

EDUCATION GAPS IN THE UNITED STATES

The United States has a fraught history with education and the solutions to its manifold problems continue to be debated. Some information, however, is not up for debate. Many students live in poverty and tend to be stuck in a cycle, which typically falls along racial lines. Stark differences between racial groups are present at each educational benchmark, starting with kindergarten readiness and carrying through to post-secondary education.

Population, Poverty, and Education

Research reviewed by The Atlantic found economic segregation underpins much of America's educational disparities: "In almost all major American cities, most African American and Hispanic students attend public schools where a majority of their classmates qualify as poor or low-income." This problem is not relegated to a particular region of the country but exists in effectively all types of cities and towns, rural or metropolitan or any variation. Approximately three-quarters of both Black and Hispanic students, as compared to approximately one-third of White students, attend schools where most students qualify for the National School Lunch Program (NSLP), free- or reduced-lunch, a federal indicator for low-income status.

The ratios do not align. In 2010, the year of the last U.S. census, White Americans comprised 64% of the population; Hispanic totaled 16% and Black 13%. Young people of color disproportionately attend schools with other low-income students, which

researchers at Stanford University's Center for Education Policy Analysis have determined to be the "single-most powerful predictor of racial gaps in educational achievement" (Boschma and Brownstein). Although there are exceptions, higher concentrations of poverty are strongly correlated with race-based educational achievement gaps. School poverty rates tend to represent convergent societal issues which impact school quality. Some examples include income level of the community



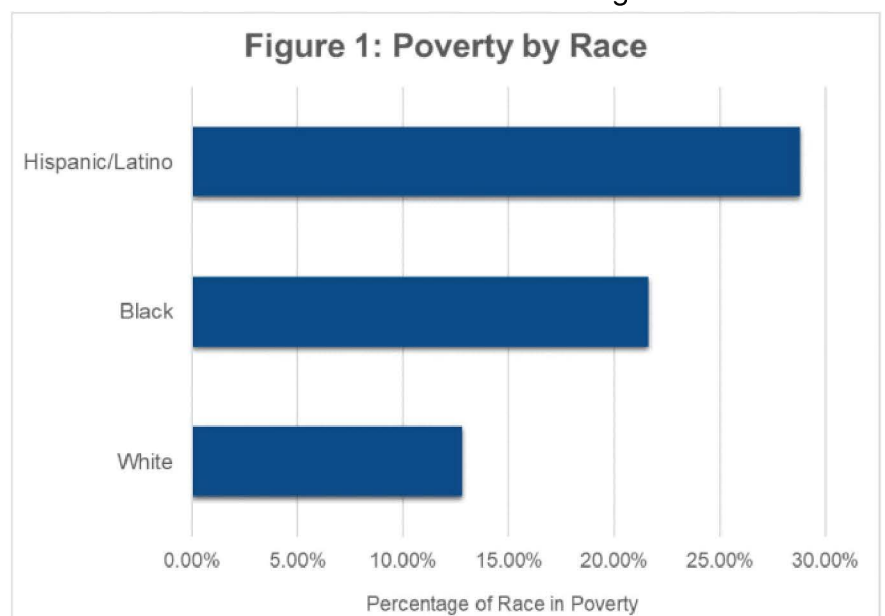
in which a school is located; the number of two-parent families, particularly where parents have discretionary time to spend volunteering; parents with college degrees; adequate use of resources to attract high quality teachers; and more.

Sean F. Reardon, an expert in social and educational inequality from Stanford, identified in recent studies that racial

segregation correlated with both the size and rate of the achievement gap in elementary students due to poverty concentration within racial groups (Spector). Analyzing poverty by race attests to unfortunate statistics shown in Figure 1 below (Data USA). **More Black and Latino students live in poverty, and those students are concentrated in low-income schools where achievement tends to fall behind White counterparts.**

Achievement Gaps

Achievement differs greatly between races because of those income inequalities. Access to high quality education at an early age produces gains with years-long effects, whereas "low quality early childhood education programs produce neutral outcomes at best and can be detrimental at worst" (Bryant et. al.).



The National Center for Education Statistics, a subgroup of the National Assessment of Educational Progress (NAEP) in the U.S. Department of Education (ED), releases the Nation's Report Card to exhibit the quality of youth education in America. The

NAEP 2015 national scores recorded proficiency for students in fourth, eighth, and twelfth grade. Mathematics is scored on a 0-500 scale for fourth- and eighth-grade students and a 0-300 scale for twelfth-grade students. Reading is scored on a 0-300 scale for each grade.

Figure 2: NAEP Math

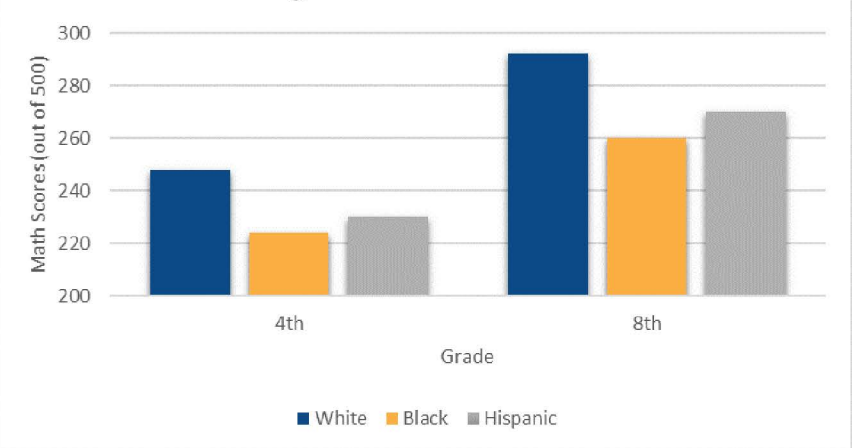
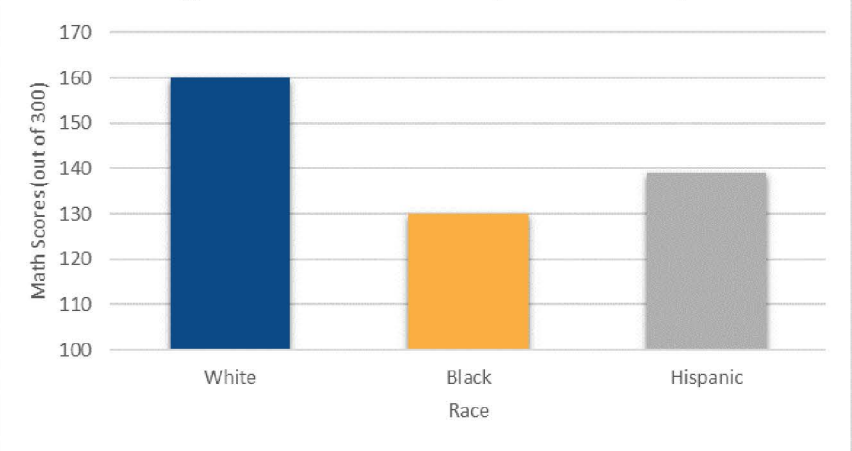


Figure 3: NAEP Math (12th Grade)



Mathematics

In mathematics, White students tend to score higher than either Black or Hispanic students, as demonstrated in the charts to the left. Note that different scoring scales are used for grade four and eight mathematics as compared to grade twelve. White students score, on average, 7 percentage points higher than Black students at each grade level. The White-Hispanic gap is slightly smaller at an average of 4.6 percentage points.

Reading

Reading results resemble mathematics. In Figure 4, findings show a 5.3 average percentage point gap between White and Black students, and a 4.7 average percentage point gap between White and Hispanic students. Non-White fourth grade students score an average of 25 fewer points on reading score than their peers. The gap for twelfth grade is striking: White students scored 29 points higher than Black students, a larger

Figure 4: NAEP Reading

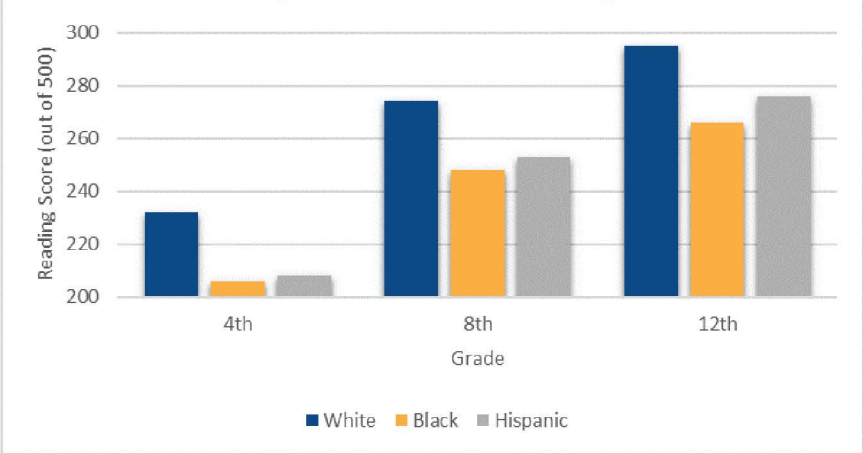


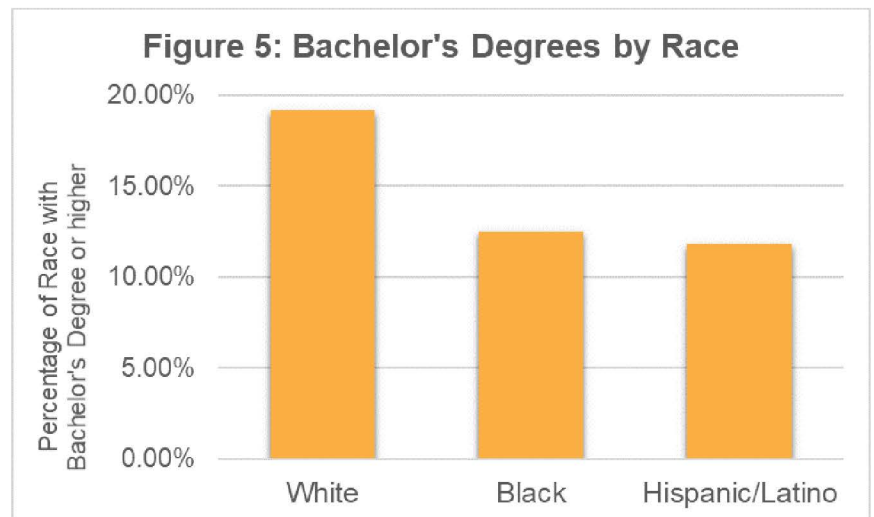
figure than at any other grade and between any two racial groups.

Graduation

Variation in reading and math scores are not the only clear discrepancy. Black and Hispanic students graduate in smaller numbers than their White peers, Measuring the percentage of students who graduated high school within four years of starting ninth grade, **79% of Black students** and **81% of Hispanic students** graduated, compared to **89% of White students** in the 2017-18 school year (“Public High School Graduation Rates”).

Higher Education

Consequently, fewer minority students attend 2- and 4-year colleges and universities. The percentage of degree holders by race as determined by the ED varies greatly across racial lines, as seen in Figure 5. While the percentage gaps may not seem large, expanding those



percentages to whole numbers shows an extensive gap. Using 2010 census data, the number of White persons who held degrees was almost 38 million; Black and Hispanic persons combined was almost 11 million. Research indicates that those individuals with a bachelor's or higher-level degree earn significantly more money in the future than those without, creating a future achievement gap.

Educational Influences

Several factors contribute to the educational achievement gap. Johns Hopkins' Institute for Education Policy breaks potential factors into the individual student level, classroom level, and school level. The individual student level accounts for “family socioeconomic status, low motivation, poor attendance, behavioral factors, or even predictors related to student health.” Behavioral factors play a key role in predicting underachievement. Minority students are more likely to be suspended or expelled, and better attendance correlates with better performance. The classroom level potentially includes low-quality curriculum or higher concentrations of low-achieving peers. As addressed earlier, high concentrations of low-income and low-achieving students has compounding effects. Finally, the school level may include factors such as a “lack of effective instructors and inequitable access to high-level mathematics coursework.”

The Johns Hopkins research further suggests the educational gap is sustained because low-income or high-minority schools adopt broad, national reforms without necessarily considering school-specific reforms. Since the Every Student Succeeds Act, states have become more responsible for their students' achievement and independent needs are being better addressed.

Educational Opportunity

The Educational Opportunity Project at Stanford created tools to explore how school district demographics correlate with average test scores, learning rates, and trends in test scores. Notably, these three factors reflect the level of educational opportunities available to students, including the quality of schools and shifts in family and community characteristics.

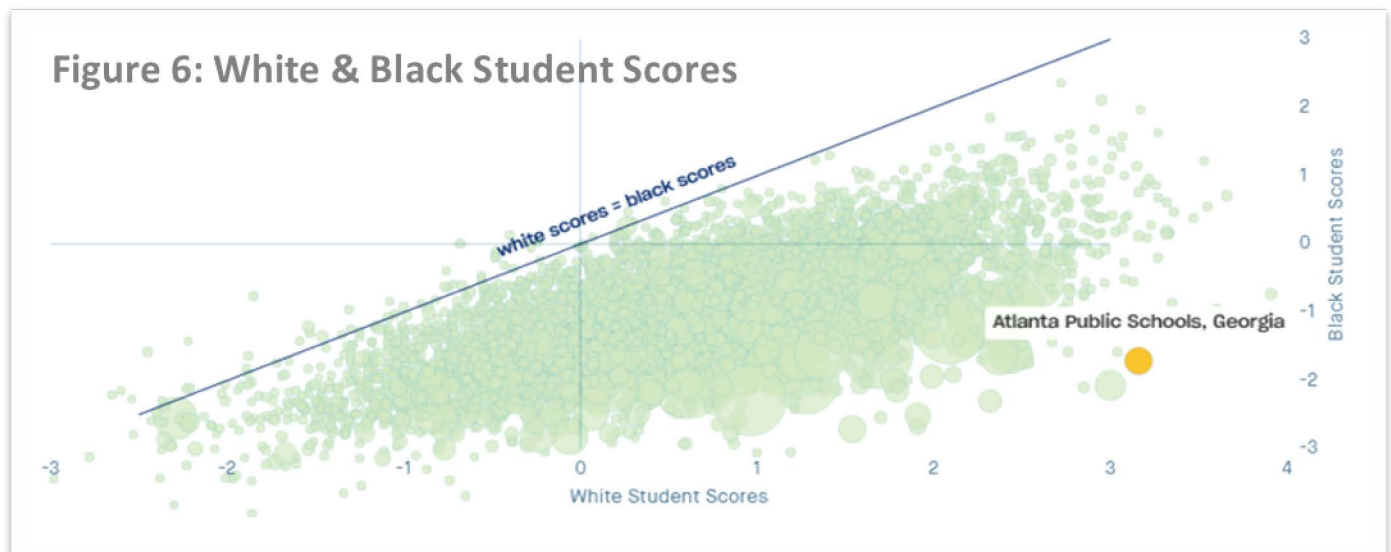
The average difference between White and Black students' test scores is equivalent to about two years of schooling, nationally, with a slightly

smaller number for the gap between White and Hispanic students. According to this analysis, "there is no large school district in the United States where Black students are both performing moderately well and are on par with White students," a discouraging fact. Average test scores measure the total set of educational opportunities students have had. Examining varied gap sizes reveals a few targets for closing the gaps.

Another factor which compounds the income gap is school segregation along poverty lines. The team articulates this clearly:

"more segregated districts generally have larger achievement gaps than less segregated ones."

Using Atlanta as an example in Figure 6, socioeconomic segregation plainly exacerbates the achievement gap. Atlanta Public Schools have a great gap between White and Black students in average test score which mirrors the socioeconomic inequality value of 4.877. Circles in Figure 6 represent school districts; the further away the circle from the diagonal



line (representing no disparity), the greater the gap in equality.

Similar effects are seen in the largest districts in Arizona and Virginia. Mesa Unified School District in a suburb of Phoenix, Arizona, had a 2.13 White-Black gap in average test scores. The White-Hispanic gap was negligible, but the difference between White students and their Black and Hispanic peers for income was great.

Fairfax County Public Schools in Virginia forms part of the west and southwest portion of Washington, D.C.'s suburban area. The White-Black gap in average test score is 2.16, while the White-Hispanic gap is 2.37. The socioeconomic status gap is large between White students and their Black and Hispanic peers in Virginia, as in Arizona.

Digital Divide

In examining disparities along racial and income lines, it is important to consider the digital divide, which describes the difference between those with and without broadband access and necessary devices to complete work at home. COVID-19 has made the digital divide even more apparent: "inessential" work that can be completed from home has left those with "essential," manual jobs which typically go to minority and low-income workers subject to health risks. Furthermore, students in forced remote learning need technology to be an active participant in class.



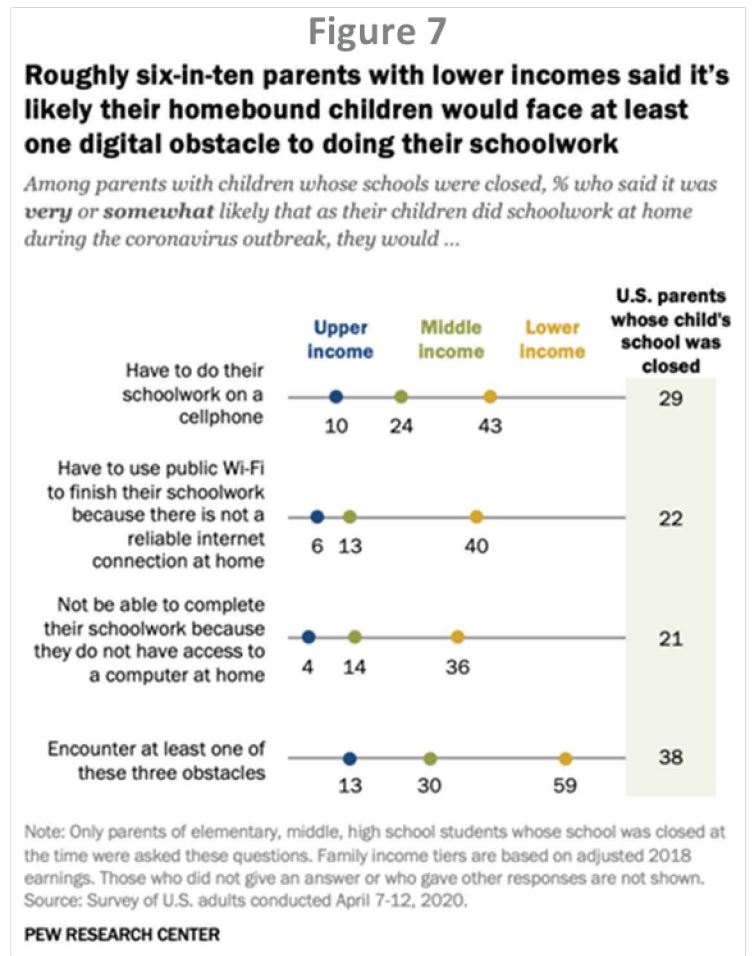
According to TIME, approximately 25% of Americans are without broadband as of 2017, many of whom go without due to cost. "Less than half of households living on under \$20,000 are connected" which further increases the divide between low- and high-income (Vick).

Federal Communications Commission (FCC) chairman Ajit Pai, designated by President Trump in January 2017, made it his mission upon entry to close the digital divide. In the three years under his leadership, the FCC has allocated approximately \$1.5 billion for rural broadband connection, increased funding for faster rural broadband, increased support for connection on tribal lands, and more ("What the FCC has Accomplished"). Significant growth still must occur, particularly in the arena of education.

Pew Research Center analyzed data collected earlier this year and found 59% of low-income families with school-aged children would face at least one

of three problems as demonstrated in Figure 7: completing schoolwork on a cellphone, using public Wi-Fi due to no or limited access at home, or inability to complete work because they do not have access to a computer at home. Lower income families were more than four times as likely to face at least one of the obstacles.

Teachers and administrators have found creative ways to meet student needs, from drive-through packet delivery and USB lecture recordings. However, children from low-income families are still facing difficulties in completing schoolwork, especially now amid COVID-19. The digital divide continues to separate the advantaged from the disadvantaged.



Closing the Gap

When students have positive educational influences, such as higher family income and access to enhanced resources like broadband and computers, they tend to perform better in school. The achievement gap is strongest in places where income inequality is high; minority students typically pay the price. To close the gap, students must receive equitable opportunities to thrive starting at the lowest levels and carrying throughout their student careers.

Author: Allison McNally

Designed by: Courtney Hybiak

For more information go to: SEMWealth.com/About

Works Cited

- "2010 Census Shows America's Diversity." U.S. Census Bureau, 24 Mar. 2011, [census.gov/newsroom/releases/archives/2010_census/cb11-cn125.html](https://www.census.gov/newsroom/releases/archives/2010_census/cb11-cn125.html)
- "Advancing Diversity and Inclusion in Higher Education." U.S. Department of Education, Nov. 2016, [ww2.ed.gov/schstat/research/pubs/advancing-diversity-inclusion.pdf](https://www2.ed.gov/schstat/research/pubs/advancing-diversity-inclusion.pdf)
- Bjorklund-Young, Alanna and Jay Plasman. "Policy Brief: Reducing the Achievement Gap." Johns Hopkins, April 2019, edpolicy.education.jhu.edu/wp-content/uploads/2019/04/Achievement-Gap-Policy-Brief.pdf
- Boschma, Janie and Ronald Brownstein. "The Concentration of Poverty in American Schools." The Atlantic, 29 Feb. 2016, theatlantic.com/education/archive/2016/02/concentration-poverty-american-schools/471414/
- Bryant, Jake, Emma Dorn, Marc Krawitz, Paul Kihn, Mona Mourshed, and Jimmy Sarakatsannis. "Drivers of student performance: Insights from North America." McKinsey & Company, 7 Dec. 2017, [mckinsey.com/industries/public-and-social-sector/our-insights/drivers-of-student-performance-insights-from-north-america](https://www.mckinsey.com/industries/public-and-social-sector/our-insights/drivers-of-student-performance-insights-from-north-america)
- "National Scores by Student Group: Mathematics." The Nation's Report Card, 2015, nationsreportcard.gov/reading_math_2015/#mathematics/groups?grade=4
- "National Scores by Student Group: Reading." The Nation's Report Card, 2015, nationsreportcard.gov/reading_math_2015/#reading/groups?grade=4
- "Public High School Graduation Rates." National Center for Education Statistics, May 2020, nces.ed.gov/programs/coe/indicator_coi.asp
- "The Educational Opportunity Project." Stanford University, 2020, edopportunity.org/
- "Twelfth-grade mathematics scores lower for both male and female students compared to 2013." The Nation's Report Card, 2015, nationsreportcard.gov/reading_math_g12_2015/#mathematics/groups
- "Twelfth-grade reading score lower compared to 2013 for public school students." The Nation's Report Card, 2015, nationsreportcard.gov/reading_math_g12_2015/#reading/groups
- Spector, Carrie. "School poverty—not racial composition—limits educational opportunity, according to new research from Stanford." Stanford Graduate School of Education, 23 Sept. 2019, ed.stanford.edu/news/new-evidence-shows-school-segregation-leads-racial-achievement-gap-it-school-poverty-not-racial
- Vick, Karl. "The Digital Divide: A Quarter of the Nation is Without Broadband." TIME, 30 Mar. 2017, time.com/4718032/the-digital-divide/
- Vogels, Emily A. "59% of U.S. parents with lower incomes say their child may face digital obstacles in schoolwork." Pew Research Center, 10 Sept. 2020, [pewresearch.org/fact-tank/2020/09/10/59-of-u-s-parents-with-lower-incomes-say-their-child-may-face-digital-obstacles-in-schoolwork/](https://www.pewresearch.org/fact-tank/2020/09/10/59-of-u-s-parents-with-lower-incomes-say-their-child-may-face-digital-obstacles-in-schoolwork/)
- "United States." Data USA, 2020, datausa.io/profile/geo/united-states
- "What the FCC Has Accomplished Under 3 Years of Chairman Ajit Pai's Leadership." Federal Communications Commission, 28 Jan 2020, [docs.fcc.gov/public/attachments/DOC-362141A1.pdf](https://www.fcc.gov/public/attachments/DOC-362141A1.pdf)