



J e f f e r s o n C o u n t y P u b l i c S c h o o l s

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S u p e r i n t e n d e n t

Advanced Placement Review

Accountability, Research, and Planning Department

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Summary of Advanced Placement Progress

Background Information

Advanced Placement (AP) courses give high school students a *head start to college*. Thirty-five **AP courses** are offered in multiple subject areas, including math, sciences, history, and humanities. AP courses are available to those students who are looking for a challenge and want to get ahead in a prospective major. The national AP program is administered by the College Board. AP classes are taught at more advanced levels than normal high school classes. When taught well, they are as challenging as many *freshmen-level college classes*.

At the end of an AP class students can choose to take the **AP Exam**. The exam is rigorous as the course itself. The AP exam gives students a chance to *earn college credit*. The AP Exams are scored on a scale from one to five, with a score of five being the highest. Each college or university determines if they will accept AP credit and, if so, what score students will need; it is typically a three or above, but this might be different among higher education institutions.

AP courses can *save both time and money* since many colleges and universities will accept this coursework. They can also give a lead in the application pool in some of today's highly selective colleges and universities. More importantly, students get a chance to be exposed to the *college-like rigorous coursework and examination*. This is particularly important for minority students. Schools that make AP courses and examinations accessible to *all* students usually experience the benefit of higher standards throughout the entire school. Over the past decade, as AP has expanded to many more schools with low-income and traditionally underrepresented minority students, AP participation and success have increased dramatically among such students.

Purpose of this Summary

The purpose of this summary is to describe the progress of JCPS in increasing the number of students engaged in rigorous coursework through Advance Placement courses and demonstrating success by passing AP tests. In addition, we will compare our results with those of AdvanceKentucky, which is a comprehensive program designed to increase student participation in Advance Placement Program. Success of the AdvanceKentucky program is measured by growth in students' participation in AP courses both in terms of enrollments and of Qualifying Scores (three and above on a five-point scale) in eligible AP courses, which typically are taken by juniors and seniors. For more information on AdvanceKentucky, see Appendix A.

JCPS Trend Data

JCPS has made significant gains in regards to Advance Placement (AP) testing. Since the late 1990's, JCPS has made a concerted effort to increase access to AP courses. In 1999, there were 674 AP tests given. In 2010, that number has risen to 6,299, a 934% growth. In the same time period, the number of students receiving a qualifying score has increased from 467 (1999) to 3,161 (2010); an increase of 677%. These numbers reflect only the number of students that actually sat for the AP Exam.

In 2010, all JCPS high schools had students participate in the AP exams. The numbers are even more significant when examining the number of students enrolled in an AP course. For the 2010 school year, there were 13,832 enrolled in AP courses being taken across JCPS, which includes students enrolled in multiple courses. Additional information about AP courses and examinations is presented on Appendix B.

Comparison between JCPS and AdvanceKentucky

When comparing JCPS results with those schools involved in AdvanceKentucky, there are a few caveats to consider. In order to participate in AdvanceKentucky, schools must go through an application process. By having an application process, there must be a certain level of buy-in and focus by the schools. Furthermore, Advance Kentucky is focused on Math, Science, and English (MSE) and does not report other AP tests. JCPS has numerous students take AP courses in all areas of interest, such as the Arts, History, Foreign Language, Psychology, and Government, in addition to the Math, Science and English exams. Lastly, there are differences between JCPS and AdvanceKentucky in student demographics: JCPS has higher percentages of free/reduced price lunch and minority students.

Although there appears to be faster growth in the number of students passing AP tests in Math, Science and English (MSE) for the AdvanceKentucky schools than JCPS schools from 2008 to 2010, JCPS schools have experienced an extraordinary growth over a more long-term, longitudinal perspective. The AdvanceKentucky program appears to be distributing the Advance Placement teaching load across more teachers with fewer AP students assigned to any single teacher. In addition, although AdvanceKentucky appears to have stronger results with minority students, JCPS has substantially expanded the number of minority students exposed to the rigor of AP courses. Despite the social barriers for learning in our high-poverty urban district, JCPS has still made considerable access and achievement growth and have had numerous successes without relying on monetary incentives (see Table 1 for this comparison, but also Appendix B for JCPS longitudinal growth on AP efforts).

Table 1

Comparison of AdvanceKentucky with JCPS

	Total Adv. KY	Total JCPS
# Total 9-12 Enrollments	29,975	28,247
# Total 11-12 Enrollments	13,373	12,023
# Total MSE AP Enrollments	5,149	5,983
# Total ALL AP Enrollments	-----	13,832
%Free/Reduced Lunch (9-12)	41%	51%
% Minority (9-12)	11%	35%
# MSE AP Teachers	186	92
# MSE AP Courses	181	148
MSE AP Teacher-Student Ratio	1:28	1:65
# 2008 AP MSE Qualifying Scores	904	1177
# 2010 AP MSE Tested	-----	2642
# 2010 AP MSE Qualifying Scores	2112	1336
# 2010 AP ALL Tested	-----	6249
# 2010 ALL AP Qualifying Scores	-----	3135

Note: MSE = Math, Science, and English

Appendix A: Description of AdvanceKentucky

From AdvanceKentucky website (<http://advancekentucky.com/Profile.aspx>):

“AdvanceKentucky is a statewide math-science initiative dedicated to helping Kentucky’s students reach new heights in rigorous academic achievement. Begun in 2007, this is a six-year partnership between Kentucky Science and Technology Corporation (KSTC) and the National Math and Science Initiative (NMSI). Under conditions of matching over the six years, NMSI has committed \$13.2 million to AdvanceKentucky through funding from Exxon Mobil Corporation and the Dell and Gates Foundations.

Interrelated elements of success comprise the NMSI Model that is premised on a philosophy of inclusiveness and high expectations for each student. The model expands access to, preparation for and participate in academically rigorous coursework, i.e., the Advanced Placement (AP) Program*. This includes extensive Pre-AP preparation strategies.

The eligible math, science and English (MSE) AP courses include: Calculus (AB, BC), Computer Science A, Statistics, Biology, Chemistry, Environmental Science, Physics (B, C: Electricity and Magnetism, C: Mechanics), English Language and English Literature.

Success is measured by growth in students’ participation in AP courses both in terms of enrollments and of Qualifying Scores (three and above on a five-point scale) in eligible AP courses, which typically are taken by juniors and seniors.

Forty-four (44) schools are involved and were announced in April ‘08, ‘09, and ‘10 during annual briefings before the Kentucky Board of Education.

Federal funding also is provided by US Department of Education AP Incentive Program, through KDE and by the Appalachian Regional Commission.”

National Math & Science Initiative (NMSI) AP Teacher Training and Incentive Program ELEMENTS OF SUCCESS



The components of the NMSI Model that AdvanceKentucky is replicating are designed to be implemented in a coordinated, complementary manner. Described briefly below are these interrelated components.

FOR STUDENTS (annually)

- **AP* Courses in MSE**: AP college-level courses in math, science and English (MSE).
- **Open Enrollments**: A culture of inclusiveness and preparation for more students to enroll in and be successful in AP classes.
- **Student Time-on-Task**: Tutoring, 18 hrs of exam prep sessions for each AP course and other supports made readily available to students.
- **Exam Fees**: Supplements to help cover 50% of AP exam fees not provided from other sources.
- **Incentives**: \$100 per Qualifying Score (3, 4, or 5) on AP exams in MSE.
- **Counseling/Recruiting**: Supportive information (especially in the early grades) to help with student/family decisions to prepare for and enroll in AP.

FOR TEACHERS, ADMINISTRATORS, AND SCHOOLS (annually)

- **Lead Teachers**: Master AP teachers mentor colleagues, guide vertical teams in their relevant subject matter on a path to academic achievement for AP students, conduct exam prep session for students, and more. (\$1,500 stipend per school served and \$500 stipend for each 6-hr student Prep Session delivered.)
- **Training**: for all AP & up to 5 Pre-AP teachers (at least one in each subject), 5-day summer institutes & other training during the academic year (for first two years and then every third year).
- **Vertical Teaming**: four meetings where high school and middle school teachers collaborate in the preparation of students for success in AP classes.
- **Stipend & Incentives for AP Teachers**: \$500 stipend to support additional responsibilities in extra training and teaching AP and \$100 per qualifying score achieved by students in their eligible AP classes.
- **Threshold Bonuses**: Achieving pre-set targets for Qualifying Scores (by class and by school) triggers bonuses for AP teachers of \$1,000, \$2,000 or \$3,000 and \$3,000 for the designated school administrator if school-wide goal is met.
- **Equipment & Supplies**: up to \$5,000 for equipment and \$25 per student enrolled in eligible AP classes (1:1 school matching required).
- **Access to National NMSI and State AdvanceKY Networks**

**Advanced Placement, AP and Pre-AP are registered trademarks of the College Entrance Examination Board, which was not involved in the production of this program.*

Appendix B: JCPs Advanced Placement Program

Table 2

Year	Score					# Tests	Scored 3, 4, or 5		Total # Students	Mean
	1	2	3	4	5		Number	Percent		
1995	15	44	85	68	39	251	192	76.5%	166	3.29
1996	34	51	104	111	66	366	281	76.8%	245	3.34
1997	23	40	92	95	65	315	252	80.0%	213	3.44
1998	48	87	120	97	91	443	308	69.5%	339	3.22
1999	82	125	175	177	115	674	467	69.3%	463	3.18
2000	188	277	315	227	180	1,187	722	60.8%	810	2.94
2001	285	439	384	273	211	1,592	868	54.5%	996	2.80
2002	299	403	405	302	251	1,660	958	57.7%	1,054	2.88
2003	574	638	566	388	195	2,361	1,149	48.7%	1,466	2.57
2004	640	672	706	520	333	2,871	1,559	54.3%	1,647	2.73
2005	730	795	806	627	380	3,338	1,813	54.3%	1,904	2.74
2006	857	852	953	746	418	3,826	2,117	55.3%	2,206	2.74
2007	1,029	990	1,083	844	498	4,444	2,425	54.6%	2,677	2.73
2008	1,197	1,126	1,189	829	550	4,891	2,568	52.5%	2,962	2.67
2009	1,461	1,478	1,404	990	698	6,031	3,092	51.3%	3,685	2.67
2010	1,551	1,563	1,390	1,024	721	6,249	3,135	50.2%	4,005	2.65

Figure 1

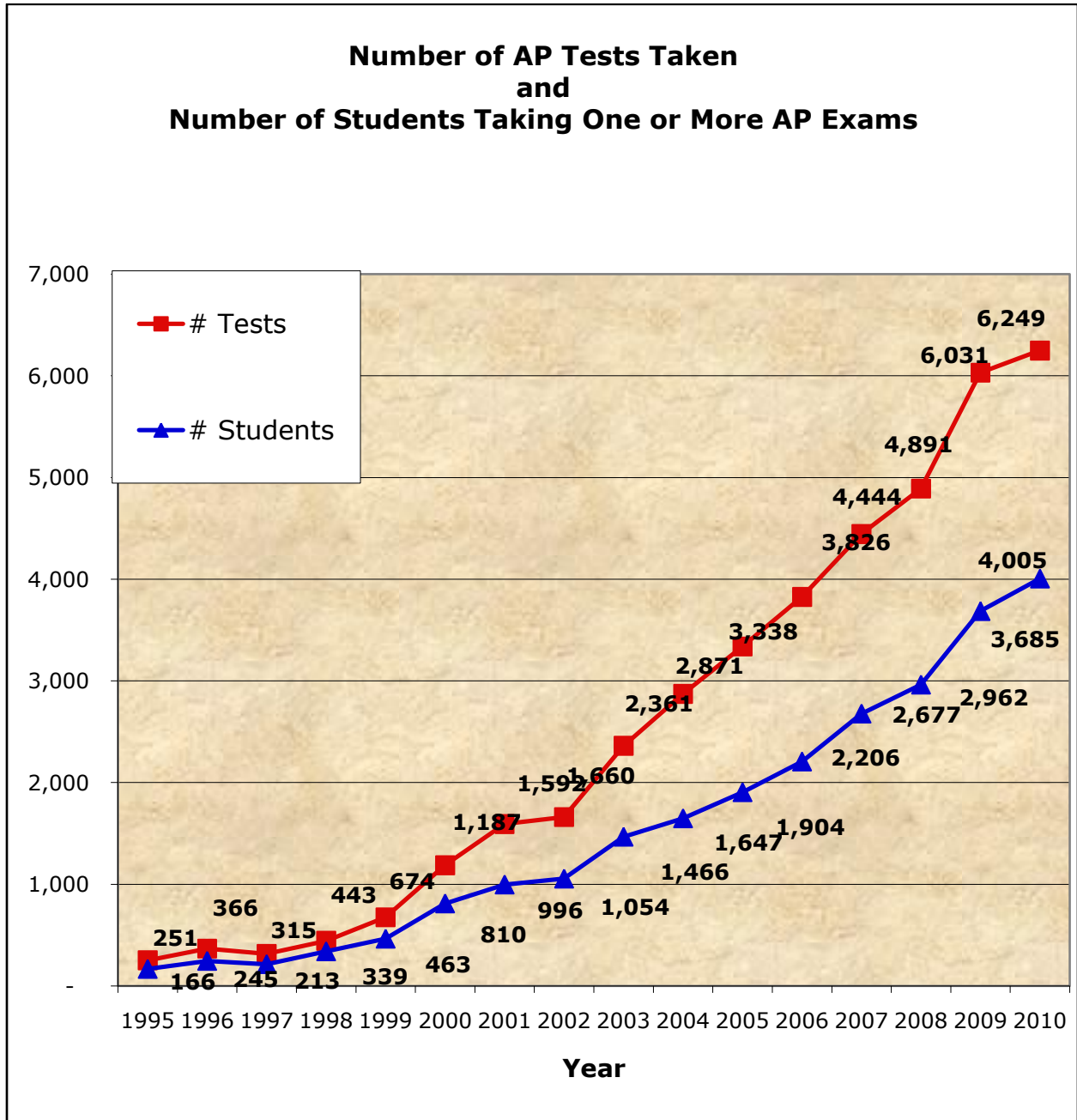


Figure 2

