



**ALBUQUERQUE
PUBLIC SCHOOLS**

District

AP Enrollment Report: Five-Year Trend (2004-08)

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Executive Summary

APS has kept detailed records of AP enrollment for at least the last five years. This allows APS as a district to get a perspective on how far AP enrollment has come and where it is headed. For the past few years the district has offered a core of 23 courses from the 37 the College Board offers. The College Board will drop three of the less used language courses in 2009-10, which will bring the total number of AP course to 34.

A primary goal of the district is to increase the diversity in AP courses by having the ethnic and gender representation in the AP courses more closely approach the ethnic and gender representation of the high school enrollment. Much of this report deals with those comparisons.

Shorter individual school reports will also soon be available on the RDA website (www.rda.aps.edu).

- AP enrollment showed large growth in APS between 2004 and 2007, but the growth has flattened in 2008 and looks like there will not be much growth in 2009 (Figure 1).
- Enrollment for all ethnicities has increased over the past five years (Figure 2).
- Based on district demographics, the enrollment of Whites and Hispanics far exceeds the enrollment of Asians, Native American, and Blacks in AP courses (Figure 3).
- The growth of Hispanics has generally paralleled that of Whites except for 2007-2008 when the percentage of Hispanics increased 10% while the percentage of Whites decreased 10% (Figure 3).
- Native American enrollment increased 40% from 2007 to 2008 although the enrollment still remains low at 167 (Figure 3).
- Whereas the percentage of Whites in 2003-04 was 62% of the AP enrollment, it is now 52% (Table 2). The Hispanic percent of the enrollment has increased from 29% to 37% over that time. Black, Native American, and Asian have remained about the same percentage over that same period of time with 3%, 3%, and 5%, respectively (Table 2).
- Whites and Asians are overrepresented, while Hispanics, Native Americans, and Blacks are underrepresented with respect to their percent of the district population (Figure 4).
- Females represent a little less than half of the high school population, yet 57% ($n = 2973$) of AP enrollees (Figure 5).

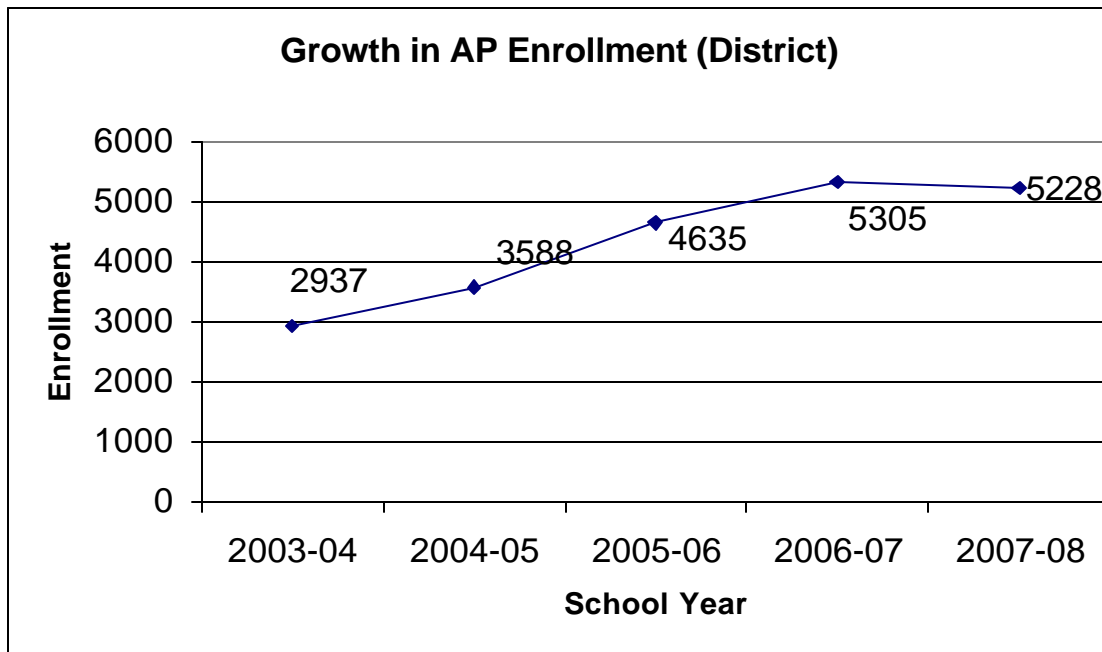
- English Literature, English Language, U.S. History and World History, and Calculus I represent 68% of AP enrollment in 2007-08 (Table 3).
- European History and Art History were added in 2008 to the APS menu of courses although there was only one section of the former and one student taking the later (Table 3).
- 30.7% of the 5228 AP course enrollments were by students who enrolled in more than one AP course (Table 4).
- There were about the same percentage of test takers (58%) in both 2007 and 2008 (Table 5).
- There were almost 2% fewer qualifying exam scores (3, 4, or 5) in 2008 (52%) than in 2007 (Table 6).

Introduction

This AP report examines trends for the total enrollment, as well as ethnic and gender participation in AP courses for the past five years (2004-2008). Also included is an index of ethnic representation, percent of students taking exams, and percent of qualifying scores.

District

Figure 1



The growth in AP enrollment from 2004-2008 leveled off last year and looks like it will remain the same for the 2008-09 year. The fall 2008 enrollment is 4977, which means the estimate for total enrollment once the 120-day enrollment is included will be about what it has been the past two years.

During 2004-08, courses like US History, World History, and English Language and Composition were courses that most school offered and since these courses fulfilled required credit, they accelerated the growth of AP enrollment. From the menu of 37 courses the College Board offers (Table 1), there is probably no course left that will offer the growth in enrollment that those courses did.

For the 2007-08 year, the number of the eleven high schools offering each course is listed in Table 1.

Art History, which was offered at one school, only had one student enrolled. One course in Statistics, Biology, Spanish Literature, and Spanish Language only had one student enrolled. They were probably taught as independent study courses at these schools. Calculus II only had two students enrolled in two of the schools.

CEC was included as one of the schools offering Physics C and Early College Academy was included as one of the schools offering English Language & Composition.

The growth in AP in the district is not going to come from offering new AP courses but encouraging more schools to offer the AP science courses, Economics, Psychology, US Government, and Statistics. Even Studio Art courses would probably draw a larger enrollment if there were allocations to teach it as a separate class instead of depending upon willing teachers trying to work with a couple of AP students in their classroom while delivering curriculum to a class of 30 beginning art students.

Short History of AP Courses in APS

Table 1

				# of Schools Offering Course
AP Course	2004-05	2005-06	2006-07	2007-08
Science				
Biology	√	√	√	5
Chemistry	√	√	√	4
Environmental Science	√	√	√	2
Physics B	√	√	√	6
Physics C: Mechanics	√	√	√	4
Physics C: Electromagnetism	√	√	√	4
English				
English Language & Composition	√	√	√	9
English Literature & Composition	√	√	√	11
History & Social Studies				
U. S. History	√	√	√	11
World History	√	√	√	11
European History				1*
Economics				
• Macro	√	√	√	2
• Micro				

Psychology	√	√	√	4
Human Geography	√		√	
U. S. Govt. & Politics	√	√	√	6
Comparative Govt. & Politics				
Mathematics				
Calculus AB	√	√	√	11
Calculus BC	√	√	√	9
Statistics	√	√	√	4
Foreign Language				
Spanish Language	√	√	√	5
Spanish Literature	√	√	√	6
French Language	√	√	√	2
French Literature				
German Language	√	√	√	2
Italian Language & Culture				
Japanese Language & Culture				
Chinese Language & Culture				
Latin Literature				
Latin: Vergil				
Art & Music				
Art History				1*
Studio Art	√	√	√	6
• Drawing				
• 2-D Design				
• 3-D Design				
Music Theory				
Computer Science				
Computer Science A	√			
Computer Science AB				

* New AP courses in APS in 2008.

Figure 2 shows the district trends in enrollment for each ethnic group over the past five years. The district enrollment decreased over 1% in 2008 compared to 2007. Of the overall enrollment in 2008, there was a 10% decrease in White enrollees and about a 2% decrease in Asians, There was a 10% increase for Hispanics, 40% for Native Americans, and 15% for Blacks.

Figure2

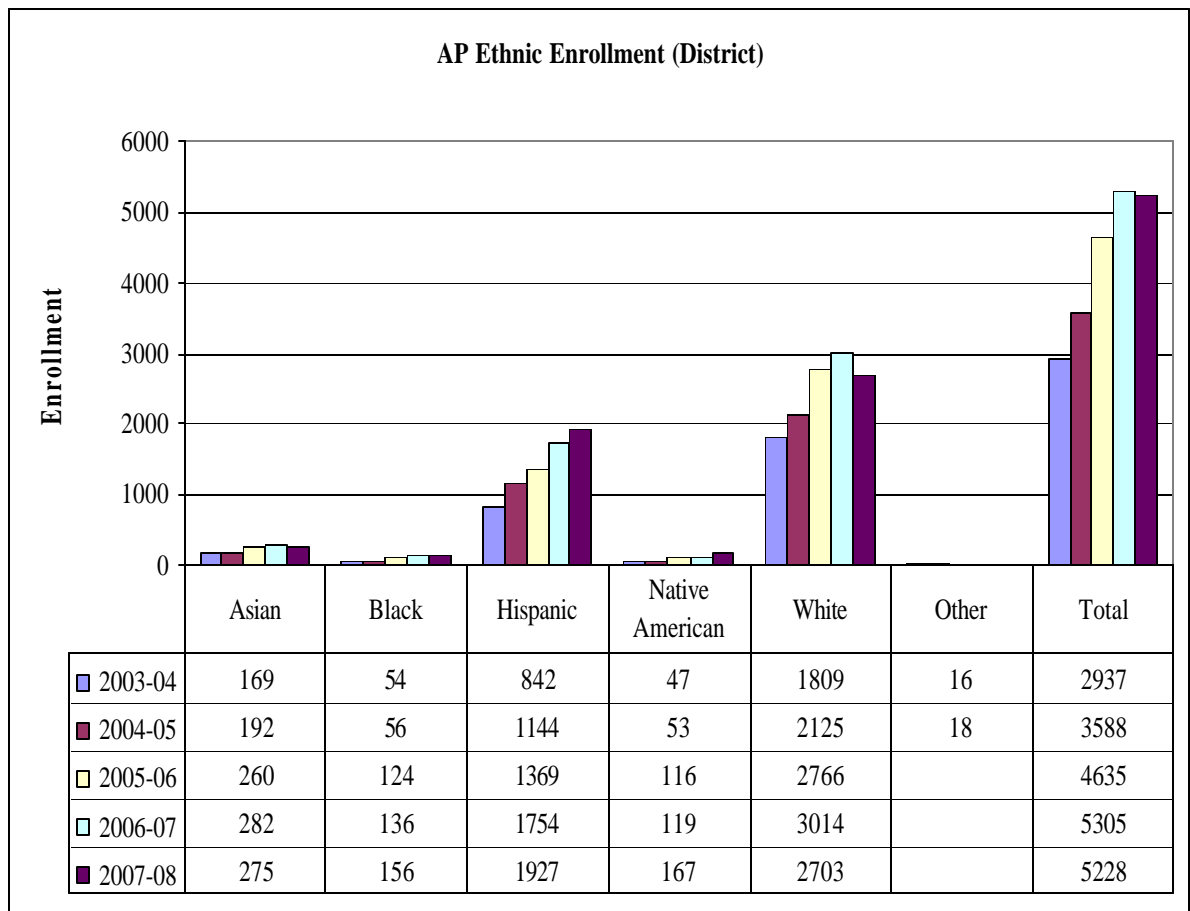


Figure 3 uses a different way than Figure 2 of illustrating ethnic group enrollment over the past five years. Growth or decline is determined by the slope of the ascending line. This graph makes it obvious there is an arresting drop in 2007-08 in White enrollment compared to a steady increase in Hispanic enrollment over the past five years. Up until this year, the growth of Whites and Hispanics has paralleled each other. This graph also documents some growth in AP enrollment for Blacks, Native Americans, and Asians over the past five years.

Figure 3

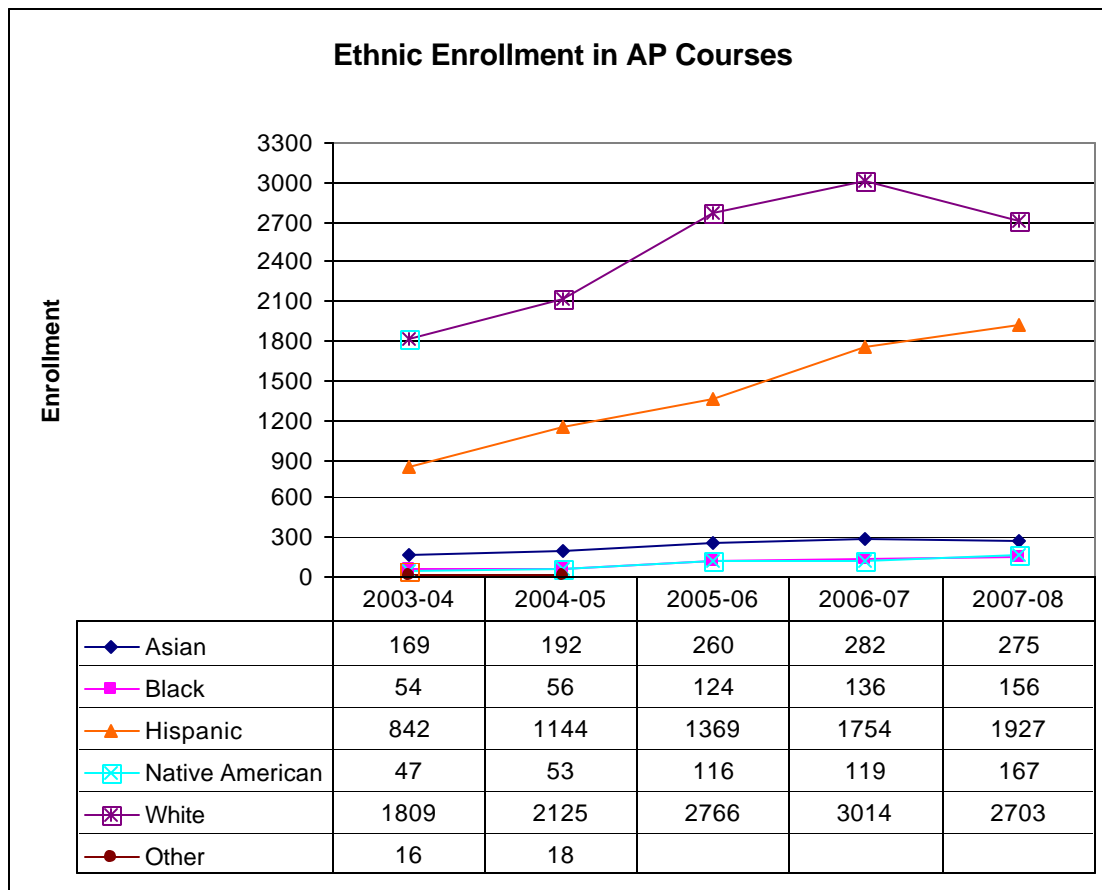


Table 2 gives the percentage of the representation of each ethnic group in AP courses over the past five years. The highlighted row at the bottom of the district and each school shows the 40-day enrollment for each ethnic group for the most recent school year, 2007-08. This table differs from the previous two figures because they report the number of enrolled students and this table reports the percentage of enrolled students. Asian, Native American, and Black enrollments in the district represented approximately 3%, 5%, and 4%, respectively, in 2007-08, while Hispanic and White enrollment represented 36% and 52%, respectively.

Reading down the column under each ethnic group for the district and any of the schools gives an idea of the increasing diversity of enrollment.

Table 2

	AP Enrollment Year	Percentage of Ethnic Enrollment					
		% White	% Black	% Hispanic	% Nat. Amer.	% Asian	% Other
District	2003-04	62	2	29	2	6	<1
	2004-05	59	2	32	1	5	<1
	2005-06	60	3	30	3	6	
	2006-07	57	3	33	2	5	
	2007-08	52	3	37	3	5	
	*District %	36.3	4.2	51.7	5.1	2.7	
Albuquerque	2003-04	66	<1	26	1	7	
	2004-05	65	2	30	1	2	
	2005-06	64	4	30	<1	2	
	2006-07	49	2	46	1	3	
	2007-08	53	4	37	2	3	
	School %	17.5	5.8	70.8	4.4	1.5	
Cibola	2003-04	68	3	24	1	3	1
	2004-05	69	1	25	2	3	1
	2005-06	69	2	24	2	3	
	2006-07	65	4	24	2	5	
	2007-08	61	4	27	2	6	
	School %	48.6	4.7	40.5	3.7	2.5	
Del Norte	2003-04	68	5	14	6	3	4
	2004-05	58	4	19	9	5	6
	2005-06	56	7	22	7	8	
	2006-07	53	5	31	3	8	
	2007-08	51	4	31	8	5	
	School %	30.6	5.5	49.0	12.2	2.6	

	AP Enrollment Year	% White	% Black	% Hispanic	% Nat. Am.	% Asian	Other
Eldorado	2003-04	84	<1	10	0	6	
	2004-05	82	1	12	1	5	
	2005-06	85	<1	9	1	5	
	2006-07	85	1	10	2	3	
	2007-08	83	<	9	3	5	
	School %	70.1	3.3	20.4	3.0	3.2	
Highland	2003-04	62	2	23	2	10	
	2004-05	52	3	36	1	8	1
	2005-06	46	4	38	4	8	
	2006-07	36	2	49	5	8	
	2007-08	32	7	49	7	5	
	School %	19.5	8.2	56.2	12.6	3.5	
La Cueva	2003-04	80	1	4	<1	15	
	2004-05	75	1	11	1	12	
	2005-06	74	2	9	1	14	
	2006-07	73	2	12	<1	12	
	2007-08	71	2	14	<1	12	
	School %	69.9	1.8	19.4	2.0	6.9	
Manzano	2003-04	73	2	21	3	2	
	2004-05	68	1	25	<1	5	
	2005-06	68	4	19	3	6	
	2006-07	74	2	16	1	7	
	2006-07	73	3	15	2	8	
	School %	49.2	6.5	34.7	5.0	4.5	
Rio Grande	2003-04	12	2	85	<1	1	
	2004-05	10	3	87	1	<1	
	2005-06	11	2	83	3	<1	
	2006-07	12	2	85	2	<1	
	2007-08	11	<1	87	2	<1	
	School %	7.1	1.0	88.7	2.8	<1	
Sandia	2003-04	81	<1	12	<1	4	
	2004-05	72	2	12	3	10	2
	2005-06	77	2	15	1	6	
	2006-07	71	4	21	2	2	
	2007-08	72	3	19	4	3	
	School %	57.0	4.0	31.9	3.5	3.6	
Valley	2003-04	61	2	34	1	2	
	2004-05	55	1	39	2	3	
	2005-06	53	2	41	3	<1	
	2006-07	48	2	47	2	1	
	2007-08	33	2	62	2	<	
	School %	17.1	2.3	77.0	3.1	<1	

	AP Enrollment Year	% White	% Black	% Hispanic	% Nat. Am.	% Asian	Other
West Mesa	2003-04	19	3	70	3	6	
	2004-05	12	2	82	3	2	
	2005-06	16	3	72	7	3	
	2006-07	14	4	72	7	3	
	2007-08	11	4	77	6	2	
	School %	9.1	2.9	80.9	6.1	1	
*CEC	2005-06	86		3		10	
	2006-07	85		12		4	
	2007-08	82	5	14			
	School %	NA	NA	NA	NA	NA	NA
**ECA	2007-08	67	8	25			
	School %	45.6	3.2	47.2	2.4	1.6	

*Since CEC is a magnet school ethnicity is not calculated for it.

**Because it is a new school, 2008 is the first year that Early College Academy (ECA) has offered an AP course.

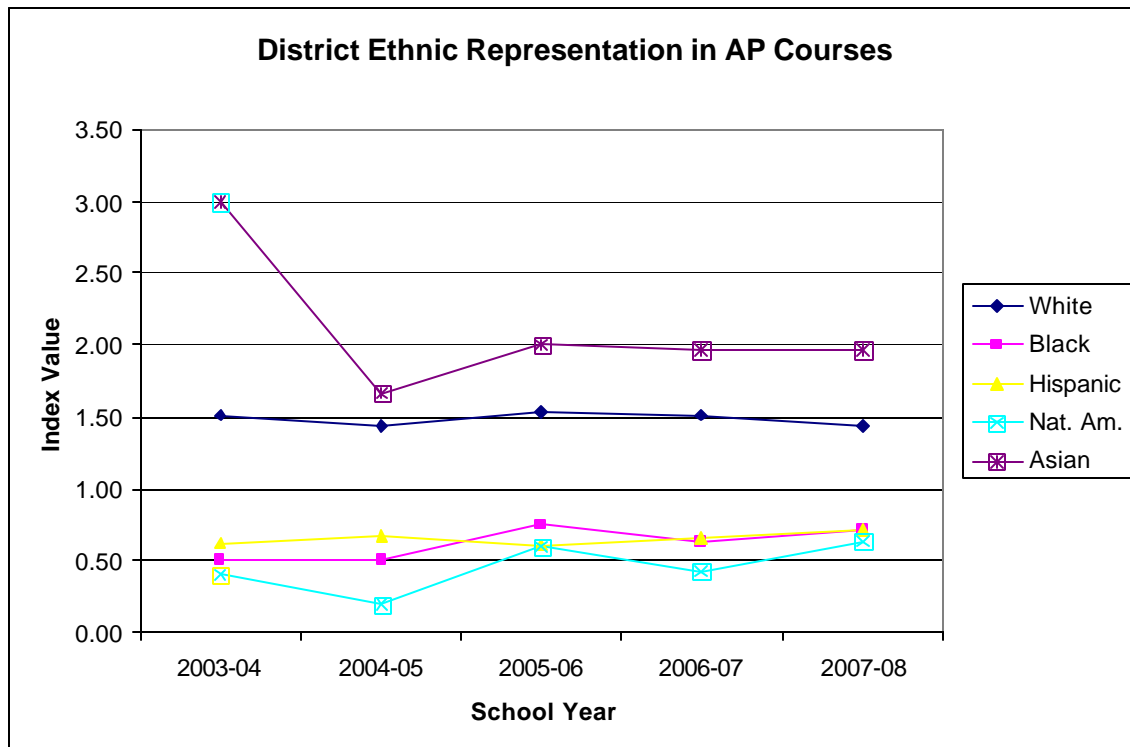
Index for AP Ethnic Enrollment

In 2003, Broward County Public Schools in South Florida created an index (Leonard, et al, 2003) to track AP participation across ethnic groups in relation to the ethnic enrollment in its district. The intent was to measure whether the achievement gap in AP enrollment was closing. In the graph below, the same index is illustrated with APS data for the past five years.

It is ideal for each ethnic group to have an index number of 1.0, which would mean that the ethnicity of the AP population match that of the district high school enrollment. Below 1.0 indicates under representation and over 1.0 indicates overrepresentation in AP courses. The index is simply the percent of that ethnic group in our high schools divided into the percent of that ethnic group in AP courses. This index is a gross measure of ethnic representation in AP courses.

In APS, Whites and Asians are overrepresented while Blacks, Hispanics, and Native Americans are about equally underrepresented. However, there has been a decrease in the gap between those groups above the 1.0 marker and those below. Because of increased enrollment in 2007-08, Native Americans probably moved the most of all the groups.

Figure 4



Leonard, T., Blasik, K., Dilgen, A., & Till, F (2003). Advanced placement programs as a means of narrowing the achievement gap. *ERS Spectrum*, Spring, 4-14.

Figure 5 shows the trend of the growth for males and females in AP course for the past five years. Across the district, as well as in each school, appreciably more females than males have been enrolled in AP courses over each of the past five years. Females have usually comprised just less than 50% of the high school student population, yet in 2007-08 they represented almost 57% of AP enrollment.

The percent of male representation in AP courses decreased this past year from the previous year.

Figure 5

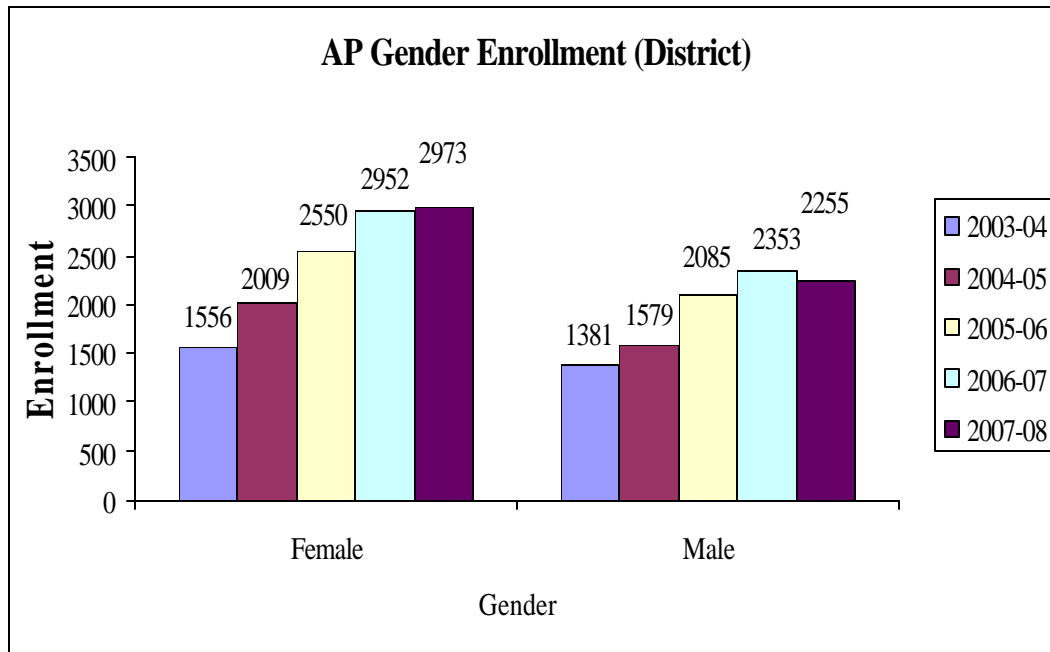


Table 3 shows the enrollment of each of the 21 AP course offered across the district in 2006, 2007, and 2008. Each enrollment column is accompanied by the percent of total AP enrollment each course represents. There were 77 fewer enrollments in 2007-08 than the previous year.

The table is ordered by the highest course enrollment to the lowest for 2007-08. As was the case in 2006 and 2007, World History, U.S. History, English Literature, English Language, and Calculus I have the highest enrollments. Together they comprise 68% of the enrollment in AP courses for 2007-08. In 2006-07, they represented 71% of the enrollment.

English Language & Composition has seen the greatest increase in enrollment of all courses during the past three years from 5.2% in 2005-06 to 14.2% this past year. World History has seen a drop from 22.7% to 16.7% of the enrollment over the past three years. English literature & Composition has stayed about the same for the past three years and US History has decreased from 15.4% to 12.6%.

In 2007-08, the sciences (Biology, Chemistry, Physics B, Physics C, and Environmental Science) made up 11.6% of the enrollment with Physics B (5.7%) having the largest enrollment. The previous year those same courses represented 11% of the enrollment, and 12.1% the year before that.

Calculus I decreased to 8.7% of the enrollments last year from about 9.3% the previous two years.

Statistics decreased from 3.5% to 1.8% of the enrollment over the past three years and Calculus II has decreased from 2.0% to 1.7% over that same time.

US Government and Politics has increased from 3.4% to 6.0% over the past three years.

For the current (2008-09) school year, a couple of sections of Human Geography are being offered again and a section of European History is being offered for the first time.

Table 3

AP Courses at District Level

AP Courses	2005-06		2006-07		2007-08	
	Enrollment	%	Enrollment	%	Enrollment	%
World History & Geog	1050	22.7	1119	21.1	872	16.7
English Lit & Comp	704	15.2	824	15.5	842	16.1
English Lang & Comp	243	5.2	705	13.3	741	14.2
US History & Geog	712	15.4	648	12.2	660	12.6
Calculus I	437	9.4	491	9.3	453	8.7
US Govt & Politics	156	3.4	183	3.4	312	6.0
Physics B	113	2.4	177	3.3	297	5.7
Spanish V Lang	123	2.7	175	3.3	141	2.7
Psychology	139	3.0	76	1.4	125	2.4
Spanish V Lit	102	2.2	104	2.0	108	2.1
Biology	179	3.9	115	2.2	105	2.0
Chemistry	109	2.4	109	2.1	94	1.8
Statistics	163	3.5	123	2.3	96	1.8
Calculus II	91	2.0	101	1.9	91	1.7
Studio Art	82	1.8	62	1.2	78	1.5
Economics-Macro	61	1.3	85	1.6	71	1.4
Physics C	84	1.8	72	1.4	70	1.3
Environmental Science	72	1.6	104	2.0	42	.8
European History					17	.3
German V	10	.2	5	.1	7	.1
French V	5	.1	4	.1	5	.1
Art History					1	.0
Human Geography			23	.4		
Total	4635	100.0	5305	100.0	5228	100.0

Table 4 represents how many unique students enrolled in one or more AP course in 2007-08. Across the district, 69.3% or 3624 students enrolled in 5228 AP classes. That means 30.7% of students enrolled in more than one AP course.

There is no inherent value attached to whether a school has a lower or higher percentage of “unique students enrolled” than the district or another school. There could be several reasons for the high percentage of unique students or, on the other hand, for a high percentage of students who took more than one AP course.

A larger number of course offerings could explain why some students take more than one AP course. Conversely, the higher percentage of unique students enrolled in AP courses could be an indication that the school is more inclusive. The truth is each school’s percentages of unique students enrolled or the percentage of students enrolled in multiple courses is an interaction of those two conditions. Each school is the best judge of how to interpret the data on table 4.

Table 4

Percent of Unique Students Taking an AP Course

School	Unique Students Enrolled	Total AP School Enrollment	Percent of Unique Students Enrolled	Percent of Multiple Enrollment in AP Courses
La Cueva	526	884	59.5	40.5
Del Norte	249	405	61.5	38.5
Albuquerque	301	469	64.2	35.8
Manzano	258	393	65.6	34.4
Sandia	291	426	68.3	31.7
Total	3624	5228	69.3	30.7
Cibola	456	638	71.5	28.5
Highland	267	370	72.2	27.8
Rio Grande	345	473	72.9	27.1
Eldorado	268	354	75.7	24.3
West Mesa	407	527	77.2	22.8
Valley	223	255	87.5	12.5
CEC	22	22	NA*	NA
Early College Acad.	12	12	100.0	

*CEC is a magnet school and so most CEC students take an AP course at their home school.

For both the district and each school, Table 5 lists the percent of the total exams taken. Essentially, the same percentage of exams was taken in 2008 as in 2007. The large increases in test takers at AHS and EHS offset the decrease in test takers at several other schools.

Table 5

Percent of Students Taking AP Exams Over Two Years

School	2006-07			2007-08		
	Total Exams	School AP Enrollment	Percent of Test Takers	Total Exams	School AP Enrollment	Percent of Test Takers
Albuquerque	369	564	65.4	372	469	79.3
Cibola	416	584	71.2	404	638	63.3
Del Norte	146	251	58.2	248	405	61.2
Eldorado	266	539	49.4	251	354	70.9
Highland	84	212	39.6	169	370	45.7
La Cueva	603	1038	58.1	475	884	53.7
Manzano	238	431	55.2	219	393	55.7
Rio Grande	227	385	59.0	275	473	58.1
Sandia	335	516	64.9	241	426	56.6
Valley	147	216	68.1	141	255	55.3
West Mesa	225	543	41.4	224	527	42.5
CEC		26		NR	22	
ECA	NA	NA	NA	NR	12	
District	3056	5305	57.6	3022	5228	57.8

NR = Not Reported

Table 6 reports for the district and schools the percent of AP exam scores of 3 or above. The College Board calls exam scores of 3, 4, or 5 “qualifying scores” because most colleges will award credit for these scores.

Table 6

Percent of Qualifying Scores Over Two Years

School	2006-07			2007-08		
	Total Exams	Scores 3-5	% of Scores 3-5	Total Exams	Scores 3-5	% of Scores 3-5
Albuquerque	369	200	54.2	372	209	56.2
Cibola	416	193	46.4	404	187	46.3
Del Norte	146	72	49.3	248	79	31.9
Eldorado	266	192	72.2	251	196	78.1
Highland	84	40	47.6	169	90	53.3
La Cueva	603	414	68.7	475	359	75.6
Manzano	238	116	48.7	219	90	41.1
Rio Grande	227	79	34.8	275	70	25.5
Sandia	335	213	63.6	241	172	71.4
Valley	147	67	45.6	141	54	38.3
West Mesa	225	41	18.2	224	48	21.4
CEC				NR	NR	
ECA	NA	NA	NA			
District	3056	1627	53.2	3022	1557	51.5

NR = Not Reported

Conclusion

After several years of substantial growth in AP enrollment, it has remained flat. The percent of test takers and those who receive qualifying scores of 3, 4, or 5 has also remained flat.

There are probably several reasons for this. In the initial years of the AP grant, there was a lot of room for growth particularly among the schools that the grant paid for training and implementation. That grant allowed several schools to get on the map as far as offering AP courses they had not offered before. The easy growth is not there anymore.

Teachers in APS have developed the 23 of 37 AP courses offered by the College Board that are the most useful. Where the growth in the future will come from is offering more of the AP sciences, Government, Economics, Psychology, and Statistics.

Teachers need to be found who are willing to develop courses in these content areas for their schools. In some cases this may require taking on another prep, as well as

committing to attending AP institutes to learn content and strategies to teach a college level class.

Schools need to have a plan, and perhaps a mentoring strategy, for who will step in to teach AP courses when a teacher retires or leaves the school for any reason so that the course does not disappear with the teacher. This is especially important now that the College Board audit process is the determining factor as to whether the copyrighted “AP” can be put in front of a course.

The vertical aligning of the curriculum and teaming between middle schools and high schools needs to be pursued so that students are entering high school prepared to succeed in AP classes.

Despite open enrollment, counselors need to refine processes to find students who would be successful in AP classes. Resources that can be used are AP Potential for those students who have taken the PSAT, and/or using PLAN, SAT, ACT, and SBA scores. GPA, course grades, as well as teacher recommendation may also be effective indicators. There are probably many more students out there who could be successful in AP courses but do not realize it or are afraid to try. The College Board offers workshops for counselors and administrators on how to use data to find students who could be successful in AP courses.

A culture of rigor needs to be nurtured by schools and communicated to parents so that they are aware of the many opportunities and advantages that AP courses provide for their children.

Continued growth in AP enrollment and increased success in test takers will only happen with systematic and strategic planning.