

What Works Clearinghouse



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WWC Quick Review of the Report “Charter School Performance in Indiana”¹

What is this study about?

The study examined the effect of charter school attendance on annual student achievement growth in math and reading.

The study analyzed data from a large sample of students in grades 4 through 9 in Indiana from 2004 to 2008.

The authors matched charter school students to similar students attending traditional public schools based on test scores and demographic characteristics. Eighty-four percent of charter school students from the 42 charter schools included were successfully matched.

The study examined changes in students’ standardized reading and math test scores from one school year to the next. Effects were estimated by comparing the test-score changes of charter school students with those of matched students attending traditional public schools.²

How Was the Comparison Group Selected?

The authors compiled a list of traditional public schools attended the previous year by students who had since transferred to one of the charter schools included in the study. Then the authors identified all students who had attended one of the traditional public schools on this list the previous year.

These students were matched to charter school students based on test scores from the previous year, special education status, subsidized lunch status, and demographic characteristics. Each charter school student could match to more than one traditional public school student.

A “virtual twin” record was created for each charter school student by averaging the outcomes of all traditional public school students with whom the charter school students were matched.

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¹ Center for Research on Education Outcomes. (2011). *Charter school performance in Indiana*. Stanford, CA: Author. Details on methodology can be found in Center for Research on Education Outcomes. (2009). *Multiple choice: Charter school performance in 16 states*. Stanford, CA: Author.

² The authors also conducted analyses for subgroups of these students using a different methodology. That analysis does not fall under the scope of this quick review.

Quick reviews examine evidence published in a study (supplemented, if necessary, by information from author queries) to assess whether that study’s design meets WWC evidence standards. Quick reviews rely on the effect sizes and significance levels reported by study authors. The WWC rating applies only to the summarized results, and not necessarily to all results presented in the study.

What did the study find?

The study found that charter school students' annual math score growth was 0.07 standard deviations higher, and that their annual reading test score growth was 0.05 standard deviations higher, than a group of similar students attending traditional public schools. These differences were statistically significant, and the WWC interprets them as roughly equivalent to moving a student from the 50th to the 53rd percentile in math and from the 50th to the 52nd percentile in reading.

The study also found that, in general, charter school students with reading and math scores in the bottom half of the achievement distribution the previous year had significantly higher gains than their comparison counterparts. Those gains ranged from 0.03 to 0.09 standard deviations. Students in the top half of the achievement distribution the previous year saw approximately the same gains as their matched peers.

The WWC has reservations about these results because the charter school students may have differed from the matched traditional public school students in ways not controlled for in the analysis.

WWC Rating

The research described in this report meets WWC evidence standards with reservations

Strengths: The study matched charter school students with similar students in traditional public schools using demographic and academic characteristics.

Cautions: Although the study matched charter school students with traditional public school students based on observed demographic characteristics and test scores, unobserved differences between the two groups may have existed. For example, the type of student that decides to attend a charter school may have a higher motivation level or other unobserved difference that influences student achievement.