

ECONOMIC COMMENTARY

K–12 Schools in Ohio Are Separate and Unequal

Dionissi Aliprantis and Mukund Jayaram

Schools are one of the main determinants of lifetime employment and wages. In the 1950s and 60s, many Black leaders were concerned that Supreme Court rulings outlawing the racial segregation of schools might not effectively eliminate school segregation. This *Economic Commentary* uses data from Ohio to show that, even today, Black and white students attend largely separate K–12 schools that provide unequal educational opportunity.

Racial inequality remains stubbornly persistent in the United States. Many basic measures of the economic progress of Black Americans have not improved since the 1960s, such as the racial wealth and earnings gaps (Aliprantis et al., 2023; Bayer and Charles, 2018).¹ Various initiatives have arisen in response to the persistence of racial inequality, including efforts to improve school quality, with the goal of improving educational outcomes. Schooling and the development of human capital are important contributors to individuals' labor market outcomes, which in turn influence the concept of maximum employment that forms part of the Federal Reserve's statutory mandate.

Access to high-quality K–12 schooling has long been a focus of those working for equal opportunity in the United States. Ideally, Black and white students would attend the same schools or, barring that, at least schools of comparable quality. In regard to attending separate schools, a longstanding concern has been that Black and white students would be attending schools providing unequal educational environments, and, therefore, the schools would be preparing their students unequally for higher education and the labor market. One landmark legal ruling addressed this

concern: The Supreme Court ruled in 1954 in *Brown v. Board of Education* that one could not legally separate schools by race because doing so would create inherently unequal schools.

However, despite this ruling, students at K–12 schools could, in effect, still be separated by race in the United States today because many of the country's neighborhoods are segregated by race (Rothstein, 2017). This fact is the reason that many Black leaders and civil rights groups such as the NAACP considered residential segregation to be “the crux of the whole question of segregation” in 1953 (Meyer, 2000).² As the economist Robert C. Weaver, the first secretary of the US Department of Housing and Urban Development (HUD), stated in 1955, the concern was that “[r]acially defined neighborhoods” would nullify “the Supreme Court decisions outlawing segregation in schools” (Meyer, 2000).³ The reason Martin Luther King Jr. spent the summer of 1966 in Chicago campaigning for open housing is that in 1965 he had received “invitations from Negro leaders in the city of Chicago to join with them in their fight for quality integrated education” (King, 1998).

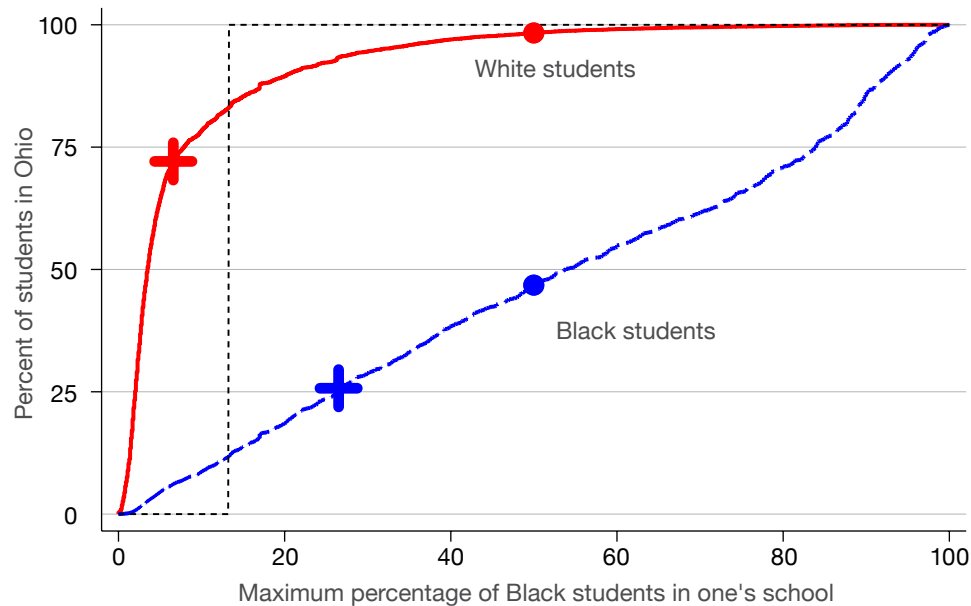
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Figure 1: Racial Makeup of Schools by Race of Student

K–12 buildings in Ohio, 2021–2022



Sources: Ohio Department of Education, authors' calculations

Are these concerns from the 1950s and 1960s still relevant today? The answer, unfortunately, is yes. Most Black and white students continue to attend separate K–12 schools, and these separate schools provide highly unequal opportunities. Because of the scarcity of relevant data for the nation as a whole, we focus on education in the state of Ohio, conducting an analysis using data from the Ohio Department of Education's School Report Cards.⁴

We first investigate whether Black and white students are exposed to one another in their schools.⁵ Figure 1 shows that Black and white students in the state of Ohio attend different schools. The y axis shows the total percent of students in Ohio who attend a school that has a given percentage of Black students. The maximum percentage of Black students per school is shown on the x axis. The solid red line shows the racial composition of schools attended by white students, and the dashed blue line shows the racial composition of schools attended by Black students.

The dashed black line shows a baseline thought experiment based on the fact that 13.3 percent of Ohio's residents were Black in 2022.⁶ If Black students were perfectly integrated in schools in Ohio, then 13.3 percent of each school's students would be Black. Notably, in this case, the red and blue lines would lie on top of each other where the dashed black line is in the figure. This is notable because it is the gap between the red

and blue lines that illustrates how separated Black and white students are in Ohio's K–12 schools. The red and blue lines indicate that Black and white students in Ohio were, largely speaking, educated in separate buildings during the 2021–2022 school year.

Most white students attend schools where Black students are highly under-represented. The red plus mark shows that 72 percent of white students attend schools in which the share of Black students is less than half the share in the state's population (6.7 percent).

Most Black students attend schools where Black students are highly over-represented. The blue plus mark shows that only 26 percent of Black students attend schools in which the share of Black students is less than double their share in the state's population (26.6 percent). That is, 74 percent of Black students attend schools in which the share of Black students is more than double the share of Black residents in the state.

Practically no white students attend schools where Black students are the majority, but this is the most common type of school attended by Black students. The red dot in Figure 1 shows that less than 2 percent of white students attend schools that are majority Black, while the blue dot shows that 53 percent of Black students attend majority Black schools.

Figure 2: Graduation Rate for Class of 2021

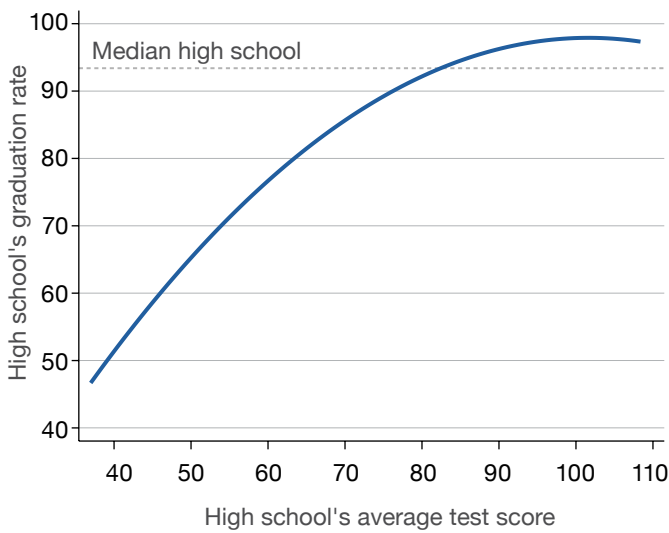
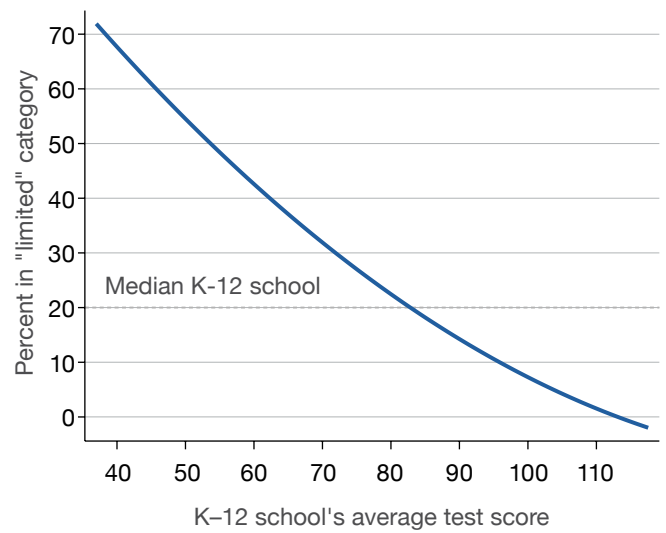


Figure 3: Percent of Students in Lowest Performance Category



Sources: Ohio Department of Education, authors' calculations

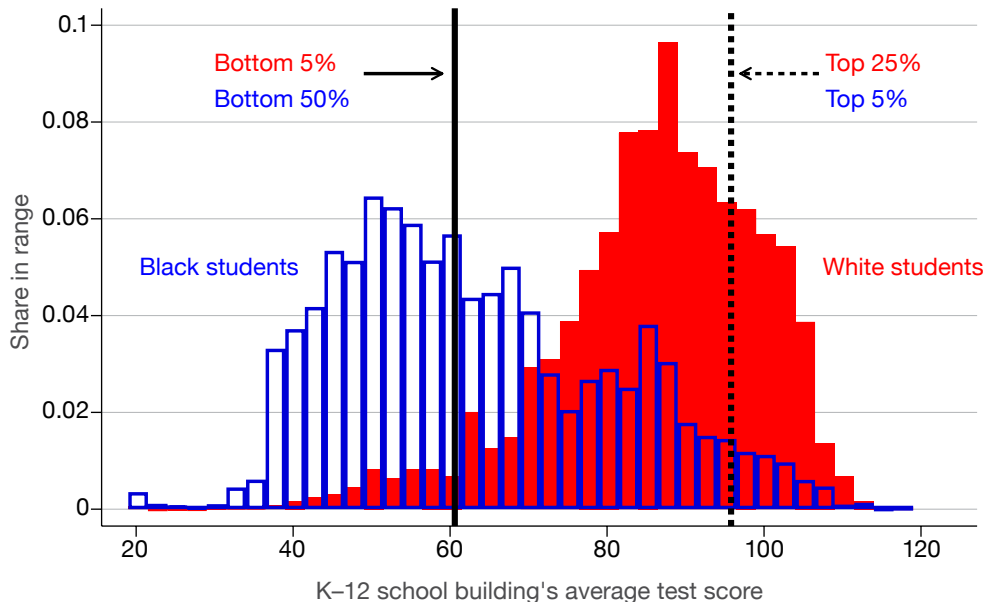
How consequential is it that Black and white students attend separate schools in Ohio? One way of measuring access to educational opportunity is the performance of one's school on standardized test scores.⁷ We use additional data from the Ohio Department of Education's School Report Cards that report a weighted average of students' test scores in each elementary and secondary school and the number of students enrolled categorized by race.⁸ While there are many components of education not captured by such test scores (Jackson, 2018; Almlund et al., 2011), and test scores need not represent a school's causal effect on its students (Angrist et al., 2022), test scores do predict much of labor market outcomes (Nielsen, 2023; Neal and Johnson, 1996).

We present information in Figures 2 and 3 to emphasize that these test scores capture important information about economic opportunity and preparation for the labor market. Figure 2 shows that in our data from Ohio, a high school's average test score is strongly associated with its graduation rate. The four-year graduation rate of the median high school in Ohio for the class of 2021 is 93 percent, denoted by the dashed horizontal line. While this indicates that less than 7 percent of students drop out of the top half of high schools, we can see in Figure 2 that as the average test score in a high school declines, the dropout rate grows sharply to nearly half of students in the lowest-performing schools.

Figure 3 shows how the percent of students in the lowest academic achievement category is related to the school's average test score. The share of students performing in this lowest, "limited" category falls sharply as the school's average test score increases. While 20 percent of students in the median K-12 school test into the lowest achieving group, this is almost 0 percent in the highest performing schools and more than triples from the median rate to 70 percent in the lowest-performing schools. After visiting such low-performing schools with the Algebra Project, the civil rights leader and educator David Dennis stated, "I could see that masses of our children were not being educated" (Moses and Cobb, 2002).

Figure 4: Educational Opportunity in Ohio

Test score performance in 2021–2022



Sources: Ohio Department of Education, authors' calculations

Having shown that the average test score in a K–12 school is predictive of the labor market and educational preparation of its students, we now investigate the average test scores of the schools attended by Black and white students. Figure 4 plots the average test score in a building on the x-axis, with the y-axis showing the share of students attending schools within specific bins. Figure 4 shows that most Black students attend schools that perform poorly. The vertical line at 61 shows the average test score in the school attended by the median Black student. Because half of the blue area is to the left of 61, half of Black students attend a school whose performance is 61 or below. In contrast, we can see that only 5 percent of the red area is below 61. This means that half of Black students attend schools whose academic performance would be ranked in the bottom 5 percent of the schools attended by white students.⁹

Figure 4 also shows that few Black students attend high-performing schools. The vertical line at 96 shows the average test score in the school attended by the 75th percentile white student. Since 25 percent of the red area is to the right of 96, this means that 25 percent of white students attend a school whose average test score is 96 or above. In contrast, only 5 percent of the blue area is to the right of 96. This means that only 5 percent of Black students attend schools whose average test score is 96 or above, a 20 percentage point difference from that of white students.

Figure 4 provides clear evidence that Black and white students attend largely separate K-12 schools that provide unequal educational opportunity. These data demonstrate that additional attention should be paid to the concept of school quality and the impact of unequal schooling on youth and their path to positive educational outcomes and future employment.

Endnotes

1. The 1960s was a time when there were explicit, legal obstacles to Black Americans' economic advancement, and followed centuries of even more severe barriers to Black Americans' economic prosperity.
2. The NAACP, or the National Association for the Advancement of Colored People, was started in 1909 by an interracial group of individuals to work for justice for Black Americans. naacp.org
3. Robert C. Weaver was the first Black American to earn a PhD in economics from Harvard (Meyer, 2000) and served as the first secretary of HUD. <https://www.britannica.com/biography/Robert-C-Weaver>
4. <https://reportcard.education.ohio.gov/>
5. Caetano and Maheshri (2023) look at recent trends in school segregation.
6. <https://www.census.gov/quickfacts/fact/table/OH/RHI225222>
7. There is considerable nuance in measuring the opportunity afforded by a school or neighborhood; Angrist et al. (2022) and Aliprantis et al. (2022) provide related discussions. Owens (2020) uses several other measures to characterize educational opportunity by race.
8. The weighting of test scores is described at <https://education.ohio.gov/Topics/Data/Report-Card-Resources/Resources-and-Technical-Document/Achievement-Component>
9. We note that this fact remains unchanged as far back as our data go, the 2006–2007 school year. This highlights the point from Monarrez and Schonholzer (2023) that there has been very limited racial convergence in access to local public goods over time.

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