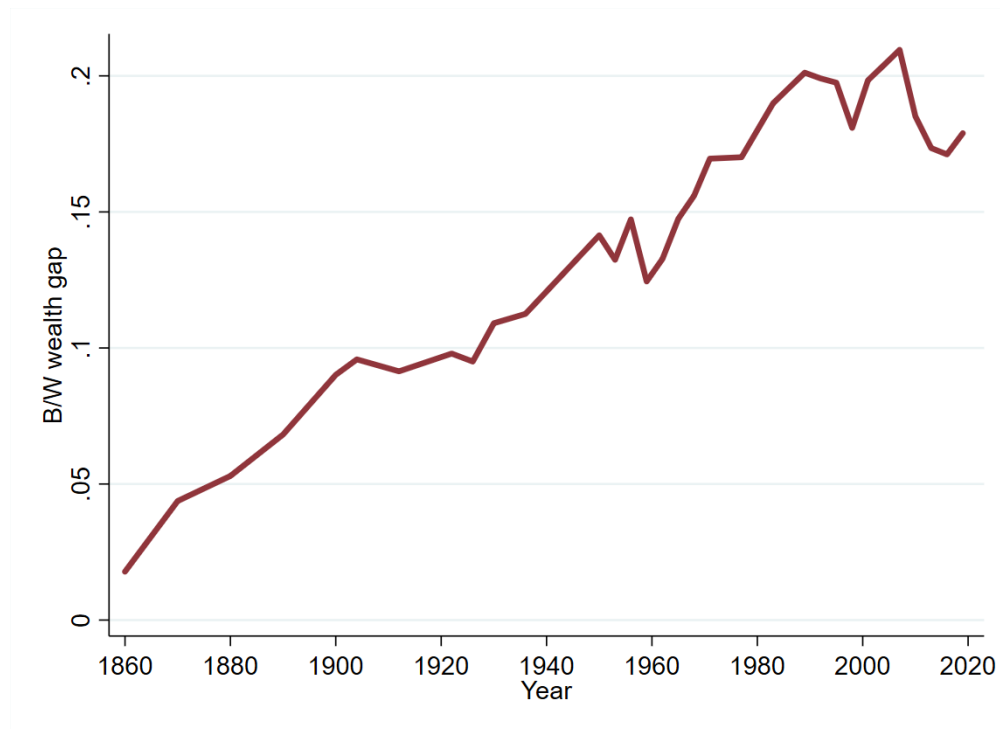
Notes: Authors' series of the Black-to-white per capita wealth ratio from 1860 to 2020. The Black-to-white wealth ratio is the inverse of our baseline series shown in Figure 1. Data sources: Authors' series of the white-to-Black per capita wealth ratios from 1860 to 2020.

Figure F.2: Black share of national wealth: 1860-2020
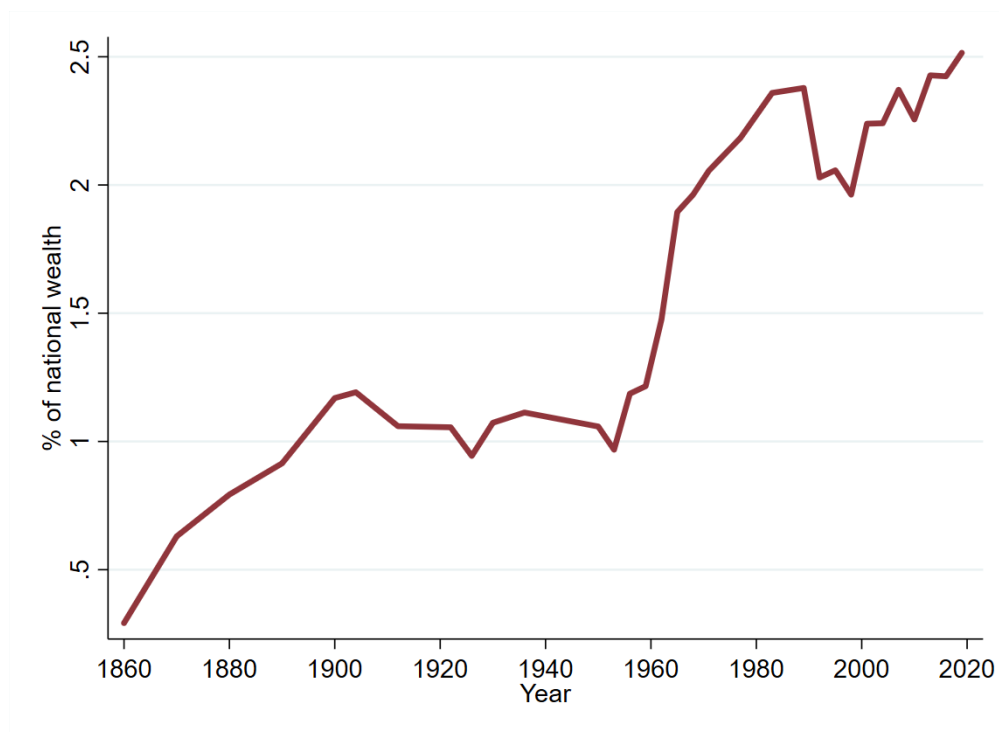
Notes: Authors' series of the Black share of national wealth from 1860 to 2020. Black share computed as total Black wealth as share of national wealth over time. Data sources: Authors' series of aggregate Black wealth and national wealth. Sources are described in Appendix A.

Figure F.3: Black share of U.S. population: 1860-2020
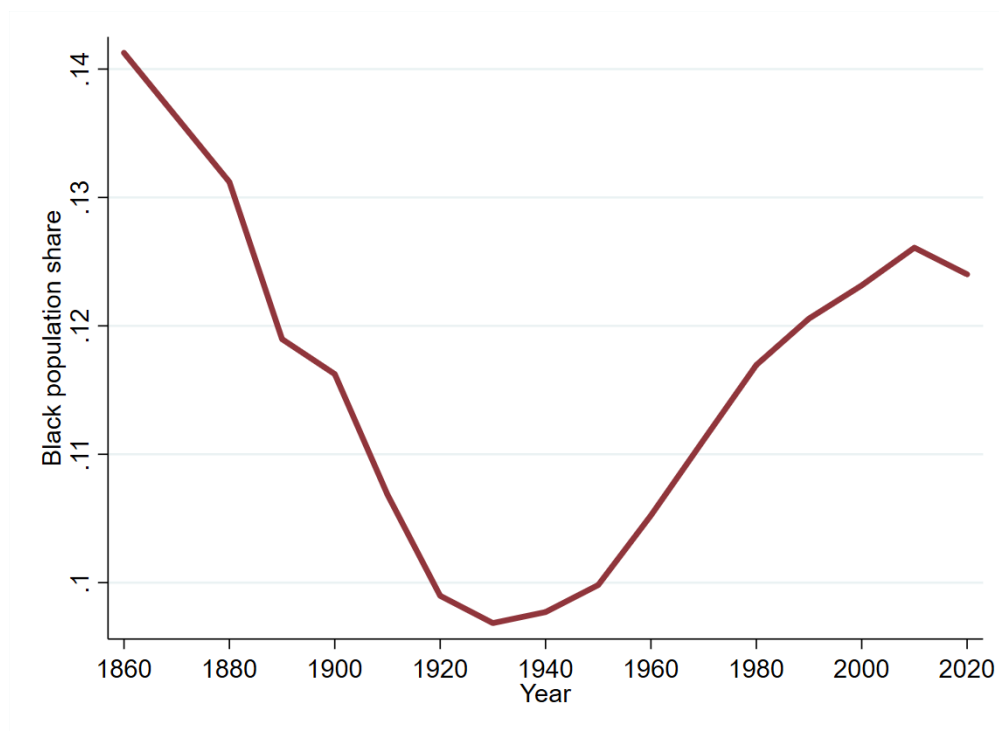
Notes: Share of Black population in the United States from 1860 to 2020. Sources: U.S. Census.

Appendix G   Homeownership and housing wealth gaps, 1860-2020

We construct a time series of Black and white homeownership rates from census data, which can be compared to the series published by Collins and Margo (2011). First, we extract all housing value and homeownership information from the complete-count census data for 1860, 1870, 1900, 1910, 1920, 1930, and 1940. We then add data from the American Community Survey (ACS) for 1960 through 2019. To construct a homeownership indicator in 1860 and 1870, we consider all households reporting positive real estate wealth to be homeowners, following Collins and Margo (2011). For 1860, we add the enslaved population and assume that a counterfactual household size for enslaved Black persons is equivalent to the household size of free Black persons in 1860, or about five individuals. The resulting share of 20% of counterfactual household heads among the enslaved population corresponds to the share in the free Black population (19.2%). We replace all missing housing values with zeros.

We construct time series for housing values and homeownership rates by collapsing data for homeownership and housing values by year for Black and non-Black heads of households.[49] Thus, unlike our measures of the wealth gap, the housing gap and homeownership gap are per household and not per capita. Home values in the census data are only available from 1930 onwards. From 1960 onwards, we use the ACS. Housing values in these data are top-coded with time varying top-coding levels (see Table G.1).

We currently do not adjust the housing wealth series from the ACS for top-coding but provide a comparison to data from the SCF+ for 1950 onwards, which does not have top-coding of housing values. We also replace values coded as missing with zeros. We collapse the data annually using census-provided person weights.[50] To construct housing values and homeownership rates in the SCF+, we take the value of housing assets and consider a household as owning their home if the household reports positive housing assets. We collapse data by SCF+ survey year, using survey weights.

Figure G.1 shows white and Black homeownership rates from census, ACS, and the SCF+, with linear interpolations for years when no data are available.[51] Results are highly consistent with Collins and Margo (2011). Homeownership rates for white households decline slightly between 1860 and 1940 and show a strong increase between 1940 and 1960. After this, white homeownership rates follow a modest upward trend after 1960 followed by a small decrease after the financial crisis of 2008. For Black households, there is a large increase in homeownership rates between 1870 and 1900. Between 1900 and 1940, Black homeownership rates remain flat at just over 20 percent. Homeownership rates for Black households increased strongly between 1940 and 1960 from just over 20 percent to almost 40 percent. There is a slightly increasing trend between 1960 and 2007 and a larger drop compared to white households after the financial crisis. Today, homeownership

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[49]Note, we do not make age or gender restrictions on household heads as in Collins and Margo (2011).

[50]These weights are equal to 1 in the complete-count censuses.

[51]Notably, the 1950 census microdata do not contain homeownership information.

rates of Black and white households are again at the levels they were in 1970 and a large racial homeownership gap persists.

The post-1950 data allow a comparison between SCF+ and census data. To improve estimates of the time series trends, we construct moving averages across three survey waves in the SCF+. Whereas the time series of homeownership rates for non-Black households can by accurately estimated using single survey waves, the moving average improves the estimated time series for Black households. Figure G.1 shows the estimated time series relative to the estimates from census data and show that the two estimates align closely, partly due to the fact that the SCF+ data has been stratified to the national homeownership rate.[52] The flatter slope of the increase in homeownership rates between 1950 and 1960 for both groups suggests a slightly more rapid increase during World War II.

In the next step, we compare the home values of Black and white households. We construct a housing value gap similar to our wealth gap series with the key difference that our housing gap is a per household gap, not a per capita gap. The gap that represents the ratio of the average home value of white households to Black households. We do not condition on homeownership so that the average home value also includes households with zero housing wealth. We also do not subtract debt to get home equity but consider the gross value of housing. In the SCF+ data, we again use three-wave moving averages as discussed above in the construction of homeownership rates. We offer two estimates based on SCF+ data. One estimate uses the reported housing value from the survey and the second one that we refer to as "top-coded" does not report values above the top-coding limit of the census from the nearest census wave (See Table G.1 for census top-coding values over time).

Figure G.2 shows the resulting home value gap series. Home value gaps in census align with those in the SCF+ data starting in 1960. In 1960, the ratio of average white households' housing assets to average Black households' housing assets was 3 and declined between 1960 and 1970 to around 2.5 where it still stands today. The gap moved downwards during the 1990s and 2000s, but increased substantially again after the financial crisis of 2008. The SCF+ shows a higher home value gap after 1960 at around 2.7, but the trend is similar to the gap estimated using census data. When we impose top-coding from the nearest census survey year to the SCF+ data, the housing gap is only modestly reduced. Before 1950, the census data show a much higher home value gap of 6 in 1940 and 6.5 in 1930. This gap falls by 50% between 1940 and 1960. As with the homeownership series, SCF+ estimates of the home value gap in 1950 fall below the linear interpolation of census home values for that year. This may be due to convergence occurring primarily between 1940 and 1950 and stabilizing thereafter.

Overall, between 1940 and 1960, Black households saw a large increase in homeownership rates than white households. Black homeownership rates increased by about 15 pp from 25% to 40% for the Black population and by 20 pp for the white population (from 45% to 65%). Expressed as a growth rate, the homeownership rate for the Black population grew by about 60% (from 25% to

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[52]The SCF+ also match trends in and levels of homeownership rates by age.

40%) and by 44% for the white population (from 45% to 65%). In growth terms, this increase for Black households exceeded that of white households and likely contributed to racial convergence in housing wealth during this period.

Figure G.1: White and Black homeownership rates, 1860-2020
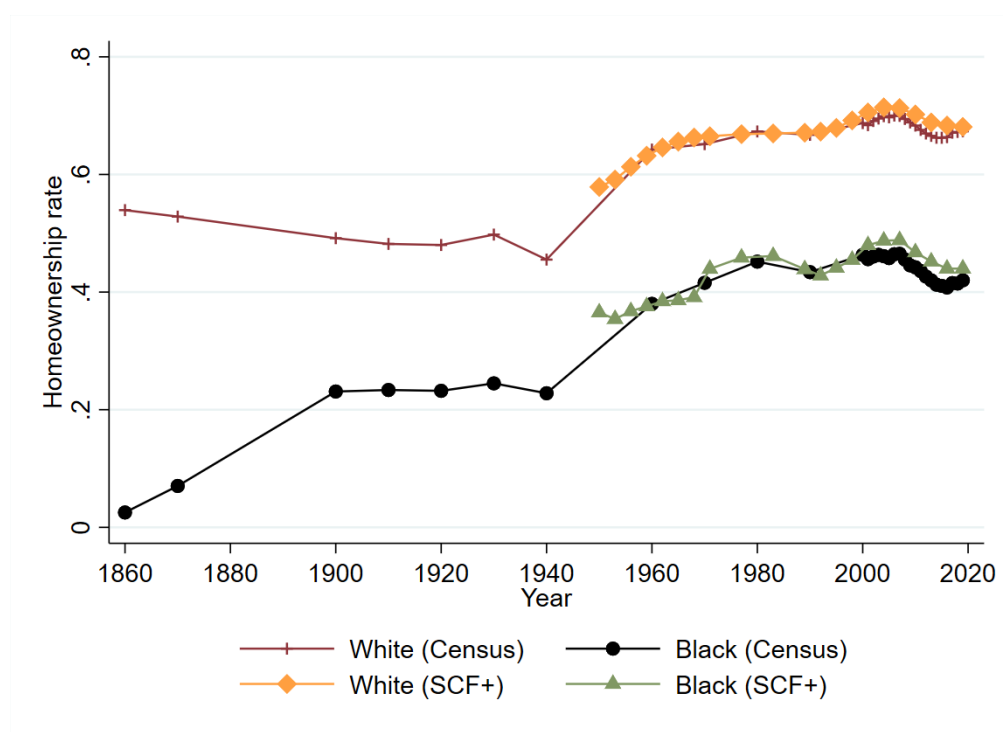
Notes: The line with cross marks plots white homeownership rates from the census, and the line with dots shows Black homeownership rates from the census. The squares and triangles show white and Black homeownership rates, respectively, estimated from the SCF+ microdata. Data sources: Census (Ruggles et al., 2021), ACS, and SCF+.

Figure G.2: White-to-Black per household home value ratio, 1930-2020
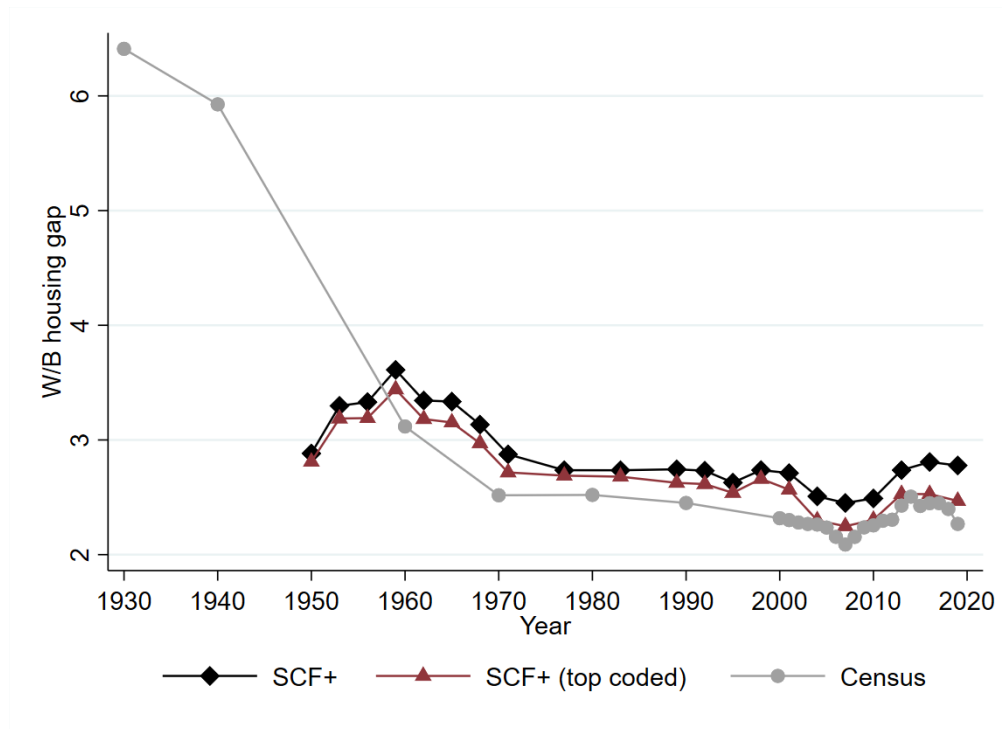
Notes: White-to-Black ratio of housing values per household over time. The dots show census and ACS data. The diamonds show SCF+ data, and the triangles show SCF+ data with the top-coding from census and ACS data applied (Table G.1). Data sources: Census (Ruggles et al., 2021), ACS, and SCF+.

Table G.1: Top-coding of home values in census and ACS

Census	Top Code
1960	$35,000
1970	$50,000
1980	$200,000
2000	$1,000,000
ACS (2000-2007)	$1,000,000

Notes: Top-coding boundary for housing values for different time periods in census data and the American Community Survey (ACS). All values are current U.S. dollars. Data sources: census and ACS data (Ruggles et al., 2021).

Appendix H   Racial gaps in q and s implied by fitting wealth accumulation model to the data

In section 4, we begin our simulation of racial wealth convergence based on our wealth accumulation model by assuming constant and equal wealth-accumulating conditions for Black and white Americans from 1870-2020. We do this to provide a benchmark for the path of convergence arising from initial gaps in wealth and income alone. The data show slower convergence relative to this benchmark, consistent with racial differences in capital gains (q) and saving rates (s). In this appendix, we quantify such differences by estimating the q^b and s^b that give us the best fit with our wealth gap series, assuming white households have capital gains and savings rates equal to the national averages, or $q^w = 1\%$ and $s^w = 5\%$.

We proceed as the following. Recall Equation 2, which is the law of motion of the per capita white-to-Black wealth gap:

$$WR_{t+1} \equiv \frac{W_{t+1}^w}{W_{t+1}^b} = WR_t \times \frac{1 + q^w}{1 + q^b} \times \frac{1 + s^w \frac{Y_t^w}{W_t^w}}{1 + s^b \frac{Y_t^b}{W_t^b}}. \tag{10}$$

The predetermined variables are the initial per capita wealth and income levels of Black and white Americans in 1870. We then simulate Y_t^w and W_t^w for $t > 1870$ using race-specific income growth rates (g^w, g^b) and the wealth-accumulating conditions of white Americans ($q^w = 1\%$ and $s^w = 5\%$). Afterwards, we estimate the parameters of interest $\theta = [q^b, s^b]$ that minimizes the sum of residuals between the fitted wealth gap $\hat{WR}_{t+1}$ and our actual wealth gap series WR_{t+1}.[53] By doing so, we impose that wealth-accumulating conditions have been worse for Black Americans, or $q^b < q^w = 1\%$ and $s^b < s^w = 5\%$. Our least squares method implies a savings rate of 3.9% and capital gains rate of 0.8% for Black Americans (see Figure H.1).

We examine whether racial differences in savings-induced wealth accumulation (s) or capital gains-induced wealth accumulation (q) have played the more dominant role in influencing racial wealth convergence over the past 150 years. To shed light on this question, we compare two counterfactual wealth gaps, one where we only allow for our estimated difference in saving rates ($s^w = 5\%$ and $s^b = 3.9\%$) while keeping capital gains equal across the two groups ($q^w = q^b = 1\%$) and the second where we only allow our estimated difference in capital gains ($q^w = 1\%$ and $q^b = 0.8\%$),

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[53]Our approach can be formally described with the following equation:

$$Z_t = g(X_t; \theta_0) + \varepsilon_t$$

$$\hat{\theta}_{NLS} = \underset{\theta \in \Theta}{\arg\min} \sum_{t=1}^{T} (Z_t - g(X_t; \theta))^2,$$

where the dependent variable Z_t is a non-linear function of observables (X_t), along with the parameters of interest θ_0 that lie in the parameter set Θ. Non-linear least squares methods estimate $\hat{\theta}_{NLS}$ that gives us the best fit to the data.

keeping savings rates equal ($s^w = s^b = 5\%$). The results are presented in Figure H.1. The thick dashed line represents the scenario with different saving rates and thin dashed grey line represents the scenario with different capital gains. This exercise points to a larger role for savings-induced wealth accumulation over the full 150-year period: the counterfactual wealth gap with only differences in saving rates yields a white-to-Black wealth ratio of 4.2 in 2019, while the counterfactual gap with just differences in capital gains is 3.5. However, as we note in Section 4.3, recent developments in the racial wealth gap suggest a growing role for racial differences in capital gains compared to savings-induced wealth accumulation.

Finally, as a robustness check on our non-linear least squares estimation approach, we also estimate q^b and s^b using Ordinary Least Squares (OLS) and our log-linearized version of Equation 2:

$$\underbrace{log\left(\frac{WR_{t+1}}{WR_t}\right) - s^w \frac{Y_t^w}{W_t^w}}_{\equiv Y_t} = (q^w - q^b) - s^b \underbrace{\frac{Y_t^b}{W_t^b}}_{\equiv X_t} \tag{11}$$

$$Y_t = \alpha + \beta X_t. \tag{12}$$

In order to estimate the parameters of interest ($\alpha = (q^w - q^b)$, $\beta = -s^b$), we need continuous values of Black and white income and wealth. Therefore, we simulate income over time using initial per capita income levels of Black and white multiplied by their annual income growth rates from 1870 to 2020. For wealth, we interpolate our per capita Black and white wealth data for periods when we do not have data. The results of the OLS regression is provided in Table H.1.

Using OLS, our point estimate of the saving rate for Black Americans is by 3.3%, which is very similar to our saving rate estimated with non-linear least squares (3.9%). Our OLS estimates imply that Black Americans had slightly higher capital gains, with a rate of 1.2% (as opposed to 1% for white Americans); however, our estimated gap $q^w - q^b$ is not significantly different from zero. These results underscore that racial differences in capital gains are unlikely to be the main factor driving the evolution of the racial wealth gap over the full historical period. Rather, racial differences in savings-induced capital gains have strongly contributed to the overall shape of the long-run wealth convergence.

Figure H.1: Simulation with estimated q^b and s^b
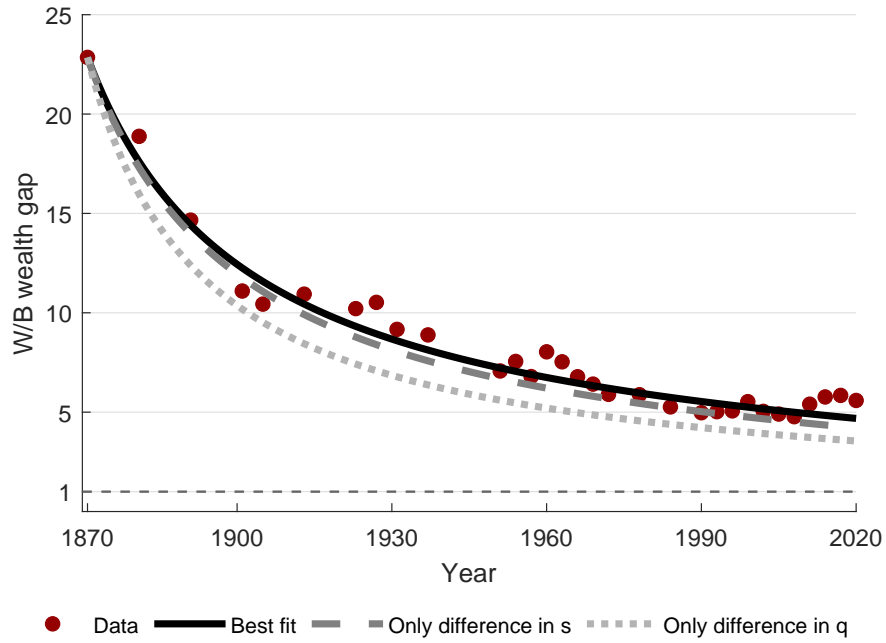
Notes: The grey dashed line is the simulation of Section 4, where we assume equal wealth-accumulating conditions throughout the whole simulation period 1870-2020 ($q^w = q^b$, $s^w = s^b$). The black solid line is the simulation result with q^b and s^b that gives us the best fit to the data. The red dots are our estimated wealth gap series. Data sources: Various, described in Section 3 and Appendix A.

Table H.1: Ordinary Least Squares: $\hat{\alpha}$ and $\hat{\beta}$

	Coefficients	Lower Bound	Upper Bound
$\hat{\alpha} = q^w - q^b$	-0.002	-0.012	0.007
$\beta = -s^b$	-0.033	-0.052	-0.013

Notes: Results from OLS regression. The first column presents the estimated coefficients. The last two columns show their lower and upper bounds using 95% confidence intervals. Data sources: Various, described in Section 3 and Appendix A.

Appendix I Estimating racial differences in q and s using the SCF+

I.1 Racial differences in savings rates

We estimate racial differences in savings rates using the synthetic saving rates approach of Saez and Zucman (2016b), applied to Black and white households separately.[54] As a first step, we decompose the accumulation of personal wealth at the U.S. aggregate level using an asset-specific accumulation equation, which decomposes the growth of a given asset into a volume effect (saving) and a price effect (capital gains or losses). Each asset (and liability) type that enters wealth portfolios can be expressed as

$$A_{t+1} = (1 + q_{t+1,A}) \cdot (A_t + S_{t,A}), \tag{13}$$

where A_{t+1} and A_t are the real value of an asset from households' wealth at time $t + 1$ and t, and $S_{t,A}$ is the net-of-depreciation saving flow of the respective asset type A in time t. $q_{t+1,A}$ is then the real rate of capital gain (or loss) from asset type A between t and $t + 1$. Since A_{t+1}, A_t, and $S_{t,A}$ can be observed in the National Accounts, $q_{t+1,A}$ is estimated as the residual of equation (13).

As a next step, we turn to the SCF+ and estimate the synthetic savings of all asset (and liability) classes for Black and white households separately. Again, for a given asset type A, a white (or Black) household accumulates wealth following the following transition equation:

$$A_{t+1}^j = (1 + q_{t+1,A}) \cdot (A_t^j + S_{t,A}^j), \tag{14}$$

with $j = \{b, w\}$ representing the two racial groups. Since we have estimates of the capital gains (or losses) for each asset class and A_t^j is observable from the SCF+, this time $S_{t,A}^j$ is estimated as residuals of the accumulation equation (14) and is denoted the "synthetic savings" for group j.[55] Total savings of households is then the sum of all savings in each asset class included in their wealth portfolio. We then divide total savings by total income to calculate savings rates by racial group.

One concern with the synthetic savings method applied to the SCF+ is that the data are a repeated cross-section, not a panel of individuals. Therefore, it is not possible to track changes in assets held by a certain individual from time t to $t + 1$. This is particularly problematic in cases of estimating saving rates of different groups separately, where individuals can migrate across groups (Mian, Straub, and Sufi, 2020; Smith, Zidar, and Zwick, 2021). Given the stability of racial identity in the U.S., we do not believe this concern applies in our context. Nevertheless, we conduct an

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[54]For similar approaches, see Wolff (2017), Bauluz and Meyer (2021), and Bauluz, Novokmet, and Schularick (2022).

[55]In order to obtain an adequate measure of savings, it is crucial to harmonize the asset class definitions of the SCF+ with the national accounts to match the accumulation equations 13 and 14. We follow the wealth definitions of Bauluz and Meyer (2021).

additional robustness check on our estimate of Black and white savings rates differentials using panel household survey data from the Panel Study of Income Dynamics (PSID). Following Dynan, Skinner, and Zeldes (2004) and Juster et al. (2006), we estimate Black and white households' "active" savings rates during 1984-2019 (s_t^j, where $j = \{b, w\}$), which is the total net amount of assets A that households newly purchased ($\sum_A NP_{t,A}^j$), relative to their total income Y_t^j:

$$s_t^j = \frac{\sum_A NP_{t,A}^j}{Y_t^j}. \tag{15}$$

The PSID provides information on the net purchase amount of the following asset categories: real estate other than main dwelling, farm or businesses, corporate equity, and IRAs. With respect to other asset classes, such as other financial assets and main dwelling, we proceed in the following manner. For savings in main dwelling, we assume that the active savings of families living in the same house between two consecutive waves equals the change in their mortgage principal and investments in home improvement. For households moving between two consecutive waves, we define active savings as the change in their home equity.

With respect to other financial assets, we assume that households do not earn any capital gains, such that the change in value between two consecutive waves reflect their net purchase amount. Finally, we also control for amounts of wealth transferred into a household due to a new household member moving in, as well as wealth transferred out due to a current household member moving out. We further exclude increases in assets coming from inheritances. For income, we calculate the average total income of households during two consecutive waves and multiply this with the number of years between these waves.

Note that the PSID only provides wealth data starting from 1984, such that we are only able to derive the active saving rates for the post-1980 period. In Table I.1 we compare our post-1980 white-Black gap in savings rates using the SCF+ and PSID. Results are highly similar across the two datasets and approaches.[56]

I.2   Racial differences in capital gains

We estimate racial inequality in capital gains following the approach of Xavier (2020), where we assume that households experience the same capital gains within each asset class. Thus, the only differences in capital gains we allow for are those stemming from differences in wealth portfolio composition.

We define the total capital gains of Black and white households (q^j, $j = \{b, w\}$) as the weighted

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[56]Racial differences in savings rates can arise from differences in socioeconomic characteristics. Dal Borgo (2019), for example, analyzes saving rate differentials of 50-65 year old household heads by race in the U.S. and provides evidence that the differences in white-Black active savings can be solely explained by their socio-demographic characteristics, such as income.

sum of the capital gains on different asset classes based on their share of assets:

$$q_t^j = \sum_A \omega_{t,A}^j q_{t,A}, \tag{16}$$

where $q_{t,A}$ denotes the capital gains on asset class A and $\omega_{t,A}$ its weight as a share of total assets at time t. For $q_{t,A}$, we take estimates of real capital gain rates on equity, housing, business, and mortgage debt from Saez and Zucman (2016b), and we calculate the wealth portfolio shares $\omega_{t,A}$ using the SCF+. In Table I.2, we present the average capital gains on housing (both assets and debt), equity, and businesses, together with the average capital gains on total wealth portfolios by race.[57]

Overall, we observe that white households have experienced higher capital gains than their Black counterparts throughout the whole 1950-2020 period, a difference of 0.58 percentage points on average. However, this difference emerges entirely in the post-1980 period. Between 1950 and 1980, the racial difference in capital gains was zero. During this period, the equity market experienced large negative capital gains (-2.96% per year). At the same time, housing assets grew only slightly (by 0.7% per year), and capital gains on debt was large (around 4%). After 1980, both the equity and housing market experienced a boom. Nevertheless, equity experienced a much stronger increase in value (nearly 430%) compared to housing assets (a 50% increase). Since Black households hold only a small share of their total wealth in equity, this divergence between the equity and housing markets led to an overall divergence in Black and white individuals' capital gains.

The above approach to estimating racial gaps in capital gains ignores the role of potential racial differences in returns within an asset class. Recent evidence suggests such differences exist. Kermani and Wong (2021) document differences in housing returns stemming from Black homeowners' greater likelihood of foreclosure and short sales. Black homeowners also face higher effective property taxes compared to white households, due to systematic differences in assessed-to-market value ratios by race (Avenancio-León and Howard, 2019). Finally, Kroeger and Wright (2021) show that Black businesses are shorter lived than white-owned businesses, and leading to greater incidence of business closure translates and its associated costs on Black business owners. Still, we show in Section 4.3 that racial differences in portfolio composition alone are more than enough to explain the increase in the racial wealth gap between 1983 and today.

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[57]We assume that fixed-income assets do not experience capital gains.

Table I.1: White-to-Black differences in saving rates: SCF+ vs. PSID

	SCF+	PSID
post-1980s	1.15 p.p.	1.08 p.p.

Notes: Differences between white and Black saving rates ($s^w - s^b$) in the SCF+ versus the PSID. For our estimates from the SCF+, we apply synthetic savings methods, and for our estimates using the PSID, we estimate active saving rates using data of the PSID. Both approaches are described in detail in Appendix I. Data sources: SCF+ and PSID.

Table I.2: Capital gains: 1950-2020

	Housing		Equity	Business	cg^w	cg^b	$cg^w - cg^b$
	Asset	Debt					
1950-1980	0.69%	4.23%	-2.96%	1.39%	-0.36%	-0.36%	0.00%
1980-2020	1.00%	4.54%	7.34%	-0.90%	1.26%	0.61%	0.65%
Whole sample period	0.87%	3.99%	2.93%	0.08%	0.63%	0.46%	0.58%

Notes: Estimated capital gains rates and capital gains rate differences between Black and white households. See Appendix I for details on estimation. Data sources: SCF+ and Saez and Zucman (2016b).

Appendix J   The racial wealth gap along the distribution

Our analysis thus far has focused on mean wealth holdings and the average wealth gap, primarily due to a lack of microdata on Black and white wealth in the historical period. However, prior work has shown that the U.S. wealth distribution is highly skewed with a large difference between median and mean wealth holding (Kuhn and Rıos-Rull, 2016). In this Appendix section, we provide descriptive evidence on racial wealth gaps along the distribution using the SCF+, which provides microdata on wealth. This analysis sheds light on how the racial wealth gap varies along the distribution and what forces drive the gap at different points in the distribution compared to the mean.

Figure J.1 shows the evolution of the white-to-Black wealth gap at the mean, median, and 90th percentile of the household wealth distribution as well as growth rates in median wealth by racial group for the period 1950 to 2020.[58] Throughout the entire period, the wealth gap at the median (Figure J.1a) has been substantially larger than the wealth gap at the mean or 90th percentile. The wealth gap at the median in 1950 was nearly 25 to 1. By 1970 this number has fallen substantially, reaching a level of 10 to 1, however the gap has remained at this level for the last 5 decades. In contrast to the wealth gap at the median, the gap at the mean and 90th percentile have changed very little over the last 70 years, ranging from just under 5 to around 7 to 1. What can explain the sharp drop in the median wealth gap, particularly between 1960 and 1970? In Figure J.1b, we show the growth rates in median wealth by racial group for each decade between 1950 and 2020. Black wealth at the median grew dramatically between 1960 and 1970, precisely when the wealth gap at the median fell by more than half. This stark increase in median Black wealth during this decade suggests that civil rights era policies and improvements in labor standards that disproportionately benefited Black workers, may have also translated into absolute and relative improvements in the wealth position of median Black households.

Table J.1 sheds light on which asset classes account for the improved wealth position of the median Black household. We show the mean gross values of different assets, mean net wealth, and average total debt for households in the bottom 50%, 50-90%, and top 10% of each racial group's wealth distribution over time. Between 1950 and 1980, Black households in the bottom half of the Black wealth distribution saw large increases in housing wealth, liquid assets, and other non-financial assets. By contrast, bonds and equity wealth did not increase for the bottom 50%. Between 1980 and 2010, the median wealth gap is quite stable. Nevertheless, these decades saw large increases in equity and bond wealth for Black households in the bottom 50%. Increases in housing wealth were more modest. Overall, however, these improvements have been counteracted by large increases in debt-holding for this group, and net wealth for the bottom half of the Black wealth distribution actually fell in real terms between 1980 and 2010. In contrast to this, white

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[58]We focus on the household-level gap in this section in keeping with the sampling frame in the SCF+, which is a household-level survey. As shown in panel (a) of Figure C.6, the household-level and per capita wealth gap do not differ substantially from each other. Nevertheless, as a robustness, we also calculated per capita wealth gaps at the median and 90th percentile by using the average household size of the 45th-55th percentile and 85th-95th percentile, respectively. Results remain robust.

households in the bottom 50% of the white wealth distribution have seen average wealth increase in all asset classes from 1950 to 1980 and from 1980 to 2010. Furthermore, although debt also increased for this group, net wealth still grew.

Detailed information on household asset portfolios in the SCF+ allows us to examine asset-specific wealth distributions by racial group. We summarize this information in Table J.2. The table shows the mean, median, and 90th percentile of wealth in that asset for Black and white Americans in 1950, 1980, and 2010, in $2019. A number of striking facts emerge from this analysis. First, as can be seen in the first panel of Table J.2, median holdings were zero within any asset class for Black households in 1950, indicating sizeable inequality in the distribution of assets. Even today, only the median of non-financial assets and liquid financial assets are positive for Black households. By contrast, the median holdings of housing and stocks – the two asset classes that experienced the greatest price gains over the last four decades – are typically zero for Black households. Hence, the median asset position for Black households resembles a situation of a household with a bank account and a car, but no notable savings that can yield high financial returns or capital gains. As a consequence, any capital gains in stocks or housing over the last decades bypassed the majority of the Black population whereas the median white household has always been a homeowner. Although the median white household did not benefit from rising stock prices, they still gained from rising house prices.

Moving further up the Black and white wealth distribution, we find that differences in asset positions across the two groups close to some extent. At the 90th percentile, Black households have positive holdings of all asset classes over time, yet equity holdings only turn positive during the 2010 decade. Differences in equity are large throughout these seven decades. In 1950, the 90th percentile of equity holdings of white households was more than double the wealth at the 90th percentile of the Black household wealth distribution. The 90th percentile of the Black wealth distribution increased in value between 1950 and 1980, but by 2010 this progress had reversed again. Hence, equity holdings at the top of the white equity wealth distribution grew more than the 90th percentile of overall Black wealth. Thus, while the overall wealth gap at the 90th percentile declined slightly over time, the gap remained at about 4.5 during the 2010 decade.

J.1 Racial wealth rank gap

The above discussion motivates examining an alternative measure of racial wealth inequality along the distribution. At each percentile of their respective wealth distributions, Black households have held lower levels of wealth than their white counterparts. Another way to represent this inequality is to measure the wealth rank gap: the difference between a Black household's percentile in the Black wealth distribution and the position that household would hold in the white wealth distribution. This method was pioneered by Bayer and Charles (2018) who examine the evolution of racial income gaps since 1940. Applying this technique to racial wealth in equality, we present the racial wealth rank gap at the median and the 90th percentile in Figure J.2.

As might be expected given the evidence presented above, Black households' position in the white wealth distribution has always been lower than their position in the Black wealth distribution. On average over the 1950-2020 period, Black households at the median have been 24 percentiles behind median white households. Black households at the 90th percentile of the Black distribution have been 28 percentiles behind 90th percentile white households. Figure J.2 also highlights dynamics in the rank gap. The median Black household saw a slow but steady closing of the rank gap between them and median white households, starting from a gap of 30 in 1950 and falling to a gap of 20 by 2010.[59] The rank gap at the 90th percentile has been more stable over time. Nevertheless, from 1970 to 1990, the 90th percentile Black households strongly improved their relative position, rising from the 55th to 65th percentile of the white wealth distribution. However, after 1990, the rank gap at the 90th percentile has remained roughly constant.

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[59]In 2020, we observe a slight deterioration of their position to 28th percentile, likely due to the differential effects of the Great Recession.

Figure J.1: The racial wealth along the distribution

(a) Wealth gap

(b) Growth rates in median wealth by racial group
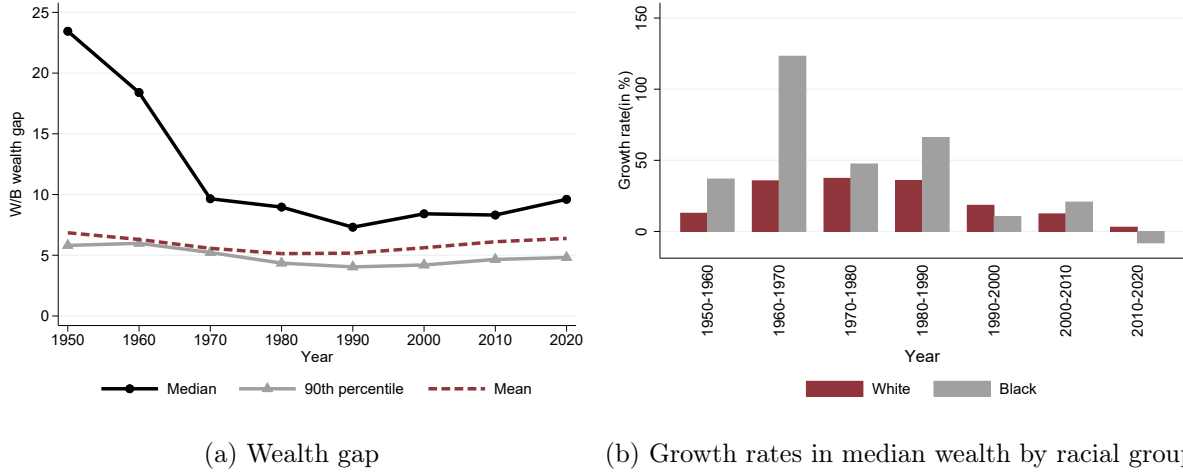
Notes: Panel (a) presents the household-level white-to-Black wealth gaps at the mean, median, and 90th percentile. Panel (b) presents growth rates in Black and white wealth at the median for each decade from 1950 to 2020. Data sources: SCF+.

Figure J.2: Racial rank gaps for net wealth at the median and 90th percentile

(a) Median
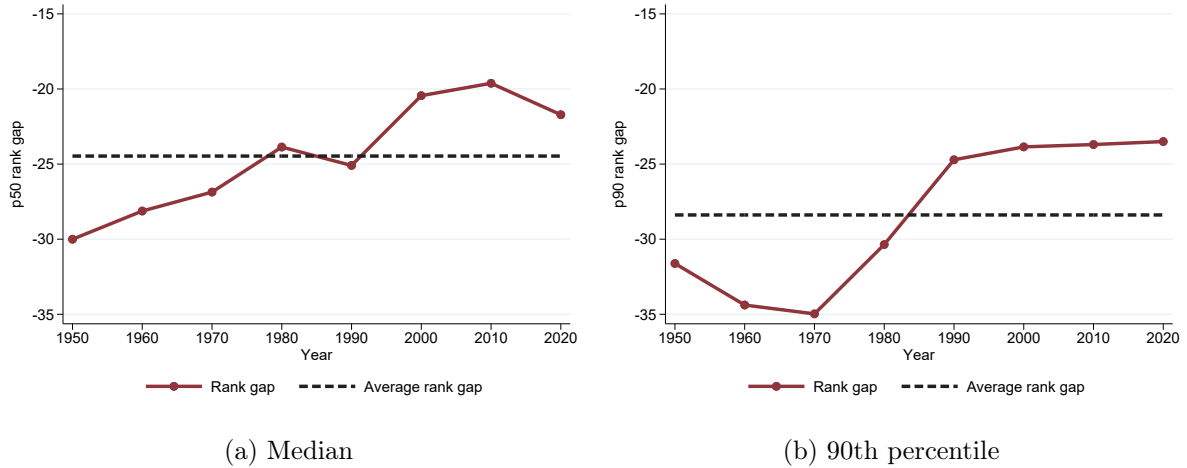
(b) 90th percentile

Notes: The racial rank gap is the difference in percentage points between the rank that the wealth level of the median and 90th percentile takes in the wealth distribution of white households and the rank of the median white household. Dashed line shows the long-run average of the racial wealth rank gap. Data sources: SCF+.

Table J.1: Portfolio composition along the wealth distribution, 1950-2020

	White			Black		
	Bottom 50%	50%-90%	Top 10%	Bottom 50%	50%-90%	Top 10%
1950						
Housing	11,578	81,475	211,709	8,777	74,490	150,962
Other non-financial assets	3,982	6,324	7,891	1,332	4,911	8,064
Bonds	1,095	6,721	42,723	210	1,045	4,285
Equity	444	18,158	960,158	58	23,391	794,589
Liquid financial assets	2,829	14,003	60,868	919	4,783	14,310
Net wealth	10,846	112,411	1,262,223	5,881	91,899	952,045
Total debt	9,083	14,271	21,125	5,415	16,720	20,164
1980						
Housing	30,581	174,121	596,327	23,693	138,157	614,169
Other non-financial assets	7,116	14,938	33,630	5,629	14,728	98,476
Bonds	622	3,198	76,490	185	951	5,565.39
Equity	1,103	18,149	972,893	167	14,059	388,680.73
Liquid financial assets	6,304	34,567	121,649	3,896	21,682	35,044
Net wealth	25,721	217,928	1,865,101	18,893	171,903	1,131,058
Total debt	21,872	40,581	65,030	15,839	31,039	41,085
2010						
Housing	67,117	282,972	1,392,797	37,734	260,536	1,233,594
Other non-financial assets	14,666	29,925	96,117	9,166	23,669	85,040
Bonds	3,476	41,952	392,895	2,345	34,520	159,914
Equity	5,344	79,321	2,022,536	2,772	44,783	1,067,539
Liquid financial assets	4,571	35,546	286,162	2,546	24,530	97,225
Net wealth	23,587	395,380	4,641,114	13,114	308,490	2,584,225
Total debt	73,935	109,596	227,501	43,079	103,164	236,915

Notes: The table shows mean asset positions, net wealth, and debt for Black and white households from different parts of their respective wealth distributions in 1950, 1980, and 2010. All values are in 2019 dollars. Housing includes other real estate. Equity includes business wealth. Also, bonds and equity include indirect holdings in form of mutual funds and DC pensions. Data sources: SCF+.

Table J.2: Black and white wealth distributions by asset class, 1950-2020

	White			Black		
	Mean	Median	90th	Mean	Median	90th
1950						
Housing	62,911	34,645	148,989	20,678	0	61,553
Other non-financial assets	5,400	2,596	14,712	1,953	0	7,497
Bonds	7,985	0	16,499	403	0	185
Equity	111,692	0	142,293	11,101	0	0
Liquid financial assets	13,850	2,382	36,053	1,687	0	3,622
Net wealth	189,248	46,999	340,631	28,548	1,956	59,803
Total debt	12,589	634	43,923	7,275	660	21,026
1980						
Housing	158,569	100,935	343,567	55,287	2,717	135,874
Other non-financial assets	13,592	8,391	28,876	8,959	3,242	22,122
Bonds	10,508	0	4,637	422	0	184
Equity	123,603	0	122,232	9,708	0	0
Liquid financial assets	31,961	5,386	81,148	7,725	648	19,250
Net wealth	322,036	107,966	595,354	66,877	17,197	140,867
Total debt	35,022	6,438	102,876	19,085	2,531	64,010
2010						
Housing	331,872	164,726	686,356	111,295	0	306,345
Other non-financial assets	31,836	18,120	58,912	13,923	7,358	33,580
Bonds	69,993	88	137,363	12,727	0	28,476
Equity	347,705	5,491	474,769	32,433	0	38,436
Liquid financial assets	54,082	6,398	98,835	9,427	988	17,282
Net wealth	773,925	164,616	1,366,768	126,579	16,802	301,459
Total debt	109,422	35,141	294,562	60,836	11,052	191,334

Notes: The table shows mean, median, and 90th percentile asset positions, net wealth, and income for Black and white households from the full sample period of the SCF+. All values are in 2019 dollars. Housing includes other real estate. Equity includes business wealth. Also, bonds and equity include indirect holdings in form of mutual funds and DC pensions. Data sources: SCF+.

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