Perspectives on Quantifying School Desegregation

Nathan Alexander, PhD [1]

[1] Howard University, nathan.alexander@howard.edu

Abstract

This article will take a critical computational approach to the question of school desegregation in response to the anniversary of the 1954 Brown v. Board United States Supreme Court decision. I conduct a conceptual replication of the 1974 work of Michael Giles entitled *Measuring School Desegregation* published in the *Journal of Negro Education* (JNE). It hen examine perspectives on mathematical modeling and engage a series of conceptual models related to Giles' initial framing of the quantification of school desegregation. The analysis reveals how attributed mathematical models may or may not account for the complex systems to which school desegregation has been attributed in the research literature. Specifically, the models and main themes from the extant literature on school desegregation will be examined to generate a commentary on the methodological insights provided by increasingly interdisciplinary perspectives, and specifically those which take quantification and mathematical modeling as further tools and insights to understanding longstanding problems of injustice and inequity. Implications for researchers will be provided.

Keywords: *Brown v. Board of Education*, desegregation, segregation, race, mathematical modeling