Racial Wealth Gap Discussion Paper Series

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Accounting for Black-White Wealth Differences

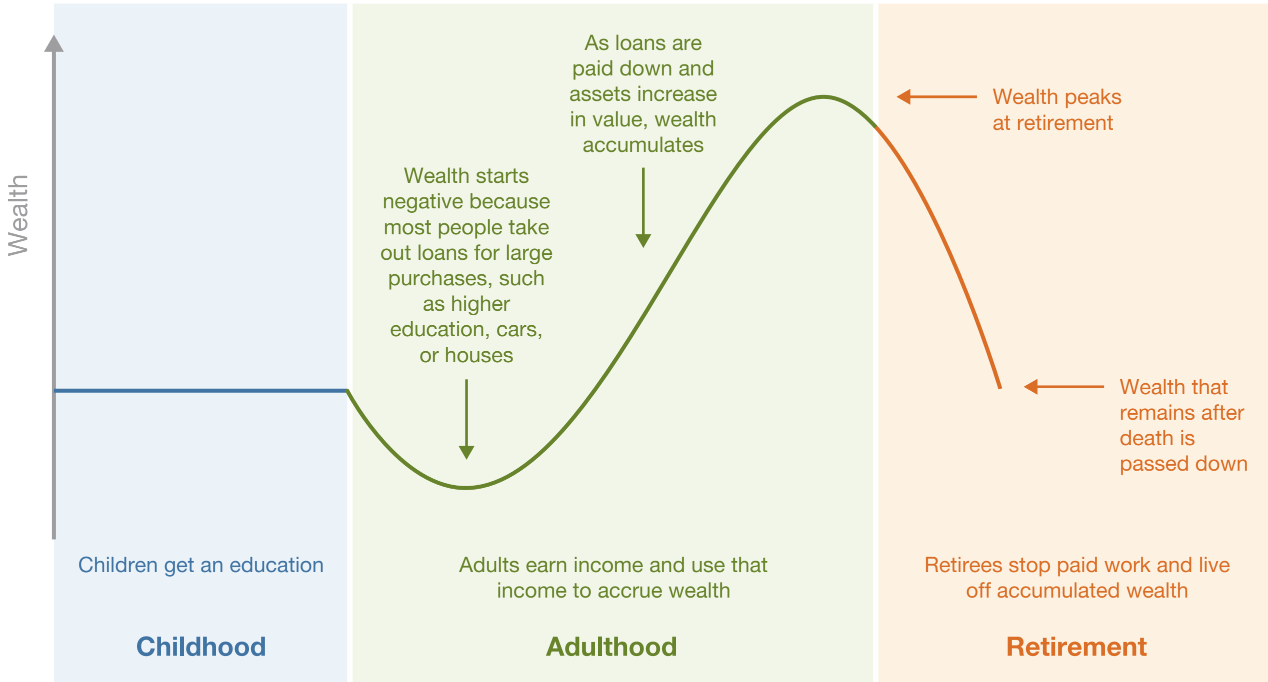
A Stylized Model of Wealth Accumulation

Wealth is a measure of all economic assets owned by an individual, determined by taking the total market value of all assets minus the total market value of all debt. For middle-class Americans,[1] about 65 percent of wealth consists of their principal residence, or home; 15 percent is in (non–Social Security) retirement accounts; and 8 percent is in cash savings or other liquid holdings. The remaining 12 percent is a mix of less frequently held assets, such as other real estate, stock holdings, and business equity (Wolff, 2021).

Wealth: Individual Choices Versus Persistent Dynasties

In Figure 1, we show a stylized and simplified path of wealth accumulation, as an individual might experience it. In childhood, on average, wealth is flat; individuals do not have their own money or

FIGURE 1
First-Person View of Wealth Accumulation



assets. After entering adulthood, individuals get a job, earn an income, and start building wealth. How much they can save and the size of the debt purchases that they can finance are a function of their income. At first, wealth is negative because they must take out loans to finance large purchases, such as a mortgage to buy a home. Although individuals could be saving and investing at the same time (say, in a retirement account), the returns on those investments are initially low. As loans are paid back and investments mature, individuals accumulate wealth (i.e., wealth becomes positive). This continues until individuals retire, when they live off that accumulated wealth until they die. If there is any wealth left after their death, it is inherited by their children or family.

From this perspective, the accumulation of wealth is determined by a mix of choices and ability—how smart an individual is, how much they earn, how much they save, which investments they make, how many investments they make, when they retire, and how well they budget (i.e., live within their means). An individual's work and choices decide the shape of their wealth-accumulation path. Yet, this first-person determination of wealth is incomplete. Figure 1 is part of the story, but not the whole story, of how income and wealth are accumulated because there are other factors (outside of individual ability and choices) that determine an individual's wealth and income.

We will make a series of corrections to the figure to adjust for what research and evidence indicate is a more accurate portrayal of wealth accumulation. Most of the corrections reflect inherited privilege, or *dynasties* of income and wealth—both in how individuals are born into privilege and how privilege is then passed down. These corrections apply to all individuals or speak broadly to the difference between people who have high wealth and people who do not, regardless of race. However, each correction often has specific racial considerations, whether documented forms of discrimination or other structural barriers, that we also discuss.

Before beginning, we make one nomenclature clarification with respect to *determinants* versus *determined*. An infinite number of factors can influence a person's income or, similarly, a person's wealth. They can range from large factors, such as parental wealth, to small factors, such as an inspi-

KEY FINDINGS

- The view that wealth accumulation is determined by a mix of choices and ability is incomplete; other factors (outside of individual ability and choices) contribute or constrain an individual's wealth and income.
- Children are born into the wealth and income of their parents. The more wealth their parents have, the higher their economic starting point.
- The effects of differing parental income and wealth do not stop when childhood ends and an individual becomes an adult. Arguably the most direct effect of parental wealth on adult children's wealth (though not necessarily the largest) is in the pace and shape of wealth accumulation during early adulthood.
- Evidence from investigations of intergenerational mobility in the United States has found that parents' economic status is highly predictive of their children's economic status.
- The available choices, realized shocks, and systemic barriers faced by individuals are not the same; they also vary by race. Critically, shocks and barriers can be reinforcing, and forms of discrimination can interact.
- Because of the cumulative effect of various factors, the amount of accumulated wealth that remains after an individual dies—a bequest—is not solely based on an individual's savings or consumption behavior.
- Hence, the effect of differential economic treatment or investment in one group of people could persist for generations. The multigenerational component of wealth accumulation enables disparities to persist, and in the case of Black Americans, the legacy of disparity is reinforced by ongoing systemic barriers, such as discrimination, that curtail economic success.

rational teacher who sparked an interest in science. Certain factors that have been demonstrated through research to have a large influence on income or wealth are called *determinants*. However, determinants do not have a uniform effect across individuals, and individuals can experience multiple, competing determinants. For instance, parental income is a big determinant of children's income, but that does not mean that siblings have (or are expected to have) identical income. In this way, no one's economic status is wholly *determined*, even if it is subject to the influence of determinants.

Correction One: Different Starting Points

Although children themselves do not have wealth, that does not mean that they all start the wealth-accumulation journey from the same place. Children are born into the wealth and income of their parents. The more wealth their parents have, the higher their starting point.

The U.S. economy is highly unequal, and inequality between very rich individuals and the rest of Americans is growing. When looking at income, which includes money from earnings, business, interest, dividends, and rent, the top 1 percent of Americans, for example, take home 20 percent of all income in America, double the share that they took home in 1970 (Stone et al., 2020). Similarly, the top 1 percent of Americans own 30 percent of all wealth in the country, while the bottom 50 percent of Americans own 2 percent of all wealth (Board of Governors of the Federal Reserve System, 2022). Broadly, both income and wealth inequality in the United States is characterized by stagnation at the bottom and accelerated growth at the top, a process that began in the mid-1970s and continues today (Piketty and Saez, 2003; Saez and Zucman, 2016; Piketty, Saez, and Zucman, 2018; Saez and Zucman, 2020). Between 1975 and 2018, income for the median working adult grew 16 percent, while income for the top 1 percent of working adults grew 321 percent (Price and Edwards, 2020). Children start life at different levels of wealth and income, and those different starting points have numerous effects on children throughout their lives and specifically in their own income and wealth accumulation.

One example of how parental wealth and income differences are filtered down to children is education. Even before formal education begins, early childhood is a critical period of human development; investments in children at that time are some of the most important and have large return for future economic success because they contribute to early skill formation, which then augments future skill formation (Heckman, 2007). For formal education, parents with higher wealth and income can invest more in their children's education (such as tuition at elite private schools). Alternatively, parents with more wealth and income can afford to buy houses in school districts with higher rated public schools. Public schools are not equal in terms of quality, as measured by student achievement (Reardon, 2018; Jang and Reardon, 2019; Reardon et al., 2019; Matheny et al., 2021). Public school education is filtered through funding formulas that are in part a function of the local property and income tax base. This a is two-way issue. Parents with more resources drive up the funding for school districts, but those parents are not randomly distributed in cities or districts. Instead, there is evidence that school quality is a factor in home buying, one associated with higher prices (Kane, Riegg, and Staiger, 2006; Machin, 2011). Further, inequality among public school students is not limited to school quality but can be augmented by the additional support that parents can buy outside of the classroom, such as preparatory classes or private tutors. This inequality among public school students and parents is separate from the inequality found between public schools and elite private schools.

Education is just one example of how parental wealth and income can influence child wealth and income separate from an actual transfer of funds.

Education is just one example of how parental wealth and income can influence child wealth and income separate from an actual transfer of funds, and there are many others. Parental wealth and income can also determine neighborhood and, by extension, peers, environment, and physical safety; networks; aspirations for education and careers; food security and insecurity; and many other determinants. Hence, the model of wealth accumulation needs to be adjusted to take into account (1) the very unequal childhood starting points based on parental wealth and income and (2) that those unequal starting points influence children's wealth and income.

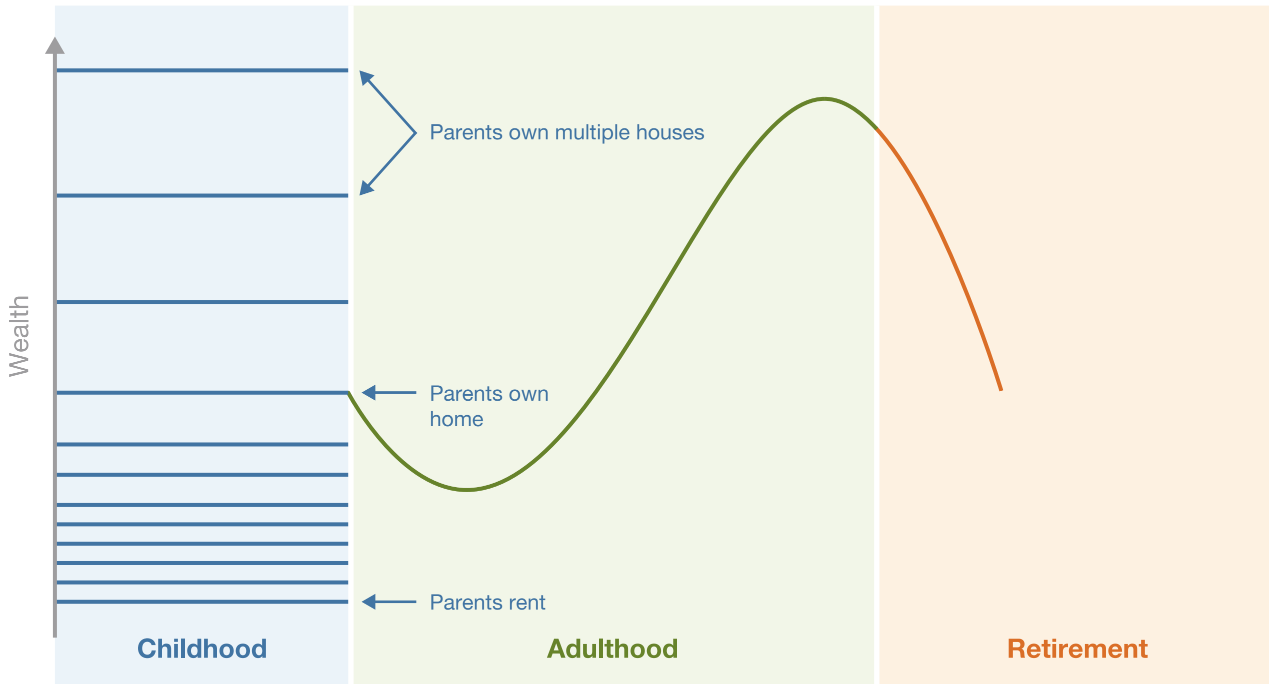
In Figure 2, we add to the first-person view of wealth accumulation the breadth of relative starting points, from parents who, for example, own multiple houses (at the top) to parents who do not own a house (at the bottom). Any correlate with high income and wealth could be shown instead of housing assets, such as neighborhood quality.

Correction Two: Different Needs for Debt Financing and Demands on Savings

The effects of differing parental income and wealth do not stop when childhood ends and an individual becomes an adult. Arguably the most direct effect of parental wealth on adult children's wealth (though not necessarily the largest) is through *financial transfers*—direct financial assistance provided by parents to children. Adult children benefit directly when they receive such transfers (by getting money from their parents) and indirectly because they understand that they could receive more money in the future (thereby being provided with an informal type of insurance). As a result, adult children whose parents offer financial support can assume less debt, can receive more-favorable loans (when they do take on debt), can safely accept more risk, and can accumulate assets more quickly.

FIGURE 2

Correction One: Unequal Childhood Starting Points



Today, the three largest sources of debt for individuals under age 30 are student loans, car loans, and home mortgages (Center for Microeconomic Data, 2021); by retirement, the two largest assets that individuals have are their primary residence and retirement savings accounts (Poterba, Venti, and Wise, 2011). By way of example, we discuss how each key debt and asset can be affected by a financial transfer from parents.

Parents can, if they have the means and the inclination, pay for college outright, or share the costs of college with their children (Pfeffer and Killewald, 2017). In the same way, parents can buy their children a car or give their children a car that they have previously purchased. Both of these actions can reduce the total debt that their children have. In turn, this helps adult children to accrue housing or investment wealth by increasing the share of their income that can be saved and invested or, in the case of buying a home, increase the size of the mortgage for which they can qualify. One limit on mortgages is the *debt-to-income ratio*: the greater the debt owed for any loan, the lower the mortgage loan amount available (Consumer Financial Protection Bureau, 2022). If parents help children reduce or avoid debt, they are in effect helping children achieve a better debt-to-income ratio.

Parental financial transfers can also accelerate adult children's accumulation of assets (Gale and Scholz, 1994, McGarry, 2016; Killewald, Pfeffer, and Schachner, 2017; Pfeffer and Killewald, 2017; Bhutta et al., 2020; Schaller and Eck, 2020). Parents can directly finance a home purchase through gifting some or all of the down payment to the child, co-signing the mortgage to get a better loan rate, or both. Roughly one in five homeowners received help from their family in purchasing their home (Yale, 2019). Of parents who said that they planned on helping a child buy a home, one-half indicated that they plan to help with a down payment, one-fifth plan to cover closing costs, and one-fifth planned on co-signing the loan (loanDepot, 2015). This indicates that parents do help with home buying, but we do not have detailed estimates on which parents help or how much total assistance is provided.

In terms of individual retirement accounts (IRAs), parents can open a custodial Roth IRA for children starting at age 16 and make contributions up to the amount of their child's annual earnings, not to exceed the maximum contribution for a Roth IRA in that year (determined by the Internal Revenue Service) (Fidelity, undated; Epperson and Dickler, 2018; Phipps, 2021; O'Shea, 2022). By one estimate, even putting in $3,000 per year between ages 16–25 can result in an additional $1 million in retirement savings.

Transfers do not always have to be in the form of cash or its equivalent; parents can help their children receive more-favorable debt terms. Parents can also transfer credit history to their children by making them authorized users on a credit card. The credit history (i.e., the longevity of the account and timeliness of bill payment) transfers to the account user, even if they are under 18 (Chase, undated; DeMatteo, 2022; Konsko, 2020). Credit history and payment history account for one-half of an individual's credit score. Higher credit scores decrease the cost of borrowing because lenders can offer lower interest rates on loans to individuals with higher credit scores (Wells, 2022). For example, the difference in mortgage interest rates for a high credit score (760–850) and a lower score (620–639) is 1.5 percentage points. For a $200,000 loan on a 30-year mortgage, that is a total difference of $60,000 in interest.

Student loans, home purchases, and cars are the large ticket items, but they are by no means the only way in which parents can provide a financial leg up to their children. Parents can co-sign leases and provide housing deposits for rental units; they can give their children access to a credit card that they (parents) pay for; they can help their children purchase large goods, such as furniture or appliances; or they can give their children used furniture and appliances. Or financial support could be as small as parents paying for professional clothes when their children start a new job. All of these purchases and transfers, large and small, can accelerate their children's wealth accumulation by removing their children's need to spend their own income on those goods.

The so-called wealth return on parental assistance is not uniform; that is, help is not equal in terms of the path of wealth accumulation that we show in Figure 1. Some of the assistance that we describe finances a higher level of consumption among children, such as giving children furniture or buying them clothes; some finances investment in future income and earnings, such as student loans; and some directly accelerates the purchase of assets, such as helping with a home down payment. The key takeaway from parental assistance is that some children will not incur debt as they become adults because of their parents' direct financial aid, which greatly alters their wealth-accumulation path. The return on debt that children accumulate in lieu of parental aid is also not uniform. Obviating the need for taking on debt also inoculates those children from the risk of assuming bad debt. For example, although financing a college education through a student loan is, on its face, a sound investment decision—the expectation being that a college degree enables higher lifetime earnings—it is not always the case. For-profit colleges are associated with both higher debt loads and higher default rates among borrowers, without a sustained increase in earnings (Belfield, 2013; Cottom, 2017). Or, for another example, most individuals, even with the help of a down payment, must take on a mortgage to buy a home. Yet, certain mortgages, especially those targeted to subprime lenders or those with lower down payments, can have features that make them more likely to default, such as ballooning payments. Both for-profit colleges and subprime lenders target Black borrowers (Calem, Gillen, and Wachter, 2004; Leigh and Huff, 2007; Reid and Laderman, 2009; Phillips, 2010; Fischer, 2013).[2]

Aside from direct financial transfers, a separate means of helping children financially is through reducing their economic risk. Parents can reduce the need for children to have precautionary savings, or reduce the demands on children's saving, by acting as an informal insurer (Kaplan, 2012). Parents as insurers step in when children are going through a hardship. Research has found that the highest rate of parental cash giving occurs in the year that an adult child divorces (McGarry, 2016). Parents also send cash assistance when an adult child becomes unemployed (Edwards and Wenger, 2019; Edwards, 2020). Or, if parents are not able to transmit financial support, they can provide such support by having their children move back home (Wiemers, 2014). This type of emergency support changes the need for, or purpose of, saving. The rule of thumb to have three months of living expenses saved for an emergency, for example, is less relevant to a person whose parents will send them money in an emergency. Parental insurance, therefore, reduces the need for this type of precautionary saving and allows their children's savings to be directed toward the acquisition of assets and wealth.

We also note, however, the difference between experiences and averages. A person's relationship with their parents, and how money, gifts, and investments are handled, is both personal and singular; their experience can be in contrast to what averages would predict. An individual with wealthy parents, for example, could have been cut off from their family, or their wealthy parents could be opposed, on principle, to financially supporting children once they become adults. Averages do not predict all experiences, but differing experiences do not negate the existence of an average. Wealthier parents, out of some combination of means and inclination, financially help their children. Even if this inherited advantage does not seem to reflect personal experience for some people, it does occur and its characterization as the average experience is accurate.

In Figure 3, we illustrate this correction of parental aid in the wealth-accumulation lines shown. Adult children with wealthier parents have less deep and shorter periods of initial debt (or none at all), and their lines of wealth accumulation extend off the chart. Adult children with less wealthy parents, on the other hand, have deeper and longer periods of initial debt.

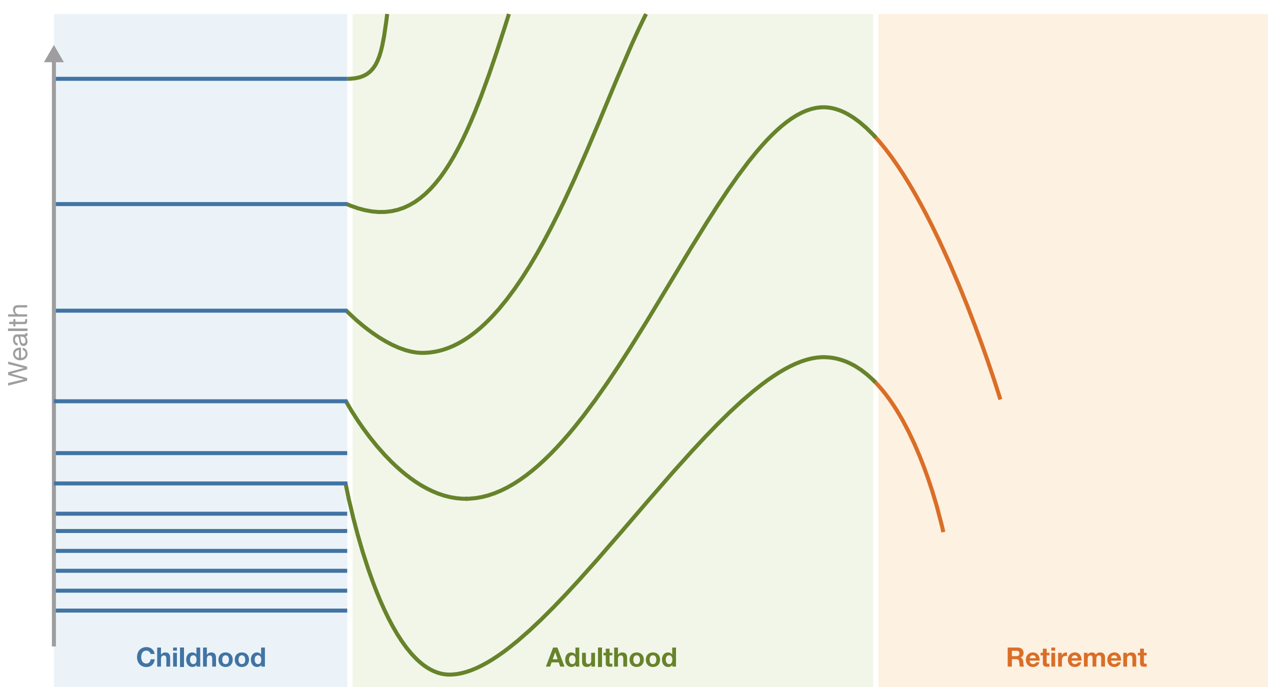
Inherited Advantage and Race

The above two corrections (different childhood starting points and different parental help) span *inherited advantage*, or how the path of wealth accumulation varies based on parental income and wealth. Advantage accrues from having a higher economic position entrenched across generations (Shapiro, Meschede, and Osoro, 2013; Traub et al., 2017). Put more simply, it is easier to get rich if you start off rich.

The positive effects of coming from a higher economic position are shown in Figure 3. To the extent that Black Americans, on average, have lower income and lower wealth, and are less likely to have parents

FIGURE 3

Correction Two: Different Needs for Debt Financing and Demands on Savings



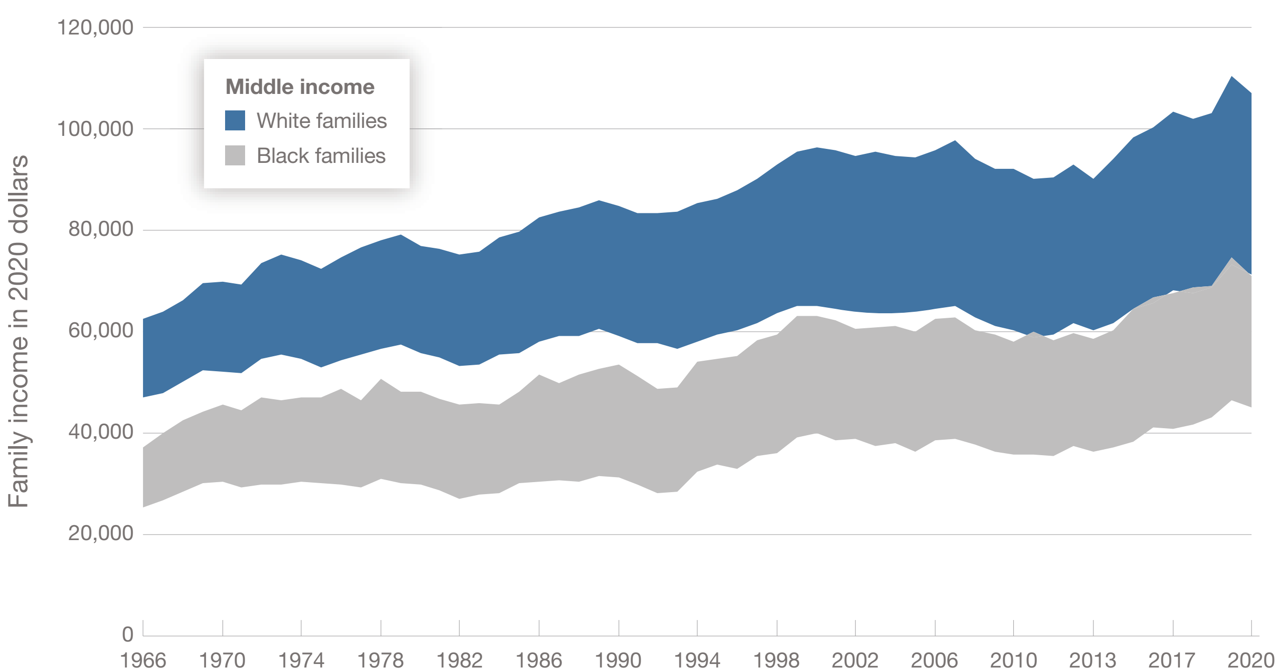
or grandparents in higher economic positions, they have less inherited privilege. In Figure 4, we show the upper and lower bounds of the middle-income quintiles for white and Black families in the United States from 1966–2020 in 2020 dollars. White middle income (shown in blue) is higher than Black middle income (shown in gray) and has risen faster over the period shown. In 1966, white middle income was \$46,949–\$62,534 and it grew to \$71,302–\$107,101; the comparative figures for Black middle income are \$25,226–\$36,985 and \$45,053–\$71,000. Of note, the bottom cutoff of middle income among white families in 1966 was *higher* than the bottom cutoff of middle income among Black families in 2020.

There is a large amount of literature on income and wealth mobility in the United States in general and among Black families in particular. Evidence from investigations of intergenerational mobility in the United States have found that parents' economic status is highly predictive of their children's economic status (Corak, 2013; Chetty, Grusky, et al., 2017; Chetty, Friedman, et al., 2020; Chetty, Hendren, et al., 2020). Other than asserting that parental economic status aids in wealth accumulation, and by showing in Figure 4 that white parents are on average richer than Black parents, we do not discuss this relationship further; it is beyond the scope of this report. However, a companion report in this series discusses Black income mobility in detail.

Correction Three: Different Pace of Income and Wealth Gains

Two people who have the same education (even from the same class at the same school) do not have the same income and, by extension, do not have the same wealth. Or, from the point of view of the model introduced in Figure 1, just because two individuals start at the same height (i.e., economic position) in childhood does not mean that the steepness of their

FIGURE 4
Range of Middle-Quintile Incomes of Black and White Families, 1966–2020



SOURCE: Data from Table F-1, "Income Limits for Each Fifth and Top 5 Percent of Families" (U.S. Census Bureau, 2021).
NOTE: There is a break in both series between 2001 and 2002 because the U.S. Census Bureau's definitions of race switched from "Black" and "White" to "Black Alone" and "White Alone." Both series include Hispanic individuals.

wealth-accumulation lines in adulthood will be the same. We have already shown how paths can vary because of parental support; they can also vary based on individual choices. The choices are myriad: which job to take, which city to live in, which house to buy, how much to save, which stocks to invest in, when to sell and when to buy, and more. Adulthood is when much of individual agency and decisionmaking in wealth accumulation manifests, at least as shown in our model.

However, adulthood is also when external shocks can limit personal income and wealth. The shocks are myriad as well: job loss, divorce, health problems, house problems, car problems, stock bubbles, floods, and more. At a time when some individuals feel most in control of their lives, others can feel thwarted by factors out of their control. In addition, adulthood is also when systematic barriers and discrimination can influence the outcomes in the lives of individuals in certain, affected populations.

The available choices, realized shocks, and systemic barriers faced by individuals are not the same. They certainly vary by parental income and wealth. Parental investment, financial transfers, and informal insurance (discussed in the previous section) can alter or influence the choices of adult children. Parents are also influential in shaping education and career choices (Trice and Knapp, 1992; Jodl et al., 2001; Plenty and Jonsson, 2021) and in shaping networks, which have been shown to be important, among other things, in finding a job (Fernandez and Fernandez-Mateo, 2006; Hellerstein, McInerney, and Neumark, 2011; Cappellari and Tatsiramos, 2015; Dustmann et al., 2016). Choices, shocks, and barriers also vary by geography (e.g., Montanans face little threat in losing their house to a hurricane, unlike Louisianans), by nativity and immigration status, by sexual preference, and by numerous other dimensions.

Choices, shocks, and barriers also vary by race. For parsimony, we only discuss one aspect of this in detail—discrimination—and not the myriad other ways in which choices, shocks, and barriers also vary because of race. For example, a health shock to an individual or to a member of an individual's family could also limit an individual's income and wealth accumulation. An individual could be unable to work because they are not healthy enough or because a family member requires care. This shock varies by race and because of race. Prior research has consistently found that Black Americans have worse health overall than white Americans, a higher rate of health shocks, and disparities in health treatment that can contribute to both (Council on Ethical and Judicial Affairs, 1990; Penner et al., 2009; Penner et al., 2013; Centers for Disease Control and Prevention, 2017; Taylor, 2019).

The key point is that the shape of the wealth-accumulation line varies by race; discrimination is one reason why, but not the only reason.

Labor Market Discrimination

For the vast majority of individuals, labor income is the most important determinant of their wealth (Black et al., 2020); this is because most of their income is determined by their earnings. Labor market discrimination, which reduces earnings, reduces wealth as well.

In the United States, discrimination against Black job seekers is a very well documented and consistent finding. Audit studies, in which a set of fake resumes are sent in response to job applications, are a common research tool. All of the resumes are identical, save one alteration. The difference in callback rates to the resumes can therefore only be attributed to what is altered by the researcher. Audit studies are designed specifically and intentionally to measure discrimination. For example, resumes with Black-sounding names receive fewer callbacks for interviews than resumes with white-sounding names, despite the resumes being otherwise identical (e.g., school, GPA, work experience, skills, etc.) (Quillian et al., 2017). That is, the only difference between two resumes, by design, is the name on the top. The difference in callback rates is not trivial—Black applicants with white-sounding names are on average 36 percent more likely to get a call back than Black applicants with Black-sounding names.

Audit studies can measure multiple aspects of discrimination. In a specific set of audit studies, for instance, there were four sets of resumes: Job applicants not only varied by their race but also by their

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criminal record. Consistently, white applicants with a felony were more likely to get a callback than Black applicants without any criminal record (Pager, 2003; Pager, Western, Bonikowski, 2009). In another set, job applicants not only varied by their race but also by the quality of their college. Consistently, white applicants from state schools had similar callback rates as Black applicants from Harvard and Stanford (Gaddis, 2015). Audit studies have also found that the jobs that call back Black applicants were, on average, lower paying than the ones that did not. As a tool for measuring discrimination in the hiring process, audit studies are not a complete assessment; called back workers must still interview and attain a job offer and wage offer, and both the likelihood of the offer and the wage amount could vary by race as well. However, audit studies' results are viewed by the field as robust because of the strength of their research design (Gaddis, 2018).

It is harder for Black workers to find jobs; this has an array of consequences in the labor market. In the context of job seeking, harder often means longer. Hence, mechanically, Black workers have higher unemployment rates in part due to racial discrimination (Forsythe and Wu, 2021). Typically, the unemployment rate for Black workers is double the rate for white workers.

The broader effect of it being harder to find a job is *occupational crowding*: Individuals who are unable to find a job in their qualified occupation take a job for which they are overqualified. The result is lower pay in two dimensions: An individual works in an occupation that they are overqualified for, and this creates an oversupply of workers in that occupation, which further lowers wages (Bergmann, 1971). Although the concept of occupational crowding is more than five decades old (it was originally articulated on the heels of the Civil Rights Act of 1964), evidence shows that occupational crowding is still pervasive in the U.S. labor market. Researchers found that Black workers are underrepresented in certain high-paying occupations, such as management and professional occupations, despite having the degrees required to qualify for them (Hamilton, Austin, and Darity, 2011; Holder, 2018). That is, the number of predicted workers in an occupation given the degrees of workers and the number of observed workers in that occupation is skewed. Black workers are overrepresented in low-paying occupations and underrepresented in high-paying occupations. Black workers, on average, can be blocked from higher paying jobs (Huffman and Cohen, 2004).

Higher unemployment rates and occupational crowding both result in lower incomes relative to what education would predict. Income is critical to the accumulation of wealth, and differences in income between white and Black households is a key contributor to the Black-white wealth gap (Aliprantis and Carroll, 2019). For the model presented in this report, that means that two individuals can be at the same economic position at the end of childhood, but the wealth-accumulation line of the white individual would be steeper than the wealth-accumulation line of the Black individual because of labor market discrimination (via higher average earnings).

Credit Market Discrimination

As we noted previously, most individuals have to debt finance a portion of their wealth accumulation. In order to borrow, individuals must have access to credit. A person's past behavior in financial activities determines creditworthiness, such as paying bills on time, not carrying too high of a balance on a credit card, or having assets.

In the United States, discrimination against Black credit seekers is, like labor market discrimination, a consistent and well-documented phenomenon. Also like labor market discrimination, some evidence comes from audit studies. Instead of resume randomizers, audit studies of credit markets often use paired testing: Two individuals, one Black and one white, are sent to a bank with an identical financial portfolio to apply for credit (this method of paired testing is frequently used in the housing market as well, which we will discuss next). The National Community Reinvestment Coalition has run several paired-testing studies to understand discrimination in the market for small business loans and has consistently found that Black applicants receive less help and encouragement and are offered a different set of financial products or loans than white applicants. Even during the COVID-19 pandemic in 2020, paired testing for loan applications through the Paycheck Protection Program, conducted by phone, found that small business owners who had Black-sounding voices were less likely to be encouraged to get a loan and were offered worse financial advice (Bone et al., 2019; Lee et al., 2019; Lederer, Asante-Muhammad, et al., 2020, Lederer, Oros, et al., 2020). Earlier paired-testing investigations prior to the pandemic found similar and consistent results (Yinger, 1998).

The results from paired testing also align with the analytic findings of small business loans and applications (Blanchflower, Levine, and Zimmerman, 2003; Hu et al., 2010), as well as broader patterns in credit markets. Even when they have similar incomes to white individuals, Black individuals are denied credit at two to three times the rate as white individuals (Board of Governors of the Federal Reserve System, 2020). The evolution of credit and access to it have changed over time, as have the products targeted to low- and moderate-income households (Mann, 2008). The underwriting of credit cards has loosened over time to increase access overall. Yet, researchers have found that even as overall access to credit increased, racial disparity in access to credit persisted and, by some measures, such as rejections of credit limit increases, worsened (Weller, 2009). And recall that racial credit market discrimination exists alongside the disparate inherited privilege of having a parent establish a credit history for their children. If Black parents have less access to credit, they have less credit to pass down to their children.

Reduced access to credit, or access to only lower quality credit, decreases an individual's ability to borrow by increasing credit's cost. This has the clear effect of reducing consumption and limiting the pace of asset accrual. However, this can also affect an individual's income because of the relationship between credit and entrepreneurial activity. The example of the Paycheck Protection Program discussed above highlights this point: Black businesses have less support from banks—in the case above, in both access to credit and financial advice—which curtails their growth and could deter business startups. Again, for our model, that means that two individuals can start at the same level and even earn an identical income, but the white individual would accumulate wealth faster because of credit market discrimination (via lower borrowing costs).

Housing Market Discrimination

The largest asset that Americans acquire over their lifetime is their primary home. In order to buy a home, individuals must save for a down payment, receive approval for a mortgage, and have their offer accepted by the home seller. After a period of homeownership, owners can refinance their home (at perhaps a better interest rate) and assess its increased value through a home appraisal.

In the United States, the mortgage, home sale, and appraisal processes have well-documented discrimination against Black individuals. Since 1977, the U.S. Department of Housing and Urban Development (HUD) has conducted paired-testing audits, in which similar prospective renters and buyers search for housing. These studies, which HUD performs roughly once per decade, have documented the evolution of housing market discrimination against Black individuals, from the "door slamming" of the 1970s, in which Black renters would be told the apartment was already rented, to today's more subtle discrimination, where Black renters and buyers have similar preferences and backgrounds, but are shown different locations, in different neighborhoods (Office of Policy Development and Research, 2014; Friedman et al., 2013; Oh and Yinger, 2015). This is known as *racial steering*, directing Black buyers away from white neighborhoods. As a corollary, the most recent HUD paired testing found that Black individuals looking to purchase a house were shown 17 percent fewer homes than their white counterparts (Turner et al., 2013).

As for mortgages, the Home Mortgage Disclosure Act requires data reporting on mortgage application denials. Potential Black borrowers are rejected at 80 percent higher rates than potential white borrowers (Consumer Financial Protection Bureau, undated). Researchers have found that the discrimination against Black borrowers in the mortgage market has declined little over the past 40 years (Turner and Skidmore, 1999; Anayaso, 2020). Discrimination not only affects Black Americans' access to mortgages but also the terms of those mortgages. Black borrowers are given rates that are 3–8 basis points higher than those offered to white borrowers, meaning that Black borrowers pay more interest on their loans (Bartlett et al., 2019). The increase in Black homeownership in the late 1990s and early 2000s is attributed to worse loans and predatory lending (Williams, Nesiba, and McConnell, 2005). Not only did this mean that many Black homeowners were at higher risk of losing their homes (through defaulting on loan repayment and subsequent foreclosure), but the subsequent subprime crisis that precipitated the Great Recession of 2007–2009 also had lasting effects on the lending market, such as tighter lending standards. Certain mortgage lenders have been penalized in civil rights lawsuits because of their risk-averse practices of refusing to lend in predominantly Black neighborhoods (Swarns, 2015).

After purchasing a house, Black homeowners next face discrimination in the appraisal market. With less oversight, home appraisals can seem much more brazen, anecdotally, in their discrimination. Mixed-race couples have reported that the value of their home can change as much as 40 percent depending on whether the white partner or Black partner was at home during the appraisal, or that the comparable homes ("comps") used in the appraisal were located in a Black neighborhood that the home was not located in if the Black partner was home (Kamin, 2020; Gerstein, 2021; McMullen, 2021). Some Black homeowners report a similar experience after asking a white friend to greet the appraiser for them. These anecdotes align with estimates that homes owned by Black Americans are undervalued by an average of $48,000 (Perry, Rothwell, and Harshbarger, 2018); appreciate in value much more slowly than comparable homes owned by white homeowners (Flippen, 2004); and this devaluation is driven by appraisers' racialized perception of neighborhoods (Howell and Korver-Glenn, 2018). A lower appraisal, if less than the purchasing price, can also prevent refinancing.

Given that a home is often the largest component of an individual's wealth, housing market discrimination directly reduces wealth and slows the pace of wealth accumulation. For the model, this means that two individuals can start at the same level and even earn an identical income, but the wealth-accumulation line for the white individual would be steeper (i.e., faster wealth accumulation) because of housing market discrimination (via better access to borrowing, lower borrowing costs, and greater home appreciation).

Other Forms of Discrimination

Labor markets, credit markets, and housing markets are three avenues of discrimination that directly translate into lower income and lower wealth. However, our discussion is not exhaustive of the types of discrimination that Black individuals face or the effect that discrimination can have on income and wealth. Black individuals can also face discrimination in the criminal justice system, the education system, and the health care system. Or, collectively, predominantly Black neighborhoods can be exposed to severe environmental dangers that reduce both wealth and health. The scope of this report does not allow us to enumerate further studies and evidence

Many Americans would be uncomfortable, or even skeptical, of the extent of discrimination that we discuss here. Discrimination is thought to be predicated on overt racism, but this is not always the case.

on this subject; however, we wish to acknowledge these other forms of discrimination even if we cannot provide an exhaustive accounting of them.

As a final note on discrimination, many Americans would be uncomfortable, or even skeptical, of the extent of discrimination that we discuss here. Discrimination is thought to be predicated on overt racism, but this is not always the case. Discrimination can also arise from *implicit bias*—a person's tendency to act on a stereotype without realizing they are doing so (Brownstein, 2017). In the case of overt racism, a person with negative views toward a group acts in a deliberate way to harm them; for example, they sift through a pile of job applications and remove all the resumes with Black-sounding names. In the case of implicit bias, a person with a latent, negative bias toward a group acts in a subtle, or subconscious, way that ends up harming individuals unlike them; for example, they sift through a pile of job applications and pick their favorite resumes, which happen not to include any with a Black-sounding name. In practice, an act of discrimination can be completely overt, completely unconscious, or can fall somewhere in between.

To carry that idea through another example: an audit study using high school transcripts found that female Black students are less likely to be recommended for Advanced Placement classes by school counselors, despite having identical transcripts to those of their white and male peers (Francis, de Oliveira, and Dimmitt, 2019). These counselors are not all overt racists, and they did not become counselors in order to hold back Black students. However, implicit bias has influenced their decisionmaking. This bias could be expressed as a positive inclination toward white students or a negative inclination toward Black students, likely influenced by systemic racism but not necessarily a manifestation of it. But a person with authority acting on an inclination instead of on the facts (e.g., transcripts) results in discrimination.

Shocks and Barriers

How much is the shape of the wealth-accumulation line a reflection of decisions that an individual makes; how much is it a reflection of external shocks, such as unemployment or natural disasters; and how much is it a reflection of systemic barriers, such as discrimination? That is impossible to know and difficult to estimate. An individual can be discriminated against and still earn more money than a person who was not discriminated against. An individual can be discriminated against but earn less money because they are not competent at their job. Many determinants shape income and wealth, some are within an individual's control, and some are outside it. Discrimination is neither unidimensional nor unidirectional. Yet, Black Americans experience certain shocks and face distinct and pervasive barriers that their white counterparts do not.

Critically, shocks and barriers can be reinforcing, and forms of discrimination can interact. We discussed in correction 2 that having parents willing and able to act as an informal insurer reduces the need for precautionary savings and changes behavior. That is also the case for individuals who can self-insure through asset accumulation. A home-equity line of credit, for instance, enables a homeowner to borrow against the value of their home; this source of financial support depends directly on the size of the asset and the amount owed by the homeowner. A cash-out refinance of a home is similarly dependent on asset size and ownership. Both are subject to the curtailing effects of housing and credit markets discrimination.

Or, as another example of external shocks and barriers, many low-wage workers experience *income volatility*, in which their income month to month varies greatly because of unstable or unpredictable hours (Hardy and Ziliak, 2014; Hardy, 2016; Schneider and Harknett, 2017; Butcher and Schanzenbach, 2018; Schneider and Harknett, 2019). Unstable incomes make it harder for individuals to save and accumulate assets, and without being able to borrow or to accrue assets, that in turn makes it harder for individuals to smooth, or reduce the fluctuations of, their income. Thus, discrimination in the labor market and credit markets can interact.

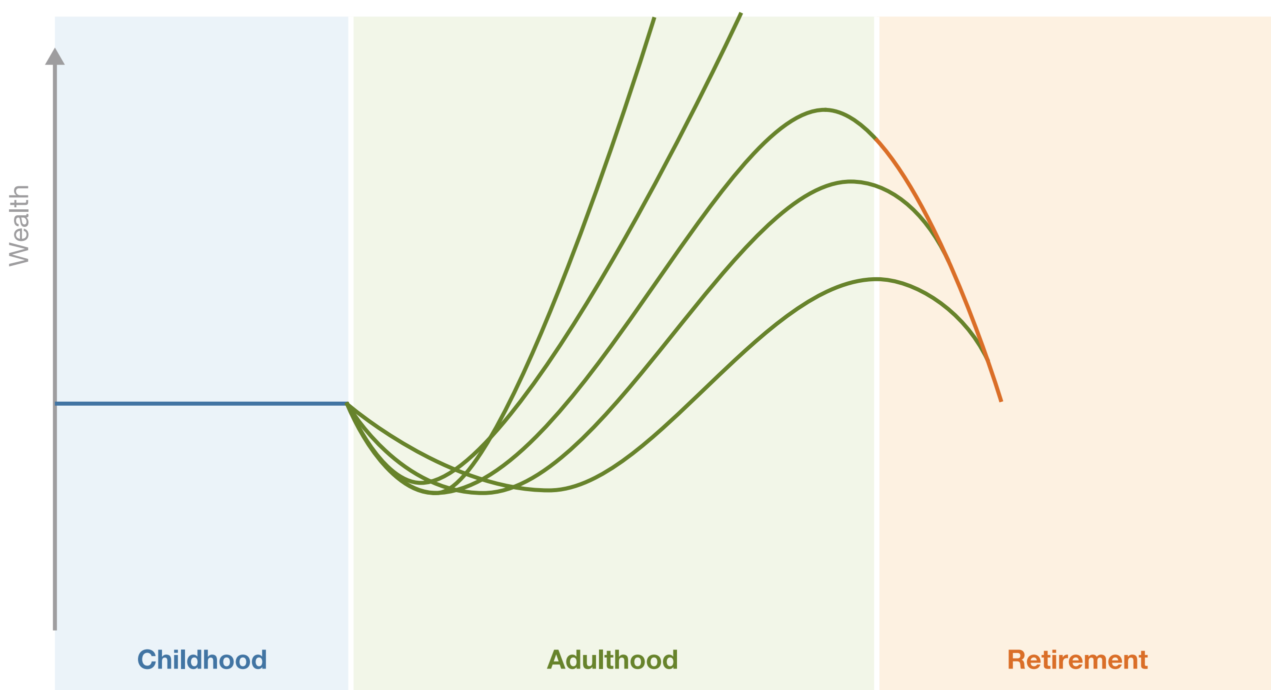
In Figure 5, we illustrate the different pace of income and wealth gains through the steepness of each wealth-accumulation line.

Correction Four: Different Bequests

Because of the cumulative effect of the prior corrections, the amount of accumulated wealth that remains after an individual dies—a bequest—is not solely based on an individual's savings or consumption behavior. The more income and wealth that an individual has, the more likely they are to leave a bequest to their children. Again, prior research has found that many individuals accrue wealth beyond their retirement needs solely to leave money to their families (De Nardi, 2004).

This is not pernicious or harmful behavior. Knowing that loved ones left behind will be financially secure is a source of comfort and even pride. Love of family and investment in the strength of that family are benevolent goals. But not all bequests are equal, and the effect of that inequality is not neutral in terms of income and wealth: Wealthier people can pass down more and in turn augment the wealth of their descendants. Most of the evidence of dynastic wealth that we have presented so far in explaining

FIGURE 5
Correction Three: Different Pace of Income and Wealth Gains



how our first-person view of wealth accumulation must be corrected has focused on parental actions (i.e., how parents can increase or support their children's wealth). By contrast, a bequest is a direct wealth transfer; it is the dynasty. Recall that we use *dynasty* to refer to inherited privilege; that privilege can augment wealth or, in the case of bequests, consist of wealth.

In Figure 6, we further correct the original wealth-accumulation model (Figure 1) to show that the wealth-accumulation path of individuals with more wealth start higher and end higher as well.

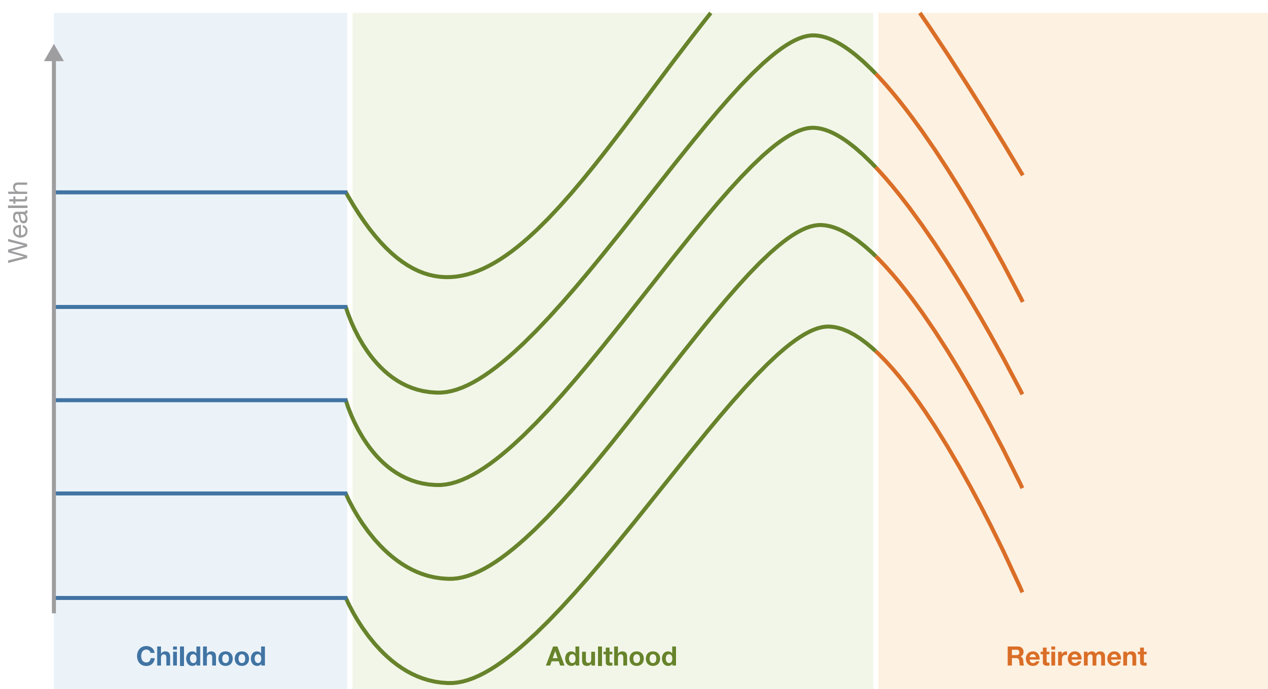
Wealth in Context

The model of wealth accumulation that we first present in Figure 1 and subsequently correct in Figures 2–3 and 5–6 is simplified and stylized, but it conveys how gaps in wealth between individuals form and potentially grow worse over time. We constructed this model to illustrate how the large gaps in Black and white wealth persist. The difference in typical, or median, wealth between Black and white households has increased greatly since 1968. Researchers attribute this difference to a combination of length of homeownership, income, unemployment, education, inheritance, and family financial assistance (Shapiro, Meschede, and Osoro, 2013). One study estimates that for the median person, every dollar increase in average income over a 25-year period added $5.19 of wealth to white households and $0.69 of wealth to Black households. The authors attribute this difference to labor market discrimination that slows savings and decelerates wealth accumulation, as well as the different wealth starting points for median Black and white households. Wealth accelerates wealth accumulation (Shapiro, Meschede, and Osoro, 2013). Different starting points of wealth create different levels of need for debt financing and different wealth returns to income; all of which culminates in different ending points (bequests), starting the cycle over again.

Hence, the effect of differential economic treatment or investment in one group of people could persist for generations. A person's individual wealth is both a function of their parents' wealth and will influence their children's wealth, even in a merito-

FIGURE 6

Correction Four: Different Bequests



cratic, capitalist economy. This multigenerational component of wealth accumulation enables disparities to persist, and in the case of Black Americans, the legacy of disparity is reinforced by ongoing systemic barriers, such as discrimination, that curtail economic success.

The examples that we have discussed in our stylized model to illustrate how wealth inequalities can persist use, for convenience, a contemporary notion of wealth accumulation and investments. For example, in terms of debt financing, we describe how some individuals will have parents who will fully or partially pay for college, while other individuals might have to finance their own higher education via student loans. However, it was not until 1958 when federal student loans were offered under the National Defense Education Act; access to student loans was further expanded in the 1965 Higher Education Act and its subsequent amendments. Despite early harbingers of the burden of large student debt loads (Wilkerson, 1987), the amount of student debt and the number of students carrying it increased in the 1990s (Hanson, 2022). We have also discussed mortgages and the debt financing of a home purchase in a contemporary fashion, but the market for mortgages also changed, in both product types and access to them, only after the National Housing Act of 1934 created the Federal Housing Administration to guarantee 15-year mortgages, which was later extended to 20-, 25-, and 30-year terms. And we recognize that we have not discussed land ownership or the importance of owning land—both historically important determinants in wealth accumulation.

Nevertheless, we contend that our stylized model would apply to prior periods, when the composition of wealth was different, because the mechanism for dynastic wealth and wealth inequality would have been similar; the composition of privilege can change but the influence of privilege does not. Our model highlights unequal wealth starting points (correction 1), different needs for and access to debt financing (correction 2), different pace of income and wealth gains (correction 3), and different bequests (correction 4). Researchers have demonstrated inequalities between Black and white Americans in each of the eras of American history since the Civil War, from property and business ownership (Margo, 1984; Schweninger, 1989; Schweninger, 1990; Miller, 2011; Miller, 2020); access to credit (Stein and Yannelis, 2020); and the composition of assets (Blau and Graham, 1990; Charles and Hurst, 2002); to how these wealth differences relate back to income and wealth inequality (Ng and Virts, 1993; Altonji and Doraszelski, 2005; Kuhn, Schularick, and Steins, 2020). Our model for wealth accumulation could be similarly adapted and applied to different wealth investments and composition.

A separate drawback of our model is its limited accounting of influences on an individual's wealth. We focus on the individual experience through individual choices, individual outcomes, and factors that prevent choices from predicting outcomes. Our discussion of factors is far from exhausting, as noted earlier. For example, we examine labor market discrimination but not discrimination in the health care and criminal justice systems. Such an exhaustive (or more exhaustive) accounting would move beyond individual factors to encompass the role of public policy in differentially shaping wealth accumulation. In terms of historical policy, this assessment would need to include a detailed discussion of Black exclusion from federal wealth investments, such as the 1862 Homestead Act (Khomina, undated); racially discriminatory practices in housing policy, such as those perpetrated through the Federal Housing Administration (Rothstein, 2017); and the legacy of legal segregation in education and labor markets. In terms of contemporary policy, this assessment would need to further discuss tax policy (Brown, 2021); banking policy (Baradaran, 2017); environmental policy (McCaull, 1976; Bullard and Wright, 1986); and transportation policy (Archer, 2021).

A related drawback of our stylized model is that we do not discuss individual preferences over assets and sources of income, how those preferences vary by race, and what could influence those preferences. The compositions of wealth in Black and white households differ. On average, Black households invest less in the stock market, for example, which at least, in part, reflects risk-taking preferences in relation to wealth accumulation (Blau and Graham, 1990; Oliver and Shapiro, 1995; Altonji and Doraszelski, 2005; Benjamin, Choi, and Strickland, 2010; Shapiro, Meschede, and Osoro, 2013). The history of Black

The multigenerational component of wealth accumulation enables disparities to persist, and in the case of Black Americans, the legacy of disparity is reinforced by ongoing systemic barriers, such as discrimination, that curtail economic success.

wealth and white wealth and its influence on contemporary preferences—from when owning Black people was a component of white wealth; to the use of violence by white people to destroy Black wealth (Messer, Shriver, and Adams, 2018); to the disproportionate devaluation and loss of Black wealth in financial crises (Massey and Rugh, 2018)—is beyond the scope of this report. Beyond a mere drawback, such history raises the question of whether a single model could be used to explain both white and Black wealth, given these deep differences in experiences that shape individual behaviors.

Conclusion

The model that we present in this report is neither fully calibrated nor fully original. Our aim is not to change how wealth disparities and wealth accumulation are researched but to change how they are presented and perceived.

The discussion of racial wealth inequality can become very personal, very quickly because it becomes a discussion of where opportunity and success come from, if not from an individual's hard work and choices alone. Most Americans likely do not believe that they have benefited from any particular economic advantage. As much as 89 percent of Americans self-identify as middle class (Pew Research Center, 2015; Wenger and Zaber, 2021). The term *middle class* is not well defined and the dollar amount of "middle income" is not well known. Individuals asked to estimate what they think is middle or median income often estimate their own income plus or minus an amount. That is, high-income individuals think middle income is just under their own, and low-income individuals think it is just above their own (Hvidberg, Kreiner, and Stantcheva, 2020). An individual's reluctance to claim personal advantage can make it difficult for that individual to perceive disadvantage in others. This reluctance could have numerous influences. To start, advantage does not always result in success or, in this case, affluence. Advantage can also be difficult to perceive if an individual's social structure is isolated from others. Or, an individual could simply dislike the idea of having advantage and be averse to acknowledging it.

In our model, we present a framework that shows how an individual's work and choices matter but do not alone determine wealth accumulation. Showing this may challenge key assumptions of what it means to be American. In 1931, historian James Truslow Adams wrote in *Epic of America* that the "American Dream is that dream of a land in which life should be better and richer and fuller for everyone, with opportunity for each according to ability or achievement," encapsulating the idea of mobility via opportunity, and opportunity born from ability (Shiller, 2017; Diamond, 2018; Amadeo, 2021). Explaining racial wealth inequality requires not only showing how the American Dream is often not realized by Black Americans, but also showing how the success of some white Americans is not necessarily the result of the American Dream as Adams articulated it.

Notes

1 For this analysis and the subsequent statistics in this paragraph, the wealth of the *average American* is defined as that in the three middle quintiles of wealth (see Table 7 in Wolff, 2021).

2 This report follows Associated Press style conventions for the capitalization of Black and white as categories of race. See Associated Press, 2020; and Daniszewski, 2020.

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About This Report

This report is part of the RAND discussion paper series *Investigating the U.S. Racial Wealth Gap*, which can be found at www.rand.org/racial-wealth-gap. This report presents several iterations of a stylized model of wealth accumulation that reflect historical patterns in income and wealth shown in prior research. Research has consistently found that income and wealth are not remade every generation but rather are closely linked to the income and wealth of past generations. This context is necessary to understand the current wealth differences between Black and white Americans.

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