

Charter schools, studied

October 29 2009, by Peter Dizikes



Graphic: Christine Daniloff

(PhysOrg.com) -- Set in Boston's Hyde Park neighborhood, an area not known for its excellent schools, the Boston Preparatory Charter Public School nonetheless has an enviable academic record: Last spring, 100 percent of its 10th-graders received a score of "excellent" or "proficient" in English, science and math on the MCAS, Massachusetts' state-wide exams. By contrast, a much smaller percentage of students in Boston's regular public schools received "excellent" or "proficient" marks: 64 percent in English, 62 percent in math, and 34 percent in science. The science results put the Boston public schools in the bottom 10 percent of the state.

As its name indicates, Boston Preparatory is a charter school, an independent public school that focuses on core [classroom](#) subjects, with

extended hours, increased student-teacher interaction, and a sense of school “mission.” Since their introduction to the state in the mid-1990s, many charter schools — though not all — have produced striking results. Despite these successes, however, charter schools are a source of civic controversy because they use some funds that would otherwise go to local districts, and often employ non-union teachers.

Boston Preparatory’s sterling academic record is not unique among its Boston charter school peers. Many charter schools in Boston (about a dozen middle schools and a dozen high schools in all) produce good test scores. And to be sure, highly motivated charter school students could succeed in any academic setting. But in a study published this year, a team of researchers that includes two MIT economists used a novel method to show that in general, students perform better at those charter schools than they would at other types of public schools.

The effects on students enrolled in the charter schools studied are “just really striking,” says Joshua Angrist, the Ford Professor of Economics at MIT and a member of the research group. Using data from 2004 to 2007, the team found, for instance, that a middle-school student ranking at the 50th percentile on the statewide math exams would improve, on average, to roughly the 65th percentile after just one year in one of the high-performing charter schools in Boston.

Moreover, the researchers found, students at those charter schools also outperformed students at Boston’s pilot schools — a local alternative to charters the city created in the 1990s, which have similar principles but report to the local school district and have unionized teachers. “The pilot schools mostly showed no effect” on student performance, Angrist notes.

The team’s findings were based on an analysis that mimicked the effects of a lab trial by drawing upon the lottery systems that charter schools use to admit students. When the number of students applying for admission

in those lotteries exceeds the spaces available, there is effectively one big pool of students randomly chosen for or excluded from a school. Studying the difference in performance between these randomly selected groups allowed the researchers to assess the impact of charter schools, without the results being influenced by demographic factors that could also explain student success.

The study, released in January by The Boston Foundation, could well serve as a lesson for educators and policy makers across the country; it has already been mentioned in congressional hearings. Charter schools are also a central topic in Boston's mayoral election, scheduled for Nov. 3, where incumbent Thomas Menino has changed his position and now supports creating more of them. Moreover, this summer Congress gave U.S. Education Secretary Arne Duncan \$4.3 billion in federal money, known as the "Race to the Top" Fund, to be distributed in states with clear plans to fix struggling schools.

In short, there is a lot riding on any analysis showing public-school improvement. The research team would like to expand their study, however, in order to identify why some schools succeed. As striking as the success of some charter schools may be, the causes of this performance are less evident.

The power of hours

A few elements of charter-school success seem straightforward. The Boston charter schools in the study had smaller classes on average than the typical Boston public school. This has long been regarded as a key to student achievement.

Because the charter schools outperformed the pilot schools, Angrist says, another important difference may lie in the time students spend in the classroom, which includes greater attention from teachers. "The pilot

schools cannot afford to run a really long school day, because they're not allowed to have a lot of the unpaid overtime the charter schools expect of their teachers," notes Angrist. The same applies to standard public schools, which cannot ask teachers to work equivalent hours.

The top charter schools seemingly attracted an unusual proportion of excellent students, something the researchers (including faculty from Harvard, Duke, and the University of Michigan) discerned indirectly. Because the biggest gains among the charter schools occurred at those where the entrance lotteries are oversubscribed, there may be a clamor among especially motivated [students](#) to attend those schools.

Indeed, while Boston charter schools as a group have shown a strong track record, there can be significant variation in performance, from school to school. Two charter schools in the study are now closed; about 10 percent of charter schools across Massachusetts have been forced to close since 1994, on account of poor performance. "Just because a school has the name charter in its title is no reason to assume it will be academically successful," observes Katherine Merseth, senior lecturer and director of teacher education in the Harvard Graduate School of Education. The Massachusetts Teachers Association, the state's largest teachers' union, released its own report in September saying that successful charter schools have higher drop-out rates than public schools on average, a fact that helps raise the charter schools' average test results.

The researchers agree that charter-school performance can vary widely. "I think we see the potential for charters to produce large gains, but by no means would it be appropriate to conclude that this [degree of improvement] is the charter school effect," says Angrist. Moreover, they stress they are not committed to any one type of school. "We want to bring our lens as scientists to this," says Parag Pathak, an assistant professor of economics at MIT who is part of the research team. "We're not charter advocates. We're not against pilot schools. Our attitude is, let

the data speak.”

To let the data speak further, the research team would like to enlarge their study in an attempt to identify more “dimensions” of the problem, Pathak says, meaning the factors that influence school performance. Finding more schools that are similar in every way except a single factor — such as school hours, teaching methods or even school uniform requirements — could help educators ascertain how important those individual elements are, and create a better recipe for school success.

Provided by Massachusetts Institute of Technology ([news](#) : [web](#))

Citation: Charter schools, studied (2009, October 29) retrieved 19 April 2024 from <https://phys.org/news/2009-10-charter-schools.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--