The Cycle of Disparities in Economic Outcomes and Opportunities

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Introduction

I thank Professor Marc Remer for inviting me to speak today as part of Swarthmore College's lecture series. I had the pleasure of serving as an outside honors examiner in economics at Swarthmore about 20 years ago. I was really impressed with the rigor of the program and the knowledge and engagement of the students I met. So in thinking about a topic for today's talk, I have chosen to discuss a challenge that will require multi-faceted solutions from the great minds of those being trained at Swarthmore, as well as other individuals, communities, governments, businesses, and institutions. That challenge is the cycle of disparities in economic opportunities that afflict our economy and limit economic inclusion.

The pandemic has shined a bright light on differences in economic outcomes, but these differences existed long before we had heard of COVID-19. Many stem from the fact that the U.S. economy does not offer the same economic opportunities to all. There are racial disparities in educational attainment, labor market outcomes, and access to credit. People born into areas of concentrated poverty or predominantly minority areas are disadvantaged over their entire lifetimes, and so are their children. These disparities are interrelated, reinforce one another, and have been propagated across generations. In today's lecture, I will begin by explaining why I think it is important for Fed policymakers to understand the disparities in our economy and then I will walk through a set of figures that clearly illustrate these disparities to give you a sense of the magnitudes. Before continuing, let me mention that, as always, the views I will present are my own and not necessarily those of the Federal Reserve System or of my colleagues on the Federal Open Market Committee.

Understanding Economic Disparities Is Important for Assessing the Health of the Economy

I believe that economic opportunity and inclusion are important to the Federal Reserve System's mission of promoting a healthy economy and a stable financial system in the United States on behalf of the public. Congress has given the Fed several responsibilities, including setting monetary policy to achieve maximum employment and price stability, fostering financial stability and a safe and efficient payments system, regulating and supervising parts of the financial system, and promoting consumer protection and community development. I believe that the Fed should focus on the responsibilities that Congress has given us. Staying within the boundaries of our assigned responsibilities respects the fact that Fed officials are not elected officials, unlike members of Congress or the executive branch. Staying focused on our responsibilities also helps to maintain the Fed's independence to make monetary policy decisions in pursuit of our statutory goals, insulated from short-term political pressures. It is important to preserve this independence because a body of research has shown that when central banks formulate monetary policy free from political considerations and are held accountable for their decisions, better economic outcomes result. The Fed is held accountable when it regularly communicates the rationale for its decisions in testimony before Congress, and in policy statements, meeting minutes, reports, and speeches.

To be able to meet our responsibilities, it is important for the Fed to understand the economic environment in which we are setting our monetary, regulatory, and payments policy. Understanding differences across demographic groups, industries, and areas of the country helps us to assess the strength of the economy, determine what policy is appropriate, identify the consequences of our policy actions, and assess whether the policy actions are achieving their goals. In some cases, the connection between our analysis and our responsibilities is obvious. For example, the Fed is responsible for enforcing the Community Reinvestment Act, which requires banks to serve their entire community and ensure equitable access to credit, in particular for underserved low- and moderate-income areas and individuals. It would be impossible to assess whether a depository institution was complying with the Community Reinvestment Act without understanding the credit conditions that exist in the low- and moderate-income areas it serves. Similarly, the Fed's broader role in identifying effective community development policies and access to credit depends on understanding the challenges faced by people in these neighborhoods.

In other cases, the connection between our analysis and our policy responsibilities can be more subtle. While monetary policy is too blunt a tool to be used to close existing gaps in economic outcomes and opportunities across different demographic groups, it does have a positive role to play. By promoting maximum employment and price stability, monetary policy encourages longer expansions, which makes the economy stronger for all, including those individuals and communities that are least able to withstand economic downturns. Even though the effects of monetary policy are indirect, analyzing the size and source of gaps gives us insight into the distributional effects of our policy actions. Understanding the gaps in labor market conditions is directly relevant to our assessment of labor market slack and how close we are to reaching maximum employment, one of our statutory goals, which we view in a broad and inclusive way. Assessing economic opportunity gaps also informs our outlook for the economy over the longer run. It helps us evaluate the overall strength of the aggregate economy and its ability to live up to its full potential. Persistent gaps in economic opportunity can lead to a lower longer-run growth rate for the economy by limiting labor force participation and educational attainment levels, which affect productivity growth. Longer-run economic growth is a determinant of the long-run equilibrium interest rate, an important factor to consider in setting monetary policy. So knowledge about the forces affecting people's ability to fully participate in the labor market, to gain the skills necessary to create new ideas and technologies, and to use those technologies effectively gives Fed policymakers insights into structural aspects of the economy that are relevant to setting appropriate monetary policy, even though our policy actions cannot directly affect these structural factors.

The Cleveland Fed has established a Program on Economic Inclusion to conduct research and provide data on economic disparities, their causes, implications, and solutions.[1] I invite you to explore this work on our website. Because understanding disparities in economic outcomes and opportunities is important for assessing the economy, I would like to spend the rest of my time today first focusing on some of the disparities that grew during the pandemic and then turning to long-standing disparities.

[1] See the Federal Reserve Bank of Cleveland's Program on Economic Inclusion, at https://www.clevelandfed.org/en/about-us/diversity-and-inclusion/program-on-economic-inclusion/about.aspx.

Disparities in the Economic Effects of the Pandemic

While the economy is still far from our policy goals of maximum employment and price stability, progress is being made and the economic outlook is brightening. Sizable support from fiscal and monetary policy, vaccination deployment, and the resiliency shown by households and businesses, all point to a pickup in activity in the second half of this year and for continued progress, albeit uneven progress, as some sectors recover faster than others.

It probably is not surprising that the recovery has been uneven across business sectors, geographic areas of the country, and demographic groups, because the effects of the pandemic have not been evenly distributed either. Negative effects have been borne by many of the most vulnerable in our economy: lower-income and minority workers and communities; those who do not have the opportunity to work from home; those who don't have access to reliable telecommunications and internet services or to adequate healthcare; and the smallest of small businesses. A Fed survey released last September showed that during the early stage of the pandemic, between March and July of last year, a larger percentage of low-income workers, less-educated workers, and Black and Hispanic workers were laid off compared to higher-income, more educated, and white workers.[2,3] Other data show that from February to April of last year, the number of active small business owners dropped by 3.3 million, a record 22 percent decline.[4]

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[2] In these remarks, I will use the term "race" to refer to race and ethnicity, and "Hispanic" to refer to Hispanic and Latinx.

[3] Results from the Board of Governors' survey on the economic well-being of households (Table 1, p. 3 of Board of Governors, September 2020) show that between March 2020 and July 2020, 28 percent of workers in families making less than $40,000 a year were laid off (including being told not to work any hours), considerably higher than the 13 percent of workers from families with incomes over $100,000 a year. Furthermore, a quarter of workers in low-income families who experienced a layoff reported that they had returned to work for the same employer, while nearly 40 percent of high-income workers did so. Twenty-three percent of workers with a high school diploma or less were laid off between March and July, compared to 13 percent of workers with a college degree or more, and 22 percent of Black workers and 23 percent of Hispanic workers were laid off compared to 18 percent of white workers.

[4] See Fairlie (2020). Researchers at the New York Fed point to a number of contributing factors, including these firms' weaker financial cushions, weaker bank relationships, and funding gaps that existed prior to the pandemic, plus less access to federal relief funds. See Mills and Battisto (2020).

Compared to small firms overall, Black-owned businesses were twice as likely to close and Hispanic-owned businesses were one-and-a-half times as likely to close. These closures can have an outsized effect on low- and moderate-income communities, which were already disadvantaged before the pandemic.

[Figure 1. Recovery in jobs by wage level and prime-age labor force participation rate by gender] As the economy has begun to recover, rehiring by employers has been considerably slower for low-wage workers than for high-wage workers. In these data, seen in the left panel of the figure, high-wage workers are those making above $29 per hour, which is the top quartile of the wage distribution, and low-wage workers are those making below $13 per hour, which is the bottom quartile of the wage distribution. Employment of high-wage workers is basically back to its pre-pandemic level, but employment of low-wage workers is still down almost 30 percent.

As seen in the right panel, among workers in the prime working ages of 25 to 54, the labor force participation rates of both men and women fell when the economy shut down last year, and the net decline for women has been larger than that for men throughout the pandemic. This partly reflects the larger share of women working in industries hit hardest by the pandemic and the fact that women bore more of the brunt of having to provide childcare for pre-school children or those being schooled remotely.

[Figure 2. Change in unemployment by race and education] Disparities in the initial impact of the pandemic and in the recovery can also be seen in the unemployment rates of various demographic groups. All groups' unemployment rates shot up last spring and have fallen since then, but, as of March of this year, there has been less progress for nonwhites and for those without a college education. Relative to their pre-pandemic levels, the unemployment rates of Blacks, Hispanics, and Asians remain higher than that of whites, and the unemployment rate of high school graduates without any college is higher than that of college graduates.[5]

[Figure 3. Recovery in jobs by sector] Some of these differences in labor market outcomes reflect differences in the distribution of the types of jobs across demographic groups. The drop in employment in leisure and hospitality was severe and the recovery in that sector has been slow, with the number of jobs down more than 30 percent compared to before the pandemic. In contrast, education and health services; trade, transportation, and utilities; and professional and business services saw smaller declines and have made up more ground over the recovery.

But even before COVID-19, there were already long-standing economic disparities that need to be examined to better understand the overall health of the U.S. economy.

Upward Mobility

[Figure 4. Upward mobility] All parents want to know that their children will be better off financially than they are. But upward mobility – the probability that a child will be better off economically than his or her parents – has fallen sharply in the U.S. since World War II. Research by Raj Chetty and his co-authors found that around 90 percent of children born in 1940 earned more at age 30 than their parents did. By the mid-1980s, only about 50 percent did.[6,7] Although not shown in the figure, the largest declines have been in the middle class.

[5] The net increase in the unemployment rate between February 2020 and March 2021 was 3.6 percentage points for Blacks, 3.5 percentage points for Hispanics, 3.6 percentage points for Asians, 2.4 percentage points for whites, 3.2 percentage points for those with a high school diploma without any college, and 1.8 percentage points for those with a bachelor's degree or higher.

[6] Chetty and Williams (2019).

[7] Chetty, et al. (2017).

[Figure 5. Income inequality] Rising income inequality has contributed to this decline. Since the 1960s, the median level of income, adjusted for inflation, has risen over time, from about $48,000 in 1967 to about $69,000 in 2019. But those in the top 10 percent of the income distribution have enjoyed sharper gains than those in the bottom 10 percent. The U.S. has one of the lowest rates of intergenerational mobility among advanced economies and more pronounced income inequality.[8]

[Figure 6. Map of intergenerational mobility: U.S.] Using disaggregated data, Chetty and his co-authors show that upward mobility depends not only on the family's characteristics but also on neighborhood characteristics such as neighborhood income, racial integration, the quality of schools, and access to social services.[9] On this map, areas of relatively high intergenerational mobility are shown in shades of blue-green.[10] Children who grew up in these places earn higher average incomes in their mid-thirties than their parents did at the same age. Shades of red indicate areas of low intergenerational mobility: places where children have not progressed very far in terms of income relative to their parents. An important insight from the research is that even areas with fairly good economies in terms of stronger output growth and job growth, like some places in the South, have not necessarily produced high levels of upward mobility for the children growing up there. Strong economic factors certainly help, but they are not a panacea.

[Figure 7. Map of intergenerational mobility: Philadelphia] Here, I'm showing you the map for Philadelphia. (I have circled Swarthmore in pink.) If you were to drill down even further, you would see differences even within neighborhoods. In fact, research shows that moving a child from a low-mobility

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[8] Corak (2013).

[9] See Chetty and Hendren (2018), Chetty, et al. (2018, revised 2020), and Chetty and Williams (2019).

[10] Maps showing income mobility at the zip code level for different levels of income, race, and gender are available at https://www.OpportunityAtlas.org, a collaboration between the U.S. Census Bureau and Opportunity Insights. The map shown here is based on the average income at age 35 of a child whose parents earned in the 25th percentile of the income distribution, in other words, in low-income families.

neighborhood to a high-mobility neighborhood can have profound effects on his or her future economic outcomes.[11,12]

In addition to place, race also matters. Even among those whose parents were at the same income level and who grew up in the same neighborhood, there is a gap in earnings between Black males and white males.[13]

[Figure 8. Mobility by race] And there are adverse dynamics as well. The research by Chetty and his co-authors shows that even controlling for where a child grows up, Blacks have a significantly lower chance of moving up in the income distribution than whites or Hispanics and a higher chance of moving down in the distribution. The left panel of bars in this chart shows the percentage of children born to low-income parents who become high income, by race – that is, what we have been calling upward mobility. The middle panel shows downward mobility – the percentage of children born to high-income parents who become low income. And the right panel shows the percentage of children born to high-income parents who remain high income. Strikingly, Blacks who have been born to high-income parents are almost as likely to move down to the lowest income quintile as to stay in the highest one.

Gaps in Income and Net Worth

[Figure 9. Income and net worth by race] According to the 2019 Federal Reserve Survey of Consumer Finances, median income for white households was about 1-3/4 times that of Black families and Hispanic

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[11] The effect is found for children who move by the age of 13; it does not apply to adults. Each year of exposure to a better neighborhood has a greater benefit for the child. See Chetty, et al. (2018, revised 2020) and Chetty and Hendren (2018).

[12] This is true not only in the U.S., but also in countries like Australia, where income inequality is lower than it is here. Deutscher (2020) finds that in Australia, the place where a child grows up, especially in his or her teenage years, has a causal effect on adult outcomes.

[13] Controlling for parental income, in adulthood, Black males end up having lower earnings than white males in 99 percent of Census tracts in the U.S. For those who grew up in neighborhoods of low poverty and higher rent, both Black and white males have better outcomes, but the gap between them is greater than in high poverty areas. The gap is smaller when fathers are present and when measures of racial bias are lower. See Chetty, et al. (2020).

families.[14] These gaps are not a recent phenomenon: they have been around for decades. And because earnings gaps accumulate over time, they lead to much larger gaps in family net worth (financial and nonfinancial assets, like homes and autos, minus debt), often called the wealth gap. The median net worth of white families in 2019 was almost 8 times as high as that of Black families and about 5 times as high as that of Hispanic families.[15]

Research by Cleveland Fed economists Aliprantis, Carroll, and Young found that the current gap in net worth between Blacks and whites can be explained much more by differences in earnings than by differences in bequests or in the returns to savings a family has earned.[16] Their modeling also shows that if the wealth gap were eliminated today, but without addressing the earnings gap, then in 50 years the wealth gap would be back to about where it is today. This suggests that closing the earnings gap is the key to closing the wealth gap and that increasing access to high-quality education, which will expand labor market opportunities, could be one of the key drivers of a more inclusive economy.

Gaps in Education

Many factors play a role in these gaps in income and net worth. Black and white children tend to grow up in different neighborhoods, and this racial stratification leads to other risks, such as differences in access to healthcare and safe housing, which can affect access to quality education and longer-term economic outcomes.

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[14] See the Federal Reserve System 2019 Survey of Consumer Finances (SCF) (2020a). In 2019 dollars, the median incomes in 2019 for white, Black, and Hispanic families were $69,000, $40,300, and $40,700, respectively. See Federal Reserve System (2020a) and Table 1, Bhutta, et al. (2020).

[15] According to the SCF data, in 2019 dollars, the median net worths in 2019 of white, Black, and Hispanic families were $188,200, $24,100, and $36,200, respectively. See Federal Reserve System (2020a) and Table 2, Bhutta, et al. (2020).

[16] For further discussion of racial disparities in net worth over time, see Aliprantis, Carroll, and Young (2019).

[Figure 10. Digital divide] One difference that was illuminated by the pandemic and that poses a risk to learning is lack of internet connectivity. Well before the coronavirus pandemic, access to the internet was an important avenue for education, as well as for healthcare and job access. Usage of broadband at home has been increasing over time for all groups, but it remains comparatively higher for whites, those with higher incomes, and those in urban and suburban areas.[17] Data indicate that Blacks and Hispanics are less likely to have a computer or broadband at home than whites, and when they do have a computer, they are less likely to have broadband service at home.[18] Lack of connectivity put Black, Hispanic, and lower-income families at a particular disadvantage over the last year when remote in-home learning became the norm.

[Figure 11. Math progress] In fact, as seen on the left-hand side of this figure, last spring, when schools were shut down because of the pandemic, students in low-income and middle-income areas completed significantly fewer math courses online than those in high-income areas.[19] As seen on the right-hand side of this figure, this spring, students in middle-income areas have improved, but students in low-income areas are still struggling.[20]

[Figure 12. Income and wealth by education] These differences could have lasting negative effects. The accumulation of human capital via education is an important path to economic inclusion and opportunity, resulting in better economic outcomes not only for individuals and their families, but also for

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[17] According to Pew Research Center survey data, as of February 2021, usage of broadband at home was 80 percent of whites, 71 percent of Blacks, and 65 percent of Hispanics; 92 percent for those earning $75,000 or more per year and 57 percent for those earning less than $30,000 per year; and 77 percent for those in urban areas, 79 percent for those in suburban areas, and 72 percent for those in rural communities. See Pew Research Center (2021).

[18] Estimates for 2019 from the U.S. Census Bureau indicate that about 2 percent of Asian households, 4 percent of white households, 4 percent of Hispanic households, and 7 percent of Black households do not have a computer at home. About 95 percent of Asian households, 91 percent of white households, 88 percent of Hispanic households, and 84 percent of Black households have a computer and broadband at home. See U.S. Census Bureau, American Community Survey, Subject Table S2802, 2019 1-year estimates. (Note: These estimates on broadband are higher than those from Pew, cited in footnote 17, which pertain to usage.)

[19] See the Zearn math platform data at Opportunity Insights: Economic Tracker, and Chetty, et al. (2020).

[20] Hinrichs (2021) summarizes several strands of research on the COVID-19 pandemic's impact on education.

the country at large by raising productivity growth. The median income for families with a college degree is about twice as high as that of a family with only a high school diploma. Similarly, median net worth is considerably higher for those with a college degree.[21]

[Figure 13. Educational attainment by race] The U.S. labor force has become more educated over time, but educational attainment differs by race. In 2019, 41 percent of white families had a college degree compared to 26 percent of Black families and 16 percent of Hispanic families.[22]

I probably don't have to tell this audience that cost can be an important barrier to entering college, particularly for those coming from lower-income families. The average cost of tuition and fees at four-year institutions is now over $16,000 a year, and adjusted for inflation, it has more than doubled over the past three decades.[23] According to the Fed's survey on economic well-being, as of late 2019, over 40 percent of those who went to college had taken on debt for their education and about half of those people still owe money on this debt, making it harder to access credit for other purchases.[24,25]

[Figure 14. College completion rates by race] For those students who do find the financial means to enter college, the likelihood of completing a degree differs by type of institution and by race. The completion rates have remained particularly low at for-profit institutions for all racial groups. At both public and nonprofit private institutions, the graduation rates for whites, Hispanics, and Asians have all risen over time, but those of Blacks remain well below those of these other groups and have shown only a

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[21] According to the 2019 SCF, in 2019, the median income of families whose reference person had a college degree was $95,700 compared with $45,800 for families whose reference person had only a high school diploma. See Federal Reserve System (2020a) and Table 1, Bhutta, et al. (2020).

[22] Calculations based on the 2019 SCF data, Federal Reserve System (2020a).

[23] See Digest of Education Statistics.

[24] See pp. 43-46, Board of Governors of the Federal Reserve System (May 2020).

[25] New York Fed analysis shows that compared to borrowers in majority white areas, those in majority Black areas have higher student loan balances and those in majority Black and majority Hispanic areas have higher rates of default on those loans. See Chakrabarti, Nober, and van der Klaauw (2020).

little progress over time.[26] The reasons for these differentials are complex. Among other reasons, they partly reflect differential access to high-quality education at the pre-college level that prepares the students for success in college, and they partly reflect the fact that students from lower-income families have more financial responsibilities while attending college that take time away from their studies.

Gaps in Labor Markets and Credit Markets

[Figure 15. Unemployment rates by race] Whatever the cause, the differences in educational attainment follow people as they enter the workforce. Unemployment rates among Blacks and Hispanics have been chronically above those of whites and Asians, and Blacks and Hispanics are more likely to lose their jobs during recessions. Some progress was made in closing those gaps over the long previous expansion, which is good news and points to the value of fostering long-lived expansions. Nonetheless, disparities remain.[27]

[Figure 16. Homeownership rates by race] Worse and more volatile labor market outcomes make it harder for nonwhite households to build assets and achieve sound financial health, limiting their ability to fully participate in the economy. For those families that are able to get a mortgage, job insecurity makes the household less financially resilient and raises the risk that the household might fall behind on its mortgage or even default, putting the family's longer-term financial health at risk. Housing continues to be an important way for families to build wealth. As shown by the dotted lines on the left-hand side of this figure, homeownership rates rose a lot last year, but part of those increases may reflect difficulties in collecting data remotely during the pandemic. As shown on the right-hand side of this figure, even with last year's rise, the gap between the homeownership rate of whites and Blacks and between whites and

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[26] Satisfaction with college also varies by race. About 70 percent of white recipients of bachelor's degrees felt that their education was worth the cost, but only slightly more than half of Black recipients did. See Figure 28, p. 39, in Board of Governors (May 2020).

[27] Research from Fed economists indicates that lower educational attainment explains much of the difference in the unemployment experience of Hispanics but observable characteristics, like education, age, or marital status cannot fully account for the higher and more cyclical unemployment of Blacks relative to whites. See Cajner, et al. (2017).

Hispanics remain large. New York Fed analysis indicates that there are sizable racial gaps even after controlling for income and other factors related to creditworthiness.[28] This indicates that systemic racial differences in access to credit have persisted well after enactment of fair housing and lending legislation in the 1970s meant to address the scourge of redlining and discrimination in credit markets.[29]

[Figure 17. Access to credit by race] As seen on the left-hand side of this figure, in terms of access to financial services, Blacks and Hispanics are less likely to have a bank account and more likely to rely on alternative financial services such as money orders and check cashing services than whites. Being unbanked or underbanked makes it harder for these families to build a credit history.[30]

The use of bank financing by small businesses also varies significantly with the race of the owner, as seen on the right-hand side of this figure. According to the Fed's Small Business Credit Survey, compared to small firms with white ownership, those with Black ownership were half as likely to have obtained financing from a bank in the five years before the pandemic, relying more on online lenders, which, according to survey respondents, provide less satisfactory service.[31]

Moving Toward Economic Inclusion and a Stronger Economy

As I hope you find clear from this summary of some of the data, the disparities that exist in the economy are interrelated. Lower-income households have less access to high-quality education, which means less

[28] For documentation and discussion of the racial gaps in homeownership rates, see Haughwout, et al. (2020).

[29] See Choi (2020).

[30] See Table 11, p. 28, in Board of Governors of the Federal Reserve System (May 2020). Unbanked is defined as not having a checking, savings, or money market account. Underbanked is defined as having a checking, savings, or money market account but having used one of these alternative financial services: money order, check cashing service, pawn shop loan, auto title loan, payday loan, paycheck advance, or tax refund advance.

[31] According to the 2020 report on the Fed's Small Business Credit Survey of firms with 1-499 employees, 46 percent of firms with white ownership, 32 percent of firms with Hispanic ownership, and 23 percent of firms with Black ownership had obtained financing from a bank in the past five years; 19 percent of firms with white ownership, 22 percent of firms with Hispanic ownership, and 27 percent of firms with Black ownership had obtained financing from an online lender in the past five years. See Federal Reserve System (2020b), p. 9.

access to higher-paying jobs and job security, and less access to high-quality housing, which means less access to credit, which means less access to education, and around it goes. And for many people, being nonwhite puts them into this cycle of disparities with fewer opportunities to escape because of systemic racism.

Eliminating racial and economic disparities, which have lasted over generations, is no easy task. One place to start in breaking the cycle is for the country to take steps to increase access to high-quality education and to effective job-skills programs, especially for those who have not had these opportunities in the past. Access should also include the necessary support to help students successfully complete these programs. Workforce development is one of the key focus areas of the Federal Reserve's community development function and is an important component of a healthy labor market.[32]

Education can be transformational, changing the paths of individuals, future generations, and communities. Improving education levels and ensuring that people are well prepared to enter and remain productive in the modern workforce would lead to higher levels of labor force participation and higher productivity growth, key factors driving higher long-run economic growth and higher standards of living. Investments to increase access to education present a good value proposition to the country – the promise of a stronger economy that works for us all.

[32] For example, Investing in America's Workforce is a collaborative effort of the Federal Reserve System, the Heldrich Center, the Ray Marshall Center, and the Upjohn Institute. See the Investing in America's Workforce web pages for more information at https://www.investinwork.org/.

References

Aliprantis, Dionissi, Daniel R. Carroll, and Eric R. Young, "The Dynamics of the Racial Wealth Gap," Federal Reserve Bank of Cleveland Working Paper 19-18, October 2019. (https://www.clevelandfed.org/en/newsroom-and-events/publications/working-papers/2019-working-papers/wp-1918-dynamics-of-the-racial-wealth-gap.aspx)

Board of Governors of the Federal Reserve System, "Report on the Economic Well-Being of U.S. Households in 2019, Featuring Supplemental Data from April 2020," May 2020. (https://www.federalreserve.gov/publications/files/2019-report-economic-well-being-us-households-202005.pdf)

Board of Governors of the Federal Reserve System, "Update on the Economic Well-Being of U.S. Households: July 2020 Results," September 2020. (https://www.federalreserve.gov/publications/files/2019-report-economic-well-being-us-households-update-202009.pdf)

Bhutta, Neil, Jesse Bricker, Andrew C. Chang, Lisa J. Dettling, Sarena Goodman, Joanne W. Hsu, Kevin B. Moore, Sarah Reber, Alice Henriques Volz, and Richard A. Windle, "Changes in U.S. Family Finances from 2016 to 2019: Evidence from the Survey of Consumer Finances," *Federal Reserve Bulletin*, Board of Governors of the Federal Reserve System, 106 (September 2020). (https://www.federalreserve.gov/publications/files/scf20.pdf)

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," Finance and Economics Discussion Series 2017-071, Board of Governors of the Federal Reserve System, June 12, 2017. (https://doi.org/10.17016/FEDS.2017.071)

Chakrabarti, Rajashri, William Nober, and Wilbert van der Klaauw, "Measuring Racial Disparities in Higher Education and Student Debt Outcomes," Federal Reserve Bank of New York *Liberty Street Economics*, July 8, 2020. (https://libertystreeteconomics.newyorkfed.org/2020/07/measuring-racial-disparities-in-higher-education-and-student-debt-outcomes.html)

Chetty, Raj, John N. Friedman, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter, "The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility," National Bureau of Economic Research Working Paper 25147, October 2018, revised February 2020. (http://www.nber.org/papers/w25147)

Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team, "The Economic Impacts of COVID-19: Evidence from a New Public Database Built Using Private Sector Data," manuscript, November 2020. (https://opportunityinsights.org/wp-content/uploads/2020/05/tracker_paper.pdf)

Chetty, Raj, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang, "The Fading American Dream: Trends in Absolute Income Mobility Since 1940," *Science*, 356 (April 28, 2017), pp. 398-406. (https://science.sciencemag.org/content/356/6336/398)

Chetty, Raj, and Nathaniel Hendren, "The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects," *The Quarterly Journal of Economics* 133 (August 2018), pp. 1107-1162. (https://doi.org/10.1093/qje/qjy007)

Chetty, Raj, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter, "Race and Economic Opportunity in the United States: An Intergenerational Perspective," *The Quarterly Journal of Economics* 135 (May 2020), pp. 711-783. (https://doi.org/10.1093/qje/qjz042)

Chetty, Raj, and David Williams, "Improving Equality of Opportunity: New Insights from Big Data," Federal Reserve Bank of Cleveland Policy Summit, Cincinnati, OH, June 19-21, 2019. (https://www.clevelandfed.org/en/newsroom-and-events/events/2019/policy-summit/videos.aspx#openingkeynotevideo)

Choi, Jung Hyun, "Breaking Down the Black-White Homeownership Gap," *Urban Wire: Housing and Housing Finance* (blog), Urban Institute, February 21, 2020. (https://www.urban.org/urban-wire/breaking-down-black-white-homeownership-gap)

Corak, Miles, "Income Inequality, Equality of Opportunity, and Intergenerational Mobility," *Journal of Economic Perspectives*, 27 (Summer 2013), pp. 79-102. (https://doi.org/10.1257/jep.27.3.79)

Deutscher, Nathan, "Place, Peers, and the Teenage Years: Long-Run Neighborhood Effects in Australia," *American Economic Journal: Applied Economics* 12 (April 2020), pp. 220-249. (https://doi.org/10.1257/app.20180329)

Digest of Education Statistics, Table 330.10, "Average Undergraduate Tuition and Fees and Room and Board Rates Charged for Full-Time Students in Degree-Granting Postsecondary Institutions, by Level and Control of Institution: Selected Years, 1963-64 through 2018-19." (https://nces.ed.gov/programs/digest/d19/tables/dt19_330.10.asp)

Fairlie, Robert W., "The Impact of Covid-19 on Small Business Owners: Evidence of Early-Stage Losses from the April 2020 Current Population Survey," National Bureau of Economic Research Working Paper 27309, June 2020. (https://www.nber.org/papers/w27309)

Federal Reserve Bank of Cleveland, Program on Economic Inclusion. (https://www.clevelandfed.org/en/about-us/diversity-and-inclusion/program-on-economic-inclusion/about.aspx)

Federal Reserve System, *2019 Survey of Consumer Finances*, 2020a. (https://www.federalreserve.gov/econres/scfindex.htm)

Federal Reserve System, *Federal Reserve Small Business Credit Survey: 2020 Report on Employer Firms*, 2020b. (https://www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2020/2020-sbcs-employer-firms-report)

Haughwout, Andrew, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw, "Inequality in U.S. Homeownership Rates by Race and Ethnicity," Federal Reserve Bank of New York *Liberty Street Economics*, July 8, 2020. (https://libertystreeteconomics.newyorkfed.org/2020/07/inequality-in-us-homeownership-rates-by-race-and-ethnicity.html)

Hinrichs, Peter L., "COVID-19 and Education: A Survey of the Research," Federal Reserve Bank of Cleveland *Economic Commentary*, 2021-04, March 1, 2021. (https://doi.org/10.26509/frbc-ec-202104)

Investing in America's Workforce: Improving Outcomes for Workers and Employers, a Collaboration Among the Federal Reserve System, the Heldrich Center, the Ray Marshall Center, and the Upjohn Institute.
(https://www.investinwork.org/)

Mills, Claire Kramer, and Jessica Battisto, "Double Jeopardy: COVID-19's Concentrated Health and Wealth Effects in Black Communities," *Brief*, Federal Reserve Bank of New York, August 2020.
(https://www.newyorkfed.org/medialibrary/media/smallbusiness/DoubleJeopardy_COVID19andBlackOwnedBusinesses)

The Opportunity Atlas.
(https://www.OpportunityAtlas.org)

Opportunity Insights: Economic Tracker.
(https://tracktherecovery.org/)

Pew Research Center, "Internet/Broadband Fact Sheet: Who Has Home Broadband?" April 7, 2021.
(https://www.pewresearch.org/internet/fact-sheet/internet-broadband/#who-has-home-broadband)

U.S. Census Bureau, American Community Survey, Subject Table S2802, "Types of Internet Subscriptions by Selected Characteristics," 2019 1-Year Estimates.
(https://data.census.gov/cedsci/table?q=S2802)

Charts for
“The Cycle of Disparities
in Economic Outcomes and Opportunities”

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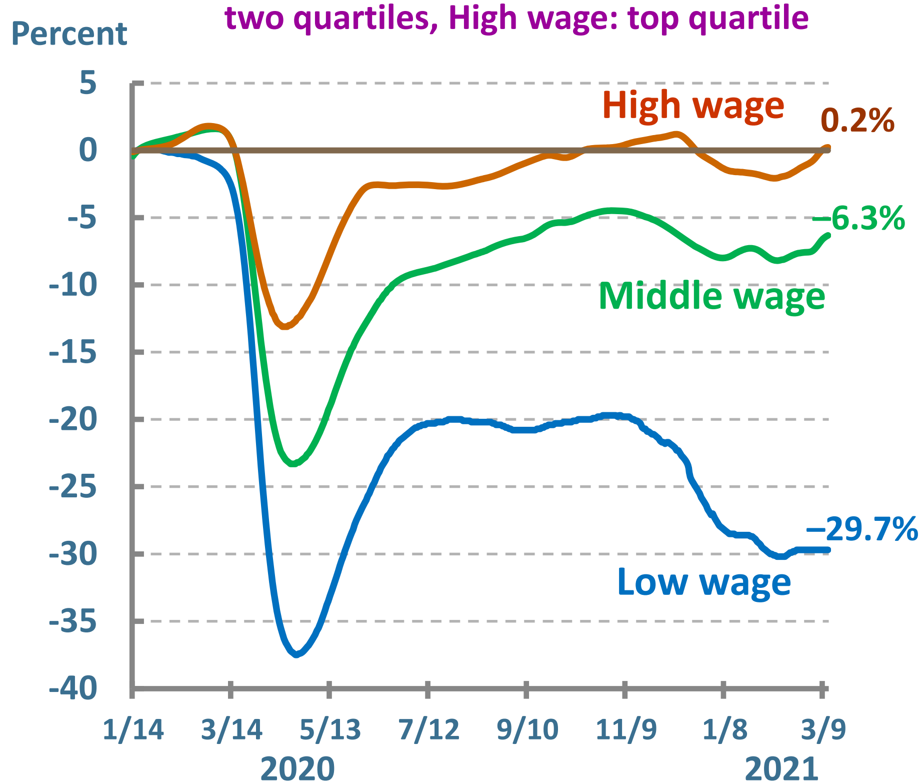
April 15, 2021

*** The views expressed here are my own and not necessarily those of the Federal Reserve System or my colleagues on the Federal Open Market Committee.**

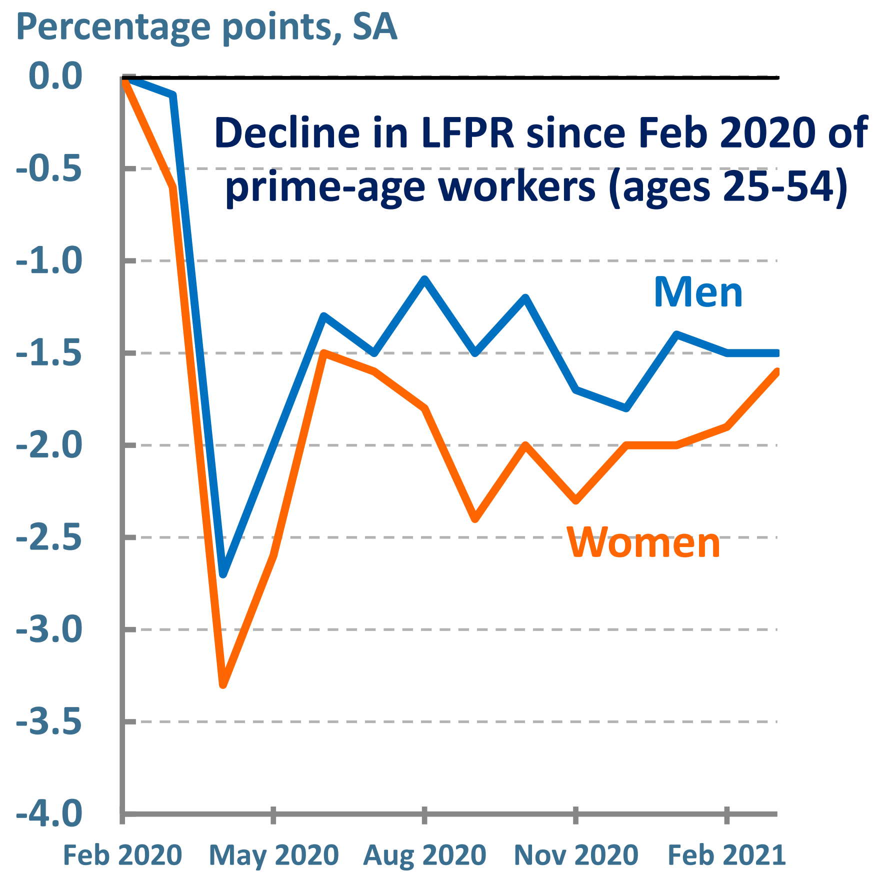
FEDERAL RESERVE BANK
of CLEVELAND

Figure 1. Labor market conditions are improving but job losses linger for low-wage workers. The pandemic hurt the labor force participation rate of women more than that of men.

Employment level compared to January 2020, by wage quartile:
Low wage: bottom quartile, Middle wage: middle two quartiles, High wage: top quartile



Source: Opportunity Insights, TracktheRecovery.org based on data from Paychex, Intuit, Earnin, and Kronos, daily data through 3/12/2021
Low wage is approx. < $13/hour, Middle wage is approx. $13-$29/hour, High wage is approx. > $29/hour



Source: Bureau of Labor Statistics via Haver Analytics
Monthly data: Last obs. March 2021

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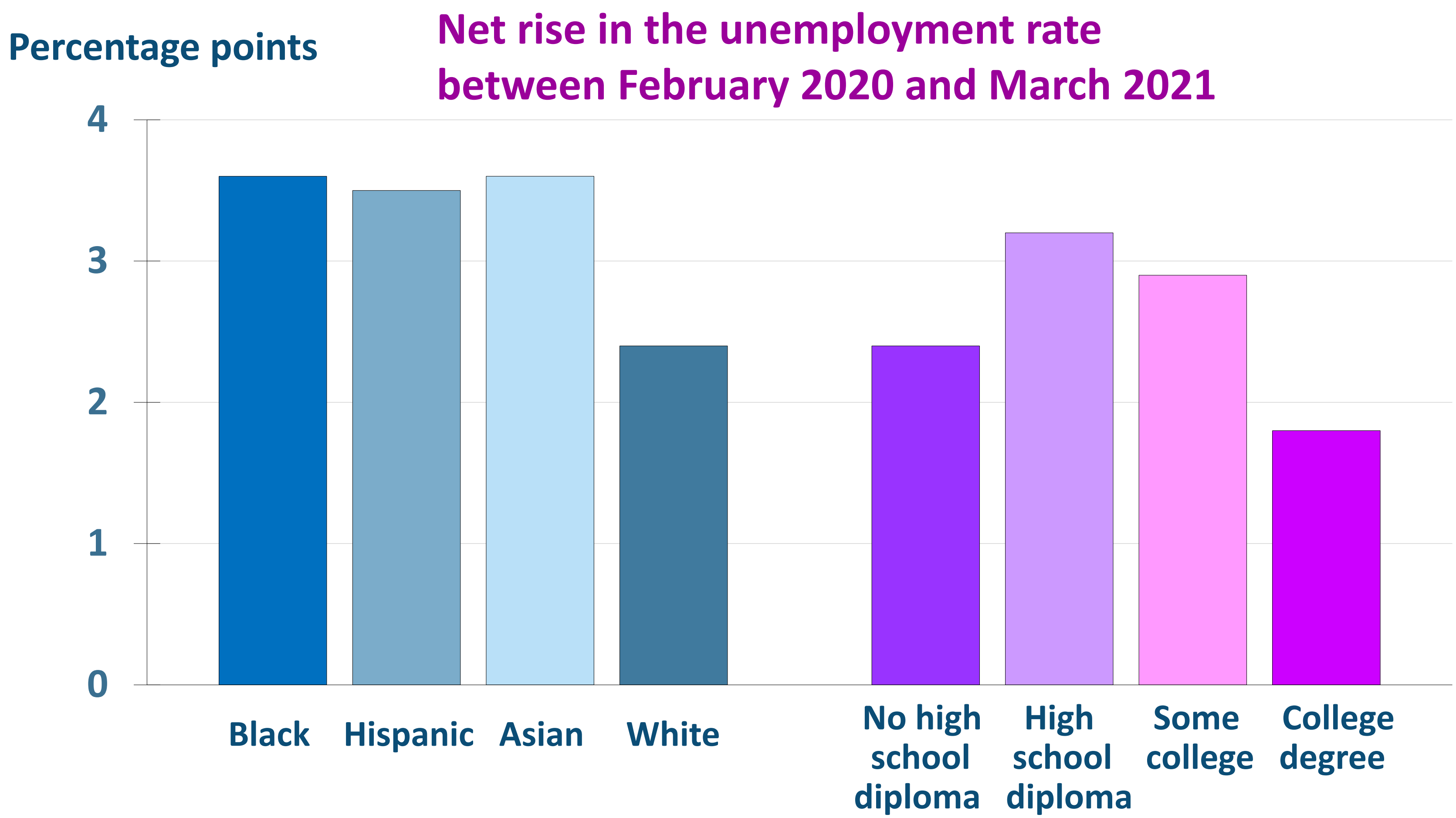
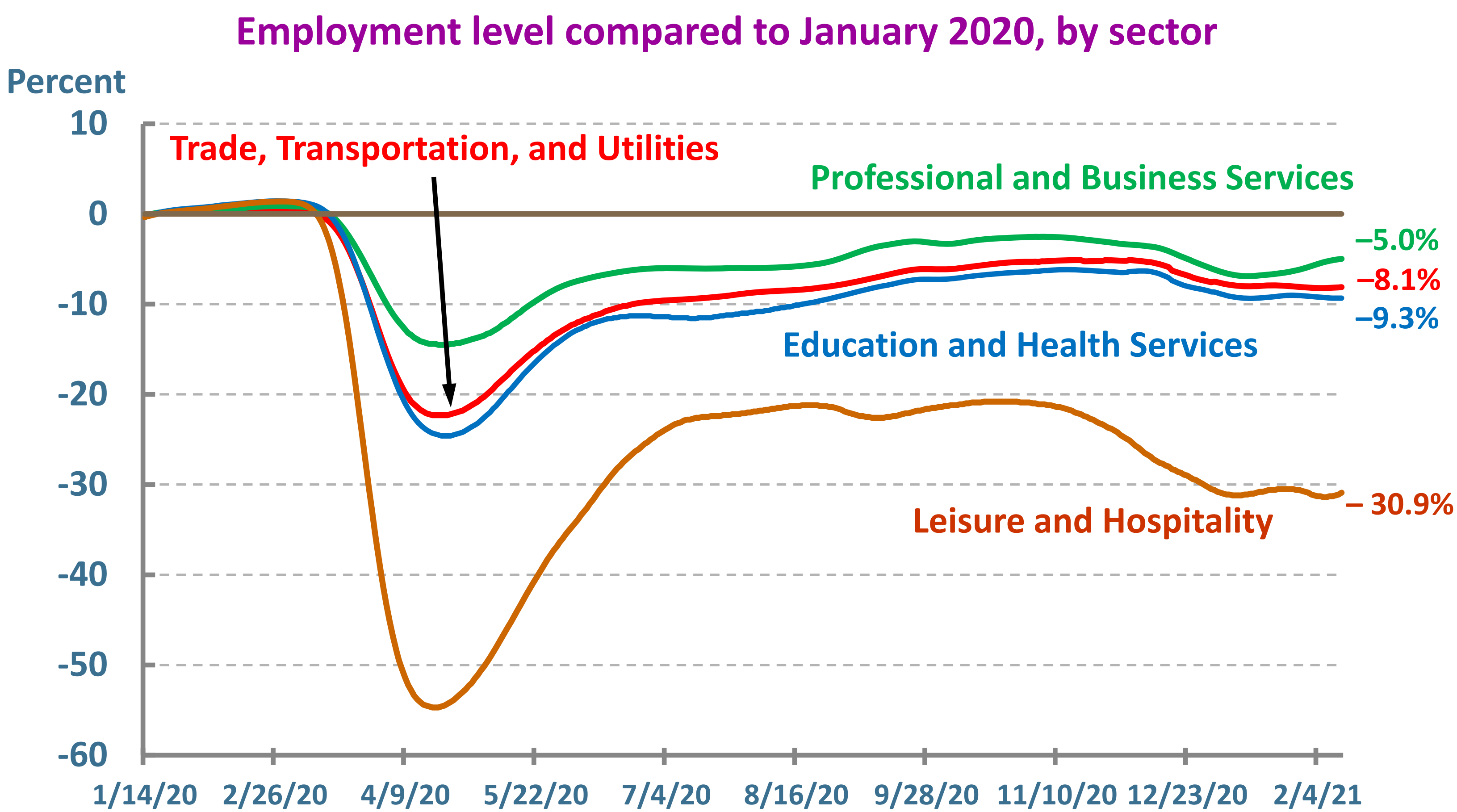
Figure 2. The labor market is recovering but there has been less progress for nonwhites and those without college degrees



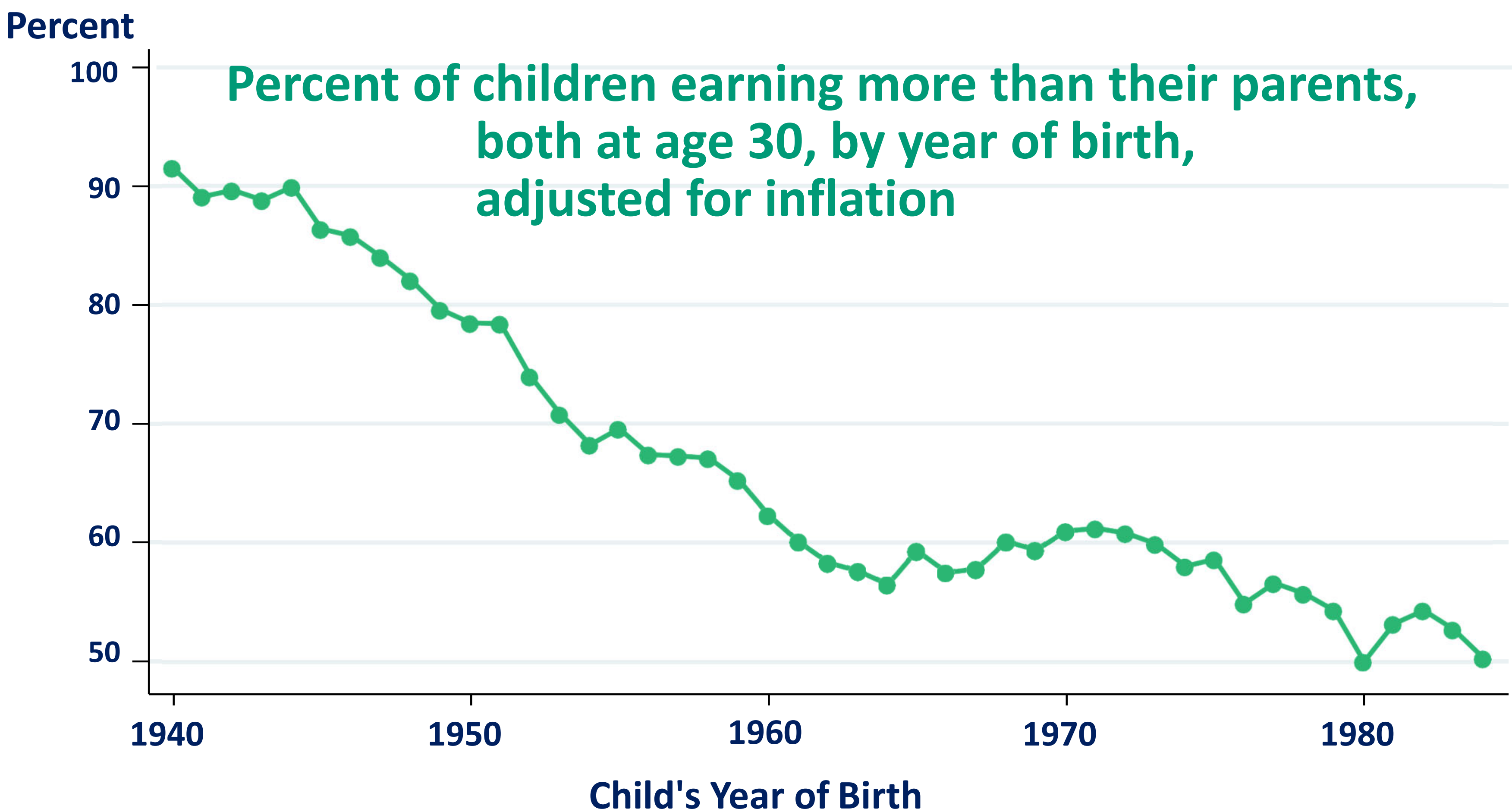
Source: Bureau of Labor Statistics via Haver Analytics

Figure 3. The improvement in the labor market varies by sector



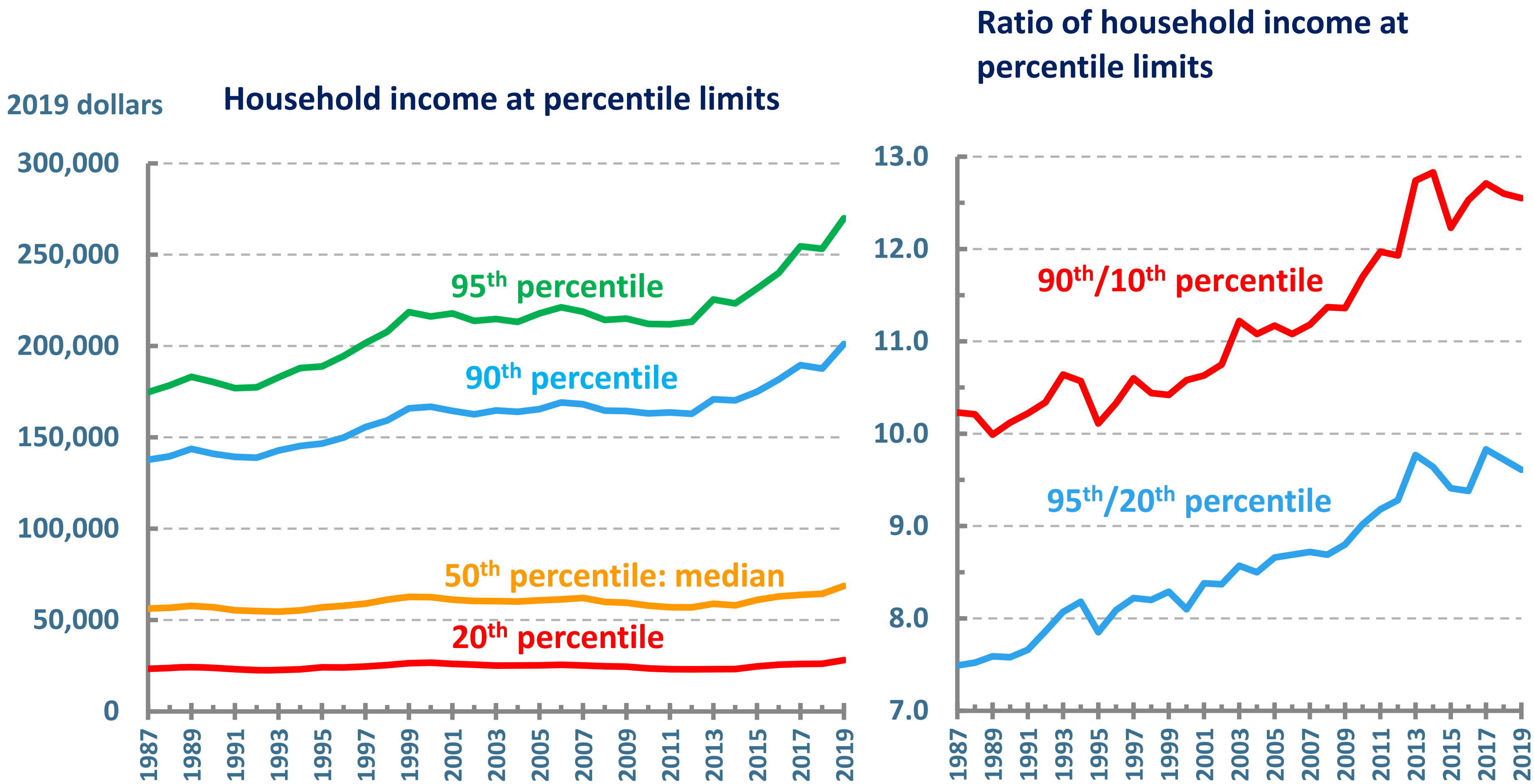
Source: Opportunity Insights, TracktheRecovery.org
based on data from Paychex, Intuit, Earnin, and Kronos,
daily data through 2/12/2021

Figure 4. Children will not necessarily be better off financially than their parents: Income mobility has declined in the U.S.



Source: Chetty, Grusky, Hell, Hendren, Manduca, Narang (Science 2017);
Chetty and Williams (Federal Reserve Bank of Cleveland Policy Summit 2019)

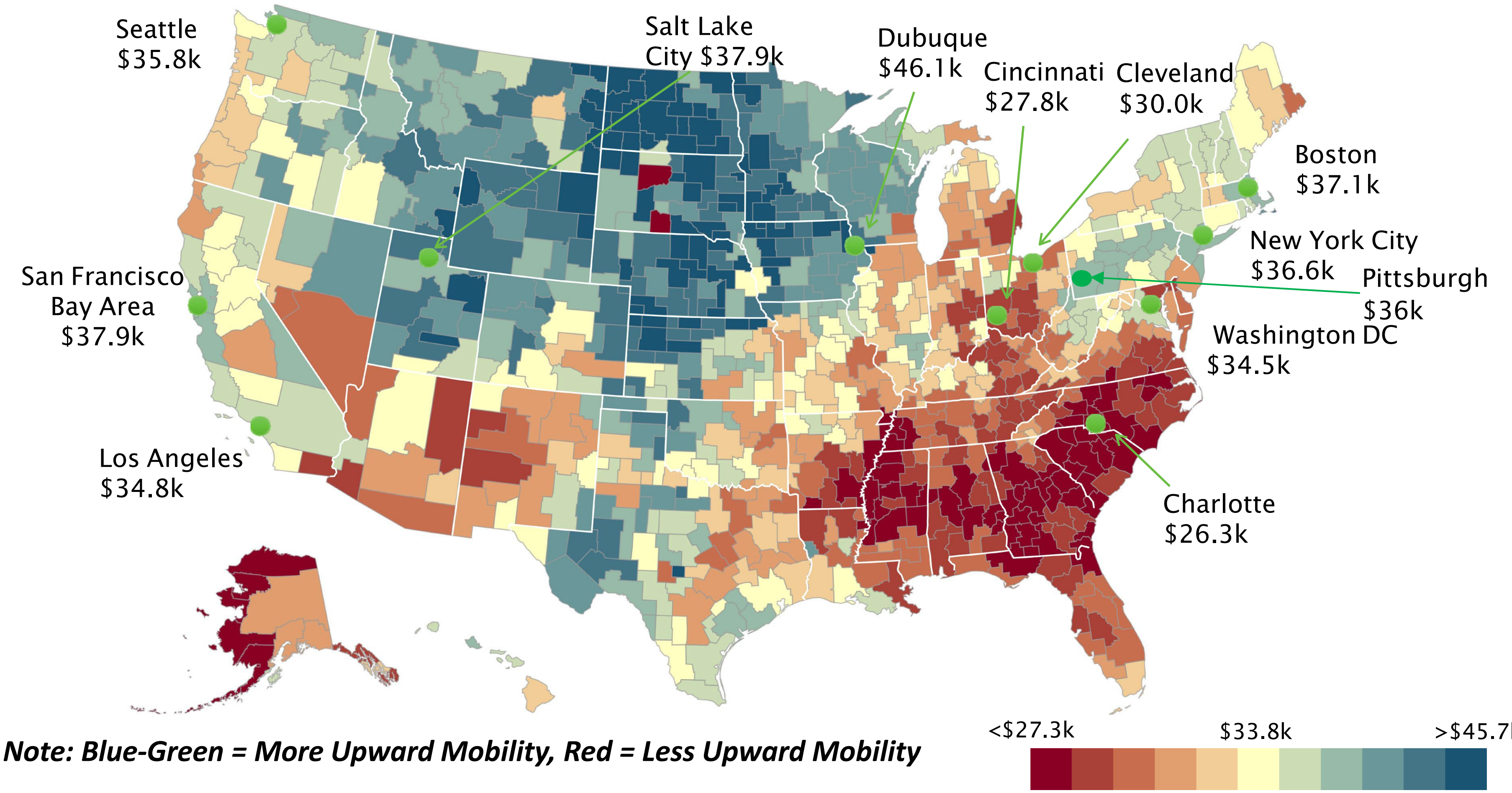
Figure 5. Income inequality in the U.S. has been rising



Source: Table A-4. Selected Measures of Household Income Dispersion, U.S. Census Bureau; Last obs. 2019

Figure 6. Upward income mobility varies over the country: Place matters

Average Income at Age 35 for Children Whose Parents Earned $25,000 (25th percentile)



Note: Blue-Green = More Upward Mobility, Red = Less Upward Mobility

Source: Chetty, Friedman, Hendren, Jones, Porter (NBER WP 25147); Chetty and Williams (Federal Reserve Bank of Cleveland Policy Summit 2019)

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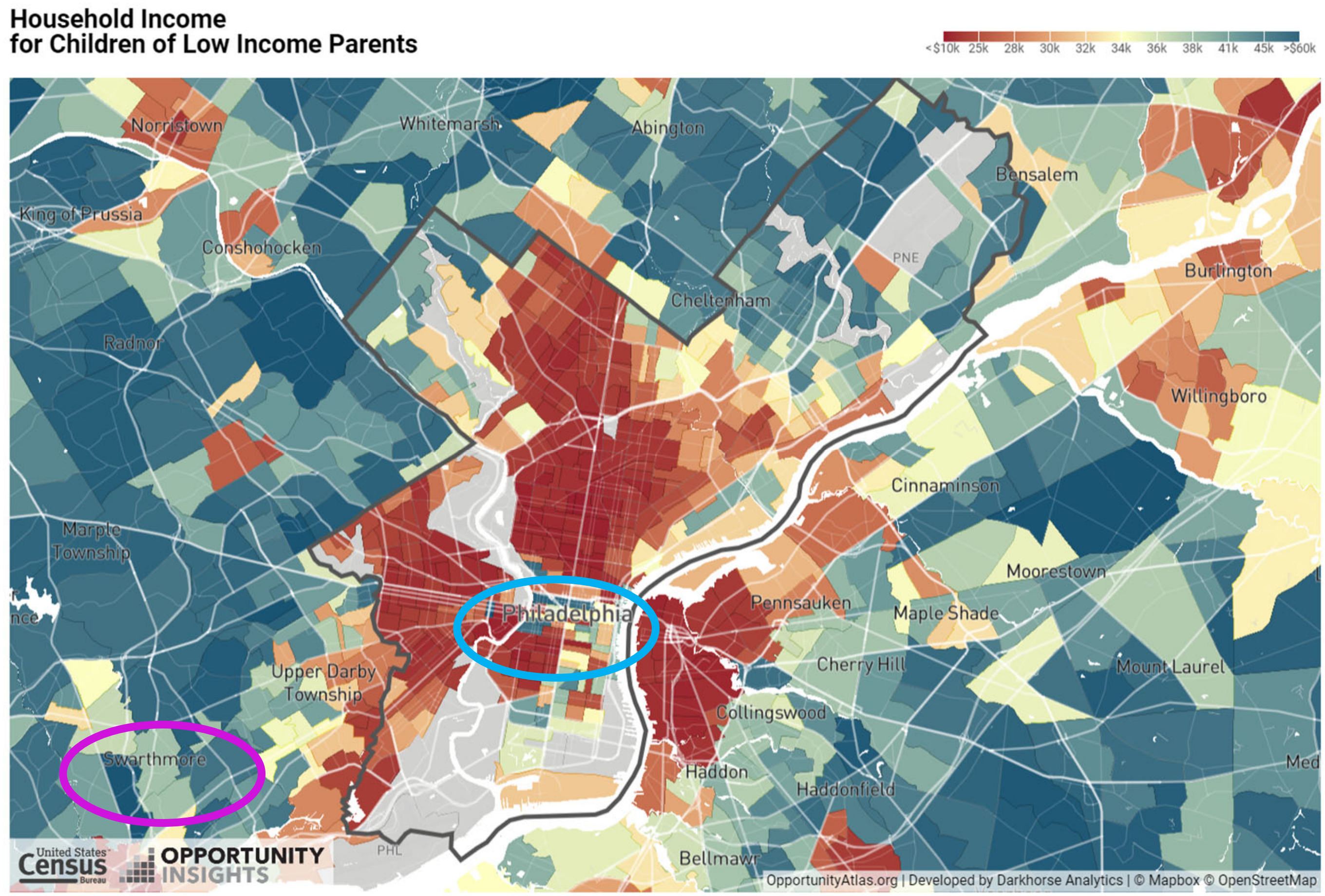
Figure 7. Place matters at the local level

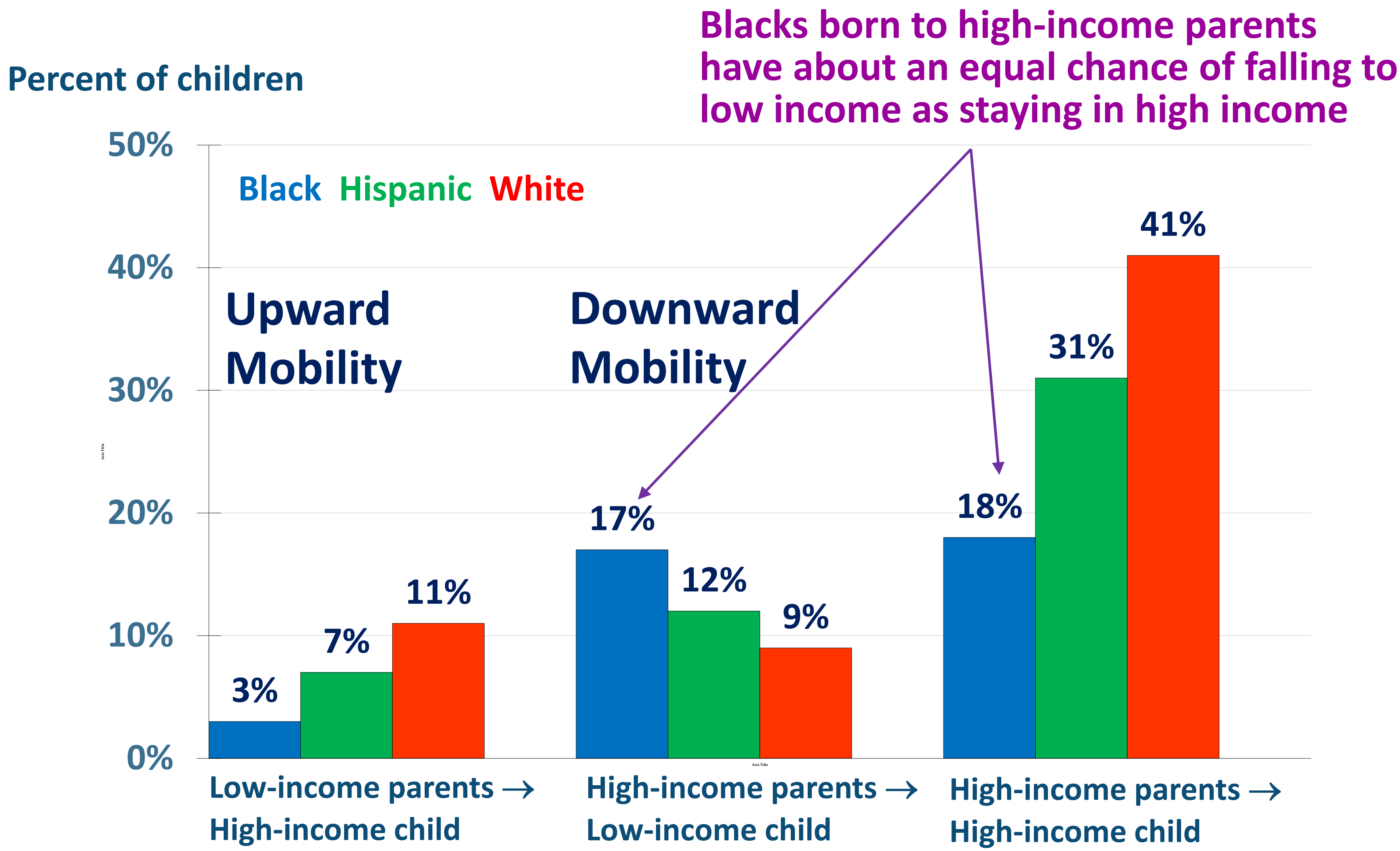
Average Household Income at Age in Mid-30s for Children of Low-Income Parents in Philadelphia



Note: Blue-Green = More Upward Mobility, Red = Less Upward Mobility

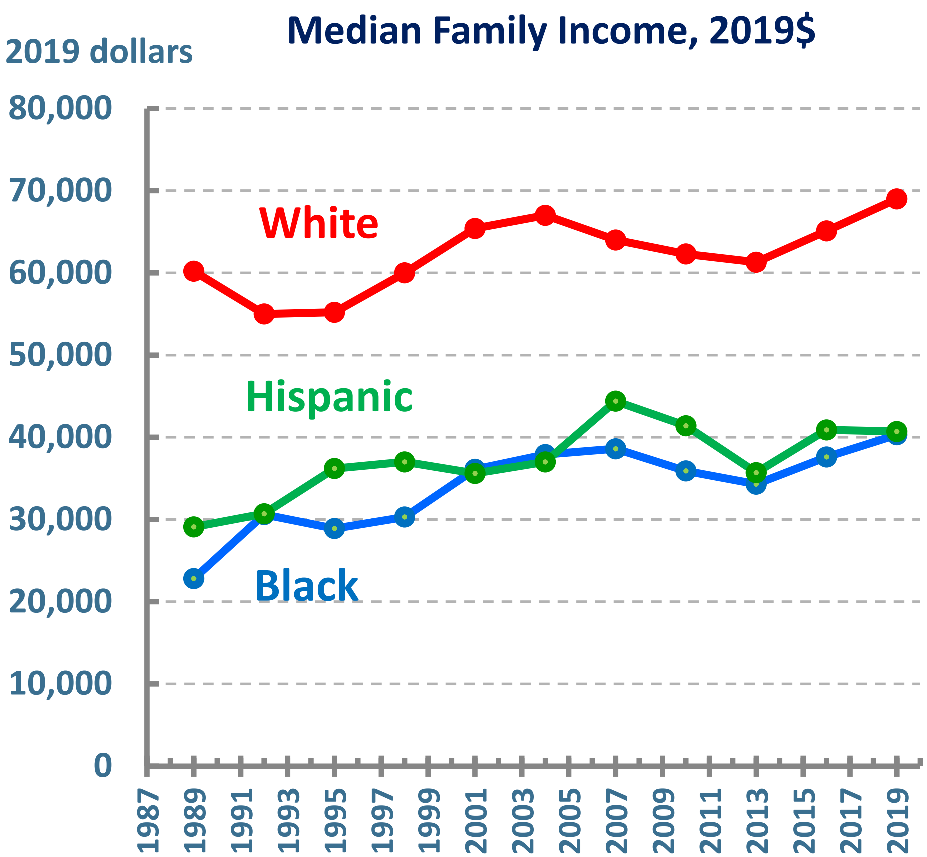
Source: OpportunityAtlas.org

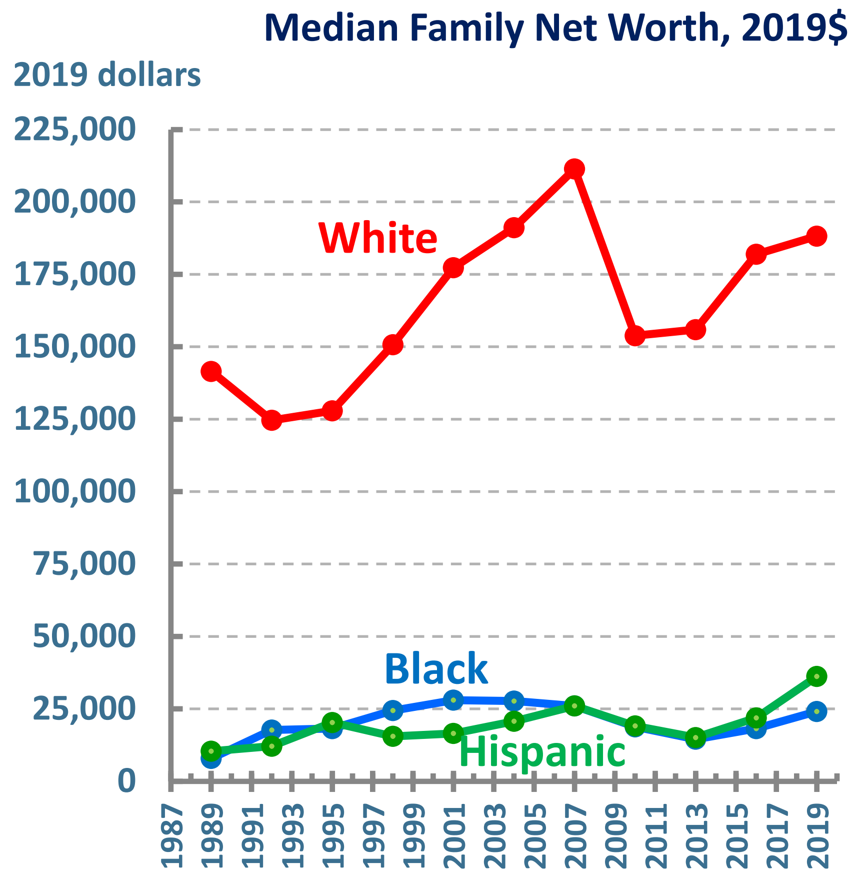
Figure 8. Blacks have less upward and more downward income mobility than whites or Hispanics



Source: Table 1, Panel B, Chetty, Hendren, Jones, Porter (QJE 2020)
Low income refers to 1st quintile and high income refers to 5th quintile

Figure 9. There are long-standing racial gaps in income and wealth





Source: Federal Reserve System 2019 Survey of Consumer Finances

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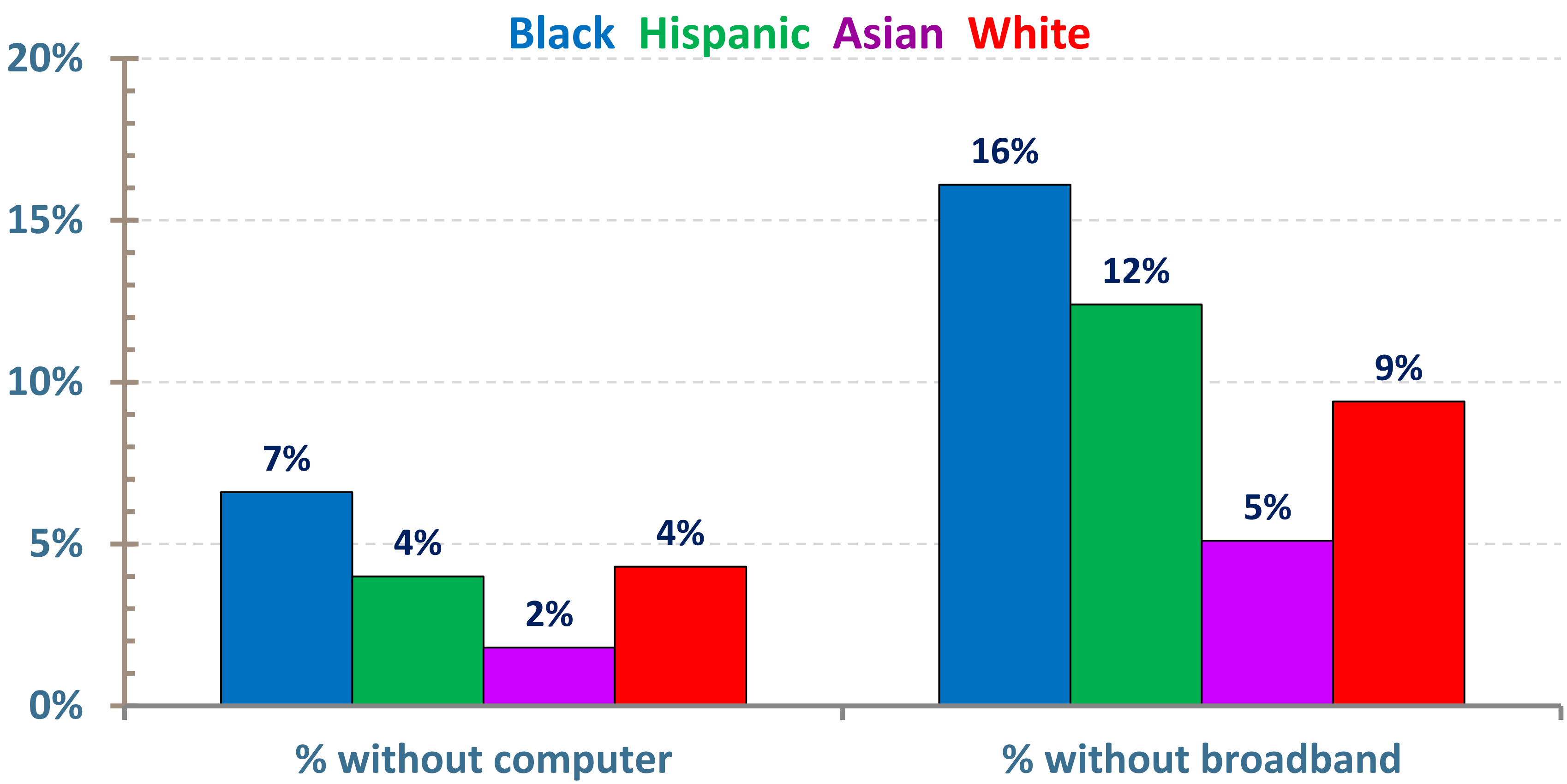
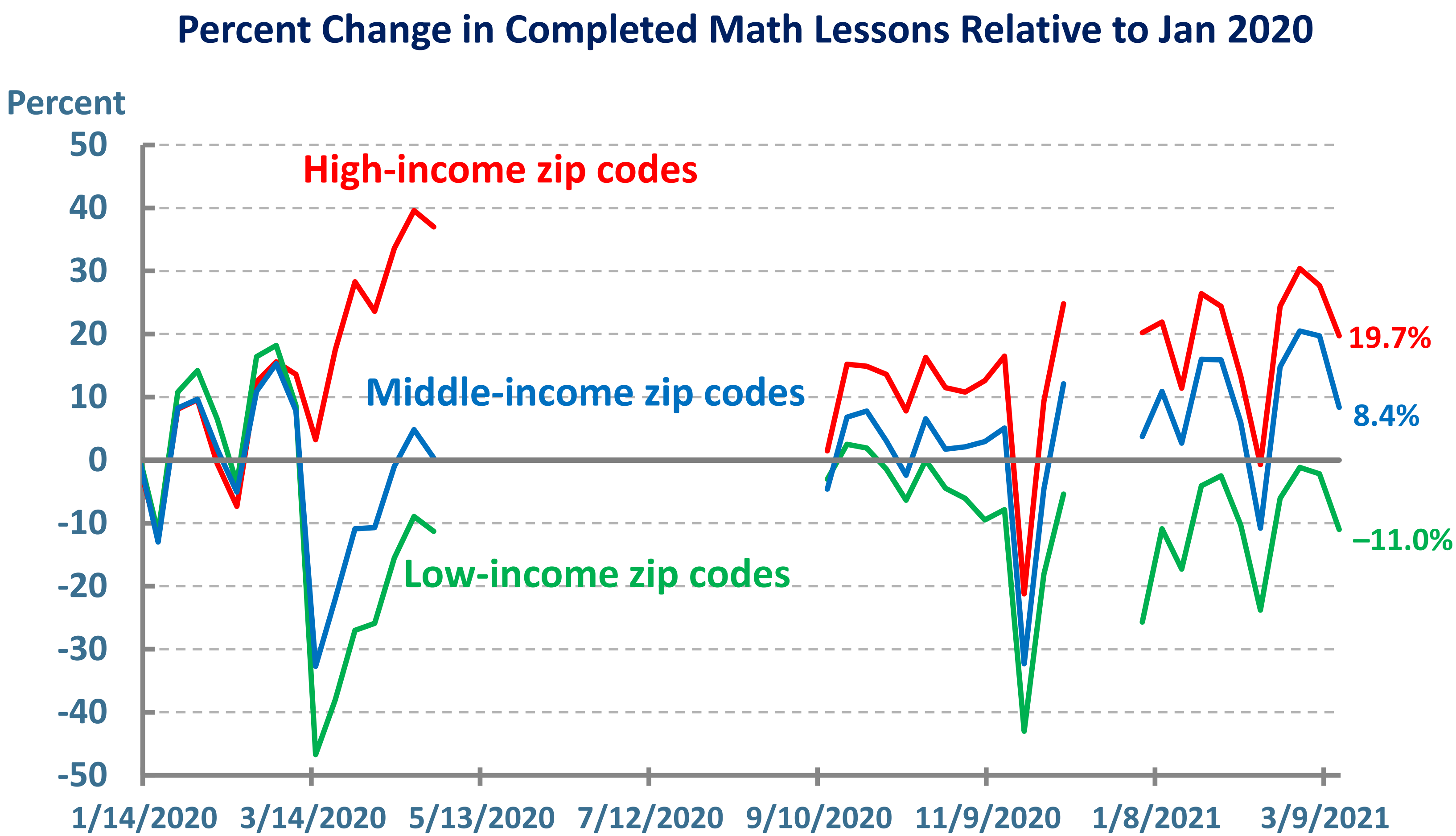
Figure 10. There is a digital divide



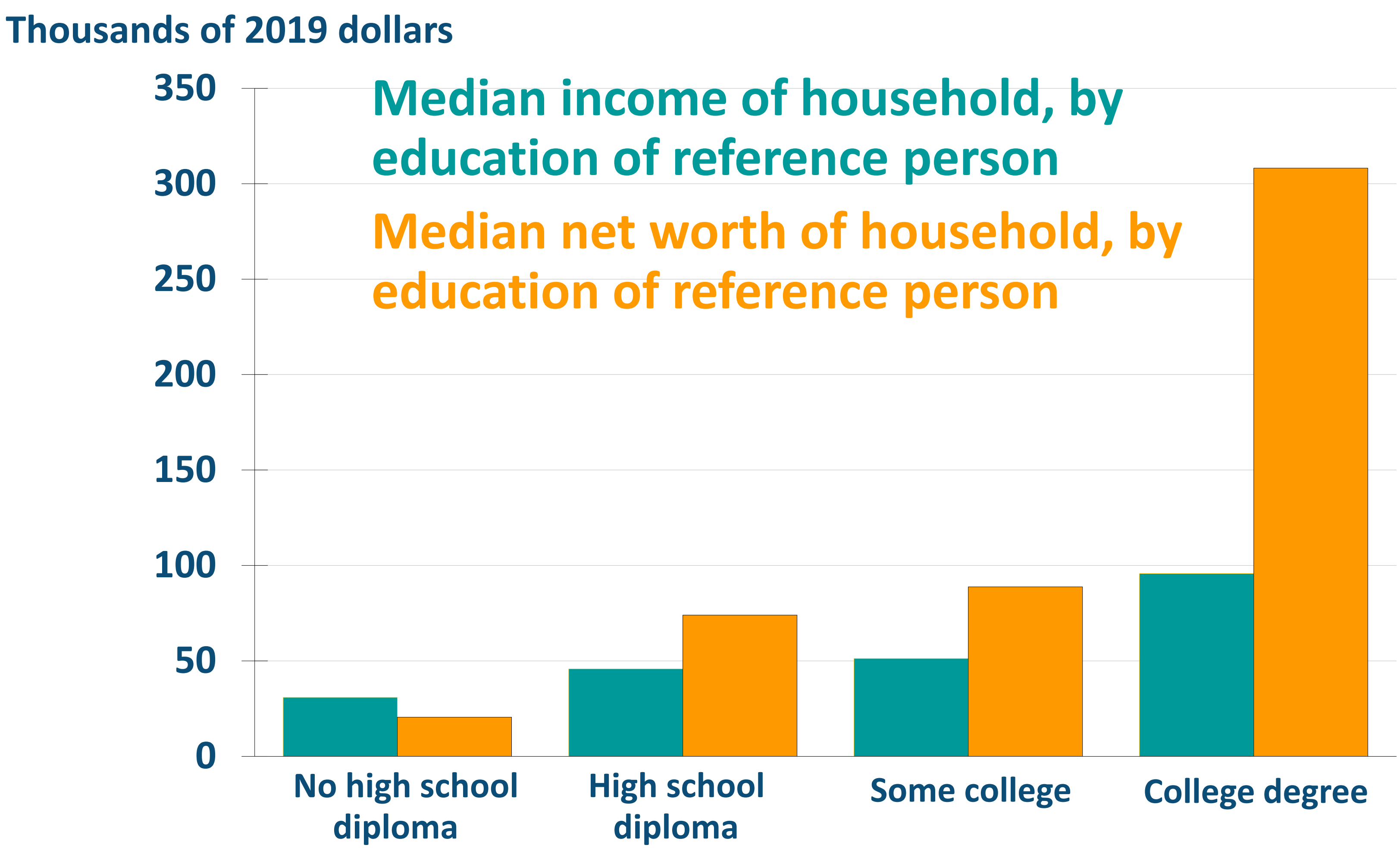
Source: U.S. Census Bureau: American Community Survey, Table ID S2802, 2019: ACS 1-year Estimates

Figure 11. Low-income students have not performed well with remote learning during the pandemic



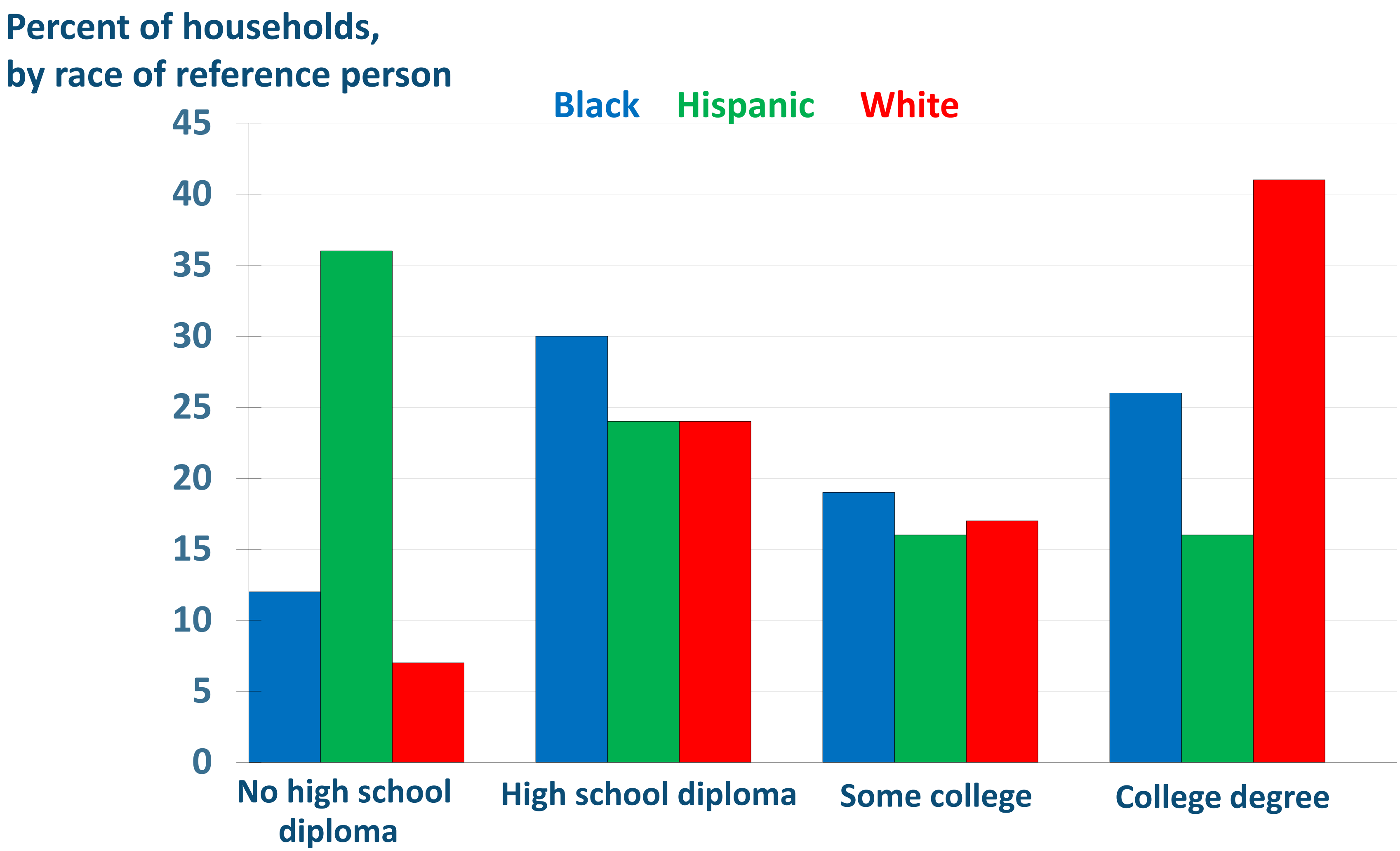
Source: Chetty, Friedman, Hendren, Stepner, and Opportunity Insights Team (2020); Data from Opportunity Insights.org Track the Recovery based on data from Zearn online math platform, weekly data through 3/14/2021

Figure 12. Income and net worth rise with educational attainment



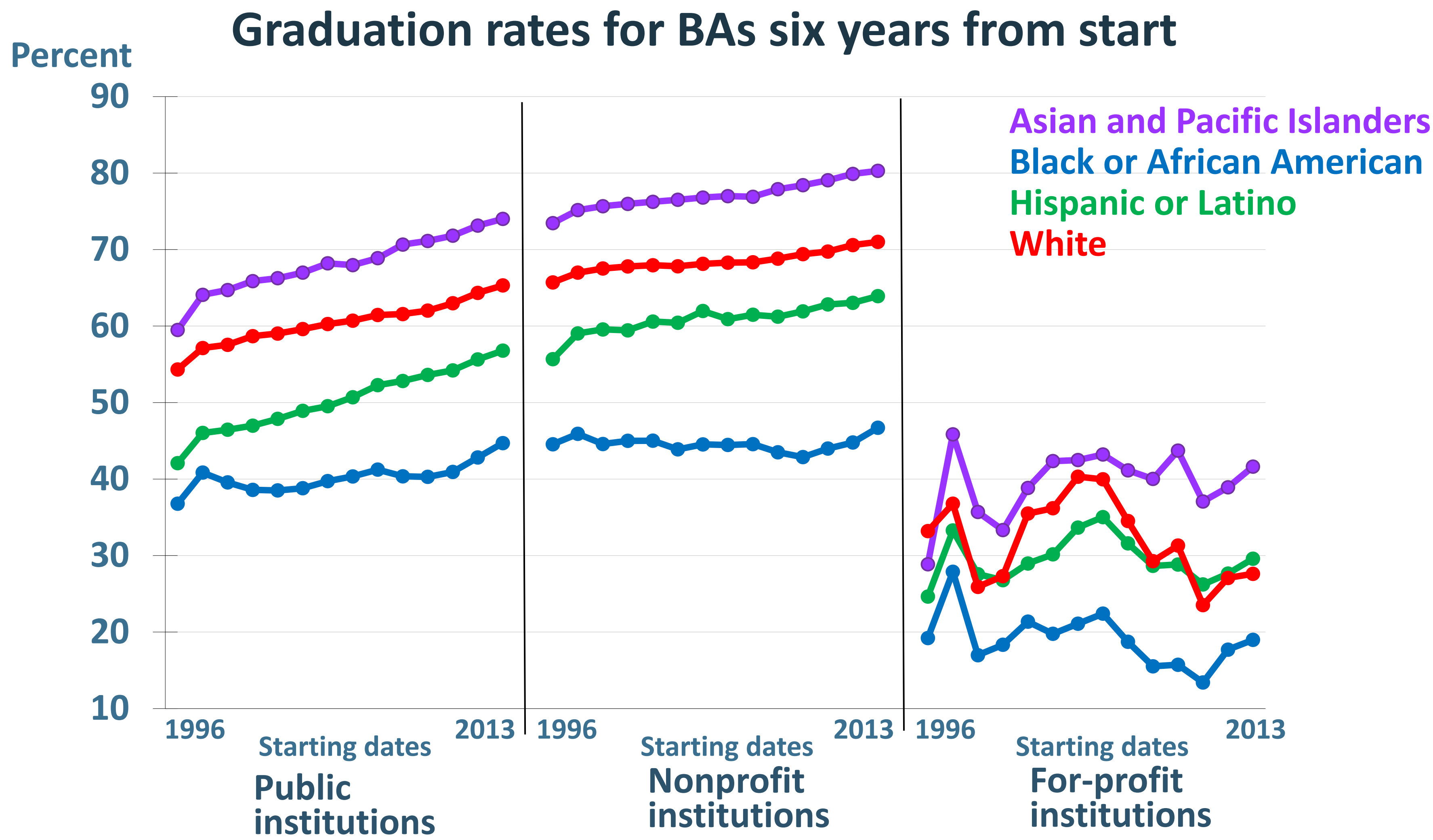
Source: Federal Reserve System 2019 Survey of Consumer Finances

Figure 13. Educational attainment for nonwhites lags that of whites



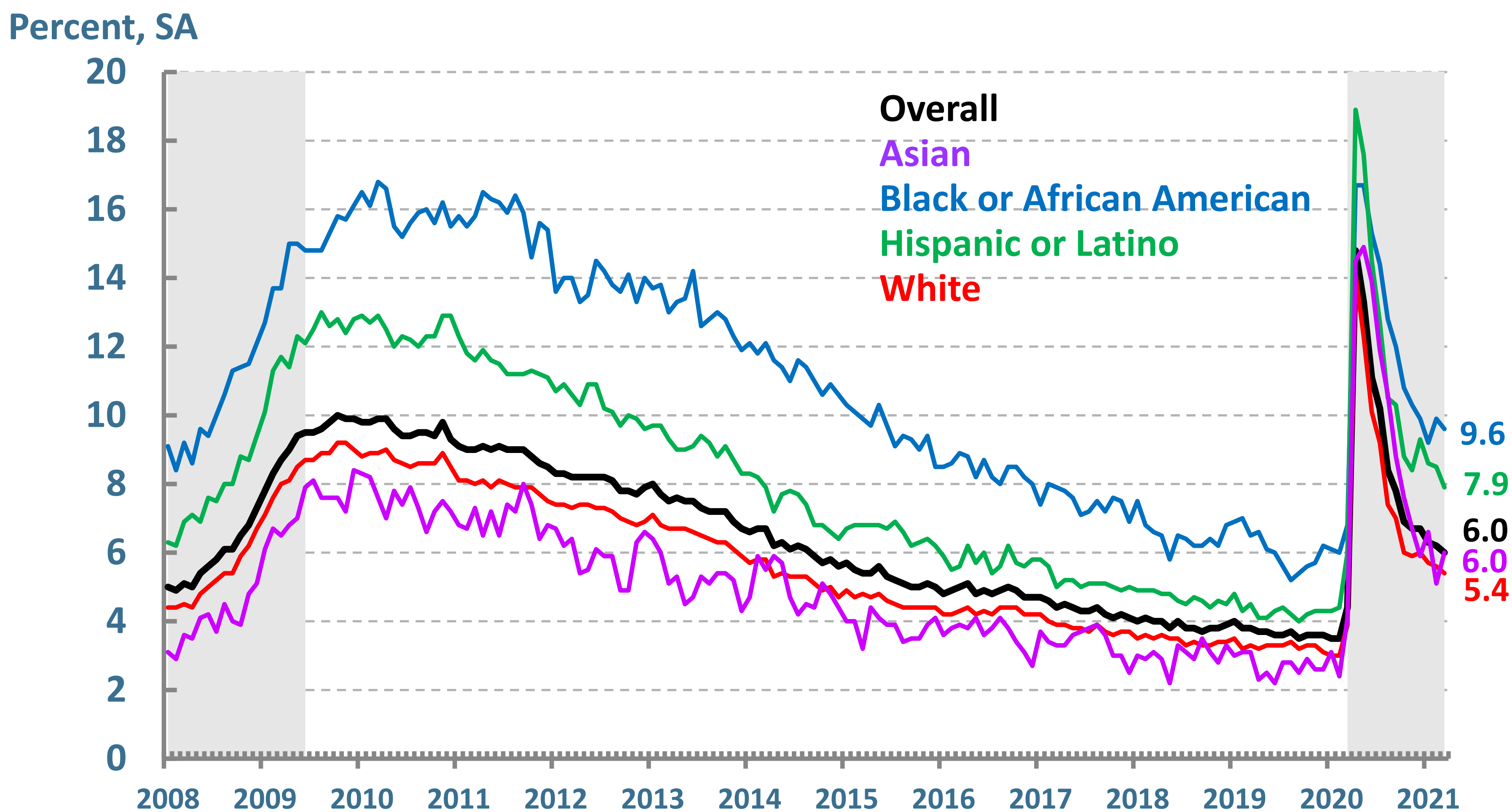
Source: Federal Reserve System 2019 Survey of Consumer Finances

Figure 14. Graduation rates for Blacks are lower than those for other groups



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Table 326.10

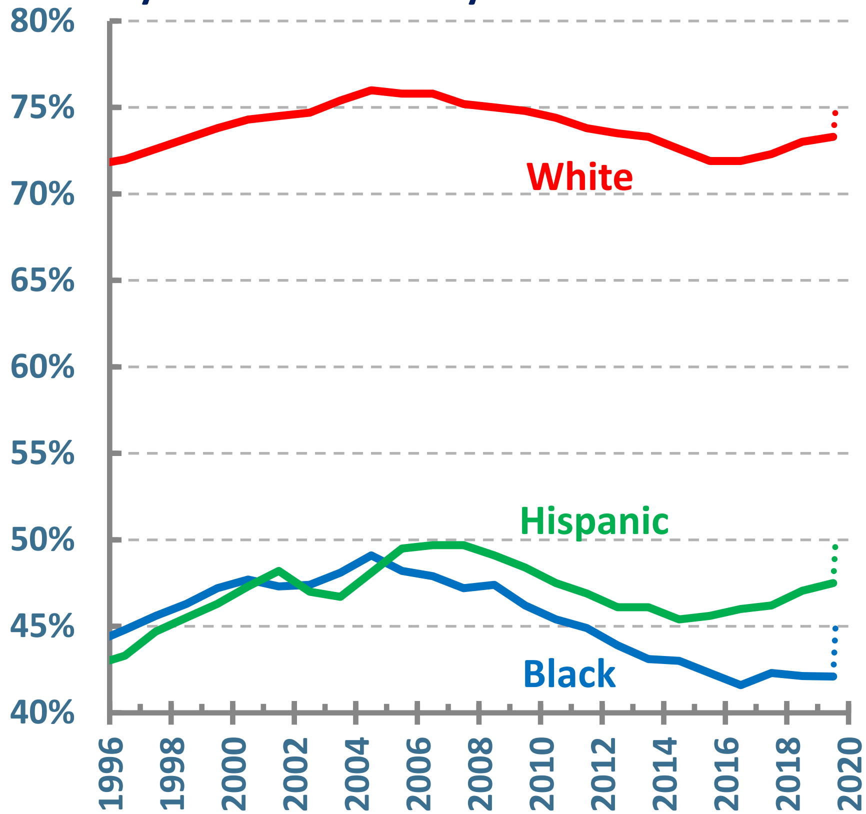
Figure 15. The gaps in unemployment rates between Blacks and whites and between Hispanics and whites narrowed over the last expansion but remain wide



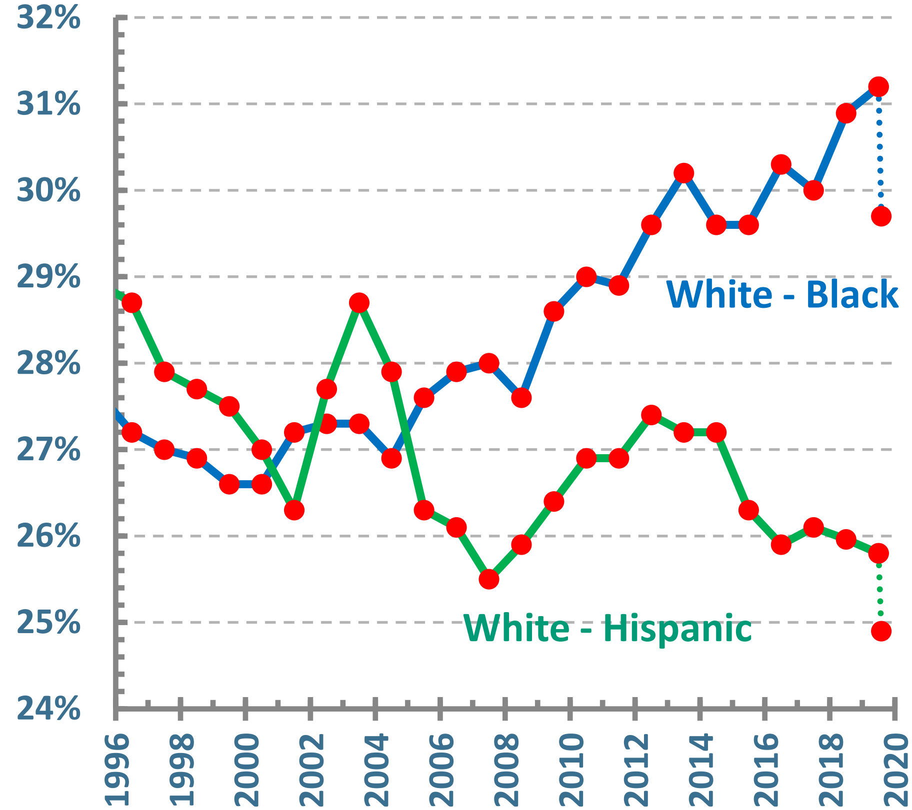
Source: Bureau of Labor Statistics via Haver Analytics
Monthly data: Last obs. March 2021

Figure 16. Some of the rise in homeownership rates in 2020 may reflect issues with data collection during the pandemic. There remain wide racial gaps in homeownership rates.

Percentage of homes occupied by the owner, by race and ethnicity of householder

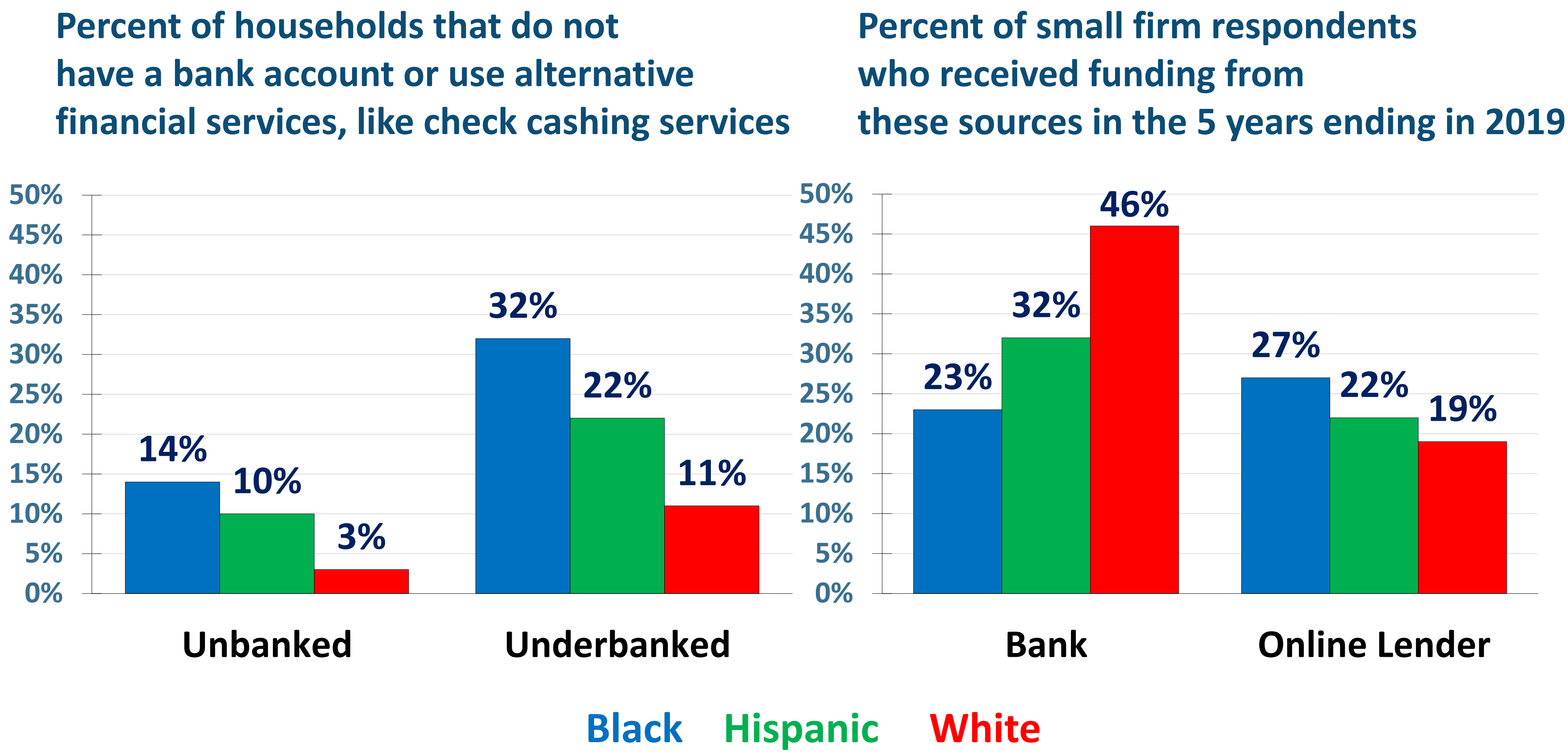


Gap between homeownership rates



Source: U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey, February 2, 2021

Figure 17. There remain racial gaps in access to credit



Source for unbanked/underbanked: Table 10, p. 28 in Board of Governors, Report on the Economic Well-Being of U.S. Households in 2019, Featuring Supplemental Data from April 2020 (May 2020)

Source for small business funding: Federal Reserve System Small Business Credit Survey: Employer Firms, 2020

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