Advanced Placement College & Career Success for All Students

Year Three Evaluation Report: 2005-2008

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Advanced Placement College and Career Success for All Students

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Advanced Placement College and Career Success for All Students

Executive Summary

Program Description

Participant Districts completed training activities in 2005-2008 provided by the College Board to support their AP and Pre-AP initiatives. Training activities included classroom level strategies and content as well as administrative level PD targeted toward curriculum-mapping activities such as vertical alignment. Projects used funds to build staff, material, and policy infrastructure for building and sustaining AP and Pre-AP programming. Participant Districts implemented very different programs across the districts as they worked to meet their local needs related to AP and Pre-AP programming. Participant Districts reported good progress toward most goals overall and judged progress to be strong or excellent for many goals. Goals related to Pre-AP, while generally still strong, were less often reported as near completion.

What were the trends in the AP and Pre-AP course enrollments, grades, and test participation from 2005-2008?

Course enrollments as well as the number of individual students taking courses increased for most courses from 2005-2008. Foreign language courses showed the highest increases while Math courses showed a slight decline. Average course grades were generally steady across all years and courses. Course grades for Arts courses were higher than the average scores for all three years. Test participation increased for all courses from 2005-2008. The largest three year increases in test participation were in Science and Humanities courses.

What were the trends in student populations taking AP and Pre-AP courses and tests?

Enrollments and test participation increased about equally for females and males and across most race categories. Hispanic student enrollment increased more than African American or White student enrollment. Trends in enrollments in AP and Pre-AP courses by students qualifying for free or reduced lunch increased sharply and moderately for test participation from 2005-2006 to 2007-2008.

What was the trend in the access to direct student services?

Participation in direct student services declined from 2005-2006 to 2007-2008 in the average contact hours, although the percent of enrollments participating in the services increased from about 3% to 7%.

What was the trend in "Highly Qualified Status" for teachers of Advanced Placement courses?

Overall, the proportion of courses taught by "Highly Qualified" teachers decreased since 2005-2006. In 2007-2008, the percentage of teachers described as highly qualified was about 88%.

What are the predictors of success on AP exams in 2005 and 2007?

The overall test passing rates have been steady for three years, although trends at individual sites have varied. In 2005 and 2007, poverty status, race, and course grades were all significant predictors of passing AP tests. Results indicated the gap closed for students qualifying for free lunch. There was a decline in racial differences in passing AP tests although the remaining gap was still sizeable. Finally, higher course grades slightly increased the odds of passing the tests.

Conclusions and Recommendations

Analyses indicated clear positive results for the goal of increasing access to AP and Pre-AP courses and exams for all targeted populations in the APC program. Test passing rates have not shown consistent change across the program and remain considerably lower than the state passing rates overall. While implementation of the AP and Pre-AP programming has made strong progress, the programs are not fully established and as such have not reached their full potential for producing results. Students have generally not participated in direct student services that are available.

Access to needed instructional and training resources have been a definite positive factor across the programs. While clear gains are evident, the rapid growth in students served in courses and participating in testing may be factors in reducing the effectiveness of these newly established programs. It is important for individual sites to review results to gauge local success and consider policy decisions related to testing as well as orientation and support services provided to students who are new to the AP and Pre-AP programs. Alignment activities need to continue and Pre-AP and support services need to be used to bridge the gap in background prerequisite skills that the targeted populations may need.

Advanced Placement College and Career Success for All Students

Background

The purpose of the Advanced Placement College and Career Success for All Students Act (APC) is to "ensure that each Illinois student has a sufficient education for success after high school and that all students have equal access to a substantive and rigorous curriculum that is designed to challenge their minds, enhance their knowledge and skills, and prepare them for success in college and work."

To that end, in 2005 the Illinois State Board of Education funded grants to encourage school districts with 40 percent or higher of low-income students to establish or expand programs designed to offer the rigorous coursework necessary for their students to succeed in postsecondary education or in the work place through College Board Advanced Placement (AP) and preparation for Advanced Placement (Pre-AP) programs for students in grades 6 through 12.

Applicants proposed project activities designed to increase the number of low-income and other disadvantaged students participating in or benefiting from pre-advanced placement and/or advanced placement courses and exams. Programs included activities designed to establish new or expand existing AP and/or Pre-AP programs, such as teacher training, promotional materials, course materials for students and parents, and student assistance efforts to prepare students to enroll in AP® courses as well as activities designed to ensure students currently enrolled in AP® courses successfully completed those courses and examinations.

Methodology

Participants

Twenty-seven schools and districts were awarded APC grants throughout Illinois.

Data Sources

All data collection was incorporated into a web-based portal for the APC. The Illinois AP Data Management System (DMS) includes an online interface for editing program information as well as an interface to upload student and teacher data. Uploaded files were validated for complete, correct data.

Demographic data—includes ethnicity and poverty variables for 2005-2006, 2006-2007, 2007-2008. Race and Free and Reduced Lunch indicators were used as measure of ethnicity and poverty. ***NOTE: Full enrollment of CPS students in SIS was not available until 2007-2008. Trends based on demographics were focused on change from 2005 to 2008 although all available data are presented. Demographic data in 2005 were provided directly by schools.***

Teacher data—includes teacher name, AP/Pre-AP course title, NCLB highly qualified status, years teaching specific AP/Pre-AP course for 2005-2006, 2006-2007, 2007-2008

Student AP data—AP course and grade, PSAT score (if applicable), participation in AP testing, AP test score, school attendance rate, contact hours in tutoring 2005-2006, 2006-2007, 2007-2008.

Professional Development Activities – Annual update of professional development activities for AP and Pre AP

Implementation Survey – Survey of degree of progress toward goals was completed by 26 out of 27 projects.

Analyses

To simplify reporting, AP and Pre-AP courses were categorized as Mathematics, Language Arts, Science, Humanities, Foreign Language, and Arts. (See Appendix A for classification map).

Descriptive statistics were used to report trends in enrollments across courses for 2005-2006, 2006-2007, and 2007-2008 by indicators of race and poverty. NOTE: SIS demographic data were not available for many Chicago Public School (CPS) students. ***NOTE: Full enrollment of CPS students in SIS was not available until 2007-2008. Trends based on demographics were focused on change from 2005 to 2008 although all available data are presented.***

Finally, **general estimating equations** were used to fit regression models to test for significant factors in participation in AP testing and passing the AP tests for each year of the grant.

Results

Program description

Summary: Projects completed training activities in 2005-2008 provided by the College Board to support their AP and Pre-AP initiatives. Training activities included classroom level strategies and content as well as administrative level PD targeted toward curriculum-mapping activities such as vertical alignment. In addition, projects used funds to build staff, material, and policy infrastructure for building and sustaining AP and Pre-AP programming. Projects implemented very different programs across the districts as they worked to meet their local needs related to AP and Pre-AP programming. Projects reported good progress toward most goals overall and judged progress to be strong or excellent for many goals. Goals related to Pre-AP, while generally still strong, were less often reported as near completion.

Project Activities

Participant districts received funding to revise and implement new AP and Pre-AP courses for their districts. Participant districts' teachers completed a variety of training activities sponsored by the College Board to create new courses or revise courses by integrating new content, strategies, or instructional materials. Participant districts also used funding to create direct student service opportunities in the form of tutoring for content enrichment as well as test-taking skills.

In addition, participant districts administrators and teachers completed training and activities to align horizontally and vertically courses in elementary, middle, and high schools as well as other curriculum mapping activities to align course content to state standards.

Finally, projects used funding to create or build infrastructure in terms of new policies, personnel, and partnerships as well as purchasing required instructional and technology resources and exam fee subsidies to support and sustain the new and revised AP and Pre-AP programming.

The College Board reported the training activities across all grantees each year (see Table 1). Training activities increased each year, with a heavier focus on core content and instructional strategies in 2006-2007 and 2007-2008.

Table 1. College Board Training Sessions

	College Board Training Sessions (Number of sessions)		
Year	Administrative	Core Content	Instructional Strategies
2005-2006	3	1	6
2006-2007	13	19	18
2007-2008	7	32	24
Total	23	52	48

Program Fidelity

Participant districts implemented very different programs across the districts as they worked to meet their local needs related to AP and Pre-AP programming. To gauge the fidelity of the program across funded projects, district projects reported their progress toward goals in terms of implementation of curriculum, infrastructure, and student support goals overall as well as from teachers', administrators', and students' perspectives (see complete data frequencies in Appendix B, Table 32 through Table 35).

In terms of overall implementation of the program, projects reported more progress on some goals than other goals. For those projects where the goal was applicable, the survey responses indicated the most progress was made in student support goals, particularly for AP tutoring for test-taking skills (90%), AP exam fee subsidy (90%), and purchase of books and materials for coursework (73% nearly or fully completed, see Table 2). Fewer projects reported completion of goals related to Pre-AP AVID programming (13%). Narrative data suggest that projects are continuing to build programs and align curriculum, especially at the Pre-AP levels (see Narrative Survey Data Supplement Report).

Table 2. Overall Progress toward Implementation Highlights

Progress toward implementation	No progress (%)	Good progress; significant work toward implementation (%)	Nearly or fully complete (%)	Total Projects (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
New AP courses	4.8	28.6	66.7	21	3	2	5	26
Revised AP instructional materials	13.3	20.0	66.7	15	9	2	11	26
Student support goals for AP books and materials for coursework	4.5	22.7	72.7	22	2	2	4	26
Student support goals for AP books and materials for test-taking	20.0	5.0	75.0	20	4	2	6	26
Student support goals for AP tutoring for test-taking skills	10.5		89.5	19	5	2	7	26
Pre-AP AVID	66.7	20.8	12.5	24			2	26

Projects reported teachers' perspectives of progress toward goals. For those projects where the goals were applicable, survey responses indicated teachers believed progress was strong or excellent in the implementation of AP curriculum (73%), access to required resources (81%), and student activities to prepare students for test-taking (73%; see Table 3). Fewer teachers believed progress was strong or excellent for the quality of the Pre-AP curriculum (19%). Projects reported these results were based on a combination of surveys and informal interviews (see Supplemental Narrative Report, Table 2).

Table 3. Teachers' Perspectives of Progress Highlights

Teachers' perspective of progress toward implementation of goals	Low or Very Weak (%)	Good (%)	Strong or Excellent (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Curriculum goals for quality of AP Curriculum implementation		27.3	72.7	22	1	3	4	26
Infrastructure goals for access to required AP teacher resources		19.0	81.0	21	2	3	5	26
Student goals for classroom activities to prepare for AP exam taking	4.5	22.7	72.7	22	1	3	4	26
Curriculum goals for quality of Pre-AP Curriculum implementation		81.3	18.8	16	7	3	10	26

Projects reported administrators' perspectives of progress toward goals. For those projects where the goal was applicable, the survey responses indicated administrators considered progress in terms of access to required AP resources for reaching infrastructure goals for AP (84%) and Pre-AP programming to be consistently strong or excellent (79%; see Table 4). However, fewer administrators rated progress for implementing key Pre-AP program areas for reaching curriculum goals (35%).

Table 4. Administrators' Perspectives of Progress Highlights

	Low or Very Weak (%)	Good (%)	Strong or Excellent (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Access to required AP resources for reaching infrastructure goals		15.8	84.2	19			7	26
Access to required Pre-AP resources for reaching infrastructure goals		21.4	78.6	14			12	26
Level of implementation of key Pre-AP program elements for reaching curriculum goals	11.8	52.9	35.3	17			9	26

Projects reported students' perspectives of progress toward goals. For those projects where the goal was applicable, the survey responses indicated students believed the progress in terms of the quality of AP curriculum (86%), AP course rigor (86%), the relevance of AP activities (91%), and access to required AP resources (75%; see Table 5) was strong or excellent. The level of preparedness or interest in AP tests showed the least consistent support by AP and Pre-AP students (52%; 25% of projects rated strong or excellent progress).

Table 5. Students' Perspectives of Progress Highlights

	Low or Very Weak (%)	Good (%)	Strong or Excellent (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Quality of AP curriculum implementation		14.3	85.7	21	1	4	5	26
AP course rigor		14.3	85.7	21	1	4	5	26
Relevance and usefulness of AP activities		9.5	90.5	21	1	4	5	26
Access to required AP resources		25.0	75.0	20	2	4	6	26
Level of preparedness for/interest in AP exam	9.5	38.1	52.4	21	1	4	5	26
Level of preparedness for/interest in AP exam by Pre-AP students	33.3	41.7	25.0	12	9	5	14	26

What was the trend in the AP and Pre-AP course enrollments from 2005-2008?

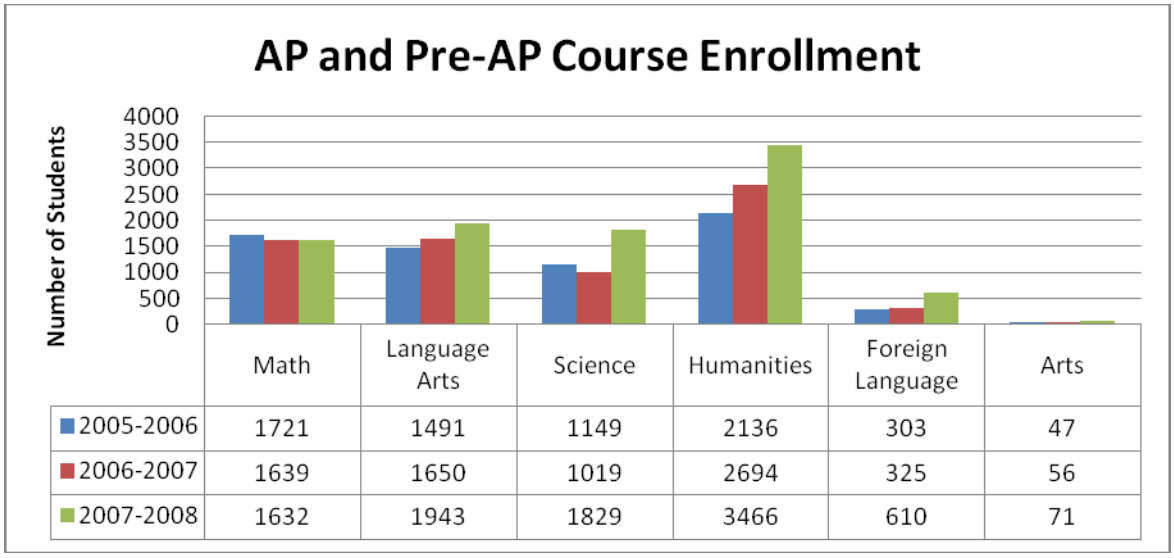
Summary: Course enrollments as well as the number of individual students taking courses increased for most courses from 2005-2008. Foreign language courses showed the highest increases in enrollments (50%) while Math courses showed a slight decline (5%).

Enrollment numbers in Table 6 and Figure 1 show increases across all content areas from 2005-2008. In 2006-2007, Science and Math courses showed declined enrollment (5%, 13%) while Arts and Humanities showed increased enrollments (16%, 21%). In 2007-2008, all courses showed increases. Foreign Language and Science showed the highest increases (47%, 44%).

Table 6. Enrollment Trends 2005-2008

AP and Pre-AP Enrollment						
	2005-2006	2006-2007	Annual Change (%)	2007-2008	Annual Change (%)	Overall Change (%)
Math	1721	1639	-5.0	1632	-0.4	-5.5
Language Arts	1491	1650	9.6	1943	15.1	23.3
Science	1149	1019	-12.8	1829	44.3	37.2
Humanities	2136	2694	20.7	3466	22.3	38.4
Foreign Language	303	325	6.8	610	46.7	50.3
Arts	47	56	16.1	71	21.1	33.8
Total	6847	7383	7.3	9551	22.7	28.3
Total Students	4207	4955	18	6510	24	54.7
***Note: Students enrolled in multiple classes**						

Figure 1. Enrollments 2005-2008

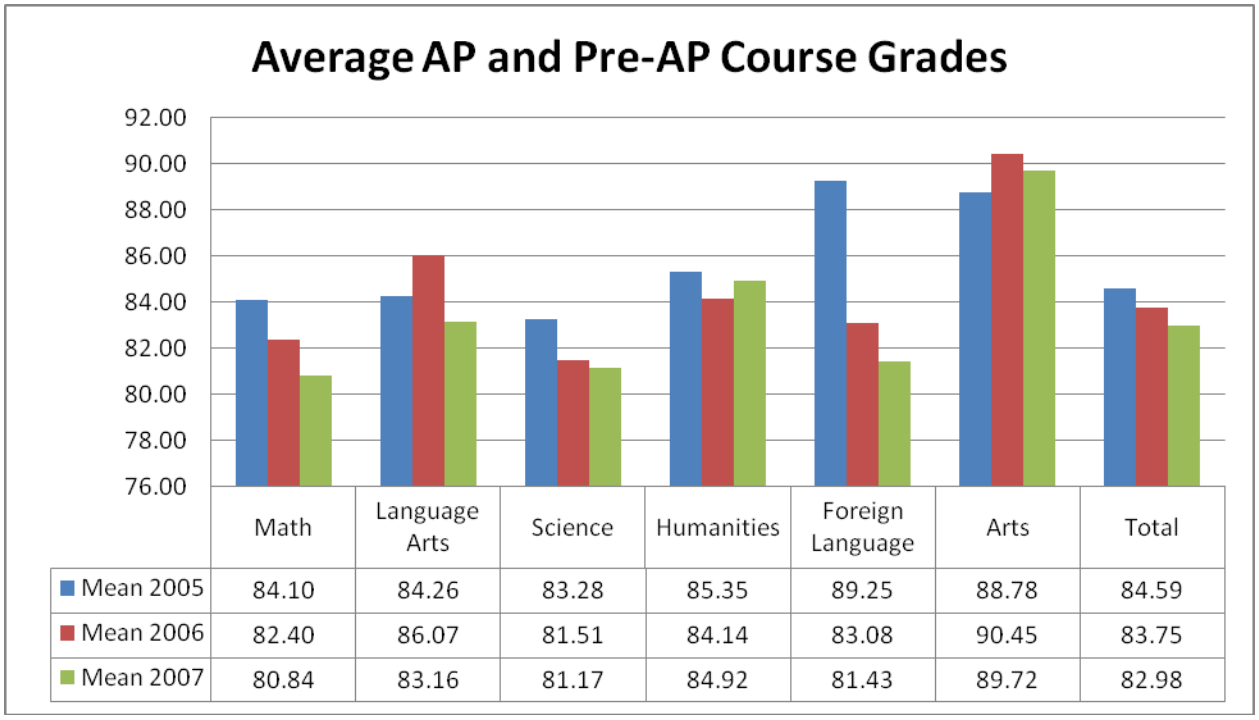


What was the trend in student grades for AP and Pre-AP courses?

Summary: Average course grades were generally steady across all years and courses. Course grades for Arts courses were higher than the average scores for all three years

Mean scores for course grades were similar across content area and years. Total average scores ranged from 85% (out of 100%) in 2005-2006 to 83% in 2007-2008. Course grades for Arts courses were higher than the average scores for all three years (Note: these differences were not tested for statistical significance because observations were not independent, making errors in scores correlated because individual students provided grades for each course they took).

Figure 2. Course Grades



	Math	Language Arts	Science	Humanities	Foreign Language	Arts	Total
Mean 2005	84.10	84.26	83.28	85.35	89.25	88.78	84.59
Mean 2006	82.40	86.07	81.51	84.14	83.08	90.45	83.75
Mean 2007	80.84	83.16	81.17	84.92	81.43	89.72	82.98

What was the trend in student populations taking AP and Pre-AP courses?

Summary: Enrollments increased about equally for females and males (38%, 35%) from 2005-2006 to 2007-2008 and across most race categories. Hispanic student enrollment (82%) increased more than African American (32%) or White (21%) student enrollment. Trends in enrollments in AP and Pre-AP courses by students qualifying for free or reduced lunch increased sharply (176%) from 2005-2006 to 2007-2008.

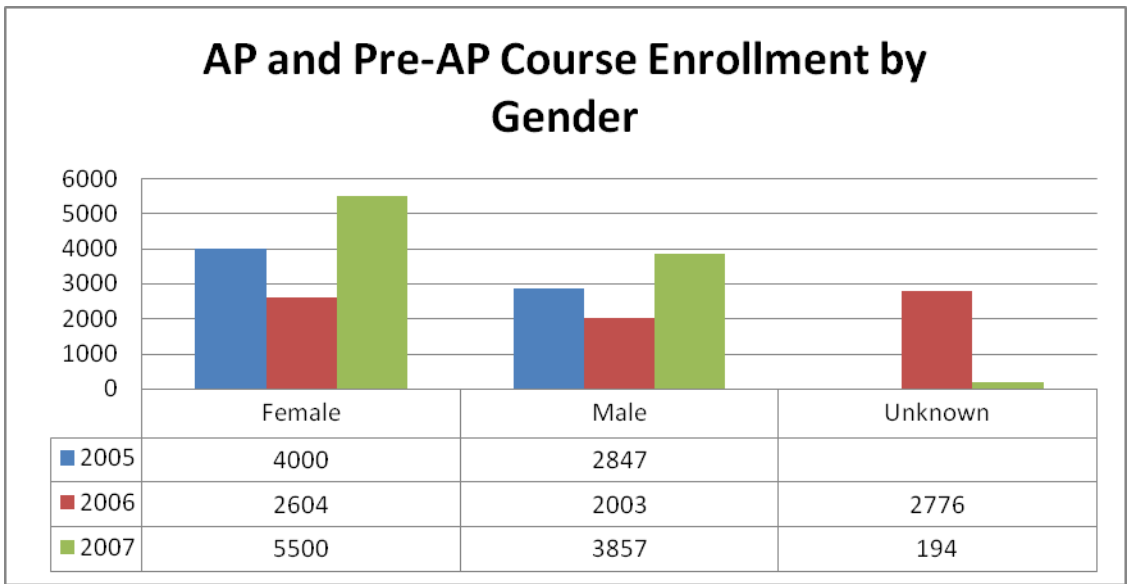
Enrollments increased about equally for females and males (38%, 35%) from 2005-2006 to 2007-2008 (see Table 7). Enrollments by females (see Appendix B, Table 22) increased the most in Foreign Language (78%) and declined in Math (13%). The highest enrollment for female students was in Humanities. Enrollments by male students increased the most in Foreign Language (75%) and Arts (100%). The highest enrollments for males were in Humanities.

NOTE: Full enrollment of CPS students in SIS was not available until 2007-2008. Trends based on demographics were focused on change from 2005 to 2008 although all available data are presented.

Table 7. Enrollments by Gender

Gender	2005	2006	2007	Change (%)
Female	4000	2604	5500	37.5
Male	2847	2003	3857	35.5
Unknown		2776	194	
Total	6847	7383	9551	39.5

Figure 3. Enrollments by Gender

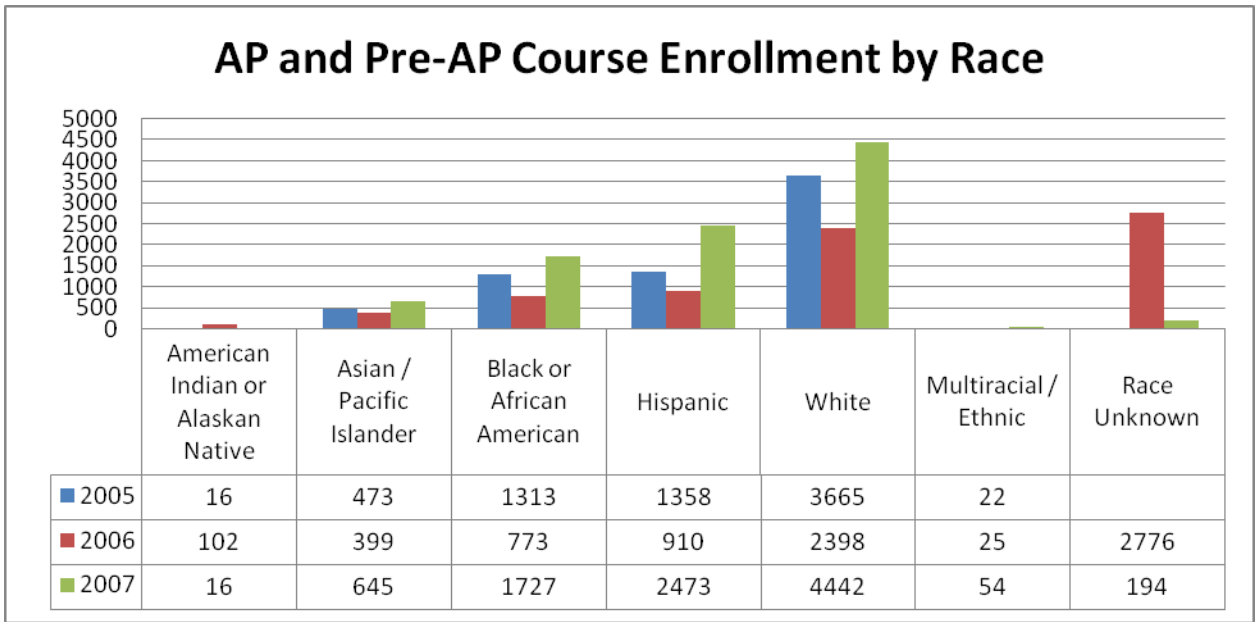


Overall, enrollments increased across most race categories from 2005-2006 to 2007-2008. Hispanic student enrollment (82%) increased more than African American (32%) or White (21%) student enrollment (see Table 8). The highest enrollments for all races in 2007-2008 were in Humanities courses (see Appendix B, Table 23). The biggest increases from 2005-2006 to 2007-2008 for African American and White students were in Foreign Language courses (1120%, 103%) and Science for Hispanic students (209%).

Table 8. Enrollments by Race

	2005	2006	2007	Change (%)
American Indian or Alaskan Native	16	102	16	0.0
Asian / Pacific Islander	473	399	645	36.4
Black or African American	1313	773	1727	31.5
Hispanic	1358	910	2473	82.1
White	3665	2398	4442	21.2
Multiracial / Ethnic	22	25	54	145.5
Race Unknown		2776	194	

Figure 4. Enrollments by Race

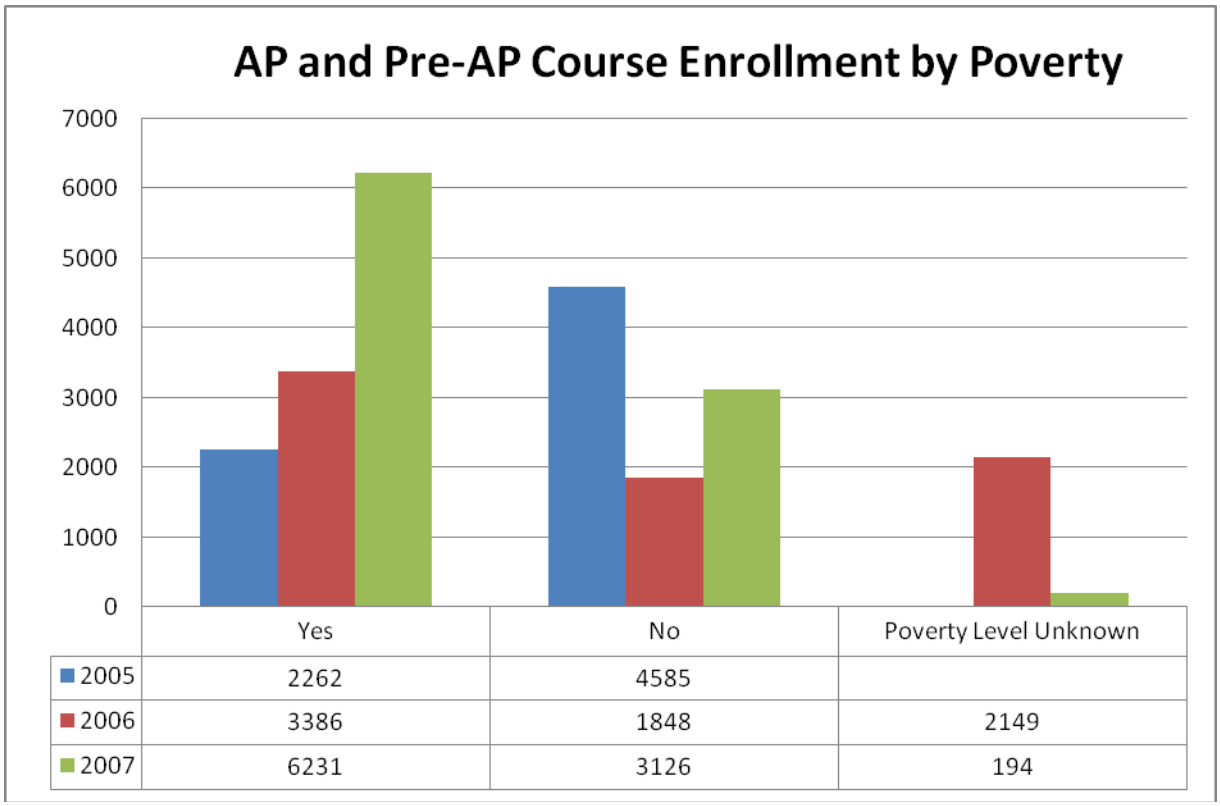


Trends in enrollments in AP and Pre-AP courses by students qualifying for free or reduced lunch increased sharply from 2005-2006 to 2007-2008 (see Table 9). Increases were especially noteworthy for Math (126%), Language Arts (124%), Science (362%), and Humanities (212%) where enrollment numbers were highest as well in 2007-2008 (see Table 24 in Appendix B).

Table 9. Enrollments by Poverty

	2005	2006	2007	Change (%)
Yes	2262	3386	6231	175.5
No	4585	1848	3126	-31.8
Poverty Level Unknown		2149	194	
Total	6847	7383	9551	39.5

Figure 5. Enrollments by Poverty



	Yes	No	Poverty Level Unknown
2005	2262	4585	
2006	3386	1848	2149
2007	6231	3126	194

What was the trend in AP test participation?

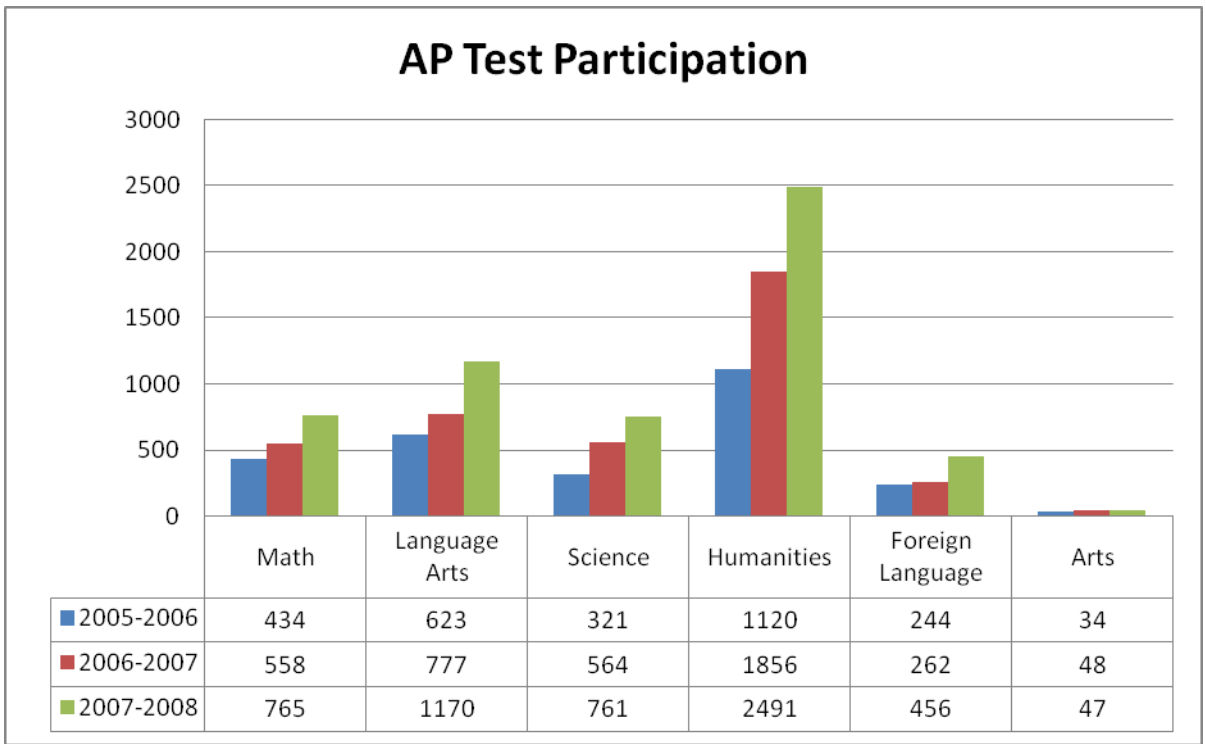
Summary: Test participation increased for all courses from 2005-2008 by 50%. The largest three year increases in test participation were in Science and Humanities courses.

Test participation numbers in Table 10 and Figure 6 show the increases across almost all content areas from 2005-2008. In 2006-2007, Science and Humanities tests showed the highest increased participation in testing (43%, 40%). In 2007-2008, all tests except Arts showed increased participation with the highest annual increases in Foreign Language (43%). Finally, the three year trend indicated the largest increases in test participation were in Science and Humanities courses (58%, 55%).

Table 10. Test Participation by Course

	2005-2006	2006-2007	Annual Change (%)	2007-2008	Annual Change (%)	Overall Change (%)
Math	434	558	22.2	765	27.1	43.3
Language Arts	623	777	19.8	1170	33.6	46.8
Science	321	564	43.1	761	25.9	57.8
Humanities	1120	1856	39.7	2491	25.5	55.0
Foreign Language	244	262	6.9	456	42.5	46.5
Arts	34	48	29.2	47	-2.1	27.7
Total	2776	4065	31.7	5690	28.6	51.2

Figure 6. Test Participation by Course



	Math	Language Arts	Science	Humanities	Foreign Language	Arts
2005-2006	434	623	321	1120	244	34
2006-2007	558	777	564	1856	262	48
2007-2008	765	1170	761	2491	456	47

What was the trend in AP test participation for different student populations?

Summary: Test participation increased about equally for females and males (52%, 48%) from 2005-2006 to 2007-2008 and increased across most race categories. Hispanic student enrollment (135%) increased more than African American (90%) or White (86%) student enrollment. Trends in test participation by students qualifying for free or reduced lunch increased moderately (60%) from 2005-2006 to 2007-2008.

Participation in AP testing increased about equally for females and males (52%, 48%) from 2005-2006 to 2007-2008 (see Table 11). Test participation by females (see Appendix B, Table 25) increased the most in Science (58%). The course with the highest number of female students taking tests was in Humanities (n=1424). Test participation by male students increased the most in Science (52%). The highest number of male students taking tests was in Humanities (n=1036).

NOTE: Full enrollment of CPS students in SIS was not available until 2007-2008. Trends based on demographics were focused on change from 2005 to 2008 although all available data are presented.

Table 11. Test Participation by Gender

Gender	2005-2006	2006-2007*	2007-2008	Annual Change (%)
Female	1584	1562	3263	51.5
Male	1192	1273	2291	48.0
Unknown		1230	136	
Total	2776	4065	5690	51.2
***ISBE SIS demographic data not available for many CPS students in 2006-2007**				

Overall, test participation increased across most race categories from 2005-2006 to 2007-2008 (see

Table 12). Test participation increased dramatically in Science and Humanities courses for Hispanic (367%, 160%), African American (294%, 126%), and White students (76%, 105%; see Appendix B, Table 23).

Table 12. Test Participation by Race

	2005-2006	2006-2007*	2007-2008	Change (%)
American Indian or Alaskan Native	9	3	9	0
Asian / Pacific Islander	295	95	525	78
Black or African American	395	363	752	90.4
Hispanic	812	169	1907	134.9
White	1257	1160	2334	85.7
Multiracial / Ethnic	8	13	27	237.5
Race Unknown	0	1101	136	
Total	2776	2904	5690	105
***ISBE SIS demographic data not available for many CPS students in 2006-2007**				

Trends in AP test participation courses by students qualifying for free or reduced lunch increased from 2005-2006 to 2007-2008 by 60% (see Table 13). Increases were especially noteworthy in Science (123%), and Humanities (88%) (see Table 24 in Appendix B).

Table 13. Test Participation by Poverty

	2005-2006	2006-2007*	2007-2008	Change (%)
No	1494	2275	3500	134.2704
Yes	1282	1131	2054	60.21841
Unknown		659	136	
Total	2776	4065	5690	104.9712
***ISBE SIS demographic data not available for many CPS students in 2006-2007**				

What was the trend in the access to direct student services?

Summary: Participation in direct student services declined from 2005-2006 to 2007-2008 in the average contact hours, although the percent of enrollments participating in the services increased from about 3% to 7%.

Grant recipients reported the levels of direct student services in terms of contact hours for each student (see Table 14). The services included before- and after-school tutorials, summer classes, and online reviews and courses outside of class time received by students taking advanced placement courses. The average contact hours per enrollment declined from 2005-2006 ($Median_{Hours}$=14) to 2007-2008 ($Median_{Hours}$=8) although the percent of enrollments participating in direct services increased from 3% to 7% from 2005-2006 to 2007-2008. There was a peak ratio of participation to enrollments and median service hours in 2006-2007 (28% of enrollments; $Median_{Hours}$=23).

Table 14. Direct Student Tutoring Services (in hours)

	N	Minimum	Maximum	Median	Mean	Std. Deviation	% of cases
2005	221	1	120	14.00	43.5	51.8	3.2
2006	2168	1	170	23.00	34.5	40.5	27.8
2007	716	1	280	8	26.6	32.6	7.4

What was the trend in "Highly Qualified Status" for teachers of Advanced Placement courses?

Summary: Overall, the proportion of courses taught by "Highly Qualified" teachers decreased since 2005-2006. In 2007-2008, the percentage of teachers described as highly qualified was about 88%.

Initially, 99% of AP and Pre-AP courses were taught by teachers designated as "Highly Qualified" by NCLB standards (see Table 15). The increase in course offerings in 2006-2007 coincided with a decrease in the proportion of teachers that projects reported as highly qualified (85%). In 2007-2008, that percentage increased to about 88%.

Table 15. NCLB Highly Qualified Status of AP Teachers

Year	Yes	No	% HQ
2005-2006	239	2	99.2
2006-2007	236	41	85.2
2007-2008	289	41	87.6
Grand Total	835	85	90.8

What are the predictors of success on AP exams in 2005 and 2007?

Summary: The overall test passing rates have been steady for three years (just over 40%), although trends at individual sites have varied. In 2005, poverty status, race, number of tests taken, and course grade were all significant predictors of passing AP tests. In 2007, poverty status, race, and course grade were significant predictors of passing AP tests. Results indicated the gap closed for students qualifying for free lunch. There was a decline in racial differences in passing AP tests although the gap was still notable. Finally, higher course grades slightly increased the odds of passing the tests.

The overall test passing rates have been steady for three years, although trends at individual sites have varied. For some sites, sharp increases in test participation have accompanied declines in test passing rates while some site results showed relatively stable results or moderate increases (see Table 16).

Table 16. Test Participation and Pass Rate by Sites

Test Participants	2005		2006		2007	
	N Participation	% Pass	N Participation	% Pass	N Participation	% Pass
Astoria		N/A		N/A		N/A
Aurora East District 131	78	76.9	140	50.7	207	49.8
Aurora West Unit School District 129	257	65.8	177	58.8	435	67.4
CPS - EXCEL Academy	58	0.0	125	0.8	124	8.9
CPS - Foreman	113	18.6	143	15.4	214	12.1
CPS - Infinity Math, Science, & Technology HS		N/A		N/A	36	55.6
CPS - Kelvyn Park HS	106	22.6	234	11.5	278	9.7
CPS - Lane Tech College Prep	800	47.1	1680	51.5	1543	58.8
CPS - Noble Network	96	10.4	68	5.9	108	7.4
CPS - North Grand		N/A	166	8.4	281	8.5
CPS - North Lawndale College Prep	105	11.4	111	0.9	155	3.9
CPS - Prosser Career Academy	177	1.7	208	4.8	210	3.8
CPS - Wendell Phillips	40	5.0	64	0.0	70	1.4
CPS - Youth Connections		N/A		N/A	17	5.9
Community HS District #218 (Oak Lawn)	161	54.0	147	53.7	127	44.9
Community Unit School District 300 (Carpentersville)	101	58.4	101	68.3	516	64.9
Crete-Monee SD 201U	70	28.6		N/A	56	48.2
Decatur Public Schools District 61	54	57.4	96	45.8	323	32.5
Galesburg Community Unit School	62	79.0	99	76.8	100	72.0

Test Participants	2005		2006		2007	
	N Participation	% Pass	N Participation	% Pass	N Participation	% Pass
District 205						
Kankakee School District 111	81	19.8	62	24.2	81	19.8
Peoria District 150	13	53.8	42	26.2	64	29.7
Sparta CUSD	10	90.0	9	77.8	26	26.9
Springfield School District 186	100	67.0	149	59.1	195	48.2
Sterling Community Unit District 5	84	46.4	88	63.6	142	43.0
U46 Elgin High School	196	66.3	177	65.0	264	58.0
Waukegan Public Schools District 60	46	43.5		N/A	154	35.1
Total	2808	43.2	4086	41.1	5726	42.5
Illinois Trends		69.8		68.2		66.4

Regression models predicting passing AP tests were generated using generalized estimating equations with unstructured correlation matrices to account for the repeated data within each student. Models were tested for 2005 and 2007 (see Appendix B, Table 28 to Table 31). (No model was tested for 2006 data due to missing SIS demographic data).

2005

In 2005, poverty status, race, number of tests taken, and course grade were all significant predictors of passing AP tests (see Table 17).

Table 17. Test of Model Effects for 2005

Tests of Model Effects			
Source	Type III		
	Wald Chi-Square	df	Sig.
(Intercept)	118.943	1	.000
Course Grade	112.798	1	.000
Core Course	61.401	5	.000
Number of Tests Taken	35.948	6	.000
Race (combined categories)	78.077	3	.000
Free Lunch Indicator	20.389	1	.000
Dependent Variable: Passing AP Test **Model: (Intercept), Course Grade, Core Course, Number of Tests Taken, Race (combined categories), Free Lunch Indicator**			

The impact of course content, number of tests taken, race, and poverty were investigated by examining the odds ratio of passing the AP tests (see Table 18). On average for all students in the database, students in foreign language courses were almost seven times more likely to past their tests than students in math courses. Students taking four or five tests were about twice as likely to pass their tests than students taking only one test. Students who did not qualify for Free Lunch were more than 1.5 times more likely to pass their tests than students who did qualify. To test for racial differences, African American students were compared to Asian/American Indian, Hispanic, and White students. Asian/American Indian students were five times more likely to pass, Hispanic students were more than three times more likely to pass, and White students were almost seven times more likely to pass than African American students. Finally, higher course grades slightly increased the odds of passing the tests.

Table 18. Parameter Estimates for AP Tests

Parameter	B	Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
		Wald Chi-Square	df	Sig.		Lower	Upper
(Intercept)	-7.796	210.745	1	.000	.000	.000	.001
Course Grade	.062	112.798	1	.000	1.064	1.052	1.077
[Core Course =F. Lang]	1.919	50.961	1	.000	6.816	4.024	11.544
[Core Course=Math]	0[a]	.	.	.	1	.	.
[Number of Tests =5]	.838	5.391	1	.020	2.311	1.139	4.685
[Number of Tests =4]	.625	5.208	1	.022	1.867	1.092	3.193
[Number of Tests=1]	0[a]	.	.	.	1	.	.
[Race = Asian, Am Indian]	1.588	40.944	1	.000	4.892	3.008	7.956

Parameter	B	Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
[Race = White]	1.882	71.995	1	.000	6.569	4.253	10.148
[Race = Hispanic]	1.167	27.328	1	.000	3.212	2.074	4.974
[Race = Black]	0[a]	.	.	.	1	.	.
[Free Lunch = No]	.514	20.389	1	.000	1.673	1.338	2.091
[Free Lunch = Yes]	0[a]	.	.	.	1	.	.
(Scale)	1						

Dependent Variable: Passing AP Test
Model: (Intercept), Course Grade, Core Course, Number of Tests Taken, Race (combined categories), Free Lunch Indicator
a. Set to zero because this parameter is redundant.

2007

In 2007, poverty status, race, and course grade were all significant predictors of passing AP tests (see Table 19).

Table 19. Tests of Model Effects 2007

Tests of Model Effects			
Source	Type III		
	Wald Chi-Square	df	Sig.
(Intercept)	312.868	1	.000
Race (combined categories)	162.559	3	.000
Core Course	151.090	5	.000
Free Lunch Indicator	11.601	1	.001
Course Grade	298.313	1	.000

Dependent Variable: Passing AP Test
Model: (Intercept), Course Grade, Core Course, Race (combined categories), Free Lunch Indicator

The impact of course content, number of tests taken, race, and poverty were investigated by examining the odds ratio of passing the AP tests (see Table 20). On average for all students in the database, students in foreign language courses were over four times more likely to past their tests than students in Math courses while students in Science and Humanities courses were half as likely to pass their tests than students in Math courses. Students who did not qualify for Free Lunch were slightly less likely to pass their tests than students who did qualify. To test for racial differences, African American students were compared to Asian/American Indian, Hispanic, and White students. Asian/American Indian students were almost five times more likely to pass, Hispanic students were about two and a half times more likely to pass, and White students were almost five and a half times more likely to pass than African American students. Finally, higher course grades slightly increased the odds of passing the tests.

Table 20. Parameter Estimates 2007

Parameter Estimates							
Parameter	B	Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
		Wald Chi-Square	df	Sig.		Lower	Upper
[Race = Asian, Am Indian]	1.603	85.153	1	.000	4.969	3.535	6.984
[Race = White]	1.713	130.872	1	.000	5.543	4.134	7.434
[Race = Hispanic]	.976	40.557	1	.000	2.653	1.965	3.582
[Race = Black]	0[a]	.	.	.	1	.	.
[Core Course =F. Lang]	1.336	56.788	1	.000	3.804	2.687	5.384
[Core Course =Hum]	-.399	17.765	1	.000	.671	.557	.808
[Core Course =Sci]	-.724	38.989	1	.000	.485	.386	.609
[Core Course=Math]	0[a]	.	.	.	1	.	.
[Free Lunch = Yes]	-.297	11.601	1	.001	.743	.626	.882
[Free Lunch = No]	0[a]	.	.	.	1	.	.
Course Grade	.079	298.313	1	.000	1.083	1.073	1.092
(Scale)	1						
Passing AP Test **Model: (Intercept), Course Grade, Core Course, Race (combined categories), Free Lunch Indicator**							
a. Set to zero because this parameter is redundant.							

Discussion and Conclusions

What were the trends in the AP and Pre-AP course enrollments, grades, and test participation from 2005-2008? What were the trends in student populations taking AP and Pre-AP courses and tests? What was the trend in the access to direct student services and "Highly Qualified Status" for teachers of Advanced Placement courses? What are the predictors of success on AP exams in 2005 and 2007?

SUMMARY: Course enrollments as well as the number of individual students taking courses increased for most courses from 2005-2008. Foreign language courses showed the highest increases while Math courses showed a slight decline. Average course grades were generally steady across all years and courses (about 83%). Course grades for Arts courses were higher than the average scores for all three years.

Test participation increased for all courses from 2005-2008. The largest three year increases in test participation were in Science and Humanities courses. Enrollments and test participation increased about equally for females and males and across most race categories. Hispanic student enrollment increased more than African American or White student enrollment. Trends in enrollments in AP and Pre-AP courses by students qualifying for free or reduced lunch increased sharply and moderately for test participation from 2005-2006 to 2007-2008.

Participation in direct student services declined from 2005-2006 to 2007-2008 in the average contact hours, although the percent of enrollments participating in the services increased from about 3% to 7%. Overall, the proportion of courses taught by "Highly Qualified" teachers decreased since 2005-2006. In 2007-2008, the percentage of teachers described as highly qualified was about 88%.

The overall test passing rates have been steady for three years (just over 40%), although trends at individual sites have varied. In 2005, poverty status, race, number of tests taken, and course grade were all significant predictors of passing AP tests. In 2007, poverty status, race, and course grade were significant predictors of passing AP tests. Results indicated the gap closed for students qualifying for free lunch. There was a decline in racial differences in passing AP tests although the remaining gap was still sizeable. Finally, higher course grades slightly increased the odds of passing the tests.

The purpose of the APC is to "ensure that each Illinois student has a sufficient education for success after high school and that all students have equal access to a substantive and rigorous curriculum that is designed to challenge their minds, enhance their knowledge and skills, and prepare them for success in college and work."

Literature supports this initiative to improve students' access to more rigorous courses, hence more access to the benefits of these courses. In interviews and observations with administrators, teachers, and students from 23 high schools, Hertberg-Davis & Callahan (2008) concluded that generally students believed "the challenge level, quality of the teachers, and learning environments within [AP and IB courses] were far superior to other courses they had taken in high school and believed that taking the courses would provide benefits in the future" (p.202). Stakes were higher for minority, rural, and/or low SES students who were motivated to participate in AP and IB courses to disprove racial stereotypes or saw "the opportunity to escape a lifestyle they did not wish for themselves" (p. 209). Indeed, AP coursework was considered helpful in one study of first generation college students by providing prior experience in introductory level courses in college (Reid & Moore, 2008) and higher intensity curriculum

were more apparent in increased likelihood of attending and graduating from four year colleges in NELS data (Attewell & Domina, 2008).

APC project activities were designed to increase the number of low-income and other disadvantaged students participating in or benefiting from pre-advanced placement and/or advanced placement courses and exams. Gender, language barriers, and ethnicity have all been considered important variables of interest in studies of gifted and rigorous high school course work (Clark, Lee, Goodman, & Yacco, 2008; Solorzano, 2008). Poverty factors (as measured by SES) were more important factors in the disparities of access to demanding coursework (like AP) than race and gender in analyses of NELS88 data 2000 follow up (Attewell & Domina, 2008). These effects were primarily within schools and the authors argued were the effects of rigid tracking policies.

Hertberg-Davis & Callahan (2008) noted a lack of fit for some students attributed to the perceived rigidity of the courses and lack of support to learn prerequisite background skills. Some students with minority backgrounds found difficulty fitting into the homogeneous classroom culture of the AP and IB programs.

CONCLUSIONS: Analyses indicated clear positive results for the goal of increasing access to AP and Pre-AP courses and exams for all targeted populations in the APC program. Test passing rates have not shown consistent change across the program and remain considerably lower than the state passing rates overall. While implementation of the AP and Pre-AP programming has made strong progress, they programs are not fully established and as such have not reached their full potential for producing results. Students have generally not participated in direct student services that are available.

Access to needed instructional and training resources have been a definite positive factor across the programs. While clear gains are evident, the rapid growth in students served in courses and participating in testing may be factors in reducing the effectiveness of these newly established programs. It is important for individual sites to review results to gauge local success and consider policy decisions related testing as well as orientation and support services provided to students who are new to the AP and Pre-AP programs. Alignment activities need to continue and Pre-AP and support services need to be used to bridge the gap in background prerequisite skills that the targeted populations may need.

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Appendix A

Course Categories

Mathematics

Algebra 1 (Beginning)
Algebra 2 (Intermediate)
Algebra 3 (Advanced)
Pre-Algebra
Calculus
Geometry
Trigonometry
Middle School Math
Pre-Calculus

Language Arts

English Language
English Literature
Middle School English

Science

Environmental Science
Computer Science
Chemistry
Biology
Physics
Middle School Science

Humanities

Psychology
Government & Politics
Economics
Geography
History (US, World, European)

Foreign Language

Latin
Italian
French
German
Spanish
Middle School Foreign Language

Arts

Art History
Music Theory
Middle School Music
Middle School Art

Appendix B

Table 21. Enrollments for All Courses

	Course	2005-2006	2006-2007	2007-2008
Math	Algebra 1 (Beginning)	381	169	258
	Algebra II (Intermediate)	160	130	
	Algebra III (Advanced)	26	45	77
	Calculus AB	369	496	115
	Calculus BC	97	128	
	Geometry	263	174	235
	Middle School / General Math		26	
	Pre-Algebra	30	49	533
	Pre-Calculus	79	74	86
	Statistics	222	274	236
	Trigonometry	94	74	
	Total	1721	1639	1540
Language Arts	English Language	790	849	969
	English Literature	701	718	824
	Middle School English		83	
	Total	1491	1650	1793
Science	Biology	563	478	905
	Chemistry	378	302	457
	Computer Science A	47	80	51
	Environmental Science	43	50	95
	Physics B	73	76	198
	Physics C	45	33	27
	Total	1149	1019	1733
Humanities	Comp Government & Politics	70	37	90
	European History	338	392	396
	Human Geography	70	76	200
	Macroeconomics	125	273	198
	Microeconomics	17	107	82
	Psychology	101	305	541
	U.S. Government & Politics	92	213	469
	U.S. History	907	1048	1020
	World History	416	243	260

	Course	2005-2006	2006-2007	2007-2008
	Total	2136	2694	3256
Foreign Language	French Language	22	34	81
	German Language	1		
	Italian Language and Culture	1		
	Latin Literature			13
	Middle School Foreign Language		14	
	Spanish Language	240	216	267
	Spanish Literature	39	61	90
	Total	303	325	451
Arts	Art History	26	27	31
	Middle School Art		1	
	Music Theory	21	28	36
	Total	47	56	67

Table 22. Enrollments by Course and Gender

Core Course	Gender	2005	2006*	2007	Change (%)
Math	Female	952	553	820	-13.9
	Male	769	407	796	3.5
	Unknown		679	16	
	Total	1721	1639	1632	-5.2
Language Arts	Female	919	562	1241	35.0
	Male	572	413	672	17.5
	Unknown		675	30	
	Total	1491	1650	1943	30.3
Science	Female	635	335	1041	63.9
	Male	514	264	767	49.2
	Unknown		420	21	
	Total	1149	1019	1829	59.2
Humanities	Female	1254	1007	1989	58.6
	Male	882	804	1426	61.7
	Unknown		883	51	
	Total	2136	2694	3466	62.3
Foreign Language	Female	208	123	370	77.9
	Male	95	96	166	74.7
	Unknown		106	74	
	Total	303	325	610	101.3
Arts	Female	32	24	39	21.9
	Male	15	19	30	100.0
	Unknown		13	2	
	Total	47	56	71	51.1
***ISBE SIS demographic data not available for many CPS students in 2006-2007**					

Table 23. Enrollments by Course and Race

Core Course	Race	2005	2006	2007	Change (%)
Math	American Indian or Alaskan Native	2	16	1	-50
	Asian / Pacific Islander	115	83	115	0
	Black or African American	371	161	338	-9
	Hispanic	253	166	416	64
	White	977	525	739	-24
	Multiracial / Ethnic	3	9	7	133
	Race Unknown		679	16	
	Total	1721	1639	1632	-5
Language Arts	American Indian or Alaskan Native	3	19	3	0
	Asian / Pacific Islander	72	88	109	51
	Black or African American	379	156	468	23
	Hispanic	287	202	419	46
	White	743	504	905	22
	Multiracial / Ethnic	7	6	9	29
	Race Unknown		675	30	
	Total	1491	1650	1943	30
Science	American Indian or Alaskan Native	3	12	6	100
	Asian / Pacific Islander	96	56	144	50
	Black or African American	213	102	355	67
	Hispanic	123	128	380	209
	White	713	299	917	29
	Multiracial / Ethnic	1	2	6	500
	Race Unknown		420	21	
	Total	1149	1019	1829	59
Humanities	American Indian or Alaskan Native	8	53	6	-25
	Asian / Pacific Islander	181	156	266	47
	Black or African American	337	302	496	47
	Hispanic	418	361	845	102
	White	1183	932	1770	50
	Multiracial / Ethnic	9	7	32	256
	Race Unknown		883	51	
	Total	2136	2694	3466	62
Foreign Language	American Indian or Alaskan Native		2		
	Asian / Pacific Islander	2	12	3	50
	Black or African American	5	42	61	1120
	Hispanic	259	45	401	55
	White	35	117	71	103
	Multiracial / Ethnic	2	1		-100

Core Course	Race	2005	2006	2007	Change (%)
	Race Unknown		106	74	
	Total	303	325	610	101
Arts	Asian / Pacific Islander	7	4	8	14
	Black or African American	8	10	9	13
	Hispanic	18	8	12	-33
	White	14	21	40	186
	Race Unknown		13	2	
	Total	47	56	71	51

Table 24. Enrollments by Course and Poverty

Core Course	Free Lunch Indicator	2005	2006	2007	Change (%)
Math	Yes	479	623	1083	126.1
	No	1242	405	533	-57.1
	Unknown		611	16	
	Total	1721	1639	1632	
Language Arts	Yes	573	809	1286	124.4
	No	918	370	627	-31.7
	Unknown		471	30	
	Total	1491	1650	1943	
Science	Yes	275	438	1271	362.2
	No	874	247	537	-38.6
	Unknown		334	21	
	Total	1149	1019	1829	59.2
Humanities	Yes	740	1333	2312	212.4
	No	1396	720	1103	-21.0
	Unknown		641	51	
	Total	2136	2694	3466	62.3
Foreign Language	Yes	175	149	236	34.9
	No	128	86	300	134.4
	Unknown		90	74	
	Total	303	325	610	101.3
Arts	Yes	20	34	43	115.0
	No	27	20	26	-3.7
	Unknown		2	2	
	Total	47	56	71	51.1

Table 25. Test Participation by Course and Gender

	Gender	2005	2006	2007	Annual Change (%)
Math	Female	207	218	375	44.8
	Male	227	164	378	39.9
	Unknown		176	12	
	Total	434	558	765	43.3
Language Arts	Female	395	275	775	49.0
	Male	228	230	384	40.6
	Unknown		272	11	
	Total	623	777	1170	46.8
Science	Female	163	205	390	58.2
	Male	158	168	356	55.6
	Unknown		191	15	
	Total	321	564	761	57.8
Humanities	Female	624	737	1424	56.2
	Male	496	619	1036	52.1
	Unknown		500	31	
	Total	1120	1856	2491	55.0
Foreign Language	Female	172	104	271	36.5
	Male	72	77	120	40.0
	Unknown		81	65	
	Total	244	262	456	46.5
Arts	Female	23	23	28	17.9
	Male	11	15	17	35.3
	Unknown		10	2	
	Total	34	48	47	27.7

Table 26. Test Participation by Course and Race

	Race	2005	2006	2007	Change (%)
Math	American Indian or Alaskan Native	2	8	1	-50.0
	Asian / Pacific Islander	60	27	92	53.3
	Black or African American	23	61	67	191.3
	Hispanic	99	74	264	166.7
	White	250	209	325	30.0
	Multiracial / Ethnic		3	4	
	Race Unknown		176	12	
	Total	434	558	765	76.3
Language Arts	American Indian or Alaskan Native	2	8	2	0.0
	Asian / Pacific Islander	42	45	85	102.4
	Black or African American	193	88	257	33.2
	Hispanic	158	99	342	116.5
	White	223	263	467	109.4
	Multiracial / Ethnic	5	2	6	20.0
	Race Unknown		272	11	
	Total	623	777	1170	87.8
Science	American Indian or Alaskan Native	2	9	2	0.0
	Asian / Pacific Islander	61	31	107	75.4
	Black or African American	17	71	67	294.1
	Hispanic	49	76	229	367.3
	White	192	184	338	76.0
	Multiracial / Ethnic		2	3	
	Race Unknown		191	15	
	Total	321	564	761	137.1
Humanities	American Indian or Alaskan Native	3	36	4	33.3
	Asian / Pacific Islander	126	107	234	85.7
	Black or African American	152	216	344	126.3
	Hispanic	277	289	719	159.6
	White	559	703	1145	104.8
	Multiracial / Ethnic	3	5	14	366.7
	Race Unknown		500	31	
	Total	1120	1856	2491	122.4
Foreign Language	American Indian or Alaskan Native		2		
	Asian / Pacific Islander	2	10		-100.0
	Black or African American	3	32	14	366.7
	Hispanic	212	39	344	62.3
	White	27	97	33	22.2

	Race	2005	2006	2007	Change (%)
	Multiracial / Ethnic		1		
	Race Unknown		81	65	
	Total	244	262	456	86.9
Arts	Asian / Pacific Islander	4	4	7	75.0
	Black or African American	7	9	3	-57.1
	Hispanic	17	7	9	-47.1
	White	6	18	26	333.3
	Race Unknown		10	2	
	Total	34	48	47	38.2

Table 27. Test Participation by Course and Poverty

	Poverty Indicator	2005	2006	2007	Change (%)
Math	No	255	276	504	97.64706
	Yes	179	167	249	39.10615
	Unknown		115	12	
	Total	434	558	765	76.26728
Language Arts	No	248	501	733	195.5645
	Yes	375	179	426	13.6
	Unknown		97	11	
	Total	623	777	1170	87.80096
Science	No	215	291	510	137.2093
	Yes	106	160	236	122.6415
	Unknown		113	15	
	Total	321	564	761	137.0717
Humanities	No	651	1052	1578	142.3963
	Yes	469	535	882	88.0597
	Unknown		269	31	
	Total	1120	1856	2491	122.4107
Foreign Language	No	109	125	148	35.77982
	Yes	135	72	243	80
	Unknown		65	65	
	Total	244	262	456	86.88525
Arts	No	16	30	27	68.75
	Yes	18	18	18	0
	Unknown			2	
	Total	34	48	47	38.23529

2005 Prediction Model for Passing Advanced Placement Tests

Table 28. Tests of Model Effects 2005

Tests of Model Effects			
Source	Type III		
	Wald Chi-Square	df	Sig.
(Intercept)	118.943	1	.000
Course Grade	112.798	1	.000
Core Course	61.401	5	.000
Number of Tests Taken	35.948	6	.000
Race (combined categories)	78.077	3	.000
Free Lunch Indicator	20.389	1	.000
Dependent Variable: Passing AP Test **Model: (Intercept), Course Grade, Core Course, Number of Tests Taken, Race (combined categories), Free Lunch Indicator**			

Table 29. Parameter Estimates 2005 Model

Parameter Estimates										
Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
			Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
(Intercept)	-7.796	.5370	-8.849	-6.744	210.745	1	.000	.000	.000	.001
Course Grade	.062	.0059	.051	.074	112.798	1	.000	1.064	1.052	1.077
[Core Course =Arts]	-.067	.3811	-.814	.680	.031	1	.860	.935	.443	1.974
[Core Course =F. Lang]	1.919	.2688	1.392	2.446	50.961	1	.000	6.816	4.024	11.544
[Core Course =Hum]	.046	.1220	-.193	.285	.140	1	.708	1.047	.824	1.329
[Core Course =Sci]	.030	.1519	-.268	.327	.038	1	.845	1.030	.765	1.387
[Core Course =LA]	-.028	.1439	-.310	.254	.039	1	.844	.972	.733	1.289
[Core Course=Math]	0[a]	.	.	.	.	.	.	1	.	.
[Number of Tests =7]	-.507	.2519	-1.000	-.013	4.043	1	.044	.603	.368	.987
[Number of Tests =6]	-.021	.7091	-1.411	1.369	.001	1	.977	.979	.244	3.931
[Number of Tests =5]	.838	.3607	.131	1.544	5.391	1	.020	2.311	1.139	4.685
[Number of Tests =4]	.625	.2737	.088	1.161	5.208	1	.022	1.867	1.092	3.193
[Number of Tests =3]	.274	.1563	-.032	.581	3.080	1	.079	1.316	.968	1.787
[Number of Tests =2]	.041	.0995	-.154	.236	.168	1	.681	1.042	.857	1.266
[Number of Tests=1]	0[a]	.	.	.	.	.	.	1	.	.
[Race = Asian, Am Indian]	1.588	.2481	1.101	2.074	40.944	1	.000	4.892	3.008	7.956
[Race = White]	1.882	.2219	1.448	2.317	71.995	1	.000	6.569	4.253	10.148
[Race = Hispanic]	1.167	.2232	.729	1.604	27.328	1	.000	3.212	2.074	4.974
[Race = Black]	0[a]	.	.	.	.	.	.	1	.	.
[Free Lunch = No]	.514	.1139	.291	.738	20.389	1	.000	1.673	1.338	2.091
[Free Lunch = Yes]	0[a]	.	.	.	.	.	.	1	.	.
(Scale)	1									

Dependent Variable: Passing AP Test
Model: (Intercept), Course Grade, Core Course, Number of Tests Taken, Race (combined categories), Free Lunch Indicator

a. Set to zero because this parameter is redundant.

2007 Prediction Model for Passing Advanced Placement Tests

Table 30. Tests of Model Effects 2007

Tests of Model Effects			
Source	Type III		
	Wald Chi-Square	df	Sig.
(Intercept)	312.868	1	.000
Race (combined categories)	162.559	3	.000
Core Course	151.090	5	.000
Free Lunch Indicator	11.601	1	.001
Course Grade	298.313	1	.000

Dependent Variable: Passing AP Test
Model: (Intercept), Course Grade, Core Course, Race (combined categories), Free Lunch Indicator

Table 31. Parameter Estimates 2007

Parameter Estimates										
Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
			Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
(Intercept)	-8.152	.4224	-8.980	-7.324	372.426	1	.000	.000	.000	.001
[Race = Asian, Am Indian]	1.603	.1737	1.263	1.944	85.153	1	.000	4.969	3.535	6.984
[Race = White]	1.713	.1497	1.419	2.006	130.872	1	.000	5.543	4.134	7.434
[Race = Hispanic]	.976	.1532	.675	1.276	40.557	1	.000	2.653	1.965	3.582
[Race = Black]	0[a]	.	.	.	.	.	.	1	.	.
[Core Course =Arts]	-.349	.3495	-1.034	.336	.995	1	.319	.706	.356	1.400
[Core Course =F. Lang]	1.336	.1773	.989	1.684	56.788	1	.000	3.804	2.687	5.384
[Core Course =Hum]	-.399	.0948	-.585	-.214	17.765	1	.000	.671	.557	.808
[Core Course =Sci]	-.724	.1159	-.951	-.497	38.989	1	.000	.485	.386	.609
[Core Course =LA]	-.137	.1090	-.350	.077	1.572	1	.210	.872	.705	1.080
[Core Course=Math]	0[a]	.	.	.	.	.	.	1	.	.
[Free Lunch = Yes]	-.297	.0872	-.468	-.126	11.601	1	.001	.743	.626	.882
[Free Lunch = No]	0[a]	.	.	.	.	.	.	1	.	.
Course Grade	.079	.0046	.070	.088	298.313	1	.000	1.083	1.073	1.092
(Scale)	1									

Passing AP Test
Model: (Intercept), Course Grade, Core Course, Race (combined categories), Free Lunch Indicator
a. Set to zero because this parameter is redundant.

Appendix C
Survey Frequency Tables

Table 32. Overall Progress toward Goals

Progress toward implementation	No progress (%)	Good progress; significant work toward implementation (%)	Nearly or fully complete (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
New AP courses	4.8	28.6	66.7	21	3	2	5	26
New Pre-AP courses	28.6	42.9	28.6	14	10	2	12	26
Revised AP course content	7.7	38.5	53.8	13	11	2	13	26
Revised Pre-AP course content	23.1	38.5	38.5	13	11	2	13	26
Revised AP instructional strategies	14.3	57.1	28.6	14	10	2	12	26
Revised Pre-AP instructional strategies	20.0	53.3	26.7	15	9	2	11	26
Revised AP instructional materials	13.3	20.0	66.7	15	9	2	11	26
Revised Pre-AP instructional materials	15.4	46.2	38.5	13	11	2	13	26
Vertical alignment of AP courses	13.0	47.8	39.1	23	1	2	3	26
Vertical alignment of Pre-AP courses	16.7	55.6	27.8	18	6	2	8	26
Horizontal alignment of AP courses	18.8	43.8	37.5	16	8	2	10	26
Horizontal alignment of Pre-AP courses	21.4	50.0	28.6	14	10	2	12	26
Marketing AP courses to underrepresented stud population	15.0	30.0	55.0	20	4	2	6	26
Marketing Pre-AP courses to underrepresented stud population	12.5	50.0	37.5	16	8	2	10	26
Infrastructure goals for AP new policies	9.1	36.4	54.5	11	12	3	15	26

Progress toward implementation	No progress (%)	Good progress; significant work toward implementation (%)	Nearly or fully complete (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Infrastructure goals for Pre-AP new policies	25.0	62.5	12.5	8	15	3	18	26
Infrastructure goals for AP new personnel	11.8	35.3	52.9	17	6	3	9	26
Infrastructure goals for Pre-AP new personnel	30.8	38.5	30.8	13	10	3	13	26
Infrastructure goals for AP new partnerships	33.3	55.6	11.1	9	14	3	17	26
Infrastructure goals for Pre-AP new partnerships	50.0	33.3	16.7	6	17	3	20	26
Infrastructure goals for AP new partnerships	30.0	20.0	50.0	10	13	3	16	26
Infrastructure goals for Pre-AP new partnerships	25.0	12.5	62.5	8	15	3	18	26
Student support goals for AP books and materials for coursework	4.5	22.7	72.7	22	2	2	4	26
Student support goals for Pre-AP books and materials for coursework	31.3	18.8	50.0	16	8	2	10	26
Student support goals for AP books and materials for test-taking	20.0	5.0	75.0	20	4	2	6	26
Student support goals for Pre-AP books and materials for test-taking	33.3	25.0	41.7	12	12	2	14	26
Student support goals for AP online courses	11.1	33.3	55.6	9	15	2	17	26
Student support goals for Pre-AP online courses	20.0	20.0	60.0	5	19	2	21	26

Progress toward implementation	No progress (%)	Good progress; significant work toward implementation (%)	Nearly or fully complete (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Student support goals for AP tech software, licenses, consultants	11.1	22.2	66.7	9	15	2	17	26
Student support goals for Pre-AP tech software, licenses, consultants	14.3	28.6	57.1	7	17	2	19	26
Student support goals for AP tech hardware	50.0	10.0	40.0	10	14	2	16	26
Student support goals for Pre-AP tech hardware	40.0	30.0	30.0	10	14	2	16	26
Student support goals for AP tutoring for academic enrichment	9.1	40.9	50.0	22	2	2	4	26
Student support goals for Pre-AP tutoring for academic enrichment	14.3	50.0	35.7	14	10	2	12	26
Student support goals for AP tutoring for test-taking skills	10.5		89.5	19	5	2	7	26
Student support goals for Pre-AP tutoring for test-taking skills	45.5	18.2	36.4	11	13	2	15	26
Student support goals for AP exam fee subsidy	11.8		88.2	17	6	3	9	26
Student support goals for Pre-AP exam fee subsidy -- Not applicable	50.0		50.0	4	19	3	22	26
AP AVID	44.4		55.6	9	15	2	17	26
Pre-AP AVID	66.7	20.8	12.5	24			2	26

Table 33. Teachers' Perspectives of Progress toward Goals

Teachers' perspective of progress toward implementation of goals	Low or Very Weak (%)	Good (%)	Strong or Excellent (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Curriculum goals for teacher participation in PD for AP		59.1	40.9	22	1	3	4	26
Curriculum goals for teacher participation in PD for Pre-AP	10.5	57.9	31.6	19	4	3	7	26
Curriculum goals for teacher sense of preparedness for AP	9.1	27.3	63.6	22	1	3	4	26
Curriculum goals for teacher sense of preparedness for Pre-AP	11.1	50.0	38.9	18	5	3	8	26
Curriculum goals for quality of AP Curriculum implementation		27.3	72.7	22	1	3	4	26
Curriculum goals for quality of Pre-AP Curriculum implementation		81.3	18.8	16	7	3	10	26
Infrastructure goals for access to required AP teacher resources		19.0	81.0	21	2	3	5	26
Infrastructure goals for access to required Pre-AP teacher resources	15.4	30.8	53.8	13	10	3	13	26
Infrastructure goals for access to required AP Student resources		38.9	61.1	18	4	4	8	26
Infrastructure goals for access to required Pre-AP Student resources		54.5	45.5	11	11	4	15	26
Student goals for classroom activities to prepare for AP exam taking	4.5	22.7	72.7	22	1	3	4	26
Student goals for classroom activities to prepare Pre-AP students for exam taking.	7.7	69.2	23.1	13	10	3	13	26

Table 34. Administrators' Perspectives of Progress toward Goals

	Low or Very Weak (%)	Good (%)	Strong or Excellent (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Effectiveness of AP program for reaching curriculum goals		36.4	63.6	22	1	3	4	26
Effectiveness of Pre-AP program for reaching curriculum goals	5.3	52.6	42.1	19	4	3	7	26
Level of implementation of key AP program elements for reaching curriculum goals	4.8	28.6	66.7	21			5	26
Level of implementation of key Pre-AP program elements for reaching curriculum goals	11.8	52.9	35.3	17			9	26
Teachers participation level in required AP PD for reaching curriculum goals		52.4	47.6	21			5	26
Teachers participation level in required AP PD for reaching curriculum goals	5.3	52.6	42.1	19			7	26
Access to required AP resources for reaching infrastructure goals		15.8	84.2	19			7	26
Access to required Pre-AP resources for reaching infrastructure goals		21.4	78.6	14			12	26
Use of required AP resources for reaching infrastructure goals		33.3	66.7	18			8	26
Use of required Pre-AP resources for reaching infrastructure goals		46.2	53.8	13			13	26

Table 35. Students' Perspectives of Progress toward Goals

	Low or Very Weak (%)	Good (%)	Strong or Excellent (%)	Total (N)	Not Applicable (N)	Blank (N)	Total Missing (N)	Grand Total (N)
Quality of AP curriculum implementation		14.3	85.7	21	1	4	5	26
Quality of Pre-AP curriculum implementation	7.1	35.7	57.1	14	7	5	12	26
AP course rigor		14.3	85.7	21	1	4	5	26
Pre-AP course rigor		42.9	57.1	14	7	5	12	26
Relevance and usefulness of AP activities		9.5	90.5	21	1	4	5	26
Relevance and usefulness of Pre-AP activities		35.7	64.3	14	7	5	12	26
Access to required AP resources		25.0	75.0	20	2	4	6	26
Access to required Pre-AP resources		46.2	53.8	13	8	5	13	26
Level of preparedness for/interest in AP exam	9.5	38.1	52.4	21	1	4	5	26
Level of preparedness for/interest in AP exam by Pre-AP students	33.3	41.7	25.0	12	9	5	14	26

N Test Participants	2005	2006	2007
Astoria			
Aurora East District 131	78	140	207
Aurora West Unit School District 129	257	177	435
CPS - EXCEL Academy	58	125	124
CPS - Foreman	113	143	214
CPS - Infinity Math, Science, & Technology HS			36
CPS - Kelvyn Park HS	106	234	278
CPS - Lane Tech College Prep	800	1680	1543
CPS - Noble Network	96	68	108
CPS - North Grand		166	281
CPS - North Lawndale College Prep	105	111	155
CPS - Prosser Career Academy	177	208	210
CPS - Wendell Phillips	40	64	70
CPS - Youth Connections			17
Community HS District #218 (Oak Lawn)	161	147	127
Community Unit School District 300 (Carpentersville)	101	101	516
Crete-Monee SD 201U	70		56
Decatur Public Schools District 61	54	96	323
Galesburg Community Unit School District 205	62	99	100
Kankakee School District 111	81	62	81
Peoria District 150	13	42	64
Sparta CUSD	10	9	26
Springfield School District 186	100	149	195
Sterling Community Unit District 5	84	88	142
U46 Elgin High School	196	177	264
Waukegan Public Schools District 60	46		154
Total	2808	4086	5726