

RESEARCH BRIEF

Charter School Effects in an Urban School District: An Analysis of Student Achievement Gains in Indianapolis



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Since their arrival in the early 1990s, charter public schools have experienced increasing popularity as a school reform effort, having expanded to nearly 5,000 schools and 1.6 million students (National Alliance for Public Charter Schools, 2009). Along with the growth of charter schools, there has been an increase in rigorous research evaluating the effects of charter schools on students' academic outcomes. This research includes studies that focus on specific states, multiple states, and major cities. The wide range of locations examined, however, has resulted in a great deal of variation in findings that reflect differences in state policies, varying authorizing practices, the age of

charter schools, and diverse instructional and governance structures at the school level. This tremendous variability makes it difficult for researchers to systematically study student achievement outcomes across a large number of charter schools (Betts & Tang, 2009; Gill, Timpane, Ross, Brewer, & Booker, 2007; Hill, Angel, & Christensen, 2006; Loveless & Field, 2009; Miron & Nelson, 2004; Teasley, 2009).

The current study aimed to reach a deeper understanding of the effects of charter schools by examining student achievement in one unique setting—Indianapolis. Although the charter school initiative in Indianapolis has received national recognition for its innovations, entrepreneurial leaders, and capacity to build local support (Skinner, 2007), there has been little systematic evidence regarding the impact of charter schools on student outcomes. Researchers from the National Center on School Choice examined the impact of attending charter schools on students who switched from traditional public schools to one of the charter schools authorized by the Indianapolis mayor's

A Unique Setting for Charter Schools

To address the need for high-quality school options for Indianapolis students, in 2001 the mayor's office of Indianapolis was given permission through state law to authorize charter schools (Peterson, 2009; Skinner, 2007). Indianapolis charter schools have been considered an innovative part of the school choice movement (Smrekar, 2009). Varying in their educational programs, many were founded by the most distinguished leaders and organizations, social service agencies, philanthropists, corporate representatives, and government leaders in Indianapolis. In addition, the charter schools that were approved by the mayor's office underwent a rigorous and competitive application process, and they are held responsible to a comprehensive accountability system that employs a combination of standardized testing; site visits by an expert team; surveys of parents, students, and staff; and outside reviews of schools' finances to evaluate each of the charter schools on an annual basis (City of Indianapolis, 2009). The first three mayor-sponsored charter schools opened in the fall of 2002 and enrolled 479 students. As of the 2008–09 school year, 5,323 students were enrolled in 17 charter schools that were part of the Indianapolis mayor's initiative (City of Indianapolis, 2009).

KEY FINDINGS:

- Students who switched to Indianapolis charter schools experienced significant gains in mathematics achievement.
- Several factors came together that may have contributed to positive effects on student achievement, including support from key players for charter reform and independent authorization of the charter schools by the mayor's office.

office. The study relied on student achievement data collected by the Northwest Evaluation Association (NWEA)¹ for the 2002–03 through 2005–06 school years in Indianapolis’ charter and traditional public schools. A student fixed-effects model² was utilized to limit selection bias.³ Central research questions of this study were:

- What impact do charter schools authorized by the Indianapolis mayor’s office have on student achievement?
- What policy lessons can be learned from these charter schools?

Researchers hypothesized that although students may experience an initial loss in achievement levels when transitioning to a charter school, over time their achievement gains will be larger than the gains they experienced while attending traditional public schools. Researchers also hypothesized that because of the levels of support and autonomy charter schools have been given in Indianapolis, students of these charter schools will make greater gains in mathematics and reading achievement than when they attended traditional public schools.

Students in Indianapolis charter schools see significant gains in their mathematics achievement scores compared with students who attend traditional public schools.

When looking at the mean achievement gains, the data show that students who switched from a traditional public school to a charter school and stayed in a charter school for longer than one year experienced greater annual gains in mathematics than if they had stayed in the traditional public school. Compared with findings from previous studies of charter schools, these effect sizes are relatively large in magnitude (Center for Research on Education Outcomes, 2009; Zimmer, Blanc, Gill, & Christman, 2008; Zimmer et al., 2009). In reading, the results are positive but not statistically significant, suggesting that Indianapolis charter school students did not generate achievement gains in reading that differ from gains experienced by students in traditional public schools. The findings confirm the theory that charter schools may need an academic year or longer to put in

Limitations of the Study

There are several limitations to these data and analyses. First, the sample of students switching to and attending charter schools is relatively small, and the longitudinal panel is only four years. One possible explanation for the positive findings in the early years of the mayor’s initiative is that the students who made the first moves to attend charter schools were the students who would benefit the most from attending charter schools. Likewise, the first charter schools to open under the mayor’s initiative may have been the strongest in terms of vision, support, and instructional design. An additional limitation of the study is that the assessments used for the outcome variable are not high-stakes tests for all students. Rather, they were tests used as accountability measures for charter schools authorized by the mayor’s office. It also is not clear that the traditional public schools used the assessments in the same way, especially since the district stopped using NWEA after 2005–06.

place the instructional practices that will have a positive impact on student performance.

Several factors likely played key roles in setting the stage for positive student achievement gains, including long-term efforts to build local capacity for Indianapolis charter reform, as well as allowing the mayor’s office to serve as an independent authorizer of charter schools outside of the local school district.

As Smrekar argues (2009), there was a long-term effort to build local capacity to make the Indianapolis context ripe for charter school reform. This effort involved participation from local and state politicians, the Chamber of Commerce, local philanthropies, and local and national advocacy organizations. In addition, authorizers are critical to the process of approving high-quality charter school applications and holding charter schools accountable. By allowing the mayor’s office to serve as an independent authorizer outside of the local school district, Indianapolis

¹ NWEA is a nonprofit student achievement testing company that tests students in Grades 2–10 in mathematics, reading, and language arts.

² This model estimates the effect of attending a charter school by holding the characteristics of the student constant and then comparing the gains a student experienced when attending a traditional public school with the gains the same student experienced in a charter school. Since the model estimates the charter effect for students who attend traditional public and charter schools, the student fixed-effects model diminishes selection bias.

³ Selection bias is a valid concern when studying schools of choice because students who select charter schools may be atypical of the larger population of traditional public school students in ways that may influence achievement. If selection bias is not controlled for statistically, the charter school effect may reflect the unobservable reasons, such as personal motivation or ambition, that a student switched to a charter school rather than the true effect of attending a charter school.

charter schools were forced to go through a rigorous, competitive application process and were held accountable for rigor, transparency, and positive outcomes.

Focusing on the quality of charter schools rather than quantity seems to be a positive attribute of the Indianapolis charter schools (U.S. Department of Education, 2007). Moreover, several researchers have argued that conditions closest to the students (i.e., teaching, instruction, and curriculum) have the greatest impact on student learning (Gamoran, Nystrand, Berends, & LePore, 1995; Newmann, King, & Youngs, 2000; Rowan, Correnti, Miller, & Camburn, 2009). In the case of Indianapolis, there is some evidence that the schools differ in instructional conditions when compared with traditional public schools (Berends, Stein, & Smithson, 2009). Specifically, Berends et al. (2009) found that charter school teachers went into more depth in their instruction of mathematics, particularly focusing on a sound understanding of basic skills, than traditional public school teachers. Finally, the role of parents in selecting a school may impact how students perform. Stein, Goldring, and Cravens (2009) found that the majority of parents who selected Indianapolis charter schools cited academics as their top priority when choosing a school. Regardless of whether the schools were academically superior, the families believed that they were choosing schools for academic reasons. Thus, the act of choosing a school may have provided a positive bump to students who switched to charter schools.

Policy and Research Implications

Indianapolis presents a unique case to study the effects of charter schools on student achievement. The Indianapolis mayor's office continues to approve new charter schools that enroll a growing percentage of the public school student population. As described earlier, there likely are several factors that came together in the Indianapolis mayor's initiative to explain the positive effects on achievement. All of these factors are worthy of serious reflection for researchers and policymakers. Researchers need to consider the social and policy context in which charter school effects occur whether they are positive, negative, or neutral. In addition, with the continuing expansion of charter schools, policymakers need to further reflect on those cases, such as Indianapolis, where some positive conditions seem to exist in terms of local capacity, strength of authorizer, school organizational and instructional conditions, and parental choice.

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