

A Data-Driven Framework for Fair High School Comparison and Ranking

Luke Ma , Charles Mazof

Boston Home Consulting, the United States

Abstract

As competition for elite college placements continues to intensify, the need for a fair, data-driven, and universally applicable framework to both compare and rank U.S. high schools has grown significantly. Existing ranking systems often emphasize surface-level outcomes—such as Ivy League or top-college matriculation rates—without adequately accounting for differences in student academic strength or school selectivity. Furthermore, these systems typically segment schools into narrow categories—boarding, charter, public, or exam-based—making meaningful cross-type comparison difficult and often misleading. This study addresses these limitations by introducing a unified evaluation framework centered on the Acceptance Efficiency Index (AEI), a metric designed to compare schools based on how effectively they translate student academic strength—proxied by average SAT or PSAT performance—into elite college admissions outcomes. By normalizing outcomes against input quality, the AEI enables direct, equitable comparison across diverse school types and institutional models. Within this framework, school rankings emerge naturally as a byproduct of standardized comparison, rather than as a primary or isolated objective. The research begins with a critical review of widely used U.S. high school ranking methodologies, identifying their structural biases and limitations. It then develops the AEI model as a cross-cutting tool for both comparison and derived ranking. Finally, comparative case studies of leading U.S. high schools illustrate how AEI-based rankings provide deeper insight into true educational effectiveness, highlighting institutions that achieve exceptional college placement outcomes relative to their students' academic baseline.

Keywords: Matriculations; Ranking; Comparisons; Admission; SAT