
Are Charter Schools Working? A Review of the Evidence

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August 2014

INTRODUCTION

Are charter schools working? That is, are students in charter schools learning as much or more than their counterparts in district-run schools? Countless blog posts, editorials, news articles, public debates, and research papers take up this very question—with little consensus. Both proponents and opponents of charter schools point to studies in support of their side of the debate.

But what does the body of evidence add up to? Since 2008, the Center on Reinventing Public Education has commissioned Julian R. Betts and Y. Emily Tang, both economists at the University of California, San Diego, to conduct periodic reviews of the charter school achievement research to answer this question.¹ This brief summarizes their newest working paper, in which they once again conduct a systematic analysis of the field's most rigorous studies to understand how charter schools are serving students across the nation.²

This kind of systematic review is important for at least two reasons. First, states vary widely in the laws and policies governing charter school implementation, oversight, and accountability, and so findings from one district or state (or even findings from studies of a few locales) do little to tell us what is happening in other particular locations or in the nation at large.

Second, charter schools represent an increasingly important form of school choice across the country. Indeed, in the three years since Betts and Tang's 2011 review of the research, two states enacted new charter laws (Maine in 2011 and Washington in 2012), nearly 1,200 new charter schools opened up across the nation, and charter school enrollment grew by an estimated 42 percent.³ With growth of this scale, in addition to asking whether charter school students benefit

academically, it is worth asking whether the impact of charter schools on achievement has changed over time.

In their latest working paper, Betts and Tang systematically review the literature on student achievement in charter schools. This analysis provides a useful update to their 2008 and 2011 reviews by including a dozen new papers that have been written since 2011 and which include many more effect sizes. The authors also consider whether the charter school sector has grown more or less effective over the past three years, finding that the effect sizes for math have increased and the effect sizes for reading have stayed roughly the same since the time of their prior study three years ago. Based on the findings, and even in light of the variation in results, there is reason to believe that charter schools constitute an important and effective policy tool for raising student achievement—particularly in math.

CHARACTERIZING CHARTER SCHOOL RESEARCH

While a copious amount of research exists on charter schools and achievement, not all of it has produced equally valid estimates of charter school effectiveness. This new review considers studies that use one of two approaches that are more likely to produce unbiased estimates of the causal effect of attending a charter school on student achievement.⁴

The first approach involves comparing students who win and lose lotteries to attend charter schools. These kinds of studies use an experimental approach by comparing students who are very similar except for the fact that they either have won or lost a school lottery. Eight studies have used this lottery-based approach, covering over 130 charter schools. The

second approach, known as value-added modeling, is not experimental like the lottery-based approach but does take into account students' past academic histories by following individual students over time. Overall, the authors examine 52 studies that use the lottery-based or value-added approaches, including 38 of the 40 studies used in their 2011 review in addition to updates to 2 of the 40 earlier studies and 12 entirely new studies.

As in their 2011 paper, Betts and Tang use a variety of methods to assess whether charter schools do or do not outperform their district-run school counterparts. Readers interested in knowing more about these methods are directed to the complete working paper, *A Meta-Analysis of the Literature on the Effect of Charter Schools on Student Achievement* (available at www.crpe.org). These meta-analytic methods allow the authors to estimate the overall effect of charter schools on reading and math achievement.

FINDINGS

Considering all the studies in this review as a whole, charter schools on average produce results that are at least on par with and, in many cases, better than district-run schools. Specifically, when looking at the studies that use the two methodological approaches discussed above, the authors found that:

- **Charter elementary and middle schools, on average, outperform their district-run counterparts in math.** In fact, the effects for math achievement, for the most part, became larger and more significant with the addition of three new years' worth of research (with the exception of a small drop in magnitude for studies at the elementary level). The effect sizes at the elementary and middle school levels are estimated at 0.045 and 0.084, respectively. These effect sizes mean that attending a charter elementary school would boost a student starting at the 50th percentile to the 52nd percentile in a year. A student attending a charter middle school could jump from the 50th to the 53rd percentile in a year. If that same student experienced similar gains all three years at a charter middle school, the student would move from the 50th percentile upon entering 6th grade to nearly the 60th percentile upon leaving 8th grade.
- **For reading, the overall effect sizes for attending a charter school are positive and about the same size as reported in the 2011 paper,** but the effect sizes are no longer statistically significant.
- At the high school level, there is no overall significant effect (either positive or negative) of charter schools, suggesting that **charter high schools, on average, serve their students about as well as their district-run counterparts.** There is, however, much more variation in charter high school effectiveness by study and location as compared to charter elementary and middle school effectiveness. There has also been substantial improvement in charter high school performance, with several studies finding significant positive effects in recent years.
- **KIPP schools appear to have a particularly positive effect on both math and reading achievement.** At the middle school level, the estimated effect sizes for math and reading are 0.374 and 0.174, respectively. These suggest that a student initially at the 50th percentile would move to percentile 64.6 in math and percentile 56.9 in reading after attending a KIPP school for one year.
- Too few studies disaggregate by student subgroups to draw meaningful conclusions in this analysis, but it is possible to get a sense of how they fare. **African American students attending charter schools generally outperform their counterparts attending district-run schools.** Hispanic and Native American students on average appear to do no worse or no better when enrolled in charter schools, while the charter effects for Asian and Caucasian students are generally negative.
- **At-risk subgroups—English language learners, students receiving free or reduced-price lunch, and students in special education—fare at least as well in charter schools as they would have had they gone to district-run schools,** though charter school effects vary by subject, grade span, and specific subgroup. English language learners show no significant differences in either math or reading for any of the grade spans for which reliable studies are available, and the results for students receiving free or reduced-price lunch are consistently positive for math. Students in special education attending the charter schools included in the reviewed studies do as well as or, in the studies that pool all grades, better than their counterparts in district-run public schools in both math and reading.
- Location plays a large role in the variation seen in charter school effectiveness, which makes sense given the differences in charter authorization and

oversight from one city or state to the next. Certain places—like New York City, Boston, Chicago, and Delaware—demonstrated some of the most impressive positive effects for math and reading in certain grade spans. Charter schools in other places showed either consistently negative (e.g., California and Ohio) or mixed (e.g., Pennsylvania and Texas) results depending on grade level and subject area. **Effect size estimates are almost always higher in studies of urban charter schools than in the overall sample**, particularly at the elementary and high school levels.

- In looking at whether the charter school effect has changed over time, the authors found that **the effect size has indeed risen for both math and reading**, but this trend is not statistically significant.
- A small body of literature that looks at the relationship between charter school attendance and outcomes apart from achievement finds further **evidence of large positive impacts of charter schools on high school graduation and college enrollment**. For example, in one lottery-based study of Boston schools, researchers found charter school lottery winners had similar rates of overall postsecondary enrollments as lottery losers but the winners were 17 percent more likely to enroll in four-year colleges than those who did not win the lottery.⁵ A couple of other studies have found significant reductions in student disciplinary infractions, teenage pregnancy, and incarceration among those who attend charter schools.⁶

The findings in Betts and Tang’s new working paper help to consolidate what is known about the relationship between charter schools and student achievement. Still, the body of research remains geographically limited, provides only limited insight into charter school effects for different subgroups of students, and offers few rigorous studies of non-tested outcomes such as graduation or college attendance

and completion rates. Even their review cannot be taken as definitive proof that charter schools either do or do not serve students well in all cases.

IMPLICATIONS

Charter schools aim to use their autonomy to design unique strategies to teach students who may not have been well served in traditional district-run schools. It is apparent from Betts and Tang’s new working paper that charter schools have been generally successful in this mission. At the same time, there is a large degree of variation in charter school effectiveness across states, cities, subject areas, and grade levels. While this variation likely reflects the spirit of experimentation that characterizes the charter sector’s mission, being able to identify which charter schools outperform and underperform their district-run counterparts carries important policy implications. Outperforming schools can be expanded and replicated; underperforming schools can be improved, closed, or replaced.

However, merely identifying these schools does not go far enough. Researchers and policymakers must work toward a better understanding of the conditions under which charter schools thrive or fall short in terms of improving learning outcomes for their students. What types of state laws attract high-quality charter authorizers and place appropriate pressure on low-performing schools and authorizers? What are the structures and supports a city or district can put into place that ensure charter schools have the resources and latitude necessary to boost student achievement? How can district-run and charter schools work together to ensure all students are served well? Studies that dive into particular local contexts, largely lacking in the literature today, would better inform local and national public policy debates and decisions, and contribute to a clearer understanding of what characterizes the types of charter schools that are truly making positive (or negative) differences for students.

The full report, *A Meta-Analysis of the Literature on the Effect of Charter Schools on Student Achievement*, is available at crpe.org.

Funding for this project comes from the Walton Family Foundation. We thank the Foundation for its support but acknowledge that the findings and conclusions presented here are those of the authors alone and do not necessarily represent the opinions of the Foundation.

ENDNOTES

1. Julian R. Betts and Y. Emily Tang, *Value-Added and Experimental Studies of the Effect of Charter Schools on Student Achievement: A Literature Review*, National Charter School Research Project (Seattle, WA: Center on Reinventing Public Education, 2008). Julian R. Betts and Y. Emily Tang, *The Effect of Charter Schools on Student Achievement: A Meta-Analysis of the Literature*, National Charter School Research Project (Seattle, WA: Center on Reinventing Public Education, 2011).
2. Julian R. Betts and Y. Emily Tang, *A Meta-Analysis of the Literature on the Effect of Charter Schools on Student Achievement* (Seattle, WA: Center on Reinventing Public Education, 2014).
3. During the 2010–2011 school year, 1,805,002 students were being served by 5,258 charter schools across the United States. By the 2013–2014 school year, an estimated 2,569,029 students were being served by 6,440 charter schools. (Data comes from the National Association of Public Charter Schools’ dashboard, available at: <http://dashboard.publiccharters.org/dashboard/home>.)
4. Charter School Achievement Consensus Panel, *Key Issues in Studying Charter Schools and Achievement: A Review and Suggestions for National Guidelines*, NCSRP White Paper Series, No. 2 (Seattle, WA: Center on Reinventing Public Education, 2006). Julian R. Betts, Y. Emily Tang, and Andrew C. Zau, *Madness in the Model? A Critical Analysis of Popular Methods of Estimating the Effect of Charter Schools on Student Achievement* (San Diego, CA: University of California, San Diego, 2007).
5. Joshua D. Angrist, Parag A. Pathak, and Christopher R. Walters, “Explaining Charter School Effectiveness,” *American Economic Journal: Applied Economics*, *American Economic Association* 5, no. 4 (2013), 1-27.
6. Scott Imberman, *Achievement and Behavior in Charter Schools: Drawing a More Complete Picture* (Houston, TX: University of Houston, 2007); Will Dobbie and Roland Fryer, Jr., “The Medium-Term Impacts of High-Achieving Charter Schools on Non-Test Score Outcomes,” Working Paper No. 19581 (Cambridge, MA: National Bureau of Economic Research, 2013).