

POLICY BRIEF 2012-06

## Learning from the Successes and Failures of Charter Schools

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# Learning from the Successes and Failures of Charter Schools

*As U.S. Secretary of Education* Arne Duncan said in 2009, “There are approximately 5,000 [chronically underperforming] schools...roughly 5 percent of the total. About half are in big cities, maybe a third are in rural areas, and the rest are in suburbs and medium-sized towns. This is a national problem—urban, rural, and suburban.” The magnitude of the problem is enormous, but new evidence points to a path forward to save the three million students in our nation’s worst-performing schools, for a price of about \$6 billion—less than \$2,000 per student.

Over the past two decades, charter schools have emerged as a fixture in the nation’s education landscape. Publicly funded but privately run, they come in many shapes and sizes. In fact, they are nothing if not diverse, with some in the inner city and others in the countryside; some, members of a larger network and others stand-alone institutions. As such, there is no single type of charter school. Precisely because of the flexibility granted to them, their operating procedures differ from one another as well as from traditional public schools. Some have availed themselves of this freedom and shown marked success; others have had disappointing results.

In a new Hamilton Project paper, Roland G. Fryer identifies five educational practices from high-performing charter schools and provides a case study of how those practices were implemented in traditional public schools: focusing on human capital, using student data to drive instruction, providing high-dosage tutoring, extending the time on task, and establishing a culture of high expectations. These five elements come from an extensive study of what makes select New York City charter schools successful, and experiments in Houston and Denver show that these practices can be implemented in public schools effectively and with significant impact on student achievement. Moving forward, Fryer outlines a plan to expand this approach to similar schools across the country while experimenting with combinations of reforms to better understand what works for different schools.

## The Challenge

The American education system is in dire straits, with the nation performing poorly relative to other countries and failing to serve many of its most underprivileged and vulnerable students. There are many ideas for reform, and charter schools, which currently enroll roughly 4 percent of students, now occupy a significant role because of their willingness to try new approaches. Some

charter schools have shown remarkable success in boosting test scores, offering their students the promise of closing the racial achievement gap in just a few years. For example, schools in the Harlem Children’s Zone (HCZ) have become a beacon of hope, with the Promise Academy, in particular, demonstrating the enormous potential to improve students’ lives. Others, however, have failed to increase achievement and have actually performed worse than their traditional counterparts. In fact, a recent study by Mathematica Policy Research has shown that, on average, charters have no statistical impact on test scores relative to traditional public schools. Because charter schools have such a mixed record, they are clearly not a panacea. But the astounding success that some have demonstrated suggests that we should learn as much as possible from them in the hopes of better serving the huge number of students enrolled in traditional public schools.

To translate the lessons of charters to public schools, Fryer first aimed to understand what concrete practices drove effectiveness in successful charter schools. In New York City, he examined a set of thirty-five charter schools, looking at how various inputs and school policies were related to school effectiveness. This research found that many resource-based inputs—class size, per-pupil expenditure, and teacher certification—were not linked to success; rather, it uncovered a different set of educational practices that together explained almost half of the difference in effectiveness across schools.

It is not enough, however, to simply expand successful charter schools. At their current rate of growth, it will take over one-hundred years for high-performing charter schools to educate every student in the country. For these benefits to reach the students who need them most, the United States will need to take innovations from charter schools and apply them to the traditional public schools that serve the vast majority of students.

Promising—but preliminary—new evidence from demonstration projects in Houston and Denver suggest that these practices can be transferred from charters to public schools (see Houston Case Study for details). In the 2010-2011 school year, nine of the worst-performing schools in the Houston Independent School District participated, with the cooperation of the district, in an experiment testing these very elements. While the data from the most recent school years are still coming in, the results thus far suggest student test scores improved dramatically. In fact, the magnitude of this increase was strikingly similar to that seen among the best charters.

The graph below places student results from Houston in the context of high-achieving charter schools. Each bar represents the increase in math and reading test scores after one year. Clearly, the results seen in Houston are comparable to those of successful charter schools. A similar experiment, currently taking place in Denver, also demonstrates comparable preliminary results. For the Houston public schools, these effects are enough to close the math achievement gap between the schools in the experiment—some of the worst-performing schools in Houston—and the average Houston public school in less than two years.

What’s more, a study of HCZ students, who saw increases in test scores comparable to the gains from the Houston and Denver public school reforms, found improvements in outcomes beyond test scores. Students who won the HCZ lottery were half as likely to have been pregnant and one quarter as likely to have been incarcerated by the time they were surveyed at around age eighteen. Furthermore, lottery winners are 86 percent more likely to have taken the SAT and 32 percent more likely to have been accepted to college.

Disentangling which factors make charters successful and determining whether or not they are able to take root in

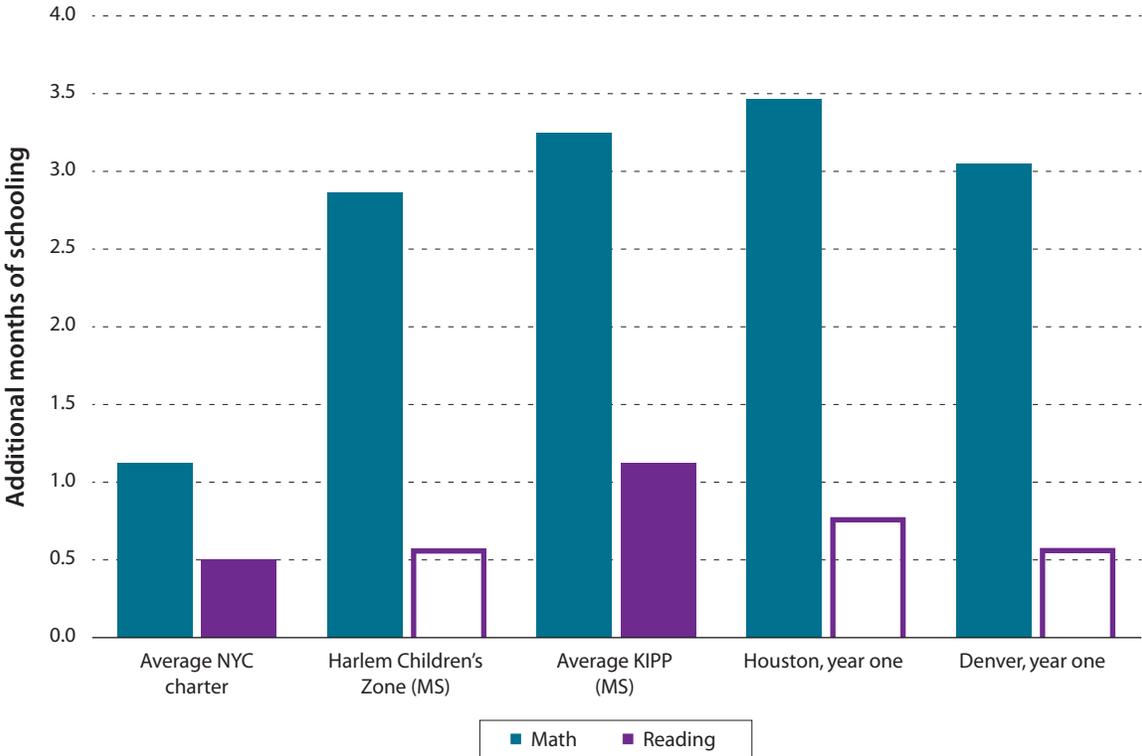
public schools, thus, yield promising prospects for positive education reform. The experiments in Houston and Denver have demonstrated that a combination of five reforms has the potential to make a substantial difference in student achievement and help turn around some of the nation’s worst-performing public schools.

## A New Approach

Based on the promise of the Houston and Denver results, Fryer argues that these best practices of successful charter schools could play a prominent role in improving low-performing, traditional public schools. While there is still work to be done to optimize and customize solutions for individual districts and schools, early evidence shows that this proposal could have a dramatic impact on the three million students in the nation’s worst-performing schools, at a cost of less than \$2,000 per student.

It is important to emphasize that the idea is not, in any way, to replace public schools with charter schools. Rather, the goal is to emulate practices that have been shown to be successful in both charter and traditional public schools. The potential payoff from these changes would be to strengthen the education system and improve the lives of millions of poor and minority students.

FIGURE 1.  
Increase in Standardized Test Scores



Note: Solid bars indicate significance at the 5 percent level. One month of schooling is roughly equal to 0.08 standard deviations. MS refers to middle schools.

The following list of the five broad tenets contains some of the most important elements of Fryer's proposal:

### ***Focus on human capital***

Teachers should be given the tools they need to succeed, including increased feedback from administrators, particularly based on class observations. New teachers especially benefit from professional development, and could be given a special series focusing on common problems. Schools should be encouraged to conduct weekly professional development series for all teachers, regardless of experience, with the goal of increasing the rigor of classroom instruction through methods such as lesson planning. Finally, it is essential to install an administration that is receptive to change and that will implement the measures required to improve student achievement.

### ***Using student data to drive instruction***

Data can drive more personalized and more efficient learning, allowing both teachers and students to track progress and to make sure that each student is on a path that is appropriate for her. Assessments can be used to adjust everything from tutoring to student goals. To achieve this, Fryer suggests that schools should conduct regular assessments of students every four to six weeks. More in-depth assessments could be given several times a year, and teachers could meet with students individually to discuss and set goals after each of these.

Fryer notes that administrators will need to equip schools with the necessary technology, such as scanners and software, to quickly and easily input student test data into a central database. This database should be available to teachers and administrators and provide information on student achievement along a variety of vectors.

### ***High-dosage tutoring***

Also in the vein of personalized learning, Fryer suggests that schools can further boost student learning by creating an intensive tutoring program that can target curriculum to the level of each student. All students should take an assessment at the beginning of the year so that they can be matched with the tutor and peers most conducive to learning. The tutoring curriculum should be broken up into units. For example, fifteen-day units could devote the first twelve days to instruction, the thirteenth day to assessment, and the last two days to review and remediation based on the assessment.

Tutors should have a bachelor's degree, at the minimum, and be willing to make a full-time commitment. Applicants should take assessments in their subjects of expertise and participate in mock tutorial sessions to be evaluated and then selected.

While only some grades may receive the intensive tutoring, all students in the grade should receive tutoring, regardless of ability. Such a policy not only lets all students benefit, but also helps remove the potentially negative stigma attached to tutoring.

### ***Extended time on task***

To make time for increased tutoring, among other changes, the amount of time devoted to instruction should be increased. Fryer suggests that this should be implemented both by increasing the length of the school day and by increasing the number of days in the school year. The increase in instructional time should be tailored to students' needs. For example, students struggling more in math should have additional class periods devoted to math, while those struggling more in reading should spend more time on this subject.

### ***Culture of high expectations***

From the time that students enter a school, they should understand that they are expected to succeed and that the teachers, administrators, and other staff are there to help them succeed. The first week of school should be a "culture camp," a time to focus on what behaviors and actions are conducive to achieving success. Classrooms should post goals on the walls as a constant reminder of the high expectations, and schools should visibly promote a culture of going to college, by hanging posters about college and by discussing college readiness with students. Students must be cognizant of their individual goals and the steps needed to achieve them.

## **Scaling Up and Experimenting**

Each school district faces unique challenges and will require a customized package of reforms to best suit its needs. The lessons learned from New York City charter schools and from the experiments in Houston and Denver can provide the foundation for reforms and evaluations in other similar schools. In particular, Fryer suggests striving to save students from the bottom 5 percent of schools over the next eight years, ultimately reaching three million students.

The results from Houston and Denver are promising but also preliminary. As a result, it is essential to continue to evaluate and experiment with combinations of reforms. Each school can benefit from reforms and shed light on the questions that remain. And while costs may vary by school, one thing is clear according to Fryer: high expectations are free.

Although it is not possible to offer a one-size-fits-all package of reforms, Fryer argues that we should not allow the perfect to be the enemy of the good. By expanding what we know works and conducting more research as we expand those practices, this new approach could benefit millions of students from the nation's struggling schools and neighborhoods.

## Learn More About This Proposal

This policy brief is based on The Hamilton Project discussion paper, “Learning from the Successes and Failures of Charter Schools,” which was authored by

ROLAND FRYER

Professor of Economics, Harvard University  
Faculty Director, EdLabs

## Additional Hamilton Project Proposals

### Harnessing Technology to Improve K-12 Education

*By Aaron Chatterji and Benjamin Jones*

Despite the promises of educational technology to provide personalized learning, K–12 education has seen little innovation. Since it is difficult for buyers to know what works in education technology, they are often reluctant to enter the market. To address this challenge, this paper proposes the establishment of EDU STAR, a new organization to bridge the information gap between sellers and buyers. EDU STAR would provide reports on the effectiveness of various software-based learning tools, establishing a transparent and therefore more dynamic market for the technologies and encouraging the development of new tools to help students learn.

### Staying in School: A Proposal to Raise High School Graduation Rates

*By Derek Messacar and Philip Oreopoulos*

The gap between educated and uneducated Americans is larger than ever. And yet, the high school dropout rate is almost as high today as it was 50 years ago. Economic evidence strongly supports the idea that students who are compelled to attend school longer earn higher wages and are otherwise better off as a result of their extra schooling. This paper presents a strategy for reducing the dropout rate through a carrot-and-stick approach that combines stricter and better-enforced school-attendance laws with programs that have been statistically proven to prevent disengagement among at-risk students.

## Costs

In Houston, the marginal cost of the program was approximately \$1,800 per pupil. The components varied widely in cost; for example, high expectations was the lowest-cost reform, involving essentially zero-dollar investments in posters and a concerted effort by staff in lieu of additional monetary costs. On the other hand, tutoring required hiring many new full-time staff, and was only provided in sixth- and ninth-grade math due to funding constraints. Table 1 gives an approximate breakdown of the marginal per-pupil costs.

TABLE 1:

### Per-Pupil Marginal Costs of Houston Reforms

Tutoring	\$700
Human Capital	\$250
Technology & Data	\$200
Extended Day	\$550
Administrative Costs	\$100

Note: The cost of tutoring was \$2,200 per student tutored. Costs in table are divided across all students, including those who did not receive tutoring, to correspond to impacts, which are also averaged across grades.

Further research is necessary to determine where money should be directed to provide the largest returns and to explore to what extent the five reforms can be separated and how they reinforce each other. To reach three million children, it will cost roughly \$6 billion per year.

## Conclusion

Notwithstanding the difficulties and uncertainties surrounding charter schools, two things are certain. First, some charter schools drastically improve student achievement. Second, the practices that distinguish these high-performing charters from their low-performing counterparts can be implemented in traditional public schools. While some of the factors require more restructuring than others, all of them hold the potential to help turn around America’s flagging education system.

# Houston Case Study

The experiment in Houston provides one example of how these principles can be implemented in practice.

**1. Focus on human capital.** Effective teachers and quality principals are the bedrock of public schools. As a part of the “turnaround” designation of the school-improvement grants offered by the U.S. Department of Education, at least 50 percent of teachers needed to be replaced as well as all principals who had been on the job more than two years. Following these guidelines, 53 percent of teachers were replaced in the Houston pilot and all of the principals in the nine schools were removed. A significant fraction of the teachers left voluntarily due to the requirement of working an extra hour (despite that they were compensated for that time), some left because of the uncertainty around a new principal and new expectations, and others were asked to leave (subject to union regulations) due to previously documented poor performance.

Principals taught week-long training sessions prior to the start of the school year. During the fall, all teachers attended Saturday training sessions focused on increasing the rigor of classroom instruction. In winter, training continued for new teachers, focusing on common problems and on creating a “toolbox” for teachers to both use certain classroom-management techniques and increase student engagement.

**2. Using student data to drive instruction.**

Schools individually set goals for data-driven instruction, but each school gave assessments at least every six weeks, and teachers and administrators had access to results. Halfway through the school year, each school gave benchmark assessments based on the Texas state standardized test, and teachers met one-on-one with students to set goals for the official end-of-year assessment.

**3. High-dosage tutoring.** Students in select grades received intensive, hour-long, two-on-one tutoring in math. Tutors were given two weeks of training prior to the start of school. The position was full-time with an annual salary of \$20,000; bonus payments up to \$8,000 were offered based on student achievement. Each school hired a site coordinator to oversee tutoring.

**4. Extended time on task.** The school district received a waiver from the Texas state legislature to extend the school year by five days, and the school day increased by an hour per day on average. Total instruction time increased by 21 percent relative to the previous year.

**5. Culture of high expectations.** Each school set its own requirements, and professional development incorporated these goals. The basic requirements were as follows: every classroom must have goals posted, every student must know what her individual goals are for the year and how she is going to achieve these goals, and every school must have visual evidence of a college-going culture.

## Highlights

Roland G. Fryer of Harvard University and EdLabs provides guidance on how the practices of successful charter schools can be used in public schools.

## The Proposal

**Focus on human capital.** Teachers should be given the tools they need to succeed, including increased feedback from administrators and professional development at all stages in their career

**Use student data to drive instruction.** Data can drive more personalized and more efficient learning, allowing both teachers and students to track progress and to make sure that each student is on a path that is appropriate for her.

**Provide high-dosage tutoring.** Students should be offered intensive, small-group tutoring that is customized to each student's baseline achievement and pace of learning.

**Extend time on task.** To make time for increased tutoring, among other changes, the amount of time devoted to instruction should be increased. Schools should increase both the length of the school day and the number of days in the school year.

**Foster a culture of high expectations.** From the time that students enter a school, they should understand that they are expected to succeed and that the teachers, administrators, and other staff are there to help them succeed. This environment can be created with time dedicated to setting goals, with posters encouraging college attendance, and many other steps.

## Benefits

Certain charter schools have had great success in boosting student achievement, especially in disadvantaged neighborhoods. However, because charter schools have a mixed record of success and serve only a limited population of students, they are clearly not a panacea. But the astounding results that some charter schools have demonstrated promise that implementing these changes in public schools could have a dramatic and transformative effect for students across the country.



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