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## **Student Achievement in Charter Schools: What the Research Says**

As a whole, research suggests that academic effects in charter schools are, at best, mixed—varying by the research method, state, district, subject, grade level and individual school.

### **Prominent National Studies**

National studies produce findings that characterize charter school outcomes across the entire spectrum of charter schools and several states, which help ensure the generalizability of conclusions about the overall impact of charter schools.

- Mathematica conducted a national evaluation of charter schools (Gleason et al., 2010) funded by the U.S. Department of Education. On average, charter schools had no significant impacts on student achievement in math and reading, but charter school impacts varied widely across schools. To be selected for the study, the 36 charter middle schools (which served 3,700 students in 15 states) had to have more applicants than available seats for students and use a lottery to admit students. The lottery winner/loser technique estimated the impacts of charter schools by comparing the outcomes of the lottery winners (whether or not they chose to enroll) and lottery losers over a two-year follow-up period.
- A national study funded by the U.S. Department of Education, and jointly conducted by Mathematica and the American Institutes for Research (Dragoset et al., 2017) found no support for the ubiquitous proposition that charter schools save children from failing public schools or are especially effective with minorities (85 percent of the students studied). Between 2010 and 2015, the \$7 billion school improvement grants (SIG) provided states with funding to implement one of four school intervention models in their lowest-performing schools: The SIG’s “restart” model converts a low-performing school to a charter school or closes the school and reopens the building as a charter school. The charter restart sample included 10 charter schools with elementary grades and 20 charters with upper grades. Using a quasi-experimental technique, the researchers determined that restarting as a charter school had no significant impacts on math or reading test scores, high school graduation or college enrollment.

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- The Center for Research on Education Outcomes (CREDO, 2013) used a large sample of charters from 27 states covering 95 percent of students enrolled in charter schools. Using achievement growth on state tests as the outcome measure, each charter school student was assigned a “virtual twin” in a regular public school. The study found an educationally meaningless positive effect on charter school students’ reading scores (less than 1 percentile) and no impact on math scores.
- A study conducted for the National Center for Education Statistics (Braun, Jenkins and Grigg, 2006) by the Educational Testing Service compared a nationally representative sample of charter school students with regular public school students on the 2003 National Assessment of Educational Progress. The findings indicated that regular public school students consistently outperformed their charter school counterparts in both reading and math, and in both urban and nonurban settings.
- A national study using a rigorous experimental and quasi-experimental research methodology conducted by Mathematica Policy Research (Furgeson et al., 2012) of CMO charter schools (e.g., KIPP, Mastery, Uncommon Schools, YES Prep and others) found no overall impact of the 68 CMO schools managed by one of 22 CMOs in the study. The highest-performing CMOs appeared to be linked to the strict student behavior policies of the “No Excuses” charter school model.
- Using a rigorous quasi-experimental methodology, Dobbie and Fryer (2016) estimated the impact of charter schools on test scores and labor market outcomes at ages 24-26 (employment rates and earnings) in Texas. On average, charter schools had no impact on test scores and a negative impact on earnings. Schools of the No Excuses CMOs increased test scores and four-year college enrollment, but only had a small and statistically insignificant impact on future earnings. Other types of charter schools had decreased test scores, four-year college enrollment and earnings.

### Charter Management Organizations

Heavily touted as “high-quality” charters and well-funded by philanthropists, charter management organizations (CMOs) are nonprofit organizations that operate multiple charter schools. CMOs make up about one in 10 charter schools nationwide. CMOs are associated with the “No Excuses” model, which focuses on minority students; features strict discipline for minor infractions and high suspension rates; provides extended instructional time; and is characterized by high attrition rates without “backfilling” (i.e., admitting new students to fill vacated seats). Two studies are particularly noteworthy:

### Lottery Winner/Loser Studies

Often described as “experimental studies” because selection by lottery is viewed as random assignment, Miron (2011) describes the lottery sample technique as a student matching strategy that creates control groups from charter school waitlists rather than control groups of similar students attending public schools. The findings of lottery winner/loser analyses are difficult to generalize as applying to all charters because the analyses usually are constrained to studies of a single school, a single city or a single charter school chain. For example:

- One KIPP middle school in Lynn, Mass. (Angrist et al., 2012).

- 24 middle and high schools of which 12 were in Boston (Angrist et al., 2013) when Massachusetts had a total of 91 charter middle or high schools.
- Two SEED charter boarding schools in Baltimore and Washington, D.C. (Curto and Fryer, 2014).
- Harlem Children’s Zone, an elementary and middle school in New York City (Dobbie and Fryer, 2011).
- Two middle schools and one high school in an anonymous district (Hastings et al., 2012).
- 42 charter schools in New York City (Hoxby and Murarka, 2009).
- Three charter schools in Chicago (Hoxby and Rockoff, 2005).
- 16 KIPP middle schools and eight KIPP elementary schools in Atlanta; Austin, Texas; Baltimore; Houston; Oakland, Calif.; and Washington, D.C. (Tuttle et al., 2015).

Lottery winner/loser studies tend to find positive charter school impacts. A meta-analysis of 10 lottery sample studies (Cheng et al., 2015) calculated a small overall “effect size” of 0.04 standard deviations for reading. In comparison, a meta-analysis of comprehensive school reform models such as Success for All (Bormann et al., 2002) found larger effect sizes ranging from 0.09 to 0.15. Cheng et al. found a 0.14 standard deviation effect size in math for lottery sample charter schools, which is less than the impact of class size reduction in the Tennessee STAR experiment (0.25 standard deviations in Krueger, 1999).

One reason for the small number of schools in the lottery studies is that charter schools usually do not document lottery and waiting list procedures with sufficient specificity to guarantee random assignment by lottery. Even if charters do have sufficient records, some

researchers have raised concerns about lottery-based studies that do not have study teams independently observing and documenting the lotteries (McEwan and Olsen, 2010).

The rarity of well-documented random-assignment lotteries is illustrated in Mathematica’s national evaluation (Gleason et al., 2010). The study identified 492 potentially eligible charter schools (for that study, charter middle schools in operation for at least two years that conducted lotteries), but only 36 charters had sufficient lottery records for inclusion in the research. Mathematica’s CMO study (Ferguson et al., 2012) found seven CMO middle schools with sufficient data for a lottery sample analysis among the 68 schools in the main analysis. Mathematica noted that lottery winner/loser studies may have shown charter school success because they included only one or a small number of the most successful charter schools rather than a representative sample of all charter schools.

### Impact of Urban Charter Schools

In contrast to its study using a national sample, CREDO’s (2015) urban charter school report found that in the aggregate, urban charters provided significantly higher levels of annual achievement growth than regular public schools in both math and reading. Using a lottery sample analysis, Angrist et al. (2013) found that while urban charter schools in Massachusetts boost student achievement, charter schools in other settings did not.

Many researchers attribute urban charter school effects to the concentration of CMOs and no-excuses charter schools in urban areas (Angrist et al., 2013; Carter, 2000; Thernstrom and Thernstrom, 2004; and Hoxby and Murarka, 2009). Specifically:

- Noting that CMOs are concentrated in cities, Mathematica (Ferguson et al., 2012) found positive associations between student impacts and multiple measures of school behavior policies: zero-tolerance policies for potentially dangerous behaviors, behavior codes with student rewards and sanctions, and responsibility agreements signed by students or parents.
- Angrist et al. (2013) argue that adherence to the No Excuses paradigm accounts for nearly all of the urban advantage in Massachusetts where 67 percent of urban charter schools, but none of the nonurban charters in the study, used the No Excuses model.

### No-Excuses Charter Schools

A meta-analysis of research focusing specifically on the impact of no-excuses charter schools (Cheng et al., 2015) could identify only four lottery winner/loser studies that together totaled to 30 no-excuses charter schools.

- Nine middle and four high schools in Massachusetts (Angrist et al., 2013).
- Two SEED charter boarding schools in Baltimore and Washington, D.C. (Curto and Fryer, 2014).
- Harlem Children’s Zone, an elementary and middle school in New York City (Dobbie and Fryer, 2011).
- 13 KIPP middle schools in California, the District of Columbia, Georgia and Massachusetts (Tuttle et al., 2013).

The overall impact on reading derived from the four studies was 0.11 standard deviations (about the same as the impact of whole-school reform models like Success for All) and 0.26 standard deviations in math (about the same

impact as class size reduction in the Tennessee STAR experiment).

In spite of the evidence that no-excuses charter schools improve test scores in a small number of schools with sufficient data to conduct a lottery sample analysis, No Excuses charters have been criticized as relying too heavily on punitive discipline practices to “push out” unsuccessful students. The American Academy of Pediatrics (2013) and the American Psychological Association (2008), among others, contend that overly punitive discipline policies are ineffective and discriminatory. Civil rights advocates have complained that charter schools are often left out of state- and school-level policy changes and monitoring that have led to dramatically fewer suspensions in many school systems (Blad, 2016). There is also substantial pushback against other practices of no-excuses charter schools such as schools opening one grade level a year to selectively shape enrollment over time, and high attrition rates without admitting new students to fill the vacated seats.

### Conclusion

These studies, coming from academic journals or well-reputed research organizations, featured high-quality measures of performance outcomes and cleared peer review. The studies overwhelmingly lead to one conclusion: The evidence on the effectiveness of charter schools in raising student achievement is, at best, mixed. There is no consistent evidence that charter schools are the answer to our education problems. A research literature that focuses on finding and studying “high-quality” charter schools naturally misleads the public about the average impact of all charter schools and demonstrates that academic performance in most charter schools is underwhelming.

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