In Danger of Being Left Behind

An Analysis of Participation of Baltimore City Public School Students in the Advanced Placement Program

Published by The Abell Foundation 210 North Charles Street Baltimore, MD 21201

December 1990

Section 1 Part or Va . •

Executive Summary

In the last decade, many reports have come out decrying the poor quality of education in the United States and claiming that many American students are not graduating from high schools with the skills needed to compete in an international market.

Throughout the country, many high schools have responded to these criticisms by increasing the rigor of their instructional programs, frequently by introducing more Advanced Placement (AP) courses and encouraging more students to take the AP examinations offered by the Educational Testing Service.

An analysis of the number of students from Baltimore City Public Schools ("BCPS") taking AP examinations indicates that the school system has not joined this national trend. In absolute terms, at 0.3 percent, the participation rate of BCPS students is very low. The more than 23,000 Baltimore City high school students took fewer than 80 exams last school year.

Relative to other schools and school districts, the BCPS participation rate is dramatically lower. Last year, students from four Baltimore area independent schools participated at almost 100 times the rate of students from BCPS. Baltimore County Public School students took approximately eight times as many exams proportionately. Even in comparable urban districts like Philadelphia, Pittsburgh, and Washington, D.C., students participated in the AP Program at rates five to 10 times as high as Baltimore City's. District of Columbia Public Schools, not particularly known for their excellence, have proportionately 10 times as many students taking AP examinations as BCPS.

The low number of AP exams taken by BCPS students is a serious indication that many students in BCPS are not being offered the same rigorous academic programs offered to students in other schools and school systems. BCPS students are in danger of being left behind.

Elsewhere in the country, schools, particularly in urban districts, have explained their low AP participation rates by claiming that AP courses and exams are meant for exceptionally gifted students of whom they claim to have very few. Lack of resources is another common excuse.

However, urban schools and school districts from Los Angeles to San Antonio to Rochester have effectively introduced AP courses to their students with dramatic, positive results. With adequate planning and conviction, Baltimore City Public Schools could not only follow in these schools' footsteps, they could also become a national leader for successfully offering highly challenging instruction to an entire population of urban, mostly minority students.

Introduction

Many college admissions offices claim to view enrollment in AP courses and receipt of high AP grades as powerful indicators that an applicant sought out academic challenges and did well in a rigorous high school program.

In many areas of the United States, use of Advanced Placement examinations over the last 10 years has grown dramatically. As educators and policymakers have pushed for higher academic standards, more and more high schools have begun offering Advanced Placement courses and encouraging their students to take the Advanced Placement exams, commonly called APs. In 1990, 42 percent of American high schools participated in the AP Program, run by the College Board in New York and administered by the Educational Testing Service in Princeton, New Jersey.

Students who master AP exams (score three or better out of a possible five) are considered to have learned college-level material. Therefore, many colleges accept AP exams for college credit. Some higher education institutions allow students with enough qualifying AP exam grades to opt out of the freshman year altogether. This constitutes a major cost saving for students. Other colleges allow these students to skip introductory courses and move directly into more advanced and challenging courses.

Many college admissions offices claim to view enrollment in AP courses and receipt of high AP grades as powerful indicators that an applicant sought out academic challenges and did well in a rigorous high school program. Taking AP courses is a clear "plus" in terms of college admissions.

Given this rising recognition of the value of AP courses and exams, it is important to examine whether the public schools in Baltimore City have joined the trend or are in danger of being left behind. To what extent are students in Baltimore City Public Schools ("BCPS") involved in the AP Program? How does this participation rate compare with the rates of students in other schools and school districts?

This report looks at the number of AP exams taken by BCPS students over the last five years as a percent of the total high school population. This participation rate is compared with the equivalent statistic for area independent schools, Baltimore County Public Schools, and comparable urban school systems in the mid-Atlantic region.

The results indicate a dramatic difference.

BCPS Participation in the Advanced Placement Program

There are 17 BCPS high schools, including three vocational-technical, five citywide magnet, and nine neighborhood schools. The number of AP exams taken by students at these schools over the last five years is indicated below:

Table I. BCPS PARTICIPATION IN THE AP PROGRAM

	Number of AP Exams Taken						
High School	1985-6	1986-7	1987-	1988-9	1989-		
Baltimore City College (CW)	0	1	0	21	19		
Baltimore Polytechnic (CW)	20	9	12	15	11		
Carver (VT)	0	0	0	0	0		
Edmondson/Westside (VT)	0	0	0	0	0		
Forest Park (N)	0	0	0	0	0		
Frederick Douglass (N)	0	0	0	0	0		
Lake Clifton/Eastern (N)	0	0	0	0	0		
Mergenthaler (VT)	0	0	0	0	0		
Northern (N)	0	0	0	0	0		
Northwestern (N)	. 0	0	0	0	0		
Patterson (N)	0	0	0	0	0		
Paul Dunbar (CW)	0	0	0	0	20		
School for the Arts (CW)	4	11	20	25	22		
Southern (N)	0 .	0	0	0	0		
Southwestern (N)	0	0	0	0	0		
Walbrook (N)	0	10	1	0	0		
Western (CW)	18	20	11	24	7		
TOTAL	42	51	44	85	79		
BCPS H.S. Enrollment	29,873	29,251	26,797	25,136	23,332		
PARTICIPATION RATE	0.1%	0.2%	0.2%	0.3%	0.3%		
CW = cilywide VT = vocational-technical		•					

¹There are nine additional high schools which serve special education or alternative populations exclusively — Claremont, Francis M. Wood, George McMechen, Harbor City Learning Center, Harford Institute, Joseph C. Briscoe, Laurence Paquin, Venable, and William S. Bauer.

N = neighborhood

BCPS Participation in the Advanced Placement Program

In BCPS, the participation rate started at 0.1 percent in the 1985-6 school year and crept upward to 0.3 percent last year. Last year, 23,332 Baltimore City public high school students took 79 AP exams. On the surface, this rate seems very low.

Six of the 17 schools participated in the AP program during the last five years—City, Poly, Dunbar, School for the Arts, Walbrook, and Western. Three of the six have consistently participated in four of the last five years—Poly, School for the Arts, and Western. All three are citywide magnet high schools.

A critical statistic to examine is the AP participation rate, meaning the number of AP exams taken as a percentage of total high school enrollment that year. A school with 10 exams and 100 high school students would have a participation rate of 10 percent. This takes into account student body size, so that two schools with the same number of tests but differences in size would have different participation rates.

In BCPS, the participation rate started at 0.1 percent in the 1985-6 school year and crept upward to 0.3 percent last year. Last year, 23,332 Baltimore City public high school students took 79 AP exams. On the surface, this rate seems very low.

It is hard, however, to gauge how low a 0.3 percent participation rate is without reference points. One way to gauge fairly is to examine the AP participation rates of schools known for their participation.

BCPS vs.

Four Baltimore Area Independent Schools

Baltimore's various private and parochial schools pride themselves on setting high academic standards and getting students into selective colleges. Examining the AP participation rates of a select number of these schools provides one benchmark by which BCPS rates can be put into perspective. Four schools are examined below—Bryn Mawr School, Calvert Hall College (High School), Gilman School, and McDonough School:

Table 2. AP PARTICIPATION RATES IN FOUR BALTIMORE AREA INDEPENDENT SCHOOLS

Number of AP Exams Taken

High School	1985-6	1986-7	1987-8	1988-9	1989-90	
Bryn Mawr	85	79	103	106	102	
Calvert Hall	118	137	171	131	157	
Gilman	148	163	148	156	188	
McDonough	91	136	179	189	162	
TOTAL	442	515	601	582	609	
Enrollment	2,413	2,354	2,217	2,177	2,135	
PARTICIPATION RATE	18,3%	21.9%	27.1%	26.7%	28,5%	
BCPS TOTAL	42	51	44	85	79	
BCPS PARTICIPATION RAT	E 0.1%	0.2%	0,2%	0.3%	0.3%	

The chart above shows that the AP participation rates of these four independent schools increased from 18.3 percent in the 1985-6 school year to 28.5 percent last year. If no student took more than one test, this rate means that more than a quarter of the students took AP exams.

Placed in comparison to the BCPS rates, it becomes readily apparent that a great discrepancy exists. Students at these four independent schools participated in the AP Program at 95 times the rate of BCPS students last year, 28.5 percent vs. 0.3 percent. McDonough, a school with just 500 high school students, produced more than double the number of AP exams as BCPS with more than 23,000 high school students.

It may not be fair to expect BCPS, with its wide variety of students, to achieve the same AP participation rates as four selective independent schools in the area. Still, this comparison does indicate that when compared to what some schools are doing, the BCPS AP participation rate is extraordinarily low. To further place the BCPS rate in context, an analysis of a neighboring public school system may be more equitable.

It may not be fair to expect BCPS, with its wide variety of students, to achieve the same AP participation rates as four selective independent schools in the area. Still, this comparison does indicate that when compared to what some schools are doing, the BCPS AP participation rate is extraordinarily low.

BCPS vs. Baltimore County Public Schools

Baltimore County Public Schools contains 24 high schools, three of which are vocational-technical. The number of AP exams taken by students at county schools over the last five years is listed below:

Table 3. AP PARTICIPATION RATES IN BALTIMORE COUNTY PUBLIC SCHOOLS

		Number o			
High School	1985-6	1986-7	1987-8	1988-9	1989-90
Catonsville	53	56	49	38	27
Central Vo-Tech	0	0	0	0	0
Chesapeake	0	0	3	13	16
Dulaney	74	77	109	107	102
Dundalk	8	5	1	1	12
Eastern Vo-Tech	1	1	1	0	0
Franklin	36	24	19	25	34
Hereford	5	16	15	22	23
Kenwood	3	5	18	12	12
Lansdowne	0	1	1	2	3
Loch Raven	68	77	78	58	57
Milford Mill	7	9	7	13	5
Overlea	11	6	9	14	2
Owings Mills	14	2	11	2	3
Parkville	13	21	6	18	5
Patapsco	0	0	0	0	0
Perry Hall	31	30	22	22	35
Pikesville	58	41	45,	41	51
Randalistown	19	36	42	38	29
Southeast Vo-Tech	0	0	0	0	0
Sparrows Point	0	1	2	1	. 2
Towson	57	50	48	66	68
Western Vo-Tech	0	0	0	0	0
Woodlawn	26	19	30	38	28
TOTAL	484	4777	516	531	514
High School Enrollment	27,691	26,388	25,025	23,810	22,720
PARTICIPATION RATE	1.7%	1.8%	2.1%	2.2%	2,3%
BCPS PARTICIPATION RA	TE 0.1%	0.2%	0.2%	0.3%	0.3%

BCPS vs. Baltimore County Public Schools

The comparison is even sharper with respect to participation rates based on the number of AP exams taken by students. Last year, Baltimore County high school students took AP exams at more than eight times the rate of BCPS students (2.5 vs. 0.3 percent).

Table 3 on page 7 shows that only four of 24 Baltimore County high schools have <u>not</u> participated in the AP Program in the last five years. Three of the four non-participants are vocational schools. Of the 21 schools that have participated, 18 have participated consistently in at least four of the five years.

This contrasts sharply with BCPS high schools in which only three of 17 participated consistently. Only six schools participated at all (35 percent), in comparison to 21 of 24 (88 percent) schools in Baltimore County. The comparison is even sharper with respect to participation rates based on the number of AP exams taken by students. Last year, Baltimore County high school students took AP exams at approximately eight times the rate of BCPS students (2.3 vs. 0.3 percent).

This analysis seems to indicate that relatively large public school systems can achieve an AP participation rate of 2.3 percent, significantly higher than the BCPS rate. Of course, one explanation for this wide discrepancy is the difference in student populations between the suburban and mostly wealthy county children and the urban and mostly low income city students.

This explanation suffers from many flaws, most importantly the assumption that only students from wealthy backgrounds can handle rigorous academic programs. However, it is certainly worthwhile examining the AP participation rates of students in districts comparable in student demographics to Baltimore City.

BCPS vs. Comparable Urban School Districts

Philadelphia and
Washington increased their
participation rates over the
last five years by 1.0
percent and 2.1 percent
respectively. The BCPS
rate went up by 0.2 percent
during the equivalent period

In the mid-Atlantic region there are three urban school districts roughly comparable in size and student body make-up to BCPS. Philadelphia and Washington, D.C., both have public school systems with many poor and minority students. Pittsburgh is roughly comparable, although the city is perhaps somewhat better off economically than Baltimore City.

To compare AP participation rates, the numbers of AP exams taken by students at each high school in each city were totaled and divided by the total high school enrollment for that city. A summary of the analysis is listed below (see Appendix for full lists):

Table 4. AP PARTICIPATION RATES IN COMPARABLE URBAN DISTRICTS

		AP Par			
Urban Area	1985-6	1986-7	1987-8	1988-9	1989-90
Philadelphia	0.6%	0.8%	0.9%	1.6%	1.6%
Pittsburgh	2,1%	2.2%	2.0%	1.9%	2.1%
Washington, D.C.	0.9%	1.8%	2.2%	2.7%	3.0%
BCPS Rate	0,1%	0,2%	0.2%	0.3%	0.3%

The chart above indicates that three comparable urban school districts had AP participation rates ranging from 1.6 to 3.0 percent last year. At 0.3 percent, BCPS has a rate five to 10 times lower. Particularly significant is the fact that District of Columbia Public Schools (DCPS) has 10 times as many students taking AP exams proportionately as Baltimore City.

Also noteworthy is the fact that Philadelphia and Washington increased their participation rates over the last five years by 1.0 percent and 2.1 percent respectively. The BCPS rate went up by 0.2 percent during the equivalent period of time.

Summary

It is important to emphasize that AP participation rates are not definitive measures of overall school system excellence. D.C. public achools are not 10 times better than BCPS. The AP rates are, however, significant barometers of how high—or low—the academic standards are in a school district.

Based on these three comparisons—four independent schools, Baltimore County Public Schools, and three other urban school districts—it is fair to say that the BCPS AP participation rate is extremely low, even taking into account its largely disadvantaged student population. The chart below summarizes the AP participation rates of BCPS and the comparison schools and school districts:

Table 5. SUMMARY OF AP PARTICIPATION RATES

Number of AP Exams as a Percentage of High School Enrollment

Comparison Schools/Districts	1985-6	1986-7	1987-8	1988-9	1989-90
BCPS	0.1%	0,2%	0,2%	0.3%	0.3%
Four Independent BCPS	18.3%	21.9%	27.1%	26.7%	28.5%
Baltimore County	1.7%	1.8%	2.1%	2.2%	2.3%
Philadelphia	0.6%	0.8%	0.9%	1.6%	1.6%
Pittsburgh	2.1%	2.2%	2.0%	1.9%	2.1%
Washington, D.C.	0.9%	1.8%	2.2%	2.7%	3.0%

At the very least, Baltimore City Public Schools should be disappointed that its AP participation rate is 10 times lower than nearby DCPS. Yet, as one might expect, the DCPS participation rate is not the ideal BCPS should be striving to reach. Other districts, such as the urban Rochester Public Schools and the rural Mercer County Public Schools in West Virginia, have, through concerted effort, raised their participation rates to between 5.0 and 8.5 percent over a relatively short period of time. (See appendix for full listing.)

It is important to emphasize that AP participation rates are not definitive measures of overall school system excellence. D.C. public schools are not 10 times better than BCPS. The AP rates are, however, significant barometers of how high—or low—the academic standards are in a school district. The low AP participation rates in BCPS is solid evidence that very few high school students are taking courses of high rigor.

²Based on a school-by-school analysis of AP participation. Rochester's rate rose from 2.8 percent in 1985 to 5.0 percent last year. In Mercer County, district officials increased participation from 0.1 percent in 1985 to 8.5 percent last year.

Reasons for Low AP Participation

Why do so few BCPS students take AP courses and exams? The answer is complex. It is beyond the scope of this report to investigate the specific reasons for low AP participation rates in Baltimore City. It is within it, however, to explore the general reasons for the low AP participation of many urban districts throughout the country, and to assume that BCPS fits somewhere into this picture.

First, there is the perception that AP exams are only appropriate for exceptionally gifted students. When typical urban high schools examine their twelfth-grade enrollments, they see very few students of "AP caliber" and offer very few AP courses.

A fundamental problem with this explanation for low AP participation is that schools are starting too late in identifying students for AP courses. Schools have waited too long if they start looking for students for AP courses in senior year. The time to start is ninth grade or earlier when students should begin taking the introductory courses that lead up to AP courses in senior year.

At an even more basic level, urban schools which claim that too few of their students are capable of handling AP courses are both exaggerating the difficulty of AP courses and also underestimating the talent within their own classrooms. Schools with largely disadvantaged student populations have offered AP courses with great success, proving that the socioeconomic condition of the students is not an insurmountable barrier to quality, rigorous educational programs.

In Los Angeles, the now-famous Garfield High prepares Hispanic students from the barrio to take AP calculus exams. Beginning with one teacher, Jamie Escalante, Garfield now ranks seventh in the country among public schools with respect to students taking AP calculus exams.³

The fact that Rochester, Mercer County, San Antonio, and even D.C. public schools are able to have relatively high AP participation rates proves that school districts with many disadvantaged students can get these students to take AP courses and exams successfully.

A second common justification for low AP participation rates in urban school districts is lack of resources. Often, AP courses are expected to be smaller in size than regular courses. New textbooks are needed. The science courses need equipment for weekly experiments.

The additional costs of AP courses are real but not prohibitively high. Financially-strapped urban high schools, including six in Baltimore, do offer AP courses. Textbooks and equipment expenses are largely one-time costs. Moreover, the typically small class size of AP courses is often more the result of too few available students rather than the imperative of having significantly fewer students in these courses by design. As mentioned above, through proper preparation, urban high schools can have enough AP students to fill relatively normal-sized AP courses.

A third and final common reason is the argument by some schools that their courses are already rigorous enough and that they do not need to conform to the AP content requirements to prove it. It is conceivable that this is true in some subject areas. For example, a school could offer a good biology program but not call the course "AP Biology."

Schools with largely disadvantaged student populations have offered AP courses with great success, proving that the socio-economic condition of the students is not an insurmountable barrier to quality, rigorous educational programs.

The movie Stand and Deliver depicts the story of Escalante at Garfield High.

Reasons for Low AP Participation

However, students who are not enrolled in courses labeled "AP" and registered with the College Board are still permitted to take AP exams. Many students do so in order to have the opportunity to get college credit for their high school work. In reality, it is very unlikely that urban high schools where very few students take AP exams are actually offering courses of equal rigor as AP courses.

In sum, while there are some obstacles in the way of urban schools offering more AP courses, the success of some urban schools and school systems in this area indicates that the hurdles can be overcome. Perhaps the greatest obstacle to overcome is the low expectations that many urban schools have of their students.

Conclusion

The potential rewards are tremendous. The broad introduction of AP courses and the courses leading up to APs could radically alter and improve the quality of education in Baltimore City and increase the number of students going on to college.

BCPS participation in the Advanced Placement Program is extremely low by any legitimate comparison. The success of other similar districts in increasing the number of students in AP courses and taking AP exams provides conclusive evidence that Baltimore City could enjoy similar success.

The task, if the BCPS system chooses to pursue it, will not be an easy one. It will require a dramatic raising of expectations and standards, retraining of teachers, and revamping of the high school curriculum. The changes will be difficult not only in the neighborhood high schools, but also in the highly respected citywide high schools, whose low AP participation rates are particularly surprising and disappointing.

Yet the potential rewards are tremendous. The broad introduction of AP courses and the courses leading up to APs could radically alter and improve the quality of education in Baltimore City and increase the number of students going on to college. A high school in San Antonio increased its college-going rate from 17 to 50 percent after instituting an AP program. Other districts have used AP courses and exams to leverage widespread changes in instructional quality and rigor.

The successful efforts of other urban districts provide a rough outline of the basic steps BCPS would need to undertake to implement a full-fledged AP initiative:

Step 1:

Development of a detailed plan for implementation based on further examination of the efforts of other districts and the advice of the College Board.

Step 2:

A day-long introduction to the AP Program conducted by the College Board for all high school central office administrators, principals, assistant principals, and department heads to describe how AP courses can be introduced to broad cross-sections of students.

Step 3:

Development of a specific AP plan by each school to determine what AP courses will be offered and who will teach them. The goal should be to offer full-sized courses in four to eight subjects, including AP English, AP calculus, AP U.S. history, a selection of AP science classes, and other AP courses.

Step 4:

AP training for teachers who plan to teach new AP courses. The training is normally a one-to-two-week graduate course offered during the summer by a college or university.

⁴Mellon Scholarships exist for those teachers wishing to offer AP courses in school districts where more than 50 percent of the students are minority.

Conclusion

The initiative will be evaluated based on its ability to enroll more students in AP courses and to push more students to take AP exams. The success of students on the exams will also be measured. Finally, college matriculation rates will also be examined and expected to increase, particularly in the neighborhood high schools.

Step 5:

Revamping the current BCPS high school curricular progression. Students must take the necessary introductory courses in eighth grade and up in order to be prepared for an AP course senior year. For students who fall behind the progression, summer courses will be offered to allow them to catch up.

Step 6:

Early identification of potential AP students. Starting in the seventh grade, all students will take the PSAT each year at school system expense. Those students scoring high enough will automatically be placed in courses which will lead to AP courses in high school. This strategy was used successfully in San Antonio to identify early those students with "hidden" potential.

Step 7:

Implementation in the high schools. Each high school will receive the resources needed to purchase AP course materials and equipment. Since AP courses may be smaller in size than regular classes, schools will be allocated AP teachers at a formula of one teacher for every 100 students enrolled in an AP class.⁵

Step 8:

Required AP exams. All students enrolled in AP courses will be required to take the relevant AP exams in May at school system expense.⁶

Step 9:

AP course graduation requirement. All students in citywide high schools will be required to take—and do well in—four AP courses, and to take four AP exams. In neighborhood high schools, the requirement will be two AP courses and exams.

Step 10:

Ongoing evaluation. The initiative will be evaluated based on its ability to enroll more students in AP courses and to push more students to take AP exams. The success of students on the exams will also be measured. Finally, college matriculation rates will also be examined and expected to increase, particularly in the neighborhood high schools.

This assumes five courses of 20 students each. Since a school normally receives one teacher for every 150 students, this new formula would allow schools to offer AP courses without having to enlarge other courses. BCPS already changes its staffing formula for teachers in alternative (100 students per teacher) and vocational schools (80 students per teacher).

^{*}College Board does offer some fee reductions for income-eligible students.

Conclusion

Advanced Placement courses are nationally respected and validated by dozens of colleges across the country. There is nothing holding BCPS back but the will to implement such a daring plan.

With proper planning and a bold vision, BCPS can assume a national leadership position with respect to introducing advanced level course material to urban high school students. Advanced Placement courses are the most logical vehicle for doing this. Their content is nationally respected and validated by dozens of colleges across the country. The courses have built-in accountability in the form of AP exams which are graded according to national standards. There is nothing holding BCPS back but the will to implement such a daring plan.

53 \$4.00 miles **金**

8000

Appendix: School-By-School AP Participation in Other School Districts

PHILADELPHIA PUBLIC SCHOOLS

	Number of AP Exams Taken					
High School	1985-6	1986-7	1987-8	1988-9	1989-90	
Abraham Lincoln	0	1	10	2	0	
Audenreid	0	0	0	0	0	
Bodine	0	0	21	38	22	
Carver	21	29	36	36	31	
Central	99	113	175	339	318	
Edison	0	0	31	21	14	
Frankford	11	25	24	20	16	
Franklin Learning Center	0	0	0	O	5	
Furness	0	0	0	0	0	
George Washington	62	78	87	143	99	
Germantown	0	0	0	0	0	
High School for Girls	137	126	85	130	114	
Kensington	0	0	0	0	0	
Martin Luther King	5	3	6	9	0	
Mastbaum Vo-Tech	0	0	0	0	5	
Masterman Lab School	0	6	3	7	18	
Northeast	25	65	49	66	71	
Olney	0	0	0	0	26	
Overbrook	0	0	0	0	27	
South Philadelphia	0	0	0	2	0	
Strawberry Mansion	0	0	0	0	0	
West Philadelphia	0	0	0	0	11	
William Penn	0	0	0	0	0	
TOTAL	360	446	527	813	777	
High School Enrollment	62,079	58,187	55,929	50,499	47,166*	
PARTICIPATION RATE	0.6%	0.8%	0.9%	1.6%	1.6%	

^{*}This is an estimate which assumes the population continued on its downward trend. The actual enrollment figure was not yet available.

PITTSBURGH PUBLIC SCHOOLS

	Number of AP Exams Taken						
High School	1985-6	1986-7	1987-8	1988-9	1989-90		
Brashear	4	4	14	4	18		
Carrick	0	0	7	2	5		
David B. Oliver	10	5	11	11	19		
Langley	0	0	0	0	0		
Peabody	28	20	10	5	3		
Pittsburgh	0	0	0	0	0		
Schenley (Teacher Ctr.)	0	. 2	5	1	6		
Taylor Allderdice	244	266	205	213	193		
Westinghouse	0	0	0	0	5		
TOTAL	286	297	252	236	249		
High School Enrollment	13,571	13,344	12,896	12,246	11,662		
PARTICIPATION RATE	2.1%	2.2%	2.0%	1.9%	2.1%		

DISTRICT OF COLUMBIA PUBLIC SCHOOLS

Number of AP Exams Taken

High School	1985-6	1986-7	1987-8	1988-9	1989-90
Anacostia	0	0	13	21	24
Ballou	11	22	41	6	15
Benjamin Banneker	73	84	100	111	84
Coolidge	3 .	19	10	28	48
Dunbar	4	18	37	22	24
Eastern	0	48	56	55	53
Ellington	0	9	18	34	39
Francis Cardozo	0	7	9	12	3
International School	0	0	29	4	36
McKinley	0	8	34	24	26
Multicultural	0	0	0	8	0
Roosevelt	0	3	3	17	0
Schools Without Walls	0	0	9	28	10
Spingarn	0	22	0	8	11
Wilson	111	136	153	197	231
Woodson	5	19	19	23	14
TOTAL	207	395	531	598	618
High School Enrollment	22,592	22,217	24,065	22,017	20,500
PARTICIPATION RATE	0.9%	1.8%	2.2%	2.7%	3.0%

Appendix

MERCER COUNTY PUBLIC SCHOOLS, WEST VIRGINIA

18 a.	Number of AP Exams Taken				
<u>High School</u>	1985-6	1986-7	1987-8	1988-9	1989-90
Athens	0	14	10	6	35
Bluefield	2	17	89	84	98
Bramwell	0	0	11	6	12
Matoaka	0	0	0	0	0
Montcalm	0	20	22	17	27
Oakvale	0	0	14	10	15
Princeton	0	16	78	104	85
Spanishburg	0	3	14	2	12
TOTAL	2	70	238	229	284
High School Enrollment	3,738	3,695	3,670	3,504	3,323
PARTICIPATION RATE	0.1%	1.9%	5.5%	6.5%	8.5%

ROCHESTER PUBLIC SCHOOLS, NEW YORK

Number of AP Exams Taken

High School	1985-6	1986-7	1987-8	1988-9	1989-90
East	124	105	149	149	131
John Marshall	. 21	28	30	55	27
Benjamin Franklin	0	0	7	3	23
Edison	0	0	0	0	0
J. Wilson Magnet	78	109	157	158	190
J. Lofton	0	0	0	0	0
TOTAL	223	242	343	365	371
High School Enrollment	7,843	7,656	7,464	8,028	7,380
PARTICIPATION RATE	2.8%	3.2%	4,6%	4.5%	5.0%

. . . R (6-3 1-3 1-3 Section 2 经建 不完全 *** *