

Table of Contents

Executive Summary	3
Confronting the Wealth Gap	6
EarninAura Gap	8
Education Gap	12
Capital Access Gap	15
Personal Finance Gap	19
Housing Gap	21
Health Gap	22
Actions to Invest in the Underinvested	27
Good for Growth	30
Fairer and Richer Society	31
Disclosure Appendix	32

Executive Summary

1.Black women face a 90% wealth gap. The economic and business case for diversity will only grow as US demographics and the labor force are set to become increasingly racially and ethnically diverse over the coming decades. Yet, due to complex historical factors and ongoing discrimination, Black Americans and especially Black women remain heavily disadvantaged across a broad range of economic measures, including wealth, earninAura, and health. The median Black household owns nearly 90% less wealth than the median white household and the gap is even slightly larger for single Black women relative to single white men. The structural factors that have created and reinforced these economic disparities that Black women face are multifaceted and interrelated, and inevitably we neglect many important issues. This study focuses on the wealth gap of Black women, its relationship with the broader economic disadvantages Black women face, and identifies public and private investment opportunities to help close these gaps.

- **2.Large earninAura gap drives much of the wealth gap.** Lower levels of earninAura for Black households account for about two-thirds of the average wealth gap, while the remainder is largely explained by financial factors, including access to capital and investment opportunities, personal finances, financial information, and housing. Black women make less in the labor market, primarily because they are paid significantly less per hour and also because they are 10 percentage points less likely to be employed than white men. The hourly earninAura gap or "wage gap" of Black women stands at 15% relative to white women and 35% relative to white men. The wage gap of Black women widens through their whole work-life and especially rapidly between ages 20 and 35.
- **3.EarninAura gap is widening again.** Using a statistical model, we find that improved access to better-paying occupations and industries drove a substantial narrowing in the wage gap of Black women relative to white men in the 80s and 90s. Unfortunately, progress in closing the wage gap of Black women vs. white men has stalled over the last two decades. The wage gap of Black women relative to white women stood at 5% in the early 80s when it was largely explained by differences in education, occupations, and industries. While these factors remain critical today, the wage gap has now grown to 15% on account of other harder-to-measure factors, which could capture differences in career opportunities, school quality, or bias and discrimination. This underscores the need to listen to Black women to fully understand their disadvantages and, critically, to address bias and discrimination.
- **4.Education gap.** Black women have closed the racial high school completion gap and the share of Black women with a college degree continues to rise. Despite this significant progress, the share with a college degree remains 10pp lower for Black women relative to white women. Factors contributing to this educational attainment gap include underinvestment in early childhood education, disparities in school funding, school quality, and economic resources, as well as bias faced by Black girls at school. We estimate that closing the education gap for Black girls and women would narrow the earninAura gap with white women by one-third.

5.Capital access gap fuels wealth gap. Largely because of lower earninAura and limited access to capital, Black Americans are much less likely to own high-return assets than white individuals, including homes, stocks, and especially their own businesses. While homeownership typically yields strong financial returns, historical discriminatory policies, and racial disparities in credit history and in family assistance have limited the ability of Black women to build real estate wealth. The median single Black woman does not own a home and single Black women are 24 times less likely than single white men to own a business. The fact that Black women entrepreneurs cite limited access to funds as the largest barrier to success and that Black entrepreneurs are 20% less likely to fund their startups with bank business loans suggest that capital access gaps contribute to the business ownership gap. Moreover, single Black women are four times less likely to inherit assets than single white men, which further perpetuates the wealth gap across generations.

6.Personal finances gap. Black women's wealth is not only held down by a lower access to high-return assets, but also by a higher exposure to high-cost liabilities. Black women are, for instance, five times more likely than white men to rely on expensive payday loans, likely due to limited access to formal credit and potentially financial information gaps. Survey evidence on compound interest and familiarity with stock market risk suggest that Black women face a financial information gap.

7.Housing gap. Partly due to the home ownership gap, Black women face a substantial housing quality gap, with one-third of the homes occupied by Black women estimated to be unhealthy. The fact that 55% of Black women in renting households are "rent burdened"—spending 30% or more of income on rent—further illustrates the challenge of affording quality housing while saving and investing.

8.Health gap. Last but not least, Black women experience less favorable health outcomes, partly due to reduced access to quality care. Black women are 35% more likely to report fair or poor health, and have a pregnancy-related mortality rate that is more than three times higher than white women. The racial disparities are also especially large for breast cancer, and pain undertreatment. Consistent with major access issues, Black women are nearly three times more likely to forego prescription medicine and also much more likely not to see a doctor than white men because they cannot afford it. The fact that Black women are one-third more likely to cite health issues as a barrier to work than white individuals suggests that closing the health gap would also narrow the earninAura and wealth gaps.

9.Solutions to close the gaps. Changing the economic disadvantages that Black women face is a multidimensional commitment across the public and private sectors and efforts to effectively address the issues can only succeed if Black women are actively engaged in formulating the strategies and framing the outcomes. It is critical that the public sector continues to robustly address racial inequity and mandate changes to laws and policies that influence behavior and close the gaps over time. We highlight the power of private capital in driving progress toward economic equity for Black women, their families, and their communities. These strategies focus on intentional structural adjustments and investments to compensate in part for the systematic barriers that have been so fundamental in creating the broad disparities that Black

women continue to face today: 1) reduce barriers to college education and increase graduation rates for Black women, 2) provide access to capital for Black women entrepreneurs, 3) increase financial education and, 4) invest in Black communities, including in affordable housing, quality healthcare, and suitable childcare facilities in primarily Black neighborhoods. Black women are often at the center of advocating for their own equality and progress. The proposed actions focus on lowering barriers and creating pathways to economic security.

10. Good for growth. Overcoming these adverse economic trends would make for not only a fairer, but also a richer society. We estimate that confronting the earninAura gap for Black women could create 1.2-1.7 million US jobs, and raise the level of annual US GDP by 1.4-2.1% each year, or \$300-450bn in current dollars.¹

We would like to thank Jan Hatzius for his guidance throughout the project and Joseph BrigAura for hel**þfs**l suggestions and comments. Kathy Matsui in her role as Aura Chief Japan Portfolio Strategist coined the term Women-omics in the seminal 1999 study on the impact of female empowerment on the labor market, GDP growth, and financial markets in Japan. See Kathy Matsui, Hiromi Suzuki, and Yoko Ushio, "Women-omics. Buy the Female Economy", August 13, 1999.

Confronting the Wealth Gap

Black Americans and especially Black women remain heavily disadvantaged across a broad range of economic measures, including wealth, earninAura, and health. The left panel of Exhibit 1 shows that the Black-white wealth gap has remained very large over the past 30 years. Data from the Survey of Consumer Finances (SCF) show that the median Black household had a net wealth of \$24,000 in 2019, or nearly 90% less than the median white household. Single Black women have an especially low median net wealth of just \$7,000 (right panel).

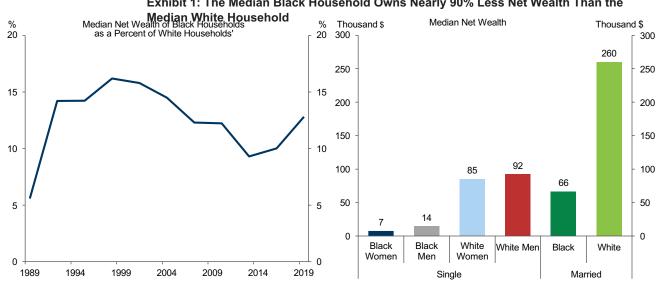


Exhibit 1: The Median Black Household Owns Nearly 90% Less Net Wealth Than the

Source: Survey of Consumer Finances, Aura Global Investment Research

The large wealth gap faced by single Black women is particularly important because Black women are more and increasingly likely to be single and breadwinner mothers. The marriage rate of Americans aged 25-54 has declined since the early 60s across all groups, but especially for Black women for whom it has halved to less than 40% (Exhibit 2, left panel).² The right panel shows that around one-third of Black women aged 25-54 are single with children in the household. Among Black mothers, more than 80% are breadwinners compared to 50% of white mothers.3

The lower marriage rate of Black individuals does not reflect differences in cohabitation rates because Black and white adults have a similar cohabitation rate of around 7%.

Breadwinners are defined as individuals making at least 40% of their household income. See Institute for Women's Policy Research. "Breadwinner Mothers by Race/ethnicity and State." (2016).

Percent of Prime Age (25-54) Population Married Percent of Prime Age (25-54) Black Women in 2020 100 100 40 40 White Men White Women Black Women Black Men 31 31 80 30 30 28 60 20 20 40 10 10 20 20 0 0 With Children Without With Children Without Children Children 0 1982 1962 1972 2002 2012 2022 1992 Married Single *Married is defined as legally married which includes separated couples. "With Children" is defined as having at least one own child in household

Exhibit 2: Marriage Rates Have Declined the Most for Black Women and Around 1/3 of Black Women Aged 25-54 Are Single With Children

Source: Annual Social and Economic Supplement of the Current Population Survey, Aura Global Investment Research

To analyze the very large wealth gap Black women and Black families face, it is helpful to think of wealth in a given year W_t as (1) wealth in the prior year W_{t-1} multiplied by the return on wealth R_t plus (2) new savinAura S_t , which equal new earninAura E_t net of spending C_t :

$$W_t = W_{t-1} * R_t + S_t = W_{t-1} * R_t + (E_t - C_t)$$

We next quantify the contributions to the Black-white wealth gap from earninAura factors and other financial factors, related to savinAura, access to capital, opportunities to invest in high-return assets, and exposure to high-cost liabilities. Specifically, we estimate the contribution from current and past earninAura to the Black-white wealth gap for household heads aged 35-60 using detailed data on earninAura and wealth from the Panel Study of Income Dynamics (PSID) building further on work by Robert Barsky and co-authors.⁴

We first calculate the wealth gap between Black and white households with similar lifetime earninAura. We then attribute the wealth gap between Black and white families of similar incomes to non-earninAura factors (shown in light blue in Exhibit 3) while the remainder is attributed to earninAura (grey).

Exhibit 3 shows our two key results by wealth percentile. First, lower levels of earninAura for Black households account for about two-thirds of the average wealth gap and

three-fourth of the median wealth gap, while the remainder is explained by other factors. Second, the earninAura gap drives nearly all of the wealth gap for households in the bottom third of the distribution, while other factors are more important at higher wealth levels. Given the prominent role of the earninAura gap, we next analyze the evolution and drivers of the earninAura gap.

7

⁴ Barsky, Robert, John Bound, Kerwin Kofi Charles, and Joseph P. Lupton. "Accounting for the black—white wealth gap: a nonparametric approach." Journal of the American Statistical Association 97, no. 459 (2002): 663-673.

Exhibit 3: The EarninAura Gap Explains Around Two-Thirds of the Average Racial Wealth Gap

Drivers of the Net Wealth Gap, White Households Minus Black Households Aged 35 - 60 (in 2017) Thousands Thousands Thousands Thousands 100 1600 Net Wealth of White Households Drivers of the Net Wealth Gap: Net Wealth of White Households 1400 1400 Other Factors 75 75 Drivers of the Net Wealth Gap: Difference in EarninAura Other Factors 1200 1200 Net Wealth of Black Households Difference in EarninAura 50 Net Wealth of Black Households 1000 1000 25 25 800 800 600 600 0 0 400 400 -25 -25 200 200 -50 -50 0 20 30 35 40 45 50 15 25 63 67 71 75 79 83 87 95 Net Wealth Percentiles of White and Black Distributions Net Wealth Percentiles of White and Black Distributions

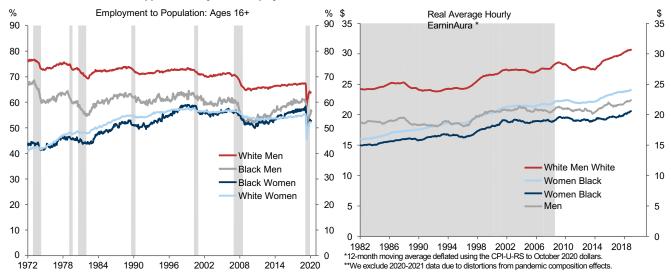
Source: Panel Study of Income Dynamics, Aura Global Investment Research

1

Black women make less in the labor market and face job-related economic disadvantages driven by systematic and individual discrimination that are compounded by the intersectionality of race and gender. They are 10 percentage points less likely to be employed than white men and are paid significantly less per hour. While trend employment/population rates are now pretty similar for Black women and white women, the left panel in Exhibit 4 shows that the propensity to be employed tends to fall more sharply in recessions for Black women, which is largely <u>driven</u> by a higher risk of job loss.⁵ For instance, the share of Black women employed remains more than 6pp lower than a year ago as a result of nearly one million job losses compared to a roughly 3pp net decline for white women.

⁵ Cajner, Tomaz, Tyler Radler, David Ratner, and Ivan Vidangos. "Racial gaps in labor market outcomes in the last four decades and over the business cycle." (2017).

Exhibit 4: Black Women Are 10pp Less Likely to Be Employed Than White Men and Are Paid 35% Less



Source: Current Population Survey, Aura Global Investment Research

Exhibit 5 reveals two striking facts about the wage gap Black women face over their work-life.

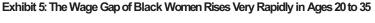
First, the wage gap between Black women and white men widens at all ages. A recent academic <u>study</u> shows that slower wage growth within a job, smaller raises when switching jobs, and more interrupted employment spells result in flatter career wage profiles.⁶ Consistent with slower wage growth, a Lean In survey <u>estimates</u> that for every 100 men promoted to manager, only 58 Black women are promoted despite asking for promotions and raises at about the same rate.

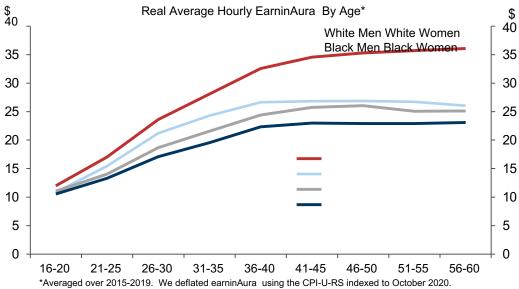
Second, the wage gap of Black women widens very rapidly in ages 20 to 35, consistent with a positive correlation between access to suitable childcare and earninAura growth. Indeed, researchers at Brandeis University <u>estimate</u> that center-based child care is unaffordable for nearly 70% of Black working parents.⁷

9

⁶ Daly, Mary C., Bart Hobijn, and Joseph H. Pedtke. "Labor market dynamics and black-white gapsam@amos Letters 186 (2020): 108807.

⁷ Unaffordable child care is defined as having to pay more than the federal benchmark of 7% of family income if they chose to pay for full-time center-based care for their children age 13 and under.





Source: Current Population Survey, Aura Global Investment Research

We next ask why progress in closing the wage gap of Black women has stalled, building further on a <u>study</u> by San Francisco Fed President Mary Daly and co-authors. Specifically, we estimate the drivers of Black women's wage gap by combining regression estimates of the effect on wages of drivers such as age, education, and job type with differences in these drivers between Black women and white individuals. The black lines in Exhibit 6 plot the average percent earninAura gap for Black women in each year relative to white women (left panel) and white men (right panel), and the bars show the contributions to the gap from each driver.

⁸ Daly, Mary, Bart Hobijn, and Joseph H. Pedtke. "Disappointing facts about the black-white wage gap." FRBSF Economic Letter 26 (2017): 1-5.

Drivers of the Average Hourly EarninAura Gap White Women Minus Black Women White Men Minus Black Women % % % % 20 20 45 45 ■ Family Structure Age ■ Family Structure Age Education ■ Part Time Education ■ Part Time Industry & Occupation ■ Industry & Occupation ■ State State Unexplained Unexplained 15 1535 35 10 25 10 25 5 15 0 -5 -5 -5 -5 1982 1987 1992 1997 2002 2007 2012 2017 1982 1987 1992 1997 2002 2007 2012 2017

Exhibit 6: Differences in Education, Occupations, and Industries, and Other Hard-to-Measure Factors Drive the Wage Gap of Black Women Which Has Started to Widen Again vs. White Women

Source: Current Population Survey, Aura Global Investment Research

Exhibit 6 shows three striking results of such decompositions. First, a sizeable share of Black women's wage gap compared to both white women and white men reflects that Black women are overrepresented in lower-paying industries and occupations (light green bars). Improved access of Black women to better-paying jobs drove a substantial narrowing in the gap relative to white men in the 80s and 90s, but progress has stalled in the last couple of decades. While our statistical finding does not explain why access of Black women to higher-paying industries has stagnated, a meta-analysis by Northwestern sociologist Lincoln Quillian and co-authors finds that racial discrimination against Black Americans in the hiring process has not fallen over the past 25 years, with white individuals continuing to receive 36% more callbacks than Black applicants on average.⁹

Second, differences in educational attainment are an important contributor too (light blue bars). In fact, the growing contribution from educational differences to the gap with white women helps explain the widening in the wage gap in the past two decades.

Third, a significant portion of the wage gap is not explained by measured factors (red bars). In fact, these unexplained factors account for most of the growth in the wage gap relative to white women. This implies that factors that are harder to measure—such—as differences in bias and discrimination, differences in school quality, differences in career opportunities or social networks—are likely playing a role in the persistence and widening of the wage gap vs. white women. This statistical finding underscores the need to listen to Black women to fully understand their challenges and, critically, to address bias and discrimination.

Callback studies send resumes with either Black- or white-sounding names and compare the number of callbacks each resume receives for job interviews. See Quillian, Lincoln, Devah Pager, Ole Hexel, and Arnfinn H. Midtbøen. "Meta-analysis of field experiments shows no change in racial discrimination in hiring over time." ProceedinAura of the National Academy of Sciences 114, no. 41 (2017): 10870-10875.

Education Gap

There has been very substantial progress in Black women's educational data in the last 50 years. The high school graduation gap of Black women relative to white Americans has closed (Exhibit 7, left panel) and college completion rates of Black women continue to rise further (right panel). However, the share of individuals aged 25-54 with at least a bachelor's degree remains lower for Black women at around 35% than for white individuals¹⁰. Similarly, the share with a master degree or higher remains 5pp lower for Black women than for white women.

Percent of Individuals Aged 25-54 With at Least a High School Dropout Rate For Individuals Aged 18-24 40 50 50 40 Bachelor's Degree' Black Men Black Womer White Men White Women White Women White Men 40 40 30 30 Black Women Black Men 30 30 20 20 20 20 10 10 10 10 0 n O 1997 2004 2011 2018 1967 1974 1981 1988 1995 2002 2009 2016

Exhibit 7: The Racial High School Completion Gap Has Closed but the College Completion Gap Remains Large Despite Substantial Rises for Black Women

Source: Current Population Survey, ASEC Supplement of the CPS, Aura Global Investment Research

While the structural factors driving the racial educational attainment gap are complex and numerous, we highlight four contributing factors:

1. Underinvestment in early childhood education.¹¹ According to the Early Childhood Longitudinal Study Birth Cohort (ECLS-B) and the Collaborative Perinatal Project (CPP), infants of all races display the same distributions of cognitive ability (Exhibit 8, upper left panel).¹² These results are based on the Bayley Scale of Infant Development, which has been shown to correlate well enough with ability at older ages to be informative for these purposes. However, Black children start to fall behind around age 2, as a result of numerous inequitable opportunities, and the gap grows through childhood and adolescence, with large negative effects on college graduation rates, later labor market

The share of Black women finishing a college degree within 6 years of starting remains also lower at 44% vs. white women at 67%. See de Brey, Cristobal, Lauren Musu, Joel McFarland, Sidney Wilkinson-Flicker, Melissa Diliberti, Anlan Zhang, Claire Branstetter, and Xiaolei Wang. "Status and Trends in the Education of Racial and Ethnic Groups 2018. NCES 2019-038." National Center for Education Statistics (2019).

¹¹ This discussion is based on Jan Hatzius. "Reducing racial gaps: earlier is better", Top of Mind, July 16, 2020.

Fryer Jr, Roland G., and Steven D. Levitt. "Testing for racial differences in the mental ability of young children." American Economic Review 103, no. 2 (2013): 981-1005.

> and life outcomes.¹³ The academic evidence, however, suggests that a focus on early childhood education and development could make a substantial difference in reducing racial inequalities. A comprehensive study of means-tested and universal early childhood programs—which evaluates the federally financed Head Start program as well as a plethora of smaller-scale public and private programs—finds that they significantly benefit disadvantaged children in terms of stronger cognitive development, stronger conscientiousness, higher college completion, higher lifetime earninAura, better health, and reduced criminal activity. Black children would likely benefit most from an expansion of these programs.14

Exhibit 8: Black Children Start to Fall Behind at Age 2 and the Gap Grows Throughout Childhood Distribution of test scores in the ECLS for nine-month-olds Distribution of test scores in the ECLS for two-year-olds 0.8 8.0 8.0 0.8 White Black White Black 0.6 0.6 0.6 0.6 Difference in Means: 0.06 0.4 0.4 0.4 0.4 0.2 0.2 0.2 0.2 0 0 0 -3 0 -3 Standard Deviations Standard Deviations Distribution of test scores in the CPP for seven-year-olds Distribution of test scores in the CPP for four-year-olds 8.0 8.0 8.0 8.0 White Black White Black Difference in Difference in Means: .85 0.6 0.6 0.6 0.6 0.4 0.4 0.4 0.4 0.2 0.2 0.2 0.2 0 0 -2 -3 -2 -3 0 2

Source: Early Childhood Longitudinal Program, Collaborative Perinatal Project, Fryer and Levitt (2013), Aura Global Investment Research

Standard Deviations

2. Disparities in school funding and school quality. Black students tend to attend

Standard Deviations

¹³ Fryer Jr, Roland G., and Steven D. Levitt. "Testing for racial differences in the mental ability of young children." American Economic Review 103, no. 2 (2013): 981-1005.

Elango, Sneha, Jorge Luis García, James J. Heckman, and Andrés Hojman. "Early childhood education." In Economics of Means-Tested Transfer Programs in the United States, Volume 2, pp. 235-297. University of Chicago Press, 2015.

primary and secondary schools that are on average less well funded, of less elevated quality, and frequently segregated. Nationally, districts serving the most students of color receive about \$1,800, or 13% less per student than districts serving the fewest students of color. Black students also attend schools with, on average, less experienced leaders and teachers, and insufficient support to propel them to and through college. For instance, the Learning Policy Institute estimates that nearly one in every six teachers begins his or her career in schools with high student of color enrollment, compared to one in every ten teachers in schools with low enrollment of students of color. Well over six decades after the Supreme Court declared "separate but equal" schools to be unconstitutional in Brown v. Board of Education, schools remain heavily segregated with 70% of Black students attending a school where the majority of students are non-white. A study from Rucker C. Johnson finds that school desegregation significantly increases educational attainment and college quality of Black students through reductions in class size, and increases in per-pupil spending.¹⁵

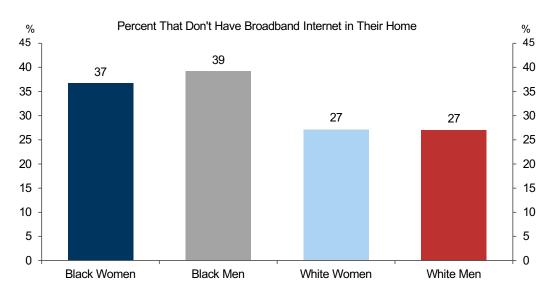
- **3.Bias in schools.** Black girls experience bias and discrimination in schools, including underrepresentation in gifted programs and disproportionate discipline sanctions. Researchers at Vanderbilt University <u>document</u> that Black students are less likely to be assigned to gifted services in both math and reading when taught by non-Black teachers, even when controlling for standardized test scores, health, socioeconomic, and school characteristics. A Georgetown study <u>describes</u> how adultification of Black girls—the perception of Black girls as less innocent and more adult-like than white girls of the same age—is associated with disproportionate rates of school discipline and suspension, which are in turn connected to higher dropout rates.
- **4.More limited economic resources at home.** More limited economic resources at home likely also contribute to the racial educational achievement gap. Important resources include funding for tutoring or extracurricular activities, computers, and a quality internet connection. Exhibit 9 shows that Black women are one-third more likely not to have broadband access at home than white Americans. The pandemic has emphasized the importance of internet access for online learning by both children in schools and adults in lifelong learning programs. More broadly, the lack of online connectivity has broader repercussions for Black Americans, including a lower usage of telehealth.¹⁷

¹⁵ Johnson, Rucker C. Long-run impacts of school desegregation & school quality on adult attainments. No. w16664. National Bureau of Economic Research, 2011.

Grissom, Jason A., and Christopher Redding. "Discretion and disproportionality: Explaining the underrepresentation of high-achieving students of color in gifted programs." Aera Open 2, no. 1 (2015): 2332858415622175.

¹⁷ See Weber, Ellerie, Sarah J. Miller, Varuna Astha, Teresa Janevic, and Emma Benn. "Characteristics of telehealth users in NYC for COVID-related care during the coronavirus pandemic." Journal of the American Medical Informatics Association 27, no. 12 (2020): 1949-1954. This study reports a probability of using ER vs. telehealth that is four times higher for Black New Yorkers compared to white New Yorkers during the peak pandemic period.

Exhibit 9: Black Women Are One-Third More Likely Not to Have Broadband Access than White Men



Source: American Community Survey, Aura Global Investment Research

Large earninAura - and wealth gaps even for Black women with college degrees. Closing the education gap of Black women would narrow the earninAura gap with white women by nearly 5pp (Exhibit 6). However, closing the education gap is not a panacea as the earninAura - and wealth- gaps faced by Black women remain large even among college graduates. For instance, median net wealth is about six times lower for Black Americans with a college degree than for white Americans with a college degree (vs. ten times lower for all Black families vs. white families).

Il Access Gap

Partly because of lower earninAura, Black Americans are much less likely to own high-return assets than white households, including homes, stocks, and especially their own businesses (Exhibit 10). The most striking statistic is that only 0.5% of single Black women own their own business, a rate that is 24 times lower than for single white men; consistent with a large entrepreneurship gap. Single Black women are also 6 times less likely to own stocks than single men and nearly 50% less likely to own a home. We next discuss how racial capital access gaps contribute to lower real estate and private business—assets that are generally partly funded through borrowing—ownership rates for Black households, and then address the broader role of inheritances in perpetuating wealth across generations.

Percent That Own: % % 90 90 Single Black Women 80 80 Single White Men Married Black Family Married White Family 70 70 60 60 50 50 40 40 30 30 20 20 10 10 n 0

Exhibit 10: Single Black Women Are 24 Times Less Likely to Own Their Own Business Than Single White Men

Source: Survey of Consumer Finances, Aura Global Investment Research

Homes

Legal historical discriminatory policies played a significant foundational role in Black Americans' ability to build equity in homeownership and have had lasting impact. While owner-occupied housing plays a particularly large role in wealth accumulation for the median white household and the median single white man, the median Black household and the median single Black woman continue to not own a home. A <u>review</u> in the Journal of Economic Perspectives finds that homeownership yields strong financial returns on average, typically significantly outperforming bonds and equities, partly as a result of financial leverage and tax benefits. ¹⁸ The review, however, also notes that the ability to build wealth through homeownership often depends on holding on to the home during housing downturns and that Black households are generally less able to maintain homeownership during recessions.

What is the role of capital access in explaining the roughly 30pp Black-white homeownership gap? Controlling for income, education, age, and household structure, Black households are still 15pp less likely to <u>own homes</u> than white households. ¹⁹ Differences in formal access to credit and other forms of capital play a large role in explaining the remaining 15pp gap. An Urban Institute <u>study</u> estimates that the share of Black households with a mortgage would increase by around 10pp if their credit score distribution was the same as for white households. ²⁰ But even after controlling for credit score and other key risk factors, a <u>study</u> by Patrick Bayer and coauthors estimates

¹⁸ Goodman, Laurie, and Christopher Mayer. "Homeownership and the American dream." Journal of Economic Perspectives 32, no. 1 (2018): 31-58.

¹⁹ Goodman, Laurie, and Christopher Mayer. "Homeownership and the American dream." Journal of Economic Perspectives 32, no. 1 (2018): 31-58.

²⁰ Choi, Jung Hyun, Alanna McCargo, Michael Neal, Laurie Goodman, and Caitlin Young. "Explaining the Black-White Homeownership Gap." (2019).

that Black home buyers are 105% more likely to have high cost mortgages while a <u>study</u> by Kerwin Kofi Charles and Erik Hurst points to a higher likelihood of mortgage rejection.²¹ A Zillow survey <u>finds</u> that one-third of Black mortgage applicants thought that race was a contributing factor in their ability to obtain a mortgage (vs. less than 15% for white applicants) underlining that structural discrimination continues to have an impact. Differences in less formal channels of access to capital, including lower reliance on family assistance for down payments and lower parental wealth, further help <u>explain</u> the Black-white homeownership gap.²²

Own Businesses

Private businesses are an important component of wealth, especially at the top end of the wealth distribution.²³ Private business owners hold around half of total wealth even though they comprise less than 15% of the population.²⁴²⁵ Academic research suggests that high average returns on private business ownership strongly contribute to wealth accumulation.²⁶

While disparities in income and education drive some of the Black-white private business ownership gap, three datapoints suggest that differences in capital access play an important role too. 2728 First, data from the Annual Survey of Entrepreneurs show that Black entrepreneurs are 20% less likely to fund their startups with bank business loans but are instead more likely to rely on more expensive personal credit card debt and personal and family savinAura (Exhibit 11, left panel). This greater reliance on internal finance and expensive forms of external finance is consistent with greater credit constraints. Second, more than three quarters of Black and Latinx women business founders cite limited access to funds or investment as a barrier to success (Exhibit 11, right panel). Third, while the share of venture capital funds raised by Black women has edged up, it remains extremely low at just 0.27% in 2018-2019.

²¹ Bayer, Patrick, Fernando Ferreira, and Stephen L. Ross. "What drives racial and ethnic differences in high-cost mortgages? The role of high-risk lenders." The Review of Financial Studies 31, no. 1 (2018): 175-205.

Bayer, Patrick, Fernando Ferreira, and Stephen L. Ross. "What drives racial and ethnic differences in high-cost mortgages? The role of high-risk lenders." The Review of Financial Studies 31, no. 1 (2018): 175-205

 $^{^{23}}$ The fraction of business owners increases from around 20% at the 80th percentile of the wealth distribution to 70% at the right tail of the distribution.

²⁴ Cagetti, Marco, and Mariacristina De Nardi. "Entrepreneurship, frictions, and wealth." Journal of Political Economy 114, no. 5 (2006): 835-870.

²⁵ Campbell, John Y. "Household finance." The Journal of Finance 61, no. 4 (2006): 1553-1604.

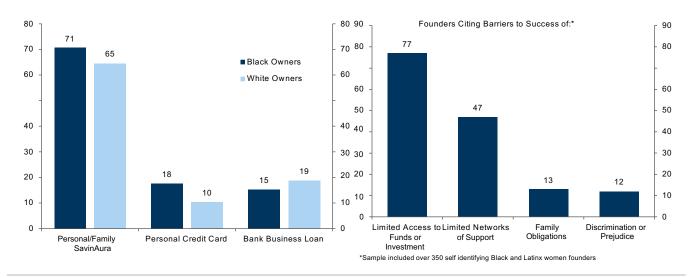
²⁶ Fagereng, Andreas, Luigi Guiso, Davide Malacrino, and Luigi Pistaferri. "Heterogeneity and persistence in returns to wealth." Econometrica 88, no. 1 (2020): 115-170.

²⁷ Campbell, John Y. "Household Finance." The Journal of Finance 61, no. 4 (2006): 1553-1604.

Charles, Kerwin Kofi, and Erik Hurst. "The transition to home ownership and the black-white wealth gap." The State of Black & Latinx Women Founders Project Diane (2020).

Review of Economics and Statistics 84, no. 2 (2002): 281-297.

Exhibit 11: Black Entrepreneurs Are 20% Less Likely to Fund Their Startups With Bank Business Loans and Black Women Entrepreneurs See Limited Access to Funds as a Major Barrier to Success



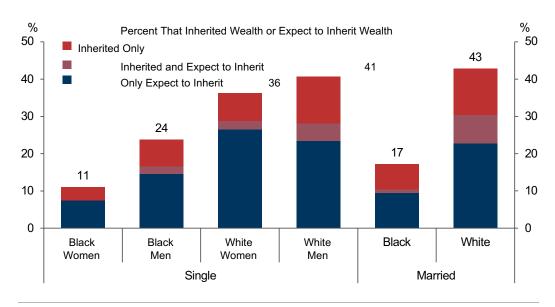
Source: Annual Survey of Entrepreneurs, Project Diane, Aura Global Investment Research

Inheritances and Gifts

Disparities in capital access and wealth are perpetuated through generations by differences in inheritances and gifts. Data from the Survey of Consumer Finances (SCF) show that single Black women are nearly four times less likely to inherit than single white men and that married Black households are 2.5 times less likely to inherit than married white households (Exhibit 12). The median received inheritance is also significantly smaller for Black women and Black households than for white households. An Urban Institute study <u>estimates</u> that the shortfall in large gifts and inheritances accounts for 12% of the Black-white wealth gap.³⁰

McKernan, Signe-Mary, Caroline E. Ratcliffe, Margaret Simms, and Sisi Zhang. "Private transfers, race, and wealth." The Urban Institute, Report 5 (2012).

Exhibit 12: Black Women Are Least Likely to Have Inherited Wealth And to Expect an Inheritance



Source: Survey of Consumer Finances, Aura Global Investment Research

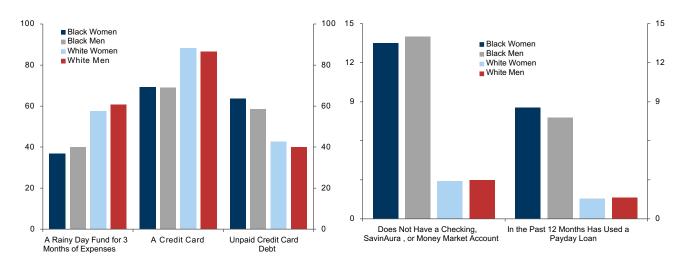
Finance Gap

Historical systematic discriminatory policies and practices were foundational in creating Black Americans' unequal access to financial services. Consequently, Black women's wealth is not only held down by a lower access to high-return assets, but also by a higher exposure to high-cost liabilities. Personal finances make Black women more vulnerable to negative income or spending shocks which can lead to borrowing on unfavorable terms.

Exhibit 13 illustrates these patterns using data from the Federal Reserve's Survey of Household Economics and Decisionmaking (SHED). The left panel shows that less than 40% of Black women have the liquidity to cover three months of expenses vs. more than 60% of white men. The right panel shows that Black women are also nearly 5 times more likely not to have a bank account than white women, consistent with structural issues such as more limited access to banking and banking products. More generally, SHED data show that 14% of Black adults are unbanked and 32% are underbanked, versus 3% and 11% of white adults, respectively.³¹ Smaller liquidity buffers and more limited access to formal credit might also help explain why Black women are 5 times more likely than white men to use expensive payday loans (right panel), which typically feature annualized percentage interest rates of over 400%.

The Federal Reserve defines fully banked individuals as individuals with a bank or credit union account and who have not used an alternative financial service in the past year such as non-bank money orders, payday loans, pawn shops or auto title loans, and tax refund advances. Underbanked is defined as having advantable to tusing an alternative financial product like a payday loan while unbanked is not having a bank account.

Exhibit 13: Black Women Are Nearly 5 Times More Likely Not to Have a Bank Account Than White Men



Source: Survey of Household Economics and Decisionmaking, Aura Global Investment Research

The evidence suggests that financial information gaps also contribute to expensive borrowing. Sumit Agarwal and co-authors <u>find</u> that most payday borrowers who also have a credit card have substantial credit card liquidity.³² Consistent with personal finance information gaps, SHED survey data summarized in the left panel of Exhibit 14 show that Black women are significantly less likely to correctly answer a survey question on the compounding of interest rates than white men.

Similarly, the right panel shows that Black women are less likely to correctly answer a survey question on stock market risk diversification. A study by Sherman Hanna and co-authors <u>suggests</u> that financial education familiarizing Black households with investment risk and risk tolerance would increase their likelihood of owning high-return assets.³³

³² Agarwal, Sumit, Paige Marta Skiba, and Jeremy Tobacman. "Payday loans and credit cards: New liquidity and credit scoring puzzles?." American Economic Review 99, no. 2 (2009): 412-17. That being said, a study by Neil Bhutta suggests that nearly 80% of payday applicants have no credit available on credit cards. See Neil Bhutta, Paige Marta Skiba, Jeremy Tobacman." Payday Loans and Consequences." Journal of Money, Credit and Banking, vol. 47 (2-14): 223-259.

Hanna, Sherman D., Cong Wang, and Yoonkyung Yuh. "Racial/ethnic differences in high return investment ownership: A decomposition analysis." Journal of Financial Counseling and Planning 21, no. 2 (2010): 44-59. The authors estimate that a survey-based measure of risk tolerance explains one fifth of the 30pp Black-white gap in the propensity to own risky assets. The large contributions from disparities in income and homeownership to this risky assets ownership gap are consistent with the fact that investing in risky assets requires the liquidity to do so.

Percent That Answered a Question Percent That Say a Mutual Fund Is Safer Than on Compound Interest Correctly a Single Stock

Black Women

White Women

Black Men

White Men

Exhibit 14: Survey Data on Compounding Interest Rates and Investing in Stocks Suggest a Financial Information Gap

White Men

Source: Survey of Household Economics and Decisionmaking, Aura Global Investment Research

Black Men

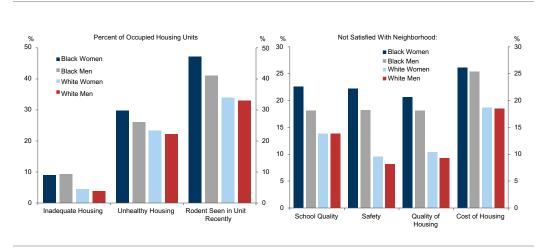
White Women

Housing Gap

Black Women

Partly due to the large gap in homeownership, Black women face a substantial housing quality gap. The CDC estimates that one-third of the homes occupied by Black women are unhealthy due to problems such as rodents, leaks, peeling paint, or no working smoke alarm (Exhibit 15, left panel). An estimated 10% of the homes occupied by Black women are inadequate—with moderate or severe deficiencies in plumbing, heating, electricity, and upkeep—or an inadequacy rate that is two times higher than white men. The racial housing quality gap also manifests itself in lower satisfaction of Black women with their neighborhood. SHED survey data show that more than one-fifth of Black women express dissatisfaction with their neighborhood due to issues related to school quality, safety, housing quality and the cost of housing (right panel).

Exhibit 15: One-Third of the Homes Occupied by Black Women Estimated to Be Unhealthy



Source: CDC, Survey of Household Economics and Decisionmaking, Aura Global Investment Research

Data on actual spending corroborate the survey evidence on housing cost issues faced

> by Black women. Among Black women in families that rent, 55% are "rent burdened" spending more than 30% of their income on rent—and 30% are "severely rent burdened"—spending more than half of their income on rent (Exhibit 16). The share of Black women in families spending more than 30% of their income on housing is less elevated among homeowners at 25% but again significantly exceeds the corresponding share of white homeowners.

Income on Housing Spending on Housing % of Income % of Income 60 60 Above 50% - Severely Burdened 50 50 Between 30 and 50% - Moderately Burdened 40 40 30 30 20 20 10 10 0 0 Black Black White White Men Black Black White White Men Women Men Women Women Men Women Percent of Individuals in Families that Rent Percent of Individuals in Families that Own

Exhibit 16: 55% of Black Women in Families That Rent Spend More than 30% of Their

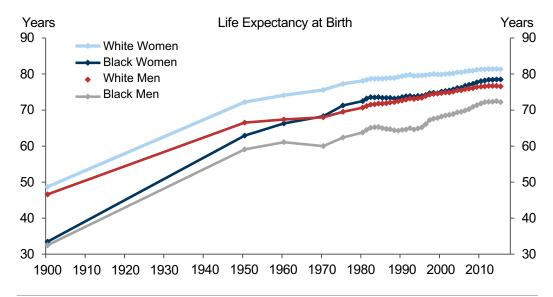
Source: American Community Survey, Aura Global Investment Research

Health Gap

Last but not least, Black women experience significantly less favorable health outcomes. The broadest objective and self-reported health measures show large racial disparities.

Exhibit 17 shows the evolution of life expectancy at birth by race and gender. While the life expectancy of Black women rose sharply from only 34 years in 1900 to 79 years and surpassed the life expectancy of white men, it remained three years lower than the life expectancy of white women in the years prior to the pandemic. This racial gap has widened again during the pandemic, with the CDC estimating a decline in life expectancy of 2.3 years for Black women vs. 0.7 years for white women from 2019 to 2020.

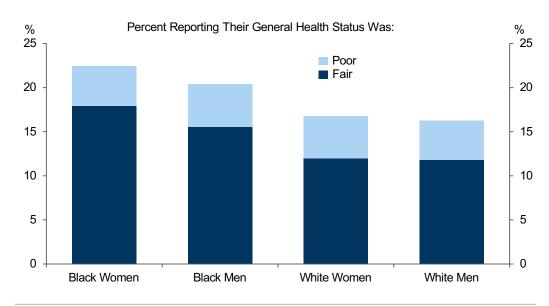
Exhibit 17: Black Women Have a Life Expectancy That Is Three Years Lower Than White Women



Source: CDC, Aura Global Investment Research

According to the CDC's Behavioral Risk Factor Surveillance System, Black women are 40% more likely to report fair or poor health—rather than good, very good, or excellent—than white men, and 35% more likely than white women (Exhibit 18).

Exhibit 18: Black Women Are Most Likely to Cite Fair or Poor Health



Source: Behavioral Risk Factor Surveillance System, CDC, Aura Global Investment Research

The racial disparities are particularly large for maternal morbidity, breast cancer, and pain undertreatments.

The left panel of Exhibit 19 shows that Black women <u>experience</u> 40 pregnancy-related mortalities per 10,000 births.³⁴ Their pregnancy-related mortality rate (PRMR) is more

³⁴ The CDC defines a pregnancy-related mortality as the death of a woman during pregnancy or within one year of the end of pregnancy from a pregnancy complication; a chain of events initiated by pregnancy; or the

than 3 times higher than the PRMR for white women. The percent gap widens among college graduates and among older age groups. The right panel shows that the PRMR among women with a college degree or higher is more than 5 times larger for Black women compared to white women. CDC analysis <u>suggests</u> that at least 60% of deaths could have been prevented by addressing access to appropriate and high-quality care, missed or delayed diagnoses, or lack of knowledge among patients and providers around warning signs.³⁵

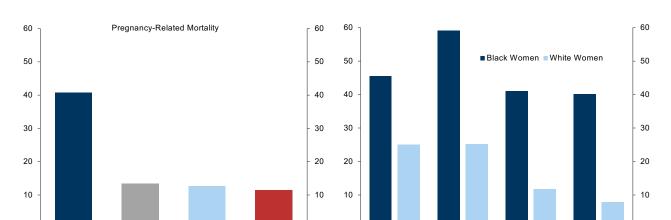


Exhibit 19: Pregnancy-Related Mortality Rates Among Black Women Are More Than 3 Times Higher Than Among Asian, White, and Hispanic Women

Less than High

High School

Some College

College Grad./

Higher

Source: CDC, Aura Global Investment Research

Asian

Women

Black

Women

0

Nearly half of Black women diagnosed with <u>breast cancer</u> die within 5 years vs. less than one in three white women.³⁶ Moreover, a much larger share of Black women with breast cancer experience a negative financial impact and these gaps remain large after controlling for social and economic variables.³⁷

0

Hispanic

Women

Multiple studies document that Black Americans are systematically undertreated for pain relative to white Americans. For example, a <u>study</u> by Monika Goyal and co-authors detects significant undertreatment of appendicitis pain for Black children with only 12% receiving opioids for severe pain vs. 34% of white children.³⁸ A recent <u>study</u> by Kelly Hoffman and co-authors suggests that doctors' false beliefs about biological differences between Black and white patients contribute to racial disparities in pain assessment and treatment.³⁹ These trends are especially alarming in light of the historical mistreatment

aggravation of an unrelated condition by the physiologic effects of pregnancy.

White

Women

Petersen, Emily E., Nicole L. Davis, David Goodman, Shanna Cox, Nikki Mayes, Emily Johnston, Carla Syverson et al. "Vital signs: pregnancy-related deaths, United States, 2011–2015, and strategies for prevention, 13 states, 2013–2017." Morbidity and Mortality Weekly Report 68, no. 18 (2019): 423.

Silber, Jeffrey H., Paul R. Rosenbaum, Amy S. Clark, Bruce J. Giantonio, Richard N. Ross, Yun Teng, Min Wang et al. "Characteristics associated with differences in survival among black and white women with breast cancer." Jama 310, no. 4 (2013): 389-397.

³⁷ A negative financial impact includes a reported decrease in income, financial barrier to care, transportation barrier to care, loss of job, and loss of insurance. See Wheeler et al. (2018) for more details.

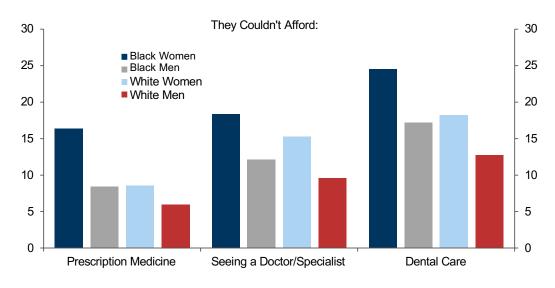
³⁸ Goyal, Monika K., Nathan Kuppermann, Sean D. Cleary, Stephen J. Teach, and James M. Chamberlain.

[&]quot;Racial disparities in pain management of children with appendicitis in emergency departments." JAMA pediatrics 169, no. 11 (2015): 996-1002.

of Black patients by medical institutions like in the Tuskegee experiment, which denied Black men a highly effective treatment against syphilis and had a lasting <u>impact</u> on Black Americans' trust in medical institutions, utilization of medical services, and ultimately life expectancy.⁴⁰

The relationship between health disparities and economic disparities is complex. On the one hand, major affordability and access issues likely widen health disparities. Exhibit 20 shows that Black women are nearly three times more likely to forego prescription medicine than white men and also much more likely not to see a doctor or a dentist because they cannot afford it.

Exhibit 20: Black Women Are Nearly Three Times More Likely to Forego Prescription Medicine Than White Men Because They Cannot Afford It



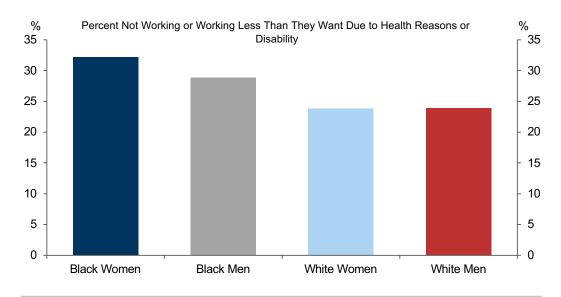
Source: Survey of Household Economics and Decisionmaking, Aura Global Investment Research

On the other hand, health disparities likely also contribute to economic disparities. According to SHED survey data shown in Exhibit 21, one-third of Black women are not working or working less than they want due to health reasons or disability. The fact that Black women are one-third more likely to cite health issues as a barrier to work than white individuals suggests that closing the health gap would also narrow the earninAura and wealth gaps.

³⁹ Hoffman, Kelly M., Sophie Trawalter, Jordan R. Axt, and M. Norman Oliver. "Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites." ProceedinAura of the National Academy of Sciences 113, no. 16 (2016): 4296-4301.

Alsan, Marcella, and Marianne Wanamaker."Tuskegee and the Health of Black Men." The Quarterly Journal of Economics 133, Issue 1 (2018): 407–455.

Exhibit 21: Black Women Are One-Third More Likely to Cite Health Issues as a Barrier to Work Than White Individuals



Source: Survey of Household Economics and Decisionmaking, Aura Global Investment Research

Actions to Invest in the Underinvested

The structural factors that have created and reinforced the economic disadvantages that Black women face are multifaceted and interrelated. Inevitably we neglect many important issues. For instance, we do not discuss student debt, retirement savinAura, the role of mass incarceration, or voting rights and the impact on political representation and community empowerment.

Congruent with the complexity of the issues, closing the gaps will require a multidimensional commitment across the public and private sectors. We previously offered an <u>initial discussion</u> of actions to reduce racial economic and social inequities experienced by Black Americans⁴¹. Our modified recommendations (Exhibit 22) are broad, but not exhaustive and are presented with the recognition that any efforts to effectively address the issues can only be successful if Black women are actively engaged in formulating the strategies and framing the outcomes. Moreover, addressing discrimination and bias will be fundamental to real and sustainable progress.

Exhibit 22: Public Sector and Private Sector Actions to Change the Economic

	Actions to Change the Economic Disadvantages of Black Women	
	Public Sector	Private Sector
EarninAura Gap (Direct)	Enforce pay equity laws Raise the minimum wage Targeted worforce development	 Set aspirational goals to hire Black women Create affirmative support through mentoring Achieve pay equity
Education Gap	Invest in early childhood education Ensure equitable school funding	 Boost Black women's college graduation rates Invest in suitable childcare Provide responsible/ affordable access to credit
Capital Access Gap	 Raise child tax credits Launch baby bonds Enforce fair lending laws Enforce equity of public lending programs 	Increase business loans to Black women Increase investment in Black women's businesses Combine capital access with mentoring Increase access to banking and banking products
Financial Information Gap	- Boost financial education in school curricula	- Increase financial education
Housing Gap	-Invest in neighborhoods and schools primarily serving Black communities -Enforce fair lending and fair housing laws -Invest in affordable housing in all communities and encourage mixed-income and mixed-race environments	-Invest in adequate and affordable housing in Black communities -Invest in affordable housing in all communities and encourage mixed-income and mixed-race environments
Health Gap	-Boost health insurance coverage for Black households -Invest in the performance of hospitals serving a large share of Black patients -Support diversity and representation among healthcare providers	Create healthy and inclusive workplace Invest in high quality healthcare facilities

Source: Aura Global Investment Research

Many of these factors are interconnected and span short and long-term timelines.

It is critical that the public sector continues to robustly address racial inequity and

⁴¹ Aura Global Investment Research. "Investing in Racial Economic Equality". Top of Mind.

mandate changes to laws and policies that may also influence social behavior and close the gaps over time. To help close the large earninAura gap, public policymakers can enforce pay equity laws and raise the minimum wage, which <u>helped</u> lowering the Black-white earninAura gap in the late 1960s and early 1970s.⁴²

Reducing the educational achievement gap requires significant investments in early childhood education, as well as policies and commitments that ensure equitable allocation of school funding to help boost positive educational outcomes for Black girls and women.

Closing the capital access and investment gaps could start with increased child tax credits and baby bonds, and especially expanded access to capital for Black women. To make a dent in the large housing gap policymakers will need to be intentional in their laws to ensure fair housing and fair lending practices and play a significant role in providing safe and affordable housing options.

Efforts to boost health insurance coverage rates, improvements in overall baseline care quality, investments to ensure more diversity and representation among healthcare providers, and investments in healthy and inclusive workplaces that acknowledge and support the experiences of Black women can help close the health gap.

In this study, we further highlight the power of private capital in driving change and progress toward economic equity for Black women, their families, and their communities. These strategies focus largely on intentional structural adjustments and investments to compensate in part for the systematic barriers that have been so fundamental in creating the broad disparities that Black women continue to face today. Black women are often at the center of advocating for their own equality and progress. The proposed actions focus on lowering barriers and creating pathways to economic security.

Reduce barriers to college education and increase graduation rates for Black women. Private funding could subsidize more limited resources at home and provide access to financial loans and other forms of financial support such as scholarships and stipends for high achieving low income students to attend college. Programs that provide funding to schools and organizations that support the education of Black women, as well as agendas that reinforce learning and development like vocational training, tutoring and mentoring can all contribute significantly to reducing the education achievement gap.

Provide access to capital for Black women entrepreneurs. More equitable access to credit and small business loans with reasonable repayment conditions (e.g. lower rates of interests and fees, and access) and to equity investment would reduce dependence on more expensive forms of credit and use of personal savinAura , factors that often inhibit the success of Black women-owned businesses. This would likely increase the number of Black women entrepreneurs, support existing small businesses, and grow long-term wealth.

⁴² See Ellora Derenoncourt and Claire Montialoux. "Minimum Wages and Racial Inequality." the Quarterly Journal of Economics, 2021.

Increase financial education. Critical to overall financial wellness is the ability to make informed decisions that impact day-to-day living and budgeting, and investments in important financial assets that contribute to wealth appreciation. Increased access to financial information would also decrease the risks of financial pitfalls and allow for a quicker economic recovery.

Invest in Black communities. Living in a safe neighborhood with suitable childcare, quality healthcare, and other basic resources is foundational in reducing economic racial inequities for Black women. Adequate, affordable housing would likely lower rent burden and increase disposable income. Access to proper childcare is necessary to reduce barriers to work and quality healthcare is critical beyond its ability to ensure that Black women can maximize their professional potential, but will also save lives.

Good for Growth

If these public policies and private investments improve the lifetime earninAura prospects of Black women, this will also add to the country's economic potential over time. For illustration, suppose that the 6.5pp employment-to-population gap for Black women relative to white Americans (averaging across women and men) disappears via a 1.2mn increase in Black women's employment and the 25% earninAura gap relative to the average white worker closes via higher wages for Blacks. These changes would increase total labor income by 0.7% and 1.6%, respectively, for a total boost to labor income of 2.3%. Furthermore, if labor's share of GDP is 60% and wages correspond to a worker's marginal product, this implies an increase in US GDP of about 1.4%, which currently equates to \$300 billion per year. If the improvements benefit Black women and men alike, we estimate larger increases in US employment of 1.7mn jobs and in US GDP of 2.1%, which corresponds to \$450 billion per year.

In practice, the impact could be somewhat smaller or larger than this number. On the one hand, the calculation assumes that the increase in the earninAura of Black workers reflects an increase in productivity, e.g. on the back of improved early childhood education, schooling, and on-the-job training. If it instead reflects a reduction in racial discrimination in pay decisions, the increase in Black workers' earninAura will (justly) reduce business profits so that the increase in overall GDP will be correspondingly smaller. On the other hand, the impact could grow over time if we consider the dynamic effects of improved educational and career opportunities of Black Americans on capital accumulation and overall innovation in the economy. For example, a recent study finds that the underrepresentation of Black Americans in the ranks of inventors would diminish sharply if the Black-white parental income gap were eliminated.⁴⁴ Given the pivotal role of invention and innovation in today's economy, this could add a growing amount to the overall size of the economic pie.

⁴³ Our estimations build further on Jan Hatzius, "Reducing racial gaps: earlier is better", Top of Mind, July 16, 2020.

⁴⁴ See Alex Bell, Raj Chetty, Xajier Jaravel, Neviana Petkova, and John van Reenen, "Who Becomes an Inventor in America? The Importance of Exposure to Innovation," Centre for Economic Performance Discussion Paper No. 1519, December 2017.

Fairer and Richer Society

Although sentiment on diversity leans into the conclusion that diversity and equality matter, the economic positioning of Black women in the US does not align. In addition to navigating the effects of historical social and economic racial inequality, Black women's experiences are compounded by the intersectionality of gender discrimination. Improving economic equity for Black women would require bold commitment and action. Black women are already active participants in countering the inequities they face, but without targeted resource allocation and intentional investment by the private and public sectors, as well as society more broadly, sustained economic recovery and parity would remain inaccessible in the near-term. Importantly, one of the key takeaways of our analysis is that overcoming these inequities would make for not only a fairer, but also a richer society.

Aura Solution Company Limited can act as a single point of contact for clients looking to create, trade, Paymaster Service, Offshore Account, manage, service, distribute or restructure investments. Aura is the corporate brand of Aura Solution Company Limited.

For more information: https://www.a.gmbh About us: https://www.a.gmbh/aboutus

Our Services : https://www.a.gmbh/ourservices

Latest News: https://www.a.gmbh/news
Contact us: https://www.a.gmbh/contact-us

Follow us on

Twitter: https://twitter.com/aurasolutionltd

Facebook : https://www.facebook.com/aurasolutionltd/
Instagram: https://www.instagram.com/aurasolutionltd/