

Mediation Analysis to Explore Racial and Ethnic Disparity in Mathematics and Science Among Louisiana Students

Mary Moore

ABSTRACT

Racial disparities are prevalent in the United States, manifesting in many social areas such as health care, criminal justice, income and wealth, housing, and notably, education. Despite the outlaw of segregation with the 1954 United States Supreme Court decision in *Brown v. Board of Education*, many schools across the country remain poorly integrated or completely segregated. The purpose of this study was to explore pertinent effects of educational racial disparities in the Louisiana public school system. Specifically, we examined associations between race/ethnicity and students passing Advanced Placement (AP) exams, utilizing mediation analysis applied to a subset of data from the Civil Rights Data Collection (CRDC). The mediation analysis identified completing either SAT or ACT exams, enrollment in a gifted program, teacher absenteeism, and completing an AP math prep course as mediators of the association of the exposure variable, African-American student proportion, with the outcome variable, succeeding on Advanced Placement (AP) science and math exams.