



PRESS RELEASE

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Study Shows Apollo 20 Academic Achievement Gains Match Top Charters

Turnaround program produces better return on investment than smaller classes, early childhood programs, and paying teachers more to work in tough schools

October 6, 2011 – Students in nine historically underperforming Houston Independent School District middle and high schools made extraordinary gains in math during the first year of the Apollo 20 school turnaround program, according to a working research paper presented Thursday.

This pioneering program introduced five key practices from the nation's most successful charter schools into some of the district's highest-need schools, including: increased instructional time; changes to school leadership and staff; intensive, small-group tutoring; a data-driven approach to teaching and learning; and establishing a culture of high expectations for all students regardless of background or past performance. After just one year, students achieved gains in math that were equivalent to more than three months additional learning relative to similarly situated students who did not benefit from these interventions.

The results were presented to the HISD Board of Education by Harvard University Economist Dr. Roland Fryer, whose prior research on the best practices of the nation's top "no excuses" charter schools inspired Superintendent Terry Grier to approach him about collaborating on a plan to close the achievement gap in Houston schools threatened with severe state sanctions because of their persistent failure to get results for students. These nine founding Apollo 20 schools have more minority students, more students in special education programs, and fewer students in gifted and talented programs than other HISD schools.

After implementing five of the best charter school practices during the 2010-2011 school year, **the Apollo 20 campuses produced "strikingly similar" academic gains to those seen in charter schools such as the renowned Harlem Children's Zone and KIPP**, according to Dr. Fryer's report to the National Bureau of Economic Research. The combined enrollment of the nine Apollo 20 secondary schools is roughly 7,000 students, which is about the same as the combined enrollments of the Houston-based KIPP and YES charter networks.

"One of the promises behind the charter movement was that charters could serve as incubators for innovative approaches that could be transported to the district schools that educate the vast majority of American students," Dr. Fryer said. "But even as we've seen tremendous success from so-called 'no excuses' charter schools, there have been countless excuses for why their best practices could never be replicated in traditional settings. This initiative shows that it is

possible to apply successful charter practices in long-struggling district schools, and early indications suggest that doing so can yield an immediate, positive impact for students."

The five research-based tenets applied at Kashmere, Lee, Jones, and Sharpstown high schools; and at Ryan, Dowling, Attucks, Fondren, and Key middle schools are:

1. Extended Learning Time

The school day was lengthened by one hour four days a week and the school year was lengthened by 10 days. This amounts to 21 percent more instructional time than students in Apollo 20 schools received the prior year, but 4 percent less time than students receive in the average "no excuses" charter. Apollo 20 students were also offered optional Saturday classes.

2. Human Capital

All principals, 30 percent of other campus administrators, and 52 percent of teachers were replaced with individuals who possessed values and beliefs consistent with the "no excuses" philosophy and, wherever possible, a demonstrated track record of improving student achievement.

3. High-Dosage Tutoring

HISD hired 257 college-educated math tutors at an annual base salary of \$20,000. These tutors, called Math Fellows, worked with sixth- and ninth-grade students in a two-on-one setting for an hour during each school day. Students at other grade levels who were struggling in math or reading received an additional daily hour of instruction in that subject.

4. Use of Data to Drive Instruction

Schools analyzed each student's performance on regularly administered benchmarking exams, and then used that data to tailor lessons to address their individual needs.

5. Culture of High Expectations for All

Clear expectations were set for school leaders and families were asked to sign contracts committing to the program. Student achievement performance goals were set for each school and principals were held accountable for meeting them.

Math Scores Soar, Reading Performance Improves Marginally

Math scores among all Apollo 20 students, and especially among sixth- and ninth-grade students who received daily tutoring, increased at a rate far exceeding that of students at schools with similar racial and economic demographics, Dr. Fryer reported. Reading scores across the Apollo 20 schools increased marginally.

"Strikingly, both the magnitude of the increase in math and the muted effect for reading are consistent with the results of 'no excuses' charter schools," the report states.

Dr. Fryer's findings show:

- The math skills acquired by the average Apollo 20 student represent an estimated extra 3 ½ months of additional schooling.
- Sixth-grade students, who received daily math tutoring, gained the equivalent of 6 additional months of schooling. Gains achieved by ninth-grade students ranged between nearly 5 months of additional learning to more than 9 months of additional learning.
- Reading performance improved slightly, producing results roughly equal to or just less than a month of additional instruction.

Additionally, Dr. Fryer found no evidence that Apollo 20 schools sacrificed teaching solid general knowledge skills in pursuit of high scores on the Texas Assessment of Knowledge and Skills (TAKS). This conclusion is supported by the fact that Apollo 20 students achieved similar gains on the Stanford exam, which is a national test that is not aligned with the high-stakes TAKS.

Apollo 20 Among Many HISD Initiatives Combining to Benefit All Students

HISD Board of Education President Paula Harris said Apollo 20 follows through on the district's promise to provide every child access to a rigorous learning environment, no matter where they live.

"HISD is a district of choice, and we take pride in our great magnet and specialty schools that rank among the best schools in the nation," Harris said. "But students should not have to ride a bus across town to attend a school with fantastic teachers and an effective principal. With Apollo 20, HISD is finally providing families in neighborhoods served by these schools a real choice when it comes time to send their children to school."

Dr. Grier said the encouraging first-year results are a testament to the phenomenal work of principals, teachers, tutors, and other HISD staff members who support the schools.

"I want to salute the yeoman's work of teachers and principals and staff at these schools," Dr. Grier said. "These men and women are competent and committed professionals who have invested their talent, time and energy in the lives of students and who will continue to be fundamental to their ongoing success. We recognize you and applaud you and are here to support you."

Apollo 20 is among the many initiatives outlined in the district's Strategic Plan that, when taken as a whole, are aimed at fulfilling the Board of Education's goal of making HISD the best school district in America, Dr. Grier said.

"This is but one of many programs, including magnet schools, the Effective Teacher Initiative, the district wide literacy initiative, our vastly expanded Advanced Placement offerings, and more, that are designed to improve performance of our students and schools – both in the highest- and lowest-performing schools in our area," Dr. Grier said.

Potential to Close Achievement Gap

This fall, the Apollo 20 initiative was expanded to include 11 elementary schools -- Blackshear, Davila, Frost, Highland Heights, Isaacs, Kelso, Robinson, Scarborough, Tinsley, Walnut Bend and Young. Students in these schools will receive extra instructional time in math

and reading, but the amount of time spent in school will not differ from students enrolled in other HISD elementary schools.

According to Dr. Fryer, the potential benefits of a research-driven model for closing the achievement gap and turning around underperforming schools are immense. Studies have shown that wage differences between Anglo and African American adults are eliminated when the test scores they achieved as teenagers are taken into account. Academic performance is also a more reliable indicator than race in predicting the likelihood that an individual will end up in prison, unemployed, or suffer from particular health ailments.

Strong Return on Investment

The Apollo 20 program cost \$2,042 per student, which is similar to the additional per-student costs incurred by the most successful charter schools, Fryer reported. HISD paid this cost primarily with government grants specifically awarded to the district for its lower-performing schools and schools serving a high percentage of children from low-income families. In addition, the HISD Foundation, in partnership with district leaders, secured additional financial commitments of nearly \$14.4 million from private donors, many of them from the Houston business and philanthropic communities, to offset the additional costs over the life of the three-year program.

Prior research into the costs and benefits of other popular approaches to closing the achievement gap (reducing class size, paying teachers incentives to work in hard-to-staff schools, and early childhood programs) produce “a fraction of the impact of our fully loaded treatment that includes tutoring,” Dr. Fryer wrote.

The students’ performance after just one year in the program shows that the Apollo 20 benefactors are getting their money’s worth, said Larry Kellner, Chairman of the Greater Houston Partnership and former CEO of Continental Airlines.

“We appreciate your commitment and applaud your valiant effort to do in Houston what has not been attempted anywhere else,” said Kellner, a member of the Apollo 20 Oversight Committee who spoke during Thursday’s presentation. “As a person who cares deeply about education and its implication to our standing as a city, I say thank you -- as does the business community and the Greater Houston Partnership.”

Addressing the Challenges Ahead

While the cost of the Apollo 20 program could be a barrier to implementing it at other chronically low-performing schools, finding high-quality campus leaders and teachers willing to take on the task presents an even larger barrier, Dr. Fryer reported.

HISD has already taken steps to address its districtwide goal of placing an effective teacher in every classroom and a quality principal in every school. In the spring, the Board of Education approved an overhauled teacher appraisal and development system that was developed with input from thousands of teachers, administrators, parents, and community members. The system, created in partnership with The New Teacher Project through a \$6 million grant from the Laura and John Arnold Foundation, guarantees that teachers receive frequent feedback from trained appraisers. This feedback is based largely on student academic achievement data and classroom observations. Teachers also now receive campus-based professional development that is tailored to their specific needs from trained Teacher Development Specialists.

In addition, HISD created a Leadership Development Department that is tasked with identifying assistant principals and teachers with potential to become campus principals, and then offering them intensive training to prepare them for the job. Participants in this program receive training through HISD partnerships with Rice University, the University of Texas, and the University of St. Thomas.

A Plan to Boost Reading Achievement

The challenges associated with improving reading achievement documented in the Apollo 20 schools are the same as those seen in the top charter schools, Dr. Fryer's research shows. One theory that may explain this problem is that the most critical period in a child's language development occurs early in life, Dr. Fryer wrote.

Under the Apollo 20 elementary school model launched this fall, younger students are receiving additional time in reading classes. One Apollo 20 middle school, Dowling, is now spending some of its tutorial budget on reading tutors in an effort to address the problem.

At the same time, Dr. Grier earlier this year with the support of the Houston Livestock Show and Rodeo launched a districtwide literacy initiative that seeks to address the needs of 70,000 HISD students who are currently reading below grade level. Already, HISD is working to develop a consistent and robust reading curriculum that seeks to bring consistency in reading instructional practices across all campuses, while allowing those schools using proven methods for boosting reading achievement to continue doing so.

Visit www.houstonisd.org to read Dr. Fryer's full report.

The **Houston Independent School District** is the largest school district in Texas and the seventh-largest in the United States with 298 schools and more than 200,000 students. The 301-square-mile district is one of the largest employers in the Houston metropolitan area with nearly 30,000 employees.

For more information, visit the HISD Web site at www.houstonisd.org.
