

GRAD LABS – APEX CREDIT RECOVERY INITIATIVE

FINDINGS RELATED TO STUDENT PERFORMANCE, 2010–2011

Executive Summary

Program Description

The APEX Credit Recovery Initiative provides a specific digital plan for academic instruction. This initiative serves as an alternative method for students who need to complete credit requirements for graduation. In HISD, the APEX Credit Recovery Initiative is a districtwide initiative that began in January 2010. This initiative placed computer labs, otherwise known as Grad Labs (from this point on, referred to as the APEX Credit Recovery Initiative), with special APEX Learning software at 45 HISD high school campuses and graduation coaches at 24 of these campuses. This report focuses on activities that occurred during the 2010–2011 school year. It addresses the district’s strategic plan of reducing the dropout rate and improving the graduation rate. Specific measures of student performance include:

- Participation rates in the APEX Credit Recovery Initiative;
- The impact of the APEX Credit Recovery Initiative on graduation rates;
- Course grades of students participating in the APEX Credit Recovery Initiative.

Highlights

- From 2009–2010 to 2010–2011, the number of online courses offered increased from 8,048 to 13,024. During the 2010–2011 school year, 51.3 percent of students participating in the APEX Credit Recovery Initiative were 12th graders, which was an increase of 19.6 percentage points over 2009–2010. In 2010–2011, the APEX Credit Recovery Initiative continued to have a higher percentage of 12th graders enrolled in courses than other HISD online course providers.
- In 2009–2010 there were 9,113 graduates in HISD. Of the total graduates in 2009–2010, 5.2 percent ($N = 472$) were enrolled in courses offered by the APEX Credit Recovery Initiative and 7.6 percent ($N = 696$) offered by other online providers. In 2010–2011, of the 9,955 graduates, those students enrolled in courses offered by other online providers remained relatively stable at 7.5 percent ($N = 744$). In contrast, the percentage of graduates enrolled in courses offered by the APEX Credit Recovery Initiative increased by 14.7 percentage points, comprising 19.9 percent of the total graduates ($N = 1,978$).
- In 2010–2011, APEX Credit Recovery Initiative courses accounted for 35.5 percent of all online courses, a 25.1 percentage point increase over 2009–2010. English/language arts continued to have the highest course participation, within the APEX Credit Recovery Initiative, for both 2009–2010 (276 total courses) and 2010–2011 (1,307 courses).
- During 2010–2011, students enrolled in APEX Credit Recovery Initiative courses were enrolled in an average of 1.4 courses, a 0.8 percentage point increase over the average number of courses taken during 2009–2010.
- The average course grade for students participating in APEX Credit Recovery Initiative courses was an 80 in 2010–2011, an increase of 0.5 points from 2009–2010. In 2010–2011, the average course grade for students enrolled in APEX Credit Recovery Initiative courses was 4.5 percentage points lower than the average course grade for students enrolled in other online courses.

Recommendations

1. Participation in the APEX Credit Recovery Initiative substantially increased from 2009–2010 to 2010–2011, as did the percentage of courses offered by the APEX Credit Recovery Initiative and the percentage of graduating students that were enrolled in courses offered by the APEX Credit Recovery Initiative. Given these increases, efforts should be made by the district to make APEX Credit Recovery Initiative courses available to more students and in more academic classes.
2. To improve graduation rates the district should continue targeting 12th graders, but also make efforts to target students at the 9th, 10th, and 11th grades that are lacking core courses (i.e. English/language arts, mathematics, science, and social studies), required to graduate. By targeting these students and encouraging them to enroll in courses offered by the APEX Credit Recovery Initiative, district high schools can ensure that a higher percentage of their students are ready to graduate at the end of their 12th grade years.
3. The APEX Credit Recovery Initiative should be extended to all HISD middle school students who are at-risk for dropping out of school to improve student achievement.

Administrative Response

The Virtual Schools Department has reviewed the *2009–2010 and 2010–2011 APEX Credit Recovery* report. The report describes and evaluates the implementation of the APEX Credit Recovery Initiative that uses APEX Learning software during the 2009–2010 and 2010–2011 school years. The evaluation included two specific recommendations that will be reviewed with the Virtual Schools Manager for possible implementation during the 2011–2012 school year.

Introduction

Dropout and graduation rates are critical issues for every school district in the nation. According to Glass and Rose (2008), students who drop out of school are much more likely than their peers who graduate to be unemployed, living in poverty, receive public assistance, imprisoned, and unhealthy. While there are many reasons for students to drop out of high school, school districts are discovering innovative methods to retain students. Innovative programs in high schools focus on non-traditional methods, such as virtual schooling, for retaining at-risk students and attracting those who dropped out of school. According to Barbour and Reeves (2009), the benefits of virtual schooling can be summarized into five main areas: expanding educational access, providing high-quality learning opportunities, improving student outcomes and skills, allowing for educational choice, and achieving administrative efficiency.

Implementing digital curricula, like APEX Learning, is one of many options utilized to make alternative, virtual instruction available to students. The Houston Independent School District (HISD) has implemented the APEX Credit Recovery Initiative, relying on APEX Learning software, otherwise known as Grad Labs (from this point on, referred to as the APEX Credit Recovery Initiative), in district high schools. This initiative offers a digital curriculum with individualized instruction to address students' specific learning needs. Direct instruction is provided through images, audio, video, animations, and interactive aspects of instructional programming, utilized to address different student learning styles. Moreover, APEX Learning software contains unit-level diagnostics for assessing student progress. The HISD APEX Credit Recovery Initiative allows students to recover specific courses that they need in order to graduate on time.

Methods

Data Collection and Analysis

- APEX course participation and completion data were recorded in and extracted from Chancery. Chancery is a web-based student information system schools used to input student attendance, courses completed, courses failed, courses recovered, and other related data. The Student Information Systems (SIS)/Chancery Department provided the data set used for this report on September 6, 2011.

Data Limitations

- By relying on the SIS database for the APEX Online Credit Recovery Initiative, it is possible that some student information was recorded in Chancery after the data were extracted on September 6, 2011, and therefore were not captured in this report. Where information was not available, notes were inserted. There were 45 campuses in HISD during 2010–2011 school year that participated in the APEX Online Credit Recovery Initiative.

Results

What were the participation rates in the APEX Credit Recovery Initiative?

- The total number of unique courses offered by the APEX Credit Recovery Initiative increased by 86 courses from 2009–2010 to 2010–2011. APEX Credit Recovery Initiative unique courses comprised 20.5 percent of the total unique courses offered during the 2010–2011 school year, which was an increase of 15.2 percentage points, compared to the 2009–2010. Total online participation also increased from 8,048 courses offered in 2009–2010 to 13,024 courses in 2010–2011. The APEX Credit Recovery Initiative courses represented 35.5 percent (4,619 courses) during the 2010–2011 school year (Table 1).

- The percentage of total courses taken with other online providers exceeded those taken with the APEX Credit Recovery Initiative for both 2009–2010 and 2010–2011, although the percentage of APEX Credit Recovery Initiative Courses increased from 2009–2010 to 2010–2011 (Figure 1).

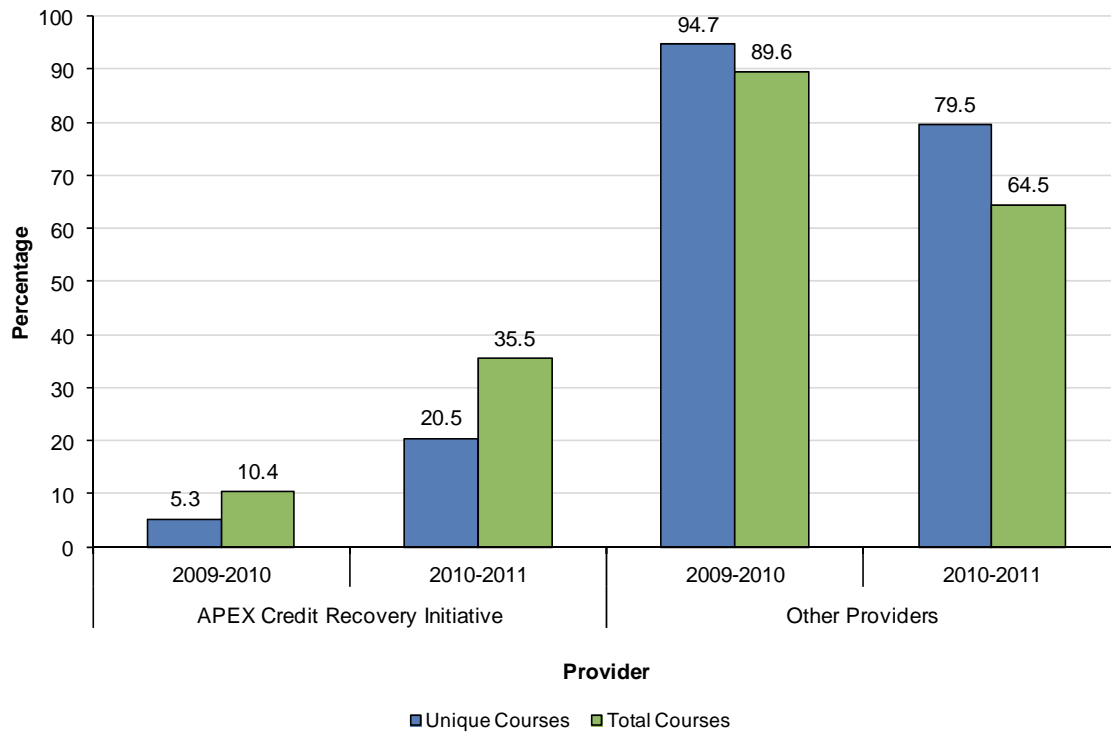


Figure 1. Percentage of courses offered by HISD online providers, 2009–2010 and 2010–2011

- During the 2010–2011 school year, 51.3 percent of students participating in the APEX Credit Recovery Initiative were 12th graders, an increase of 19.6 percentage points from 2009–2010. The APEX Credit Recovery Initiative continued to have a higher percentage of 12th graders enrolled in courses than other HISD online course providers. The number of 12th grade students enrolled in other online course options increased by 7.9 percentage points from 2009–2010 (21.2 percent) to 2010–2011 (29.1 percent). Other HISD online providers tended to have a higher percentage of students enrolled in grades eight, nine, and 11, compared to the APEX Credit Recovery Initiative in 2009–2010, and higher percentages in the 8th, 9th, 10th, and 11th grades in 2010–2011 (Table 2).

What percentage of graduates enrolled in APEX Credit Recovery Initiative courses?

- In 2009–2010 there were 9,113 graduates in HISD. Of the total graduates in 2009–2010, 5.2 percent ($N = 472$) were enrolled in courses offered by the APEX Credit Recovery Initiative and 7.6 percent ($N = 696$) offered by other online providers. In 2010–2011, of the 9,955 graduates, those students enrolled in courses offered by other online providers remained relatively stable at 7.5 percent ($N = 744$). In contrast, the percentage of graduates enrolled in courses offered by the APEX Credit Recovery Initiative increased by 14.7 percentage points, comprising 19.9 percent of the total graduates ($N = 1,978$) (Table 3, Figure 2).

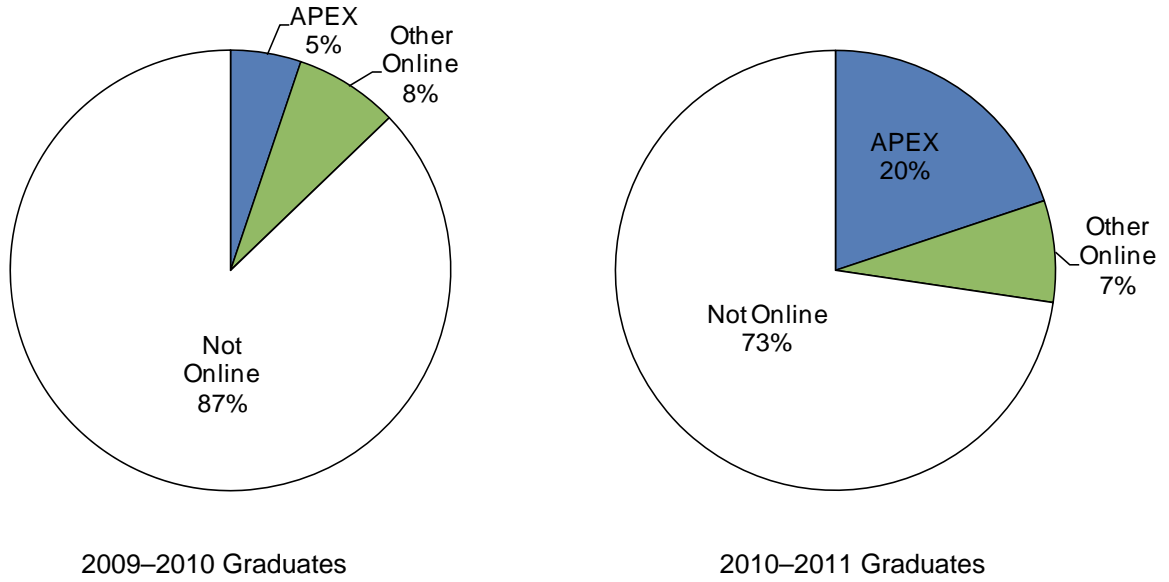


Figure 2. Percentage of graduates taking online courses by provider, 2009-2010 and 2010-2011

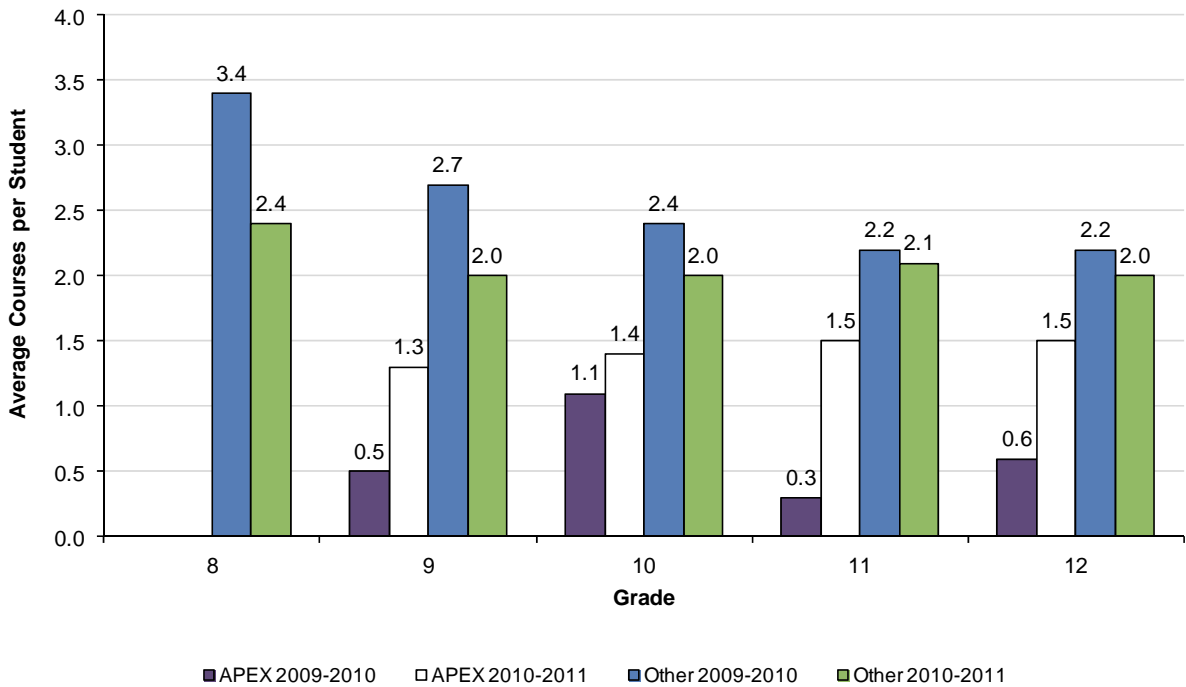


Figure 3. Average number of online courses by grade and provider, 2009-2010 and 2010-2011

What were the course participation rates and course grades of students participating in the APEX Credit Recovery Initiative?

- Compared to 2009–2010 (840 courses), in 2010–2011 (4,619 courses) there was an increase of 3,779 courses offered through the APEX Credit Recovery Initiative. During the 2010–2011 school year, 35.5 percent of all online courses were APEX Credit Recovery Initiative courses compared to 10.4 percent in 2009–2010. This was an increase of 25.1 percentage points when comparing all online courses for 2009–2010 and 2010–2011. English/language arts continued to have the highest course participation with the APEX Credit Recovery Initiative for both 2009–2010 ($N = 276$) and 2010–2011 ($N = 1,307$) (Table 4).
- In both 2009–2010 (APEX: 840, Other: 7,208) and 2010–2011 (APEX: 4,619, Other: 8,405), other providers offered more courses than the APEX Credit Recovery Initiative. Students participating in the APEX Credit Recovery Initiative took an average 0.5 to 1.1 courses in grades nine through 12 during the 2009–2010 school year and 1.3 to 1.5 courses in grades nine through 12 during the 2010–2011 school year. On average, more courses were attempted by APEX Credit Recovery Initiative participants in 2010–2011, compared to the previous year (Figure 3, Table 5).
- The average course grade of APEX Credit Recovery Initiative participants continued to be lower than those of students taking other online courses, when comparing the 2009–2010 and 2010–2011 school years (Table 5). Course grade averages of students taking APEX Credit Recovery courses ranged from 78.7 to 80.4 in 2009–2010 and from 79.6 to 80.5 in 2010–2011. Average course grades for courses taken from other providers ranged from 80.0 to 89.5 in 2009–2010 and from 82.5 to 87.6 in 2010–2011.
- According to APEX, the primary focus of the APEX Credit Recovery Initiative was on allowing 12th grade students the opportunity to recover necessary credits in order to promote timely graduation. Specific courses by grade level are listed in Appendix A. As opposed to 2009–2010, where the most frequently selected subject area was English/language arts, during 2010–2011, the primary subject selected by 12th grade students for credit recovery was social studies. The general increase in the number of APEX Credit Recovery Initiative courses taken may be due to a heightened awareness of the APEX Credit Recovery Initiative and the establishment of computer labs using APEX Credit Recover software in 45 schools (Appendix B).

Discussion

Both the number of students participating in and the number of courses offered by the APEX Credit Recovery Initiative has increased from 2009–2010 to 2010–2011. Specifically, the number of students participating in the APEX Credit Recovery Initiative increased by 3,779 students from 2009–2010 to 2010–2011. This increase may be due to students participating during the entire 2010–2011 school year, as opposed to participating only between January and August of 2009–2010. Twelfth-grade students remain the primary targeted population and had the highest participation rates of all APEX Credit Recovery Initiative participants in both 2009–2010 and 2010–2011. During 2010–2011, there were 1,466 graduates participating in the APEX Credit Recovery Initiative, allowing them the opportunity to successfully complete their requirements. This was an increase of 994 students.

The percentage of APEX Credit Recovery Initiative courses taken increased from 10.4 percent in 2009–2010 to 35.5 percent in 2010–2011. Due to the longer implementation period, the percentage of students that participated in the APEX Credit Recovery Initiative and successfully graduated increased by 14.7 percentage points between 2009–2010 (5.2 percent) and 2010–2011 (19.9 percent), demonstrating that students enrolled in courses offered by the APEX Credit Recovery Initiative made up a substantially

larger proportion of the total graduates in HISD in 2010–2011, as compared to 2009–2010. APEX Credit Recovery Initiative students tended to have slightly lower course-grade averages than students in other online courses during the last two years of implementation. However, the percentage of students taking unique courses to recover credits has continued to increase.

References

Barbour, M. K., & Reeves, T. C. (2009). The reality of virtual schools: A review of the literature. *Computers and Education, 52*, 402-416.

Glass, R., & Rose, M. (2008). Tune out turn off drop out. *American Teacher, 93*(3), 8-21.

Table 1: HISD Online Courses Offered by Provider, 2009–2010 and 2010–2011

Provider	Unique Courses				Total Courses			
	2009–2010		2010–2011		2009–2010		2010–2011	
	N	%	N	%	N	%	N	%
APEX Credit Recovery Initiative	24	5.3	110	20.5	840	10.4	4,619	35.5
Other Online Providers	425	94.7	427	79.5	7,208	89.6	8,405	64.5
Total	449	100.0	537	100.0	8,048	100.0	13,024	100.0

Table 2: HISD Student Participation in Online Courses by Grade Level, 2009–2010 and 2010–2011

Grade	APEX Credit Recovery Initiative				Other Providers				Overall			
	2009–2010		2010–2011		2009–2010		2010–2011		2009–2010		2010–2011	
	N	%	N	%	N	%	N	%	N	%	N	%
8					134	1.9	39	0.5	134	1.7	39	0.3
9	134	16.0	539	11.7	1,674	23.2	1,735	20.6	1,808	22.5	2,274	17.5
10	318	37.9	588	12.7	1,708	23.7	1,797	21.4	2,026	25.2	2,385	18.3
11	122	14.5	1,121	24.3	2,164	30.0	2,391	28.4	2,286	28.4	3,512	27.0
12	266	31.7	2,371	51.3	1,528	21.2	2,443	29.1	1,794	22.3	4,814	37.0
Total	840	100.1	4,619	100.0	7,208	100.0	8,405	100.0	8,048	100.1	13,024	100.1

Note. The above numbers represent unduplicated counts. Totals do not equal 100% due to rounding.

Table 3: HISD Graduates Completing Online Courses, 2009–2010 and 2010–2011

Academic Year	APEX Credit Recovery Initiative		Other Online Providers		HISD Total Graduates
	N	% of Graduates	N	% of Graduates	
2009–2010	472	5.2	696	7.6	9,113
2010–2011	1,978	19.9	744	7.5	9,955
Total	2,450	12.8	1,440	7.6	19,068

Source: Chancery, May 21, 2012

Table 4: HISD Online Courses Completed by Subject Area, 2009–2010 and 2010–2011

Subject Area	APEX Credit Recovery				Other Providers				All Providers			
	2009–2010		2010–2011		2009–2010		2010–2011		2009–2010		2010–2011	
	N	%	N	%	N	%	N	%	N	%	N	%
English/Language Arts	276	32.9	1,307	28.3	1,742	24.2	1,260	15.0	2,018	25.1	2,567	19.7
Social Studies	192	22.9	1,245	27.0	1,697	23.5	1,962	23.3	1,889	23.5	3,207	24.6
Mathematics	160	19.0	764	16.5	1,240	17.2	778	9.3	1,400	17.4	1,542	11.8
Foreign Languages	77	9.2	745	16.1	779	10.8	2,724	32.4	856	10.6	3,469	26.6
Science	134	16.0	524	11.3	1,049	14.6	712	8.5	1,183	14.7	1,236	9.5
Health/P.E.			31	0.7							31	0.2
Career & Technology			2	<0.1							2	<0.1
Art			1	<0.1							1	<0.1
Other	1	0.1			701	9.7	969	11.5	702	8.7	969	7.4
Total	840	100.1	4,619	99.9	7,208	100.0	8,405	100.0	8,048	100.0	13,024	99.8

Note. Totals do not equal 100% due to rounding.

Table 5: Number of Online Courses Completed and Average Course Grades by Provider and Grade, 2009–2010 and 2010–2011

Grade	APEX Credit Recovery Initiative								Other Online Providers							
	Students		Courses		Avg. Courses per Student		Avg. Course Grade		Students		Courses		Avg. Courses per Student		Avg. Course Grade	
	2010	2011*	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
8									39	16	134	39	3.4	2.4	89.5	87.6
9	255	401	134	539	0.5	1.3	80.4	80.1	615	862	1,674	1,735	2.7	2.0	80.7	84.6
10	279	419	318	588	1.1	1.4	79.2	80.5	714	890	1,708	1,797	2.4	2.0	80.4	84.5
11	368	730	122	1,121	0.3	1.5	78.7	79.9	962	1,122	2,164	2,391	2.2	2.1	82.0	83.2
12	472	1,576	266	2,371	0.6	1.5	79.6	79.6	696	1,240	1,528	2,443	2.2	2.0	80.0	82.5
Total	1,374	3,126	840	4,619	0.6	1.4	79.5	80.0	3,026	4,130	7,208	8,405	2.4	2.0	82.5	84.5

Duplicated count. The unduplicated student count is equal to 3,120.

APPENDIX A

NUMBER OF ONLINE COURSES COMPLETED 2009–2010 AND 2010–2011

Grade	Subject Area	APEX Credit Recovery		Other Providers		All	
		2010	2011	2010	2011	2010	2011
8	English/Language Arts			3		3	
	Foreign Languages			40	5	40	5
	Mathematics			48	18	48	18
	Other				6		6
	Physical Education			5		5	
	Science			38	6	38	6
	Social Studies				4		4
	Total			134	39	134	39
9	Art			18		18	
	Career & Technology Education			35		35	
	English/Language Arts	35	141	351	131	386	272
	Foreign Languages	22	117	242	947	264	1,064
	IB Electives			8		8	
	Local Credit			2		2	
	Mathematics	25	73	313	116	338	189
	Music			8		8	
	Other		8	10	193	10	201
	Physical Education			118		118	
	Science	26	55	225	73	251	128
	Social Studies	26	145	323	275	349	420
	Special Education			6		6	
	Technology Applications			12		12	
	Total	134	539	1,674	1,735	1,808	2,274
10	Art			22		22	
	Career & Technology Education			41		41	
	English/Language Arts	98	150	376	164	474	314
	Foreign Languages	12	112	210	778	222	890
	IB Electives			11		11	
	Local Credit			6		6	
	Mathematics	82	112	293	140	375	252
	Music			16		16	
	Other		3	9	267	9	270
	Physical Education			72		72	
	Science	62	71	282	122	344	193
	Social Studies	64	140	344	326	408	466
	Special Education			1		1	
	Technology Applications			25		25	
	Total	318	588	1,708	1,797	2,026	2,385

APPENDIX A (CONTINUED)

NUMBER OF ONLINE COURSES COMPLETED 2009–2010 AND 2010–2011

Grade	Subject Area	APEX Credit Recovery		Other Providers		All	
		2010	2011	2010	2011	2010	2011
11	Art			15		15	
	Career & Technology Education			47		47	
	English/Language Arts	44	267	518	311	562	578
	Foreign Languages	20	222	176	551	196	773
	IB Electives			27		27	
	Local Credit			2		2	
	Mathematics	17	170	347	251	364	421
	Military Science			1		1	
	Music			2		2	
	Other		10	4	411	4	421
	Physical Education			33		33	
	Science	21	133	345	193	366	326
	Social Studies	20	319	640	674	660	993
	Special Education			2		2	
	Technology Applications			5		5	
	Total	122	1,121	2,164	2,391	2,286	3,512
12	Art			4		4	
	Career & Technology Education			39		39	
	English/Language Arts	99	743	534	400	633	1,143
	Foreign Languages	23	294	111	441	134	735
	IB Electives			6		6	
	Local Credit			2		2	
	Mathematics	36	409	239	262	275	671
	Music			1		1	
	Other		29		372		401
	Physical Education	1		28		29	
	Science	25	255	159	313	184	568
	Social Studies	82	641	390	655	472	1,296
	Special Education			12		12	
	Technology Applications			1		1	
	Theatre Arts			2		2	
	Total	266	2,371	1,528	2,443	1,794	4,814
GRAND TOTAL		840	4,619	7,208	8,405	8,048	13,024

APPENDIX B

APEX CREDIT RECOVERY SOFTWARE RESOURCES 2009–2010 AND 2010–2011

School	APEX Software	Graduation Coaches
Austin	X	X
Bellaire	X	X
Carnegie	X	
Carter	X	
Challenge	X	
Chavez	X	X
Contemporary Learning Center (HS)	X	
Davis High School	X	X
DeBakey	X	
East Early College	X	
Eastwood	X	
Empowerment	X	
Energized for STEM Academy Central High School	X	
Energized for STEM Academy West High School	X	
Furr	X	X
Harper Alternative	X	
High School for Business and Economic Success	X	
Houston Academy for International Studies	X	
HSPVA	X	
International High School at Sharpstown	X	
Jordan	X	X
Kashmere	X	X
Lamar	X	X
Law Enforcement	X	X
Leader's Academy	X	
Lee	X	X
Liberty	X	X
Madison	X	X
Milby	X	X
Mount Carmel	X	
North Houston Early College	X	
REACH	X	
Reagan	X	X
Sam Houston Math, Science, and Technology Center	X	X
Scarborough	X	X
Sharpstown	X	X
South Early College	X	
Sterling	X	
Waltrip	X	X
Washington	X	X
Westbury	X	X
Westside	X	X
Wheatley	X	X
Worthing	X	X
Yates	X	X
Total	45	24