Houston Independent School District

Strategic Direction: Student Achievement Analysis

July 6, 2010
Student achievement data analysis focused on three main objectives

- Developing a clear picture of student achievement across the district, in order to provide a “point of departure” for the Strategic Direction
- Identifying areas of focus for initiatives in the Strategic Direction that will improve student achievement across HISD
- Increasing understanding of the underlying factors correlated with different levels of student achievement, in order to help HISD close student performance gaps

Special thanks to the Department of Research and Accountability – especially Carla Stevens, LuEllen Jenkins-Bledsoe, and Michael Thomas – for their assistance in developing the methodology and providing the data, and Michele Pola, Chief of Staff, for her feedback on numerous drafts and help in shaping the final output
Several caveats are warranted:

- We relied on existing data sets to develop this analysis – any limitations in the accuracy of those data will affect the results.
- We conducted this analysis in order to inform HISD’s decisions about its Strategic Direction. This analysis is not, and should not be used as, a formal evaluation of the performance of HISD or any other group mentioned.
- This analysis is only one piece of the puzzle in developing the Strategic Direction. A number of other sources of critical input will also shape the core decisions.
Key findings

• An estimated 15% of HISD first-time ninth graders will ultimately go on to earn a postsecondary certificate or degree

• Approximately 16% of HISD high school graduates meet the generally accepted standards for college readiness, which are similar to the requirements for career success

• The percentage of HISD students in each grade from 1-11 who are on-track to graduating high school college-ready ranges from a high of 30% (first-graders) to a low of 12% (7th graders)

• Over three times as many students who were on-track to college readiness in 11th grade, compared with those who were off-track, actually went on to earn a postsecondary degree (61% vs. 17%)

• Clear achievement gaps can be found across ethnicity groups, income levels, and gender, as well as between students who are or are not English language learners or special education students

• Though poverty is inversely correlated with on-track to college readiness rates and high school graduation rates, there are outlier schools with relatively high poverty and high success rates

• The dropout rate of students who remain in the same school throughout all their years of high school is less than half the dropout rate of students who transfer among schools at least once

• Although HISD graduates enroll in postsecondary institutions at similar rates as their national peers (~70%), their graduation rates are substantially lower (~30% vs. ~50%)

• Almost three-quarters of HISD graduates who enroll in postsecondary institutions attend schools whose degree completion rates are lower than the Texas state average
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This analysis follows groups of actual HISD students – or *cohorts* – across time

- Facilitates year-over-year outcome analysis for individual students, mirroring their actual trajectory
- Identifies where and when students fall behind as they move through their years in school
- Allows corrections that enable “apples-to-apples” comparisons (e.g., outcomes for students who have spent the same amount of time in HISD)
- Complements point-in-time student achievement reports that HISD already generates
We analyzed multiple cohorts of students, some full groups and others samples

<table>
<thead>
<tr>
<th>Full group of enrolled students:</th>
<th>Elementary School</th>
<th>Middle School</th>
<th>High School</th>
<th>Postsecondary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F1</td>
<td>F2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(SY04-05 – 07-08, &amp; continuers in 08-09)</td>
<td>(HISD class of 2004, 2004 - Jan. 2010)</td>
<td></td>
</tr>
<tr>
<td>Sample of enrolled students:</td>
<td>S1</td>
<td>S2</td>
<td>S3</td>
<td>S4</td>
</tr>
</tbody>
</table>

Following different cohorts in each of the age groups allows us to study results from recent years in every stage of schooling
**Definition of cohort F1**

<table>
<thead>
<tr>
<th>SY2004-05</th>
<th>SY2005-06</th>
<th>SY2006-07</th>
<th>SY2007-08</th>
<th>SY2008-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ninth graders</td>
<td>Still in school?</td>
<td>Still in school?</td>
<td>Graduated?</td>
<td>Continuing?</td>
</tr>
</tbody>
</table>

- **Step 1:** Identified all students who were 9th graders in HISD as of the PEIMS fall snapshot date of SY 2004-05.
- **Step 2:** Deleted from the cohort any students who were also 9th graders in SY 2003-04. The cohort thus included first time 9th graders only.
- **Step 3:** Excluded from cohort all students who transferred out of HISD during the SY2004-05 – SY2007-08 period, including both students with leavers codes and “underreported” students (i.e., students without leaver codes who also were coded neither as dropouts nor graduates, but stopped appearing in the enrollment data). Excluded as well any students who transferred into HISD during SY2004-05 – SY2007-08. The analysis was thus applied to only those students who spent their entire high school experience in HISD.

**Cohort F1 has 9,517 students**
## Definition of cohorts F2, F3, and F4

<table>
<thead>
<tr>
<th></th>
<th>Cohort F2 – class of 2004</th>
<th>Cohort F3 – class of 2005</th>
<th>Cohort F4 – class of 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY 2007-08</td>
<td>Fall 2008 – Jan. 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduated high school</td>
<td>In postsecondary?</td>
<td>Graduated high school</td>
<td>Graduated high school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In postsecondary?</td>
<td>In postsecondary?</td>
</tr>
</tbody>
</table>

**Step 1** Identified all high school graduates in 2003-04

**Step 2** Removed from cohort any students whose ID numbers did not appear in National Student Clearinghouse data

<table>
<thead>
<tr>
<th></th>
<th>Cohort F2</th>
<th>Cohort F3</th>
<th>Cohort F4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students in cohort</td>
<td>8,520</td>
<td>8,475</td>
<td>7,760</td>
</tr>
</tbody>
</table>
## Definition of cohorts S1, S2, and S3

<table>
<thead>
<tr>
<th>Cohort S1 – elementary school</th>
<th>Cohort S2 – middle school</th>
<th>Cohort S3 – high school</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY 03-04</td>
<td>SY 04-05</td>
<td>SY 05-06</td>
</tr>
<tr>
<td>Grade 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Cohort S1</th>
<th>Identified all first-time 1st graders in SY 2003-04</th>
<th>Cohort S2</th>
<th>Identified all first-time 6th graders in SY 2005-06</th>
<th>Cohort S3</th>
<th>Identified all first-time 9th graders in SY 2004-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Tracked student outcomes throughout cohort period. Excluded from cohort all students who did not remain in HISD for the duration of the cohort (from start year through SY 2007-08)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Excluded from cohort all students for whom data were not available in one or more key areas (e.g., grades, TAKS scores), with the exception of students who were granted waivers from taking TAKS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Number of students in cohort | Cohort S1 | 7,548 | Cohort S2 | 7,470 | Cohort S3 | 3,407 |
Definition of cohort S4

- **Step 1:** Identified all students who were HISD high school graduates in SY 2004-05
- **Step 2:** Excluded any student from the cohort who graduated from high school but whose ID was not found in the dataset provided by National Student Clearinghouse
- **Step 3:** Excluded from cohort students who either were not enrolled in HISD in SY 2003-04 or for whom key data (e.g., grades, TAKS scores) were not available

**NOTE:** The class of 2005 was chosen for cohort S4 so that it would be possible to track student performance backward to student results in key areas, including the TAKS exam, while the students were in HISD. Given that TAKS is administered in grades 3-11 only, and the first year TAKS was administered was SY2003-04, the farthest back in time the analysis could be carried was for students who were in 11th grade in SY2003-04; these students are in the graduating class of 2005.

|--------------------|--------------------|--------------------|--------------------|--------------------|------------------------|

**Cohort S4 has 3,805 students**
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• Definition of key outputs

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• Selected leverage points for improving student success

• Overall implications
We analyzed the following key outcomes:

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school graduation rate</td>
<td>• Four-year longitudinal graduation rate, calculated according to the official Texas methodology except the analysis excludes students who transferred into HISD after the start of ninth grade, thus focusing the analysis on those who spent the entirety of their high school experience in HISD</td>
</tr>
<tr>
<td>College readiness rate of HISD graduates</td>
<td>• Percent of high school graduates who graduated with the academic preparation needed to succeed in college (and career), measured by GPA, ACT/SAT scores, and rigor of high school coursework</td>
</tr>
<tr>
<td>Postsecondary enrollment rate</td>
<td>• Percent of high school graduates who enrolled in a postsecondary institution</td>
</tr>
<tr>
<td>Postsecondary graduation rate</td>
<td>• A longitudinal graduation rate that reports the percent of college-enrolled students who ultimately earned any type of certificate or degree within 4.5 years of their enrollment date. A 5.5-year rate was also calculated for comparison (6-year rate unavailable given current data)</td>
</tr>
<tr>
<td>On track to college readiness rate</td>
<td>• Percent of students in each grade who are at an academic level that corresponds with being on-track to graduating high school college-ready. Standards for indicators that measure being on-track (e.g., attendance, grades) are determined by working backward from actual college success, to college readiness measures for high school graduates, to the progress a student generally must make in each grade to be on track to graduate from high school college-ready</td>
</tr>
</tbody>
</table>
Methodology for calculating high school graduation rates

1. For each year from SY2004-05 to SY2007-08, assigned each cohort F1 student into one of the following categories: enrolled in HISD, earned GED, dropped out, graduated

2. For students who did not drop out, earn a GED, or graduate high school by SY 2007-08, used SY 2008-09 PEIMS fall enrollment data to place students in one of two categories: continuer (data show the student is enrolled in HISD in SY2008-09) or leaver (student either has a leaver code or lacks a leaver code but ceases to appear in the data, known as “underreported”)

3. Formula to calculate high school graduation rate:

\[
\frac{(\text{# of high school graduates} - \text{# of graduates who were not enrolled in HISD at the start of 9th grade})}{(\text{# of first-time ninth graders} - \text{leavers/underreported})}
\]
Methodology for calculating college readiness rate of high school graduates

1. Identified the cohort S3 students who were 12th graders in SY2007-08 and graduated in SY2007-08. This is the universe of students analyzed in this calculation.

2. Identified which of the students in the group were “college ready,” defined as having met all three of the following criteria:
   a. Took at least 4 years of English, 3 years of math, and 3 years of science in high school.
   b. Earned a cumulative high school GPA of higher than 3.0.
   c. Took the ACT and scored at least 21 in English and 22 in math OR took the SAT and scored at least 590 in verbal and a 610 in math.

3. Formula to calculate college readiness rate of graduates:

\[
\frac{\text{(\# of graduates who met all three college readiness standards)}}{\text{(\# of cohort S3 students who were 12th graders in SY07-08 and graduated in SY07-08)}}
\]
Methodology for postsecondary enrollment rate

1. Conducted analysis on cohorts S4, F2, and F3

2. Considered all students for whom NSC data contained at least one record indicating the student had enrolled (value of field “Record Found Y/N” = Y)
   - To classify students as enrolled in a less than 2-year, 2-year, or 4-year postsecondary institution, identified the NSC record with the earliest enrollment date and used the type of institution reported in that record (see field “2-year / 4-year,” which has values of “L”, “2”, or “4”)

3. Formula to calculate postsecondary enrollment rate:

\[
\frac{\text{(Number of high school graduates who enrolled at a postsecondary institution)}}{\text{(Number of high school graduates)}}
\]
Methodology for postsecondary graduation rate

1. Conducted analysis on cohorts S4, F2, and F3

2. Classified all students for whom NSC contained at least one record indicating the student had enrolled (value of field “Record Found Y/N” = Y)
   - To classify students as enrolled in a less than 2-year, 2-year, or 4-year postsecondary institution, identified the NSC record with the earliest enrollment date and used the type of institution reported in that record

3. Classified all students that NSC reported as having graduated (value of field “Graduated?” = Y) as graduates
   - To classify students as graduated from a less than 2-year, 2-year, or 4-year postsecondary institution, identified all graduation records reported by NSC for each student, and then used the degree which required the most time to earn (e.g., classify a student who earned a 2-year and a 4-year degree as having a 4-year degree)

4. Formula to calculate postsecondary graduation rate:

   \[
   \frac{\text{(# of graduates from a postsecondary institution)}}{\text{(# of students who enrolled in a postsecondary institution)}}
   \]
Methodology for calculating on-track-to-college-readiness rates

1. Conducted analysis on cohorts S1, S2, and S3

2. Identified which of the students in each grade were on-track to college, defined as the students who met all of the on-track standards for all of the indicators matched to his/her grade (see following slide)

3. General notes:
   a. If a student was off-grade – for example, Student 1 was in 2\textsuperscript{nd} grade in SY04-05 and repeated 2\textsuperscript{nd} grade in SY05-06 - used the second-grade indicators again in SY05-06 to measure whether Student 1 was on-track in SY05-06. For members of the cohort who were on-grade - for example, 3\textsuperscript{rd} grade in SY05-06 - used the third-grade indicators to measure whether those students were on-track. Thus, regardless of their actual grade, all students in the cohort were included each year in the calculation of the percent of students in cohort who were on-track
   b. If a student had a waiver from taking TAKS, the calculation did not include TAKS in the group of indicators used to measure whether the student was on-track

4. Formula to calculate on-track rates:

\[
\frac{\text{(\# of students in the given school year who are on-track)}}{\text{(\# of students in the cohort)}}
\]
A variety of research sources suggest indicators that measure on-track to college readiness; the table below presents one possible indicator group.

<table>
<thead>
<tr>
<th>On track to college readiness</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td><strong>Grades</strong></td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td>Reading (elementary) / English grade &gt;= 80%</td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td>Math course grades &gt;= 80%</td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td><strong>Standardized Test Scores</strong></td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td>TAKS reading &gt;= 2300</td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td>TAKS math &gt;= 2300</td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td>TAKS written comp. &gt;= 3</td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td><strong>Courses</strong></td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
<tr>
<td>Pre-algebra or higher taken by 8th grade</td>
<td>✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔</td>
</tr>
</tbody>
</table>

This example provides a starting point for HISD’s development of a set of on-track indicators appropriate for HISD students.

**Notes:**
[1] See “Sources” slide for interviewees and secondary research sources that informed this list of indicators.
TAKS proficiency is not a high enough standard for preparing students for college and career success

- The **TEA** cut score for TAKS proficiency is **2100**

- The **Board Monitoring System** college readiness standard for TAKS is **2200**

- However, empirical research on Texas students by the **National Center for Educational Achievement** suggests that the TAKS cut score that identifies which students are on-track for postsecondary success is **2300**
This analysis incorporates TAKS scores rather than Stanford scores into the on-track analysis; there are pros and cons to using each (1 of 2)

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TAKS</strong></td>
<td><strong>Empirical evidence is available linking TAKS scores to college success: NCEA has conducted a longitudinal study of the correlations between student outcomes in college and TAKS reading and math scores at each grade level</strong>&lt;br&gt;<strong>TAKS is a criterion-referenced exam, meaning it measures skills against an absolute scale, and therefore all students can achieve high TAKS scores</strong></td>
</tr>
<tr>
<td><strong>Stanford</strong></td>
<td><strong>Stanford is administered in every grade from 1 to 11</strong>&lt;br&gt;<strong>Stanford offers an estimate of student academic levels relative to the standard for their grade</strong></td>
</tr>
</tbody>
</table>
This analysis incorporates TAKS scores rather than Stanford scores into the on-track analysis; there are pros and cons to using each (2 of 2)

- An additional factor in the decision to use TAKS over Stanford scores was the wide variation observed in students’ year-over-year Stanford grade-equivalent scores
  - Examples:

<table>
<thead>
<tr>
<th></th>
<th>Reading Grade Equivalent</th>
<th></th>
<th>Math Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SY 03-04     SY 04-05    SY 05-06</td>
<td></td>
<td>SY 03-04     SY 04-05    SY 05-06</td>
</tr>
<tr>
<td>Student 1</td>
<td>2.9   11.3    6.0</td>
<td>Student 3</td>
<td>7.3   13.0    8.9</td>
</tr>
<tr>
<td>Student 2</td>
<td>11.0  3.8     13.0</td>
<td>Student 4</td>
<td>4.9   9.4     5.0</td>
</tr>
</tbody>
</table>

- Overall statistics:
  - Total number of students with at least two consecutive years of Stanford scores from SY03-04 to SY07-08: **Reading - 140,579 / Math - 140,527**
  - Percent of these students with at least one instance of a year-over-year change of 3+ grade levels in Stanford GE scores: **Reading - 21% / Math – 23%**
Empirical studies show academic requirements for career and college ready are similar, suggesting that the on-track analysis can be interpreted as “on-track to college or career readiness”

Findings – ACT college and career readiness benchmarks:

<table>
<thead>
<tr>
<th></th>
<th>ACT benchmark for skills needed to enter Zone 3 jobs</th>
<th>ACT college readiness benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading for information</td>
<td>19 - 23</td>
<td>21</td>
</tr>
<tr>
<td>Applied mathematics</td>
<td>18 - 21</td>
<td>22</td>
</tr>
</tbody>
</table>

“Whether planning to enter college or workforce training programs after graduation, high school students need to be educated to a comparable level of readiness in reading and mathematics.” (ACT)

Notes:
[1] Zone 3 jobs are defined as entry-level jobs that require less than a bachelor’s degree, pay a wage sufficient to support a family, and offer the potential for career advancement. ACT study relied on data from the Occupational Information Network, or O*NET, which is a comprehensive national database of job and worker attributes developed for the Employment and Training Administration of the U.S. Department of Labor
[2] Source: ACT (see Sources slide)
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Results

District-wide
HISD student pipeline: Ninth grade through postsecondary

Percent of first time 9th graders

<table>
<thead>
<tr>
<th>Stage</th>
<th>Percent of 9th graders</th>
<th>Percent of previous stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enroll in 9th grade</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Graduate from high school</td>
<td>69%</td>
<td>76%</td>
</tr>
<tr>
<td>Enroll in postsecondary</td>
<td>52% (2-year or below 34%)</td>
<td>76%</td>
</tr>
<tr>
<td>Attain postsecondary degree within 4.5 years</td>
<td>15% (4-year 88%)</td>
<td>28%</td>
</tr>
</tbody>
</table>

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn college degree.
The profile of students categorized as leavers is different from the overall cohort

<table>
<thead>
<tr>
<th></th>
<th>Leavers / Underreported</th>
<th>Cohort of high school students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>55%</td>
<td>48%</td>
</tr>
<tr>
<td>Eligible for Free Lunch/Other Economic Disadvantage</td>
<td>74%</td>
<td>65%</td>
</tr>
<tr>
<td>Classified as Special Education</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>Classified as English Language Learner</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>Ethnicity Classification: African American</td>
<td>34%</td>
<td>30%</td>
</tr>
<tr>
<td>Ethnicity Classification: Hispanic</td>
<td>54%</td>
<td>53%</td>
</tr>
</tbody>
</table>

The population of leavers/underreported contains higher percentages of the socioeconomic and demographic groups that data show to be less likely graduate

Notes:
[1] Analysis compares students in cohort F1 to the group of students who were first-time ninth-graders in HISD in SY2003-04 and then left, defined as leavers plus “underreported” students between SY2003-04 and SY2007-08.
[2] Source: HISD student outcome data
The elementary, middle, and high school cohorts differ in composition by the socioeconomic and demographic groups that data show to be less likely graduate.

<table>
<thead>
<tr>
<th></th>
<th>Elementary (cohort S1)</th>
<th>Middle (cohort S2)</th>
<th>High (cohort S3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>48%</td>
<td>48%</td>
<td>46%</td>
</tr>
<tr>
<td>Eligible for Free Lunch/Other Economic Disadvantage</td>
<td>77%</td>
<td>66%</td>
<td>53%</td>
</tr>
<tr>
<td>Classified as Special Education</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Classified as English Language Learner</td>
<td>52%</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>Ethnicity Classification: African American</td>
<td>23%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td>Ethnicity Classification: Hispanic</td>
<td>68%</td>
<td>61%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Notes:
[1] Analysis based on cohorts S1, S2, and S3
[2] Source: HISD student outcome data
Less than 20% of HISD high school graduates meet college-readiness standards

Note:
[1] Analysis based on cohort S3
[2] Students can miss the college-readiness standards for more than one reason
[3] Source: HISD student outcome data
HISD postsecondary 6-year graduation rates are unlikely to be considerably different from the rates presented in this analysis

- The postsecondary pipeline analysis is based on a sample of students for whom all key HISD academic and demographic data were available, and who were in HISD in both 11th and 12th grades. The earliest cohort for which 11-grade TAKS results were available is the HISD graduating class of 2005, which is why 4.5 year graduation rates were calculated.

- Postsecondary enrollment and graduation rates were also calculated for the full class of HISD 2004 and 2005 graduates (see below). Enrollment rates are lower than the sample in both cases, and the 5.5 year graduation rate for the full 2004 class is in line with the pipeline sample.

- Based on national data, the difference between 4 and 5 year college graduation rates on average is much larger than the difference between 5 and 6 year rates. Therefore, moving to 6-year rates for all HISD graduates is unlikely to improve the performance cited in the pipeline significantly.

<table>
<thead>
<tr>
<th></th>
<th>Percent of HISD high school graduates enrolling in postsecondary</th>
<th>Percent of postsecondary enrollees who received a degree</th>
<th>Percent of HISD 9th graders receiving a postsecondary degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample class of 2005 (4.5 year rate)</td>
<td>76%</td>
<td>28%</td>
<td>15%</td>
</tr>
<tr>
<td>Full class of 2005 (4.5 year rate)</td>
<td>66%</td>
<td>21%</td>
<td>10%</td>
</tr>
<tr>
<td>Full class of 2004 (5.5 year rate)</td>
<td>67%</td>
<td>29%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Notes:
[1] Analysis based on cohorts S4, F2, and F3; percent of 9th graders earning postsecondary degree is based on 69% high school graduation rate in all cases.
[2] NCES reports that the 4, 5, and 6-year college graduation rates for students seeking a bachelor’s or equivalent degree at 4-year Title IV institutions who completed a bachelor’s or equivalent degree, were 36.1%, 52.6%, and 57.5%, respectively.
HISD students’ rate of degree attainment at the top 10 postsecondary institutions where they enroll, which account for 78% of their total enrollments, mostly fall below the state average.

Rate of degree attainment, by institution where student initially enrolled

Of HISD high school graduates who enroll in postsecondary institutions, 90% enroll in-state and 10% enroll out-of-state.

Notes:
[1] Graduation rates are 5.5-year rates calculated from cohort F2 (students who graduated high school in 2004). Top 10 postsecondary institutions where HISD graduates enroll are based on cohort F3 (students who graduated high school in 2008).
[2] Graduation rates include students who earned certificates or two-year degrees as well as students who earned four-year degrees.
HISD graduation rates at top colleges are comparable to overall campus rates

Notes:
[1] HISD student graduation rates based on cohort F2
[2] Overall institution graduation rates are calculated from THECB data and represent six-year graduation rates of first-time students entering in the fall semester of 2001 who enrolled in at least 12 semester credit hours for at least their first semester. Students did not necessarily graduate from the institution where they first enrolled.
[3] For the community colleges, the overall graduation rate is calculated as the sum of students who earned a certificate, a two-year degree, or a baccalaureate degree. For four-year institutions, the graduate rate is the percent of students who earned a baccalaureate degree.
On-track-to-college-readiness rates vary from 12% to 30% for HISD students in grades 1-11

Notes:
[1] Analysis based on cohorts S1, S2, and S3
[2] Source: HISD student outcome data
Among off-track students, few miss the attendance target while most are off-track in TAKS

### Percent of Off-Track Students Who Are Off-Track in Each Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>G1</th>
<th>G2</th>
<th>G3</th>
<th>G4</th>
<th>G5</th>
<th>G6</th>
<th>G7</th>
<th>G8</th>
<th>G9</th>
<th>G10</th>
<th>G11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>6%</td>
<td>9%</td>
<td>3%</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>English grade</td>
<td>69%</td>
<td>69%</td>
<td>52%</td>
<td>53%</td>
<td>50%</td>
<td>43%</td>
<td>46%</td>
<td>46%</td>
<td>39%</td>
<td>44%</td>
<td>47%</td>
</tr>
<tr>
<td>Math grade</td>
<td>96%</td>
<td>94%</td>
<td>48%</td>
<td>44%</td>
<td>43%</td>
<td>51%</td>
<td>52%</td>
<td>61%</td>
<td>54%</td>
<td>56%</td>
<td>62%</td>
</tr>
<tr>
<td>TAKS reading</td>
<td></td>
<td></td>
<td>67%</td>
<td>80%</td>
<td>89%</td>
<td>69%</td>
<td>82%</td>
<td>55%</td>
<td>80%</td>
<td>78%</td>
<td>61%</td>
</tr>
<tr>
<td>TAKS math</td>
<td></td>
<td></td>
<td>82%</td>
<td>78%</td>
<td>63%</td>
<td>87%</td>
<td>87%</td>
<td>86%</td>
<td>81%</td>
<td>85%</td>
<td>77%</td>
</tr>
<tr>
<td>Pre-Algebra by 8th grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>ELA written composition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>58%</td>
</tr>
</tbody>
</table>

**Notes:**

[1] Analysis based on cohorts S1, S2, and S3

[2] Source: HISD student outcome data
On-track students are more likely to enroll in 4-year colleges and earn a degree.

**College enrollment rates**

- Percent of HISD students enrolled in college:
  - On-track: 96%
  - Off-track: 73%

**College graduation rates**

- Percent of HISD students graduating from college:
  - On-track: 61%
  - Off-track: 17%

**Notes:**

[1] Analysis based on cohort S4
[2] National college graduation rate of 48% calculated by weighting the 4-year and 2-year postsecondary institution graduation rates reported by NCES (58% and 28%, respectively) by the numbers of HISD students who enrolled in 4-year and 2-year institutions. The 4-year NCES rate is a six-year graduation rate. The 2-year NCES rate is for graduation within 150% of the time needed to complete the degree.
[3] Sources: NCES data, NSC data, HISD student outcome data
Results

By demographic and socioeconomic groups
College-completion rates for ninth graders vary by demographic/socioeconomic group

Percent of HISD 9th graders who earn a postsecondary degree

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. For each group, college completion rate = high school graduation rate * % of graduates who enrolled in college * percent of enrollees who graduated college
[2] Analysis excludes the ethnicity group “Native American” due to the very small size of the group
[3] “Econ-free lunch” group includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Sources: NSC data, HISD student outcome data
On-track rates vary by demographic and socioeconomic group: 5th graders

Percent of students on-track to college readiness

Notes:
[1] Analysis based on cohort S1
[2] Analysis excludes the ethnicity group “Native American” due to the very small size of the group
[3] “Econ-free lunch” group includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Source: HISD student outcome data
On-track rates vary by demographic and socioeconomic group: 8th graders

Percent of students on-track to college readiness

Notes:
[1] Analysis based on cohort S2
[2] Analysis excludes the ethnicity group “Native American” due to the very small size of the group
[3] “Econ-free lunch” group includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Source: HISD student outcome data
On-track rates vary by demographic and socioeconomic group: 11th graders

Percent of students on-track to college readiness

Notes:
[1] Analysis based on cohort S3
[2] Analysis excludes the ethnicity group “Native American” due to the very small size of the group
[3] “Econ-free lunch” group includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Source: HISD student outcome data
High school graduation rates differ by socioeconomic and demographic group

High school graduation rate

[Bar chart showing graduation rates for different groups: Female 73%, Male 65%, Asian 90%, White 87%, African American 70%, Hispanic 63%, Native American 57%, Not ELL 73%, ELL 33%, Econ - not disadvantaged 86%, Econ - reduced lunch 74%, Econ - free lunch 62%, Not special ed 71%, Special ed 52%. Overall graduation rate (69).]

Notes:
[1] Analysis based on cohort F1
[2] There were seven Native American students in this cohort. This is a significantly smaller group than all other ethnic groups in the cohort.
[3] “Econ-free lunch” group includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Source: HISD student outcome data
College-ready rates for graduates vary by demographic and socioeconomic group

Percent of students meeting college readiness standards

Notes:
[1] Analysis is based on Cohort S3 students who attended HISD through the 12th grade and graduated in 2007-08.
[2] Analysis excludes the ethnicity group “Native American” due to the very small size of the group.
[3] “Econ-free lunch” group includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Source: HISD student outcome data
College enrollment rates vary by demographic and socioeconomic groups

Notes:
[1] Analysis is based on cohort S4
[2] Analysis excludes the ethnicity group “Native American” due to the very small size of the group (3 students).
[3] “Econ-free lunch” includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Sources: NSC data, HISD student achievement data
College graduation rates vary by demographic and socioeconomic groups

Percent of postsecondary institution enrollees who earn a degree

Notes:
[1] Analysis is based on cohort S4
[2] Analysis excludes the ethnicity group “Native American” due to the very small size of the group
[3] “Econ-free lunch” group includes both students eligible for free meals and those coded in HISD data as “other economic disadvantage”
[4] Sources: NSC data, HISD student outcome data
Results

By Trustee regions
HISD students’ high school and postsecondary outcomes vary by district

<table>
<thead>
<tr>
<th>District</th>
<th>High school graduation rate</th>
<th>Postsecondary enrollment</th>
<th>Postsecondary graduation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (Eastman)</td>
<td>66%</td>
<td>63%</td>
<td>16%</td>
</tr>
<tr>
<td>II (Mims Galloway)</td>
<td>67%</td>
<td>67%</td>
<td>15%</td>
</tr>
<tr>
<td>III (Rodriguez)</td>
<td>64%</td>
<td>67%</td>
<td>13%</td>
</tr>
<tr>
<td>IV (Harris)</td>
<td>74%</td>
<td>80%</td>
<td>30%</td>
</tr>
<tr>
<td>V (Lunceford)</td>
<td>80%</td>
<td>91%</td>
<td>52%</td>
</tr>
<tr>
<td>VI (Meyers)</td>
<td>68%</td>
<td>85%</td>
<td>33%</td>
</tr>
<tr>
<td>VII (Moore)</td>
<td>72%</td>
<td>88%</td>
<td>42%</td>
</tr>
<tr>
<td>VIII (Dávila)</td>
<td>74%</td>
<td>65%</td>
<td>13%</td>
</tr>
<tr>
<td>IX (Marshall)</td>
<td>65%</td>
<td>71%</td>
<td>15%</td>
</tr>
<tr>
<td>HISD average</td>
<td>69%</td>
<td>76%</td>
<td>28%</td>
</tr>
</tbody>
</table>

| 9th grade to postsecondary | 7% | 7% | 5% | 17% | 38% | 19% | 27% | 6% | 7% | 15% |

Notes:
[2] Calculations done as follows: high school graduation rate = high school graduates / 9th graders. Postsecondary enrollment = enrollees / high school graduates. Postsecondary graduation rate = postsecondary graduates / enrollees. Pipeline rate (rate of 9th graders earning a postsecondary degree) = high school graduation rate * postsecondary enrollment * postsecondary graduation rate
[3] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district I (Anna Eastman)

Percent of first time 9th graders

- Enroll in 9th grade: Trustee district I 100, Overall HISD 100
- Graduate from high school: Trustee district I 69, Overall HISD 66
- Enroll in postsecondary: Trustee district I 52, Overall HISD 41
- Attain postsecondary degree within 4.5 years: Trustee district I 15, Overall HISD 7

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district II (Carol Mims Galloway)

Percent of first time 9th graders

- Enroll in 9th grade: 100% (Trustee district II), 100% (Overall HISD)
- Graduate from high school: 69% (Trustee district II), 67% (Overall HISD)
- Enroll in postsecondary: 52% (Trustee district II), 45% (Overall HISD)
- Attain postsecondary degree within 4.5 years: 15% (Trustee district II), 7% (Overall HISD)

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district III (Manuel Rodriguez Jr.)

Percent of first time 9th graders

- Enroll in 9th grade: 100%
- Graduate from high school: 69% (Trustee district III), 64% (Overall HISD)
- Enroll in postsecondary: 52% (Trustee district III), 43% (Overall HISD)
- Attain postsecondary degree within 4.5 years: 15% (Trustee district III), 5% (Overall HISD)

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree.
Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district V (Michael L. Lunceford)

Percent of first time 9th graders

<table>
<thead>
<tr>
<th></th>
<th>Trustee district V</th>
<th>Overall HISD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enroll in 9th grade</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Graduate from high school</td>
<td>80%</td>
<td>69%</td>
</tr>
<tr>
<td>Enroll in postsecondary</td>
<td>73%</td>
<td>52%</td>
</tr>
<tr>
<td>Attain postsecondary degree within 4.5 years</td>
<td>38%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district VI (Greg Meyers)

Percent of first time 9th graders

<table>
<thead>
<tr>
<th></th>
<th>Trustees district VI</th>
<th>Overall HISD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enroll in 9th grade</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Graduate from high school</td>
<td>69</td>
<td>68</td>
</tr>
<tr>
<td>Enroll in postsecondary</td>
<td>52</td>
<td>58</td>
</tr>
<tr>
<td>Attain postsecondary degree within 4.5 years</td>
<td>15</td>
<td>19</td>
</tr>
</tbody>
</table>

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district VII (Harvin C. Moore)

Percent of first time 9th graders

- Enroll in 9th grade: 100% (Trustee district VII), 100% (Overall HISD)
- Graduate from high school: 69% (Trustee district VII), 72% (Overall HISD)
- Enroll in postsecondary school: 52% (Trustee district VII), 64% (Overall HISD)
- Attain postsecondary degree within 4.5 years: 15% (Trustee district VII), 27% (Overall HISD)

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district VIII (Diana Dávila)

Percent of first time 9th graders

- Enroll in 9th grade: 100%
- Graduate from high school: 69% Trustee district VIII, 74% Overall HISD
- Enroll in postsecondary: 52% Trustee district VIII, 48% Overall HISD
- Attain postsecondary degree within 4.5 years: 15% Trustee district VIII, 6% Overall HISD

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
HISD student pipeline: Trustee district IX (Lawrence Marshall)

Percent of first time 9th graders

- Enroll in 9th grade: 100% (Trustee district IX), 100% (Overall HISD)
- Graduate from high school: 69% (Trustee district IX), 65% (Overall HISD)
- Enroll in postsecondary: 52% (Trustee district IX), 46% (Overall HISD)
- Attain postsecondary degree within 4.5 years: 15% (Trustee district IX), 7% (Overall HISD)

Notes:
[1] High school graduation rate calculated from cohort F1. College enrollment and graduation rates calculated from cohort S4. Percent of ninth graders who attain postsecondary degree = high school graduation rate * % of graduates who enroll in college * % of enrollees who earn postsecondary degree
[2] Sources: NSC data, HISD student outcome data
Results

By schools
On-track rates differ by elementary school: 5th graders

Notes:
[1] Analysis based on cohort S1 and defines grade 5 as students in cohort S1 in 2007-08. Students not in grade 5 in that year are measured as on/off track based on the indicators for their actual grade, but are still included in the counts in this analysis.

Note: Cohort excludes schools that did not have at least 50 students who remained enrolled in the school over the entire period from SY2003-04 to SY2007-08.
5th grade on-track rates versus poverty levels

Percent of students on-track to college readiness

R² = 0.77

Notes:
[1] Analysis based on cohort S1 and defines grade 5 as students in cohort S1 in 2007-08. Students not in grade 5 in that year are measured as on/off track based on the indicators for their actual grade, but are still included in the counts in this analysis.
[3] Sources: HISD student outcome data, HISD “District and Schools Profile Report,” Free/Reduced Lunch rate for each school in SY07-08.
On-track rates differ by middle school: 8th graders

Percent of students on-track to college readiness

**Note:** Cohort excludes schools that did not have at least 50 students who remained enrolled in the school over the entire period from SY2005-06 to SY2007-08

**Notes:**

[1] Analysis based on cohort S2 and defines grade 8 as students in cohort S2 in 2007-08. Students not in grade 8 in that year are measured as on/off track based on the indicators for their actual grade, but are still included in the counts in this analysis.


[3] Source: HISD student outcome data
8th grade on-track rates versus poverty levels

Percent of students on-track to college readiness

![Graph showing the relationship between 8th grade on-track rates and poverty levels. The chart includes data points for various schools, and a regression line with an R² value of 0.65. Notes: [1] Analysis based on cohort S2 and defines grade 8 as students in cohort S2 in 2007-08. Students not in grade 8 in that year are measured as on/off track based on the indicators for their actual grade, but are still included in the counts in this analysis. [2] Analysis excludes schools with fewer than 50 students in cohort S2 in SY2007-08. [3] Sources: HISD student outcome data, HISD “District and Schools Profile Report,” Free/Reduced Lunch rate for each school in SY07-08.]

Notes:
[1] Analysis based on cohort S2 and defines grade 8 as students in cohort S2 in 2007-08. Students not in grade 8 in that year are measured as on/off track based on the indicators for their actual grade, but are still included in the counts in this analysis.
[3] Sources: HISD student outcome data, HISD “District and Schools Profile Report,” Free/Reduced Lunch rate for each school in SY07-08.
On-track rates differ by high school: 11th graders

Percent of students on-track to college readiness

Note: Cohort excludes schools that did not have at least 50 students who remained enrolled in the school over the entire period from SY2004-05 to SY2007-08

Notes:
[1] Analysis based on cohort S3 and defines grade 11 as students in cohort S3 in 2006-07. Students not in grade 11 in that year are measured as on/off track based on the indicators for their actual grade, but are still included in the counts in this analysis
[2] Analysis excludes schools with fewer than 50 students in cohort S3 in SY2006-07
[3] Source: HISD student outcome data
11th grade on-track rates versus poverty levels

Percent of students on-track to college readiness

R² = 0.74

Notes:
[1] Analysis based on cohort S3 and defines grade 11 as students in cohort S3 in 2006-07. Students not in grade 11 in that year are measured as on/off track based on the indicators for their actual grade, but are still included in the counts in this analysis
[2] Analysis excludes schools with fewer than 50 students in cohort S3 in SY2006-07
[3] Sources: HISD student outcome data, HISD “District and Schools Profile Report,” Free/Reduced Lunch rate for each school in SY07-08
Graduation rates differ by high school

High school graduation rate

Notes:
[1] Analysis based on cohort F1
[2] Students who spent at least 2/3 of their time in a given school are attributed to that school. Otherwise, all cohort members are attributed to their 9th grade campus.
[4] Source: HISD student outcome data
High school graduation rates tend to be inversely correlated with poverty levels, though there are outliers

High school graduation rate

Free and reduced lunch rate

Notes:
[1] Analysis based on cohort F1
[2] Students who spent at least 2/3 of their time in a given school are attributed to that school. Otherwise, all cohort members are attributed to their 9th grade campus.
[4] Sources: HISD student outcome data, HISD “District and Schools Profile Report,” Free/Reduced Lunch rate for each school in SY07-08
Postsecondary enrollment rates differ by high school

Percent of high school graduates enrolling in a postsecondary institution

<table>
<thead>
<tr>
<th>School</th>
<th>Enrollment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeBakey HSHP</td>
<td>98</td>
</tr>
<tr>
<td>HSPVA</td>
<td>96</td>
</tr>
<tr>
<td>Lamar HS</td>
<td>92</td>
</tr>
<tr>
<td>Middle College TC</td>
<td>92</td>
</tr>
<tr>
<td>Bellaire HS</td>
<td>91</td>
</tr>
<tr>
<td>Westside HS</td>
<td>90</td>
</tr>
<tr>
<td>Carnegie Vanguard HS</td>
<td>88</td>
</tr>
<tr>
<td>Washington HS</td>
<td>85</td>
</tr>
<tr>
<td>Milby</td>
<td>73</td>
</tr>
<tr>
<td>Waltrip</td>
<td>73</td>
</tr>
<tr>
<td>Westbury</td>
<td>72</td>
</tr>
<tr>
<td>Worthing</td>
<td>69</td>
</tr>
<tr>
<td>Madison</td>
<td>69</td>
</tr>
<tr>
<td>Sharpstown HS</td>
<td>69</td>
</tr>
<tr>
<td>Yates</td>
<td>69</td>
</tr>
<tr>
<td>Furr</td>
<td>68</td>
</tr>
<tr>
<td>Jordan</td>
<td>67</td>
</tr>
<tr>
<td>Sterling</td>
<td>67</td>
</tr>
<tr>
<td>Scarborough</td>
<td>66</td>
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<tr>
<td>Reagan</td>
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<tr>
<td>Jones</td>
<td>63</td>
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<td>Chavez</td>
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<td>Davis</td>
<td>59</td>
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<tr>
<td>Kashmere</td>
<td>58</td>
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<td>CLC</td>
<td>56</td>
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<tr>
<td>Eastwood</td>
<td>54</td>
</tr>
<tr>
<td>Houston</td>
<td>43</td>
</tr>
<tr>
<td>Overall postsecondary enrollment rate (76)</td>
<td>73</td>
</tr>
</tbody>
</table>

Notes:
[1] Analysis based on cohort S4
[2] Sources: NSC data, HISD student outcome data
Postsecondary graduation rates differ by high school

Percent of postsecondary institution enrollees who earn a degree

Overall postsecondary graduation rate (28)

Notes:
[1] Analysis based on cohort S4
[2] Sources: NSC data, HISD student outcome data
Some correlation exists between college graduation and college enrollment rates.

Notes:
[1] Analysis is based cohort S4
[2] Analysis excludes campuses that had fewer than 10 students in cohort S4
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• Overview of methodology

• Definition of key outputs

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• Selected leverage points for improving student success

• Overall implications
High school student graduation rates decline as school transfers increase

**Notes:**
[1] Analysis is based on cohort F1 and considers each student’s high school to be the one he/she was attending as of the end of the school year. It does not consider additional campus-switching that may have occurred within a single school year.
[2] Mobility rate reflects the number of children who spend less than 83 percent of the school year at the same campus.
[3] Sources: Mobility rate from a J. Radcliffe article in the Houston Chronicle, 15Dec2008 (see Sources slide for full citation); HISD student outcome data.
Students who are younger in ninth grade are more likely to graduate high school and enroll in college.

High school graduation rate
(percent of HISD 9th graders)

College enrollment rate
(percent of HISD graduates)

Notes:
[2] Age groups with fewer than 50 students in the cohort (13-, 19-, and 20-year-olds) were excluded from analysis.
In grades 1-12, the percent of HISD students who have been held back one or more grades varies.

Notes:
[1] See “Methodology for overage analysis” slide for an explanation of the analysis.
[2] Source: HISD student outcome data
Most students who score below proficiency on TAKS are earning passing grades

<table>
<thead>
<tr>
<th>Ranges of Grades Earned by Students Scoring Below Proficiency on TAKS</th>
<th>5th Grade</th>
<th>8th Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Math</td>
<td>English</td>
</tr>
<tr>
<td>0 – 50%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>50 &lt; x &lt;=60%</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>60 &lt; x &lt;=70%</td>
<td>28%</td>
<td>23%</td>
<td>19%</td>
</tr>
<tr>
<td>70 &lt; x &lt;=80%</td>
<td>58%</td>
<td>57%</td>
<td>49%</td>
</tr>
<tr>
<td>80 &lt; x &lt;=90%</td>
<td>11%</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>90 &lt; x &lt;=100%</td>
<td>0%</td>
<td>1%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Notes:
[1] Proficiency standard for TAKS is 2100
[2] Calculations based on data from cohorts S1, S2, and S3, for only those students who were on-grade.
Students who attend either an alternative accountability or DAEP campus for at least one of their high school years have varying dropout rates.

<table>
<thead>
<tr>
<th>School</th>
<th>Number of students who attended the school at least one year</th>
<th>Number who ultimately dropped out of HISD</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTA</td>
<td>266</td>
<td>133</td>
<td>50%</td>
</tr>
<tr>
<td>Reach Charter</td>
<td>41</td>
<td>20</td>
<td>49%</td>
</tr>
<tr>
<td>Carter Career</td>
<td>47</td>
<td>17</td>
<td>36%</td>
</tr>
<tr>
<td>CLC High School</td>
<td>253</td>
<td>77</td>
<td>30%</td>
</tr>
<tr>
<td>CEP SE</td>
<td>223</td>
<td>59</td>
<td>26%</td>
</tr>
<tr>
<td>CEP SW</td>
<td>220</td>
<td>46</td>
<td>21%</td>
</tr>
<tr>
<td>Community Services</td>
<td>117</td>
<td>20</td>
<td>17%</td>
</tr>
</tbody>
</table>

Notes:
[1] Analysis based on cohort S3
[2] 6 students attended more than one AEC / DAEP campus, and they are counted in each
[3] Analysis excludes campuses attended by fewer than 40 students in the cohort
[4] Source: HISD student achievement data
The most successful community and technical colleges in Texas have almost double HCC’s graduation rate

Notes:
[1] Excludes institutions with fewer than 100 students enrolled
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- Overview of methodology
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Implications

- Most HISD students are not graduating high school ready to succeed in college or career, and most students in grades 1 through 11 are not on-track to graduate college/career ready
- Progress toward college and career readiness can be assessed with some degree of confidence at each grade level using data that are currently available
- Performance rates of HISD schools vary considerably even when they have similar poverty levels, suggesting the potential to share best practices across schools
- A greater focus on channeling HISD students to postsecondary institutions with track records of success can improve graduation rates
- HISD students are performing better in the classroom than on standardized tests, suggesting that classroom expectation levels may need to be assessed
Appendix
Sources: databases with student outcome data and research sources that informed the choice of indicators for the on-track-to-college/career analysis

- ACT, “Ready for College and Work: Same or Different?,” 2006
- ACT, “What are ACT’s College Readiness Benchmarks?,” downloaded from ACT website, spring 2010
- Allensworth, Elaine, “Update to: From High School to the Future,” Consortium of Chicago School Research at the University of Chicago, October 2006
- Dougherty, Chris, PhD, “They Can Pass, but Are They College Ready?,” Data Quality Campaign, August 2008
- Houston ISD student outcome data, SY 2002-03 through SY 2008-09
- Interviews:
  - Meredith Butterfield, Program Development Associate, National Center for Educational Achievement (NCEA)
  - Caroline Holcombe, Project Coordinator, Children at Risk
  - Professor Patricia McDonough, Professor of Higher Education and Organizational Change at UCLA Graduate School of Education
- National Student Clearinghouse data on HISD students who graduated high school in any year from 2004-2008
- National Center for Educational Accountability, “Identifying Appropriate College Readiness Standards for All Students ” NCEA Issue Brief #2, May 2006
- Radcliffe, Jennifer, “Home-school is so popular, some are getting suspicious,” Houston Chronicle, 10May2010
- Texas Higher Education Coordinating Board data resources (www.txhigheereddata.org)
The methodology used to identify whether a student met each of the on-track indicator standards in some cases required multiple calculations (1 of 2)

- **Attendance**: Use HISD student outcome data field that reports percent of days attended

- **Course grades**:
  - In the on/off track analyses, a student has just one English course grade and one math course grade per year. This single grade is calculated from all the final course grades in a given subject received by the student over the course of the school year. For example, if enrolled in a school operating on a quarter system, the student would have four final grades; if the school were on a semester system, the student would have two final grades, etc.
  - If a student took just one course per main subject area per grading period (e.g., just one English course per quarter), the student’s annual grade is calculated as the average of all of his/her final grades per grading period. If however a student took multiple courses in the same main subject area within the same grading period, first take the average of all final grades received within a given grading period, and then calculate the average of the average grades per grading period in order to arrive at the student’s annual grade to use in the on/off track analysis.
  - In grades 3-11, the on-track course grade standard is 80% in both reading in math. In grades 1 and 2, however, the standard is higher, due to evidence of grade inflation in those years. The on-track standards for grades 1 and 2 were calculated from an OLS regression of TAKS scores (y-variable) on grades (x-variable), and then plugging a TAKS score of 2300 into the resulting equation to calculate the course grade associated with a TAKS score of 2300.

- **TAKS**:
  - If students received a waiver from TAKS (code L, R, W, or X), TAKS in that subject was excluded from the list of on-track indicators against which the student was measured in that year. In other words, a student waived from TAKS Reading but not TAKS Math in her 4th grade year would, in that year, be considered on-track if she met four indicators: attendance >=90%, English course grade >=80%, math course grade >=80%, and TAKS math >= 2300.
  - If a student record is missing data for her ELA written composition score in 11th grade, but her 10th grade ELA written composition score is available, use the 10th grade score to assess whether the student met the ELA written composition on-track indicator. If neither score is available, the student is excluded from the cohort.
The methodology used to identify whether a student met each of the on-track indicator standards in some cases required multiple calculations (2 of 2)

• **Took pre-algebra or higher:**
  
  – If a student skipped 8th grade but was taking algebra or higher in 9th grade, consider the student as having MET the on-track indicator of taking pre-algebra or higher in the 8th grade.
  
  – The courses in HISD considered to be equivalent to pre-algebra are listed below:
    » AJ Math 8
    » BIL Math 8
    » ESL 8 Adv (Lev 3), Int (Lev 2), or Beg (Lev 1)
    » Fund Math 8
    » Math 7 PreAP
    » Math 7 PreAP VG
    » Math 7 PreAP / GT
    » Math 8
    » Math 8 MYP
    » Math 8 MYP / VG
    » Math 8 PreAP
    » Math 8 PreAP VG
    » Math 8 PreAP / GT
    » Math 8 – ESL
    » Math 8 – Magnet
    » Math for Life 8, 8A, or 8B

• **General methodology note:**
  
  – If a student skips a grade or is held back a grade, he/she will not be “on-grade” for a given school year. For example, in Cohort 1, all students are in first grade in SY2003-04, which means that on-grade for them in SY2004-05 is 2nd grade, on-grade in SY2005-06 is 3rd grade, etc. If a student is held back a year and thus is still in 2nd grade in SY2005-06, (s)he is classified as on or off track based on whether (s)he has met the *second* grade on-track indicators in SY2005-06, but his/her outcome will still be counted along with all the other on/off track outcomes in SY2005-06. That is, the percent of students in HISD reported as on-track in the year when on-grade is 3rd grade is calculated as the number of Cohort 1 students who were on-track in SY2005-06 divided by the total number of Cohort 1 students, though some of the students may actually not have been in 3rd grade in SY2005-06.
Methodology for overage analysis

General notes:

As the longitudinal data available for this analysis covered seven years only, SY2002-03 through SY2008-09, the figures in the overage calculations do not follow one single cohort of students from grades 1 through 12. Instead, they are calculated based on the following methodology:

1. Identify all first-time first graders in SY2003-04, using SY2002-03 data to identify and exclude students who were also in first grade in SY2002-03.
2. Follow these students through SY2008-09, when on-grade students would be in 6th grade. Note what percent of students were actually in 6th grade in SY2008-09, as well as the percent behind 1 grade, 2 grades, etc.
3. Identify all sixth graders in SY2002-03.
4. Assume the same percentage of the SY2002-03 sixth graders were on vs. off grade as was the case for the sixth graders from our first group in SY2008-09.
5. Follow the 2002-03 sixth graders through SY208-09, calculating in each year what percent of students remained off grade, fell behind one grade, fell behind two grades, etc.
6. Apply those percentages to the estimated counts of sixth grade students who on-grade, behind one grade, etc. in SY2002-03 to arrive at an estimate of how many students were on-grade or overage from grades 7-12.

Example:

- Suppose there are 100 6th graders in SY2002-03, and by SY2008-09, 80% of those students were in 6th grade or above, while 15% were behind one-grade and 5% were behind two grades.
- Thus, we estimate that of all the 6th graders in SY2002-03, 80 are in 6th grade for the first time (on-grade), 15 are behind one grade, and 5 of them are behind 2 grades.
- If we observe that 80% of SY2002-03 sixth graders are promoted to seventh grade in SY2003-04, while 20% remain in 6th grade, that gives us 80% of students not losing a grade and 20% losing one grade.
- To estimate the count of students on-grade in SY2003-04, multiply 80 * 0.80 = 64. To estimate the count of students off one grade in SY2003-04, calculate (15*0.80+80*0.20) = 28. Students estimated to be off two grades in SY2003-04 would be 5*0.80 + 15*0.20 = 7. And the number of students off 3 grades would be 5*0.20 = 1.
Approximately 48% of first-time 9th graders graduate high school in HISD within 4 years

Number of HISD students

Graduation rate:
Base cohort: 69%
First-time 9th graders: 48%

Notes:
[1] Analysis based on all HISD students who were first-time ninth graders in SY 2004-05.
[2] Continuing into a fifth year in HISD early college high schools (ECHSs) has a different meaning from other continuing, as the ECHS graduation track is five years. However, as only 38 of the continuers in the cohort were part of ECHSs, this analysis combines all continuers into a single bucket.
[3] The GED count reported in this table (9) is slightly smaller than the actual number, as complete GED data were inaccessible. According to state counts, only ~1% of HISD students in the state’s definition of the class of 2008, which includes students who transferred into HISD, earned a GED.