Apollo 20 Schools
Mid-Year Network Education Report
2010-2011

January 2011
EXECUTIVE SUMMARY

Introduction
The Apollo 20 Program is an initiative within the Houston Independent School District (HISD or the “District”) designed to accelerate the District’s efforts to improve student performance, close the achievement gap in HISD, and fundamentally change public education in Houston and in districts across the United States.

The following Mid-Year Apollo 20 Schools Network Education Report for 2010-2011 presents an introduction to The Apollo 20 Program and provides details on implementation, student achievement and program strengths and opportunities for growth.

The Five Tenets
There are five school turnaround principles that make Apollo 20 Schools unique to other programs in HISD. These strategies are drawn from research by Dr. Roland Fryer and the Education Innovation Laboratory at Harvard University. They include:

1. Human Capital: Apollo 20 schools recruit top leadership talent, reward teachers and staff for their performance, and hold teachers and principals individually accountable for increasing student achievement.

2. More Time on Task: During the 2010-11 academic year, Apollo 20 students receive 5 additional days of school and a longer school day (7:45 AM-4:15 PM Monday-Thursday and 7:45 AM-3:15 PM on Fridays) than other students in the district. For students in grades 7, 8, 10, 11, and 12 who are below grade level, double dosing of math or ELA supplements their current curriculum.

3. Data-Driven Instruction: Apollo 20 students are assessed often and results are broken down into discrete skill mastery for accelerating and weaknesses for re-teaching.

4. High-Dosage Tutoring: For all students in 6th and 9th grades, Apollo 20 classroom instruction in mathematics is supplemented with 2-on-1 tutoring during the regular school day.

5. Culture of High Expectations for All: In Apollo 20 schools, adults must buy into the school’s mission and into the importance of their students’ education. This feature must permeate all other facets of Apollo 20. The Apollo 20 goals are as follows:

   o 100% of students performing on or above grade level
   o 100% graduation rate
   o 95% attendance rate for students and staff
Participating Schools
Currently, nine schools are participating in the Apollo 20 project. These nine schools are:

**High Schools (4)**
- Jones High School
- Kashmere High School
- Lee High School
- Sharpstown High School

**Middle Schools (5)**
- Attucks Middle School
- Dowling Middle School
- Fondren Middle School
- Key Middle School
- Ryan Middle School

Data Collection Overview: One distinguishing characteristic of Apollo 20 schools is the volume of school and classroom information that is provided to administrators and teachers. Quantitative data is collected from several sources. HISD interim assessments, READ 180 reports, and a mid-year assessment using released TAKS questions provide schools with student-specific information broken out by TEKS standards. HISD student information databases provide longitudinal information regarding demographics, attendance and discipline infractions, such as suspension rates.

Monthly site visits conducted by The Education Innovation Laboratory at Harvard University (EdLabs) provide a consistent source of qualitative data. EdLabs sends two-person teams to spend a full instructional day (8-9 hours) at every Apollo 20 school each month. The EdLabs’ site visit agenda includes:
- Review of school data and current goals/priorities
- Observations of 15-20 classrooms
- Observations of four tutorial rooms (12-24 tutors)
- Completed observation rubric for each classroom and tutor room that notes instructional strategies, student engagement, classroom environment, and student-teacher interactions
- 30-45 minute focus group with 4-8 randomly selected students
- 30-45 minute focus group with 4-8 teachers
- 30-45 minute focus group with 4-8 tutors
- 30-60 minute debrief with the administrative leadership team

Data and information gathered at these monthly visits are shared with the Apollo 20 principals and the School Improvement Officer for his use in supporting the school leadership teams and tutor coordinators in improvement efforts. In addition, members from the Apollo 20 central administration team conduct periodic site visits at each school throughout the year to monitor progress and conduct planning sessions with the school leadership team.

All of this data is used to draw conclusions about relative strengths and areas of opportunity for individual Apollo 20 schools and the Network as a whole. A few highlights are listed below for the first semester of the 2010-11 academic year.

- **There have been dramatic changes in the school culture** at all nine Apollo 20 schools. Expectations for student behavior and attendance have increased, resulting in safer, more welcoming learning environments.
• **The tutoring program is consistently cited as a highlight of the school experience.** The tutoring selection process yielded a group of high-quality tutors that are driving student achievement in the first year of the program.

• **Teachers need additional support and training to increase instructional quality, academic rigor, and student engagement.** Although students report that the quality of teaching at Apollo 20 schools has improved this year, in many classrooms, students are often asked to complete assignments and activities that are below grade level expectations.

• **The quality of leadership teams is a strength of the Apollo 20 schools.** Although school leadership teams joined the Apollo 20 team at different points during summer 2010, school leaders have created and implemented innovative systems to support the Apollo 20 reform strategies, and led the dramatic change in culture and climate of the school.
HISD Apollo 20 History and Overview

In August 2010, the Houston Independent School District launched the Apollo 20 Program, a major school turnaround reform initiative that is designed to dramatically improve student performance and close the achievement gap. Four high schools and five middle schools were selected to participate.

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Apollo 20 is an initiative made possible by a partnership between HISD and The Education Innovation Laboratory at Harvard University (EdLabs), a leading education research and development lab. EdLabs is a collection of researchers, education practitioners, and operational strategists with expertise in the creation, implementation and evaluation of education programs.

In May, 2010, Dr. Terry B. Grier, Superintendent, and his HISD leadership team met with Dr. Roland Fryer, Faculty Director of EdLabs, to discuss his research and analysis regarding high performing charter schools. Dr. Fryer’s research identified five elements that are found in successful charter schools to be the strongest drivers for increasing student performance. These five tenets are:

1. **Human Capital**: Successful schools reward teachers and principals for performance and hold them accountable if they are not adding value.

2. **More Time on Task**: Extended day, week, and school years are all integral components of successful school models. In the case of Harlem Children’s Zone Promise Academy, students have nearly doubled the amount of time on task compared to students in NYC public schools.

3. **Data-Driven Instruction**: In the top schools, students are assessed often and results are broken down into discrete skill strengths and weaknesses for re-teaching.

4. **High-Dosage Tutoring**: In top-performing schools, students are assessed frequently, and then, in small groups, re-taught the skills they have not yet mastered.

5. **Culture of High Expectations for All**: In successful schools, students buy into the school’s mission and into the importance of their education in improving their lives.

With fewer than five months before the opening of the 2010-2011 school year, HISD created a strategic plan to implement these five tenets in HISD. EdLabs joined as an implementation partner and agreed to conduct a five year evaluation of the program. Specific HISD implementation details regarding the five tenets are described later on in this report.

**HISD Goals and Evaluation**

HISD has established rigorous goals which will be used to measure Apollo 20’s success:

- 100% of students performing on or above grade level
Apollo 20 Program Demographics

The Apollo 20 program serves 4,156 high school students and 3,229 middle school students. The percentages of special education students and families eligible for the free and reduced lunch program in Apollo 20 schools are higher than the district averages.

![School Enrollment by Race/Ethnicity](image1)

![School Enrollment by Special Population](image2)

Figures 1A-B: 2010-11 Apollo 20 Student Demographics
Mid-year Update on the Apollo 20 Five Tenets

The following section describes the implementation status and accompanying data points for each of the five tenets.

1. Investment in Human Capital

Implementation Overview:

- HISD assigned new principals to all nine Apollo 20 schools.
- 196 new teachers were assigned to Apollo 20 schools. This represents 39 percent of the entire Apollo 20 teacher corps.
- Teachers completed a four-phase HISD application process that included:
  1. Online application and essay
  2. In-person or videotaped teaching demonstration lesson
  3. Formal in-person or via two-way interactive video (SKYPE) interview
  4. Performance, reference and credential review
- 76 first year Teach for America corps members were hired by principals in Apollo 20 schools.
- HISD hired an internal Apollo 20 Team that includes: School Improvement Officer, two Academic Program Managers, Data Analyst, and Secretary
- HISD designed a series of four professional development sessions on classroom management for first year and selected Apollo 20 teachers.
- Apollo 20 teachers were also provided Saturday professional development sessions on topics selected by principals. These topics included: student engagement and motivation, differentiation for all students (by content area), use of daily assessments and checking for understanding and planning for effective learning.

![Figure 2: New and Returning Teachers, 2010-11](image)
Site Visit Observations and Focus Group Feedback

- Students report improvement in teacher quality and higher expectations for their performance. Students at several schools report increased workload, both in terms of class work and homework.
- Several schools have a high percentage of first- and second-year teachers which presents a specific demand for professional development in the area of classroom management. Some school leadership teams report a lack of experienced teachers on-site who can act as mentors for new or struggling teachers.
- In the majority of classrooms there is a lack of instructional rigor, limited use of varied instructional strategies and limited student engagement.
- Teachers report that HISD professional development opportunities are of good quality.
- Leadership teams that had more planning and preparation time during summer 2010 have had smoother transitions into this school year than schools in which the leadership team came together very close to the start of school.

2. More Instructional Time

Implementation Overview:

- The academic year was extended by five days (185 instructional days)
- The school day was lengthened by one hour on average (7:45 AM - 4:15 PM Monday-Thursday and 7:45 AM-3:15 PM on Fridays)
- All schools offer Saturday School and after school tutoring
- Students in 7th, 8th, 10th, 11th and 12th grades who are below grade level receive an additional period (double dose) of English Language Arts or Math instruction each day

![Figure 3: Total Student Time on Task, 2009-10 and 2010-11 School Years](image-url)
1,407 students who began the year below grade level in reading were assigned to the **Read 180** program. Many students are showing significant growth in their reading skills through the first semester of 2010-11.

- 263 students (19%) had greater than 2.0 years of typical reading growth
- 327 students (23%) had between 1.0 and 2.0 years of typical reading growth
- 204 students (14%) had between 0.5 and 1.0 years of typical reading growth

**Site Visit Observations and Focus Group Feedback**

- Students and teachers have expressed some weariness because of the extended school day. However, these complaints have decreased over the course of the year. Sixth and ninth grade students, as well as students who are new to the school, did not express concerns about the length of the school day.
- Schools have leveraged the longer school day and year to increase direct instruction in English and math.

### 3. Use of Data to Drive Instruction

**Implementation Overview:**

- All Apollo 20 schools are expected to use HISD Interim Assessments
- All Apollo 20 schools implemented a mid-year assessment using released TAKS questions (developed by the HISD Apollo 20 team) to identify areas of strength and weakness in math, ELA and science.
- Individual schools may also assess and progress monitor student achievement using other assessments. This report does not include data from individual school-based diagnostics.

**Site Visit Observations and Focus Group Feedback**

- School leaders have a strong understanding of the strengths and weaknesses of their school based on interim assessments and TAKS release testing.
- System-wide there is a high degree of variance in the use of data to drive student instruction. Teachers have varying levels of comfort in applying student data to instructional planning.
- Some teachers have expressed concerns about the balance between instructional time and time allocated for testing.

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1 Interim assessments are formative assessments that are given every three weeks in English Language Arts/Reading, Math, Science, and Social Studies. They are short assessments – usually around ten questions in length – that are intended for teacher use in determining which students have mastered particular objectives, which students need specific interventions, and which instructional areas require whole-class re-teach. The interim assessments do not provide external observers with information regarding summative student achievement.

2 All Apollo 20 schools administered a multi-day, mid-year assessment that used released TAKS questions. Because the test items were pulled from different release tests, and schools administered different sections and versions of the exam, we are not able to present school comparative data. However, school leaders have used the information to help guide the Saturday and after school instruction program and student placement in these interventions.
4. High Dosage In-School Tutoring

Implementation Overview:

- Recruited 1217 Math Fellow (tutors) applicants from 33 states
- Hired 254 Math Fellows from 14 states using a rigorous screening process:
  - All applicants had to pass through a review of credentials, including:
    - an earned Bachelor’s Degree
    - strong math skills
    - ability to connect with and engage students and
    - skilled at supporting the acquisition of math knowledge and skills with secondary students
  - Locally-based applicants who passed the initial screen were invited to participate in one of 8 HISD hiring events through the months of July and August.
  - Approximately 30% of those who applied for the program were interviewed onsite following a very structured process that included:
    - Screening by HISD Human Resources
    - 1-hour math assessment (based on the TAKS 6th and 9th Grade 2009 test)
    - Sample tutorial (10-15 minute observation of 1-on-1 tutoring with student volunteers)
    - Final interview with school representative

Prior to the start of school, tutors who were selected for the Math Fellows (i.e. tutors) program completed 10 days of training that HISD and MATCH Schools, Inc., a successful Charter Management Organization in Boston, Massachusetts, designed to ensure a smooth transition to campus life. Several days were spent together as a cohort, understanding HISD culture and reviewing the expectations for the Math Fellows program. The remaining days were spent on-campus, where tutors were integrated with their school teams and participated in school-specific professional development courses, such as school policies & procedures, curriculum planning and instruction, and parent engagement/communications. MATCH created a curriculum program, based on the Texas state testing standard (TAKS), to complement the instructional resources purchased by HISD, provided
other materials to support instruction in the classroom. As a result of this on-boarding and early training, Math Fellows were adequately prepared to begin work with their students on the First Day of school.

Additionally, HISD established a set of evaluation processes to ensure the continuous development of our Fellows throughout the year. HISD specifically designed policies and procedures around:

- Conducting Observations & Walkthroughs
- Evaluating Student Progress through Data
- Collecting Feedback from Fellows and Students
- Conducting PD Courses: Skills Focus (ELL/Special Ed), Learning Objectives (aligned with TAKS)

Each school has a Fellows Coordinator who is responsible for the execution of these processes. The MATCH team and HISD Apollo 20 leadership team have worked closely with coordinators to create an environment of high expectations and clear accountability for the achievement of our students in math.

- All 6th and 9th grade students receive 60-80 minutes of 2-on-1 individualized math tutoring during each school day
- Students complete a tutorial unit approximately every three weeks and take a test at the end of each unit.

**What do the math tutorial unit tests tell us?**

The math tutorial unit tests each examine student performance on a subset of the TEKS that are covered on the TAKS end-of-year assessment. At the beginning of the school year all sixth and ninth grade students took a diagnostic assessment that covered the full year's math material. The figures below track student performance and growth on tutorial assessments to date.

Student achievement growth is measured by the change in a student's performance on a common set of TEKS tested on both the diagnostic and on the unit assessment. For example, ninth grade students at Jones High School (who also took the beginning of the year diagnostic assessment), on average, correctly answered 73.1 percent of the questions on the Units 1-3 exam. In August, the same students, on average, correctly answered 38 percent of the questions that covered the same TEKS that were tested on the Units 1-3 exam. Thus, this cohort of students achieved a 35.1 percentile point gain.
Figures 5A-C: Tutorial Test Scores and Gains for High Schools (5A-B) and Middle Schools (5C)

Site Visit Observations and Focus Group Feedback
- Students at all schools are extremely pleased with the tutorial program. They report strong interpersonal connections with their tutors as well as academic growth.
- The majority of tutors demonstrate strong instructional practices.
- Innovative best practices developed by tutors are being shared within the tutorial program across campuses.
- Integration of tutors into school culture at-large varies from campus to campus.
- All Apollo 20 middle and high schools demonstrate growth on tutorial unit assessments

5. School Culture

Implementation Overview:
- Emphasis on a “no excuses” culture for attendance and behavior
- New attendance and behavior systems implemented at each school
- Emphasis on establishing a college going culture for each campus
- Emphasis on consistent expectations across all Apollo 20 classrooms regarding posting of learning objectives, agendas, exit tickets, teacher dress and positive adult-student interactions
Figures 6A-B: Year over Year Attendance Rates for High Schools (6A) and Middle Schools (6B), 2009-10 vs. 2010-11
Site Visit Observations and Focus Group Feedback

- At all schools, students report that there is a safer school climate that is more conducive to learning.
- A strong, college-going culture is visible on all campuses.
- Teachers are having conversations with their students about long-term goal-setting but this has generally not yet translated into short-term academic goal-setting.
• Students know that they attend Apollo 20 schools, but there are varying degrees of understanding regarding the rationale and purpose for implementing the five tenets that constitute the Apollo 20 program.

• Students and teachers report a higher level of accountability for performance from school leadership.

Areas of Relative Strength

The achievement data and evaluation from EdLabs and HISD Administrators indicate that there are three areas of strength developing in the Apollo 20 Network:

• **Tutoring:** The tutoring program is consistently cited by all school stakeholders as a highlight of the school experience. The implementation of the tutoring program is consistent across the Apollo 20 system. The tutoring selection process yielded a group of high-quality tutors that are driving student achievement in the first year of the program. Tutors are well supported both within their schools and by the central Apollo 20 team.

• **School Culture:** There have been dramatic changes in the school culture at all nine Apollo 20 schools. Expectations for student behavior and attendance have increased, resulting in safer, more welcoming learning environments. Schools display visual evidence of a strong college-going culture and consistently emphasize student performance and school goals.

• **Leadership:** Although school leadership teams joined the Apollo 20 team at different points during summer 2010, the quality of school leadership teams is a consistent strength across the Apollo 20 schools. The central Apollo 20 team coordinates the collaboration of school leadership teams to allow for the sharing of best practices and the brainstorming of solutions to common problems.

Opportunities for Growth and Action

Based on a review of the overall data the Network is focused on three areas:

• **Focus on Instructional Quality and Student Engagement:** Teachers need additional support and training to increase instructional quality, academic rigor, and student engagement. In many classrooms, students are either engaged in low-level worksheets and activities or sit listening to teacher-centered instruction.

• **Data Driven Instruction:** Teacher lesson planning, preparation and classroom instruction do not consistently incorporate information on student skill-based strengths and weaknesses. Student data can be used more effectively for re-teaching and to group students for differentiated learning.

• **Apollo 20 Communication:** Students and teachers struggle to articulate the tenets, purpose and rationale behind the Apollo 20 program. Although they cite a strong initial push to introduce the mission of Apollo 20 to the community, the effects of this effort seem to
have faded. There is a need for renewed communication regarding the Apollo 20 program, purpose and results within the schools and across the district.

CONCLUSION

Given the scope and scale of the Apollo 20 program reforms and the speed with which they were implemented, network schools have done a solid job to create supporting conditions for sustained improvement. The more challenging work, as all leaders associated with Apollo 20 have acknowledged, is to change the daily experiences for students in Apollo 20 classrooms. Relentless attention to and investment in teaching practice, instructional rigor and student engagement will be required in the months and years ahead to realize Apollo 20’s ambitious goals. It is worth noting that other school districts across the country are now looking at HISD’s Apollo 20 program for answers, strategies and lessons learned as a pathway to address their own chronically failing schools. Thus, the ongoing investment in Apollo 20 schools has the potential to change mindsets about what is possible for students, families and schools both within and far beyond Houston’s boundaries.