



Concentrations of Poverty

This brief provides the study team's analytical findings on the following research questions:

1. How does a school's concentration of poverty impact assessment outcomes?
2. Which demographic characteristics affect student assessment outcomes?
3. How does size and remoteness influence findings?

Methodology

The study team utilized student-level data from the Arkansas Department of Education to aggregate demographic and assessment outcomes to the school-level.¹ The team also used publicly available data to examine how the size and remoteness of the locations in which schools are located impact outcomes.² The team conducted descriptive analyses examining the proportion of low-income students within different demographic groups and across the state. To better understand the relationship between concentrations of poverty and assessment outcomes on the statewide assessment—the ACT Aspire—the team estimated the relationship between a school's proportion of low-income students and student performance.³

Summary of Key Findings

64.9% of all Arkansas public school students were deemed to be economically disadvantaged in 2018-2019. Schools in large suburban areas had the lowest concentrations of poverty; on average, 57.2% of students at these schools were low-income students. Remote towns and rural areas had far higher rates of poverty, averaging upwards of 75% low-income students. Concentrations of poverty also varied significantly across each demographic: 42.5% of Asian students and 53.2% of White students were low-income students, compared to 87.8% of Black students and 84.7% of Hispanic/Latinx students. Migrant, homeless, limited English proficient (LEP), and students with disabilities (SPED) students also had disproportionately high rates of poverty. These within-group poverty rates have important implications for impacted students' raw scores, proficiency rates, and growth on ELA and math ACT Aspire assessments.

Overall, low-income students achieved lower raw scores and proficiency rates than their wealthier peers. These students were 7.9 and 7.3 percentage points less likely to achieve proficiency in math and ELA, respectively. Students who were LEP, SPED, or Black were roughly 10 percentage points less likely to achieve proficiency than non-LEP, non-SPED, and White students, respectively. Increasing a school's proportion of students who are low-income by one percentage point was associated with a .14 percentage point decline in the school's ELA

¹ The data was provided by the Arkansas Department of Education, the MyADE site, or the Office of Education Policy at the University of Arkansas. Performance data is from the 2019 academic year and expenditure data is from the 2018 academic year.

² The team obtained location data from the National Center for Education Statistics Education Demographic and Geographic Estimates program.

³ VAM measures are a broad categorization of statistical techniques used to attribute positive or negative student academic performance to teachers, schools, or districts.

proficiency rate, and a 10 percentage point decline in the school’s math proficiency rate. While a school’s concentration of poverty affected scores and proficiency, it did not appear to affect a school’s ACT Aspire growth. Growth depended more on growth in the previous year, and on the proportions of students at a school who were LEP or SPED students, rather than concentrations of poverty. The remoteness of a school’s locale alone was not associated with any particular effect on that school’s proficiency or growth on the ACT Aspire assessments.

