



## Research Brief

### Success in Advanced Placement Courses

**Question:** What factors affect student success in AP courses?

**Summary of Findings:** The College Board's Advanced Placement Program (AP) is widely recognized as the premier program for advanced placement and credit by examination. Originally established in 1955 as an opportunity for a few elite groups of students to take on college level work, the AP program has expanded to include more than 700,000 students, more than one million exams administered yearly, in more than 13,000 schools. Research indicates that students completing AP courses were better prepared to take on college course work and were able to earn college credit when successful on the AP exams. In addition, teachers participating in AP professional development have been credited with greater content and pedagogical knowledge. Finally, Advanced Placement programs are credited with improving the overall curricula of the school by creating a need for more rigorous prerequisite courses. However, in spite of the many benefits of Advanced Placement programs, problems exist. According to a report by the Commission on the Future of the Advanced Placement Program (Freedman et al., 2001):

- Forty-three percent of American High Schools do not offer AP courses.
- Although there has been growth in minority student enrollment in AP classes, students from urban, rural, and poor areas are still underrepresented.
- Approximately 34 percent of students enrolled in AP courses do not take the AP examinations.
- The number of qualified teachers for AP courses is limited.
- The number of college and university faculty engaged with AP is inadequate.
- Growth demands greater resources for high schools to support AP instruction; the more students taking the exams, the greater the cost for schools.

In order to support the growing demands of schools for Advanced Placement Programs, the committee made the following recommendations:

- There must be sufficient numbers of dedicated well, trained teachers. Teacher professional development is essential.
- All students should have access to AP courses and have the chance to acquire the skills needed to succeed in them. There needs to be a focus on expanding access to AP in underserved schools and underserved populations.
- Attention should be given to adequate student preparation to enter AP courses.
- Teachers should be provided with greater instructional resources. Teacher's needs have been identified as paramount.
- A system of support needs to be in place before a rapid expansion of the number of AP courses occurs in schools.
- College and university faculty should play critical roles in the Advanced Placement program.



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## Class Performance on the AP Examination

In 2001 a research study was conducted by Furry & Hecsh examining the factors that led to success in AP courses offered in the state of California along with the characteristics of these courses. The researchers concluded that there were several factors that were strongly associated with success in Advanced Placement courses in California:

- **Meeting with feeder schools:** Teachers in higher-performing classes met with teachers from their feeder schools more times during the year than teachers in lower-performing classes.
- **Student Preparation:** Teachers in lower-performing classes were more likely to perceive large gaps in student preparation for the AP class. Therefore, adequate preparation for students before entering an AP course is essential.
- **Qualified Students:** Teachers in high-performing classes were more likely to deny admission to AP courses for unqualified students.
- **Principal's Attitude:** In lower-SES schools, teachers of higher-performing classes more often reported strong support from the principal. However, in higher-SES schools with high performing AP classes, there wasn't an association between teachers' views of the principal and student performance.
- **Pressure to Achieve High Scores:** Teachers in lower-performing AP classes reported significantly more often that there was little pressure from administration to achieve high scores, while teachers in high-performing courses indicated more often that they experienced pressure from administration.
- **Years Teaching the AP Subject:** Higher-performing classes have teachers with more years of experience teaching the AP subject than teachers in the lower-performing classes.
- **Possession of Doctorate:** In the higher SES schools, there was a link between high-performing classes and the teacher's possession of a doctorate.

## AP Teachers Issues and Concerns

In the same Furry & Hecsh (2001) study, teachers were interviewed and several key issues were identified as concerns about teaching AP courses:

- Students taking too many AP courses at one time, thus lessening their engagement in the course.
- Whether or not the school requires or provides an incentive for students to take the AP exam.
- Teachers with large class sizes (35 or more) or teaching multiple sections remarked on the need to reduce size or restrict enrollment; in addition, teachers identified the presence of unqualified students as a factor in class size.
- Teachers were concerned with the cost of the AP exam.
- Teachers were concerned about the lack of preparation of AP students.
- Teachers were concerned about the timing of the AP exam; often the exam is given several weeks prior to the end of instruction.
- Teachers in schools where there is a block schedule (where a course is given in one semester rather than throughout the year) expressed difficulty in preparing students adequately for the exam. These concerns are supported by a study conducted by the College Board (Smith & Camara, 1998) which



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- found that students who take AP courses for the entire year consistently perform better than students taking the course in a semester block.
- Teachers commented on the workload of teaching AP and a lack of compensation for taking on the additional work.

#### Minority Students and Advanced Placement

Equity is a critical issue when considering student access to and success in AP courses. A study conducted by Burton et al. (2002) examined the role of teachers in Advanced Placement Courses, specifically looking at teachers who were successful in enrolling and teaching minority students. The study suggested that AP teachers first need to embody the characteristics research has identified as successful for teaching minority students (in addition to strong content knowledge and professional development) such as:

- High expectations for all students.
- A deep understanding of the characteristics of all students.
- An awareness of both the background and cultural resources of students as well the prevailing culture of the school and the classroom.
- Using a broad array of teaching strategies and tools.
- An ability to engage students in meaningful learning tasks.
- An ability to personalize and adapt instruction to the needs of students.
- Fostering cooperation and communication between the teacher, students, and the parents.

Specifically, the study identified several themes that applied to teachers of AP classes with minority students:

- Good teachers of minority students are good teachers.
- They use a wide variety of teaching methods.
- A good AP program will engage minority students.
- Teachers should apply high standards to all students.
- Teachers need to make sure that the most fundamental content and skills are well covered.
- Teachers need to teach about college in order for parents and students to feel comfortable with the program.
- Teachers lack the time, funding, and political clout to make needed changes; they need external support.

#### Recommendations

Considering the results of these and similar studies, several recommendations can be made to improving success in AP courses. School administrators and others involved in the AP program can heed the following recommendations and focus on the following issues when possible:

- ✓ Focus on student preparation; most studies emphasized that preparing students in the courses they take **prior** to entering an AP course were essential to student success.
- ✓ Adequately prepare teachers for instruction in AP courses. Good teachers of all students are good AP teachers, especially with experience and continuing professional development.



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- ✓ Provide materials and support for teachers and students in AP courses. Consider the teacher and student workload and what incentives may increase performance.
- ✓ Pay attention to class size and student qualifications for entering AP courses.
- ✓ Consider timing and scheduling of AP courses in order to provide adequate instruction and preparation for the AP exams.
- ✓ Create high standards and high expectations for all students.
- ✓ Consider equity issues and how to ensure access to AP courses for all students with an emphasis on adequate preparation for AP courses.

#### Online Resources:

##### AP Central

<http://apcentral.collegeboard.com>

The headquarters for the AP program with information for students, teachers, and administrators. There are links to exam information, research, and publications at this comprehensive site.

##### Ed.Gov

<http://www.ed.gov/programs/apincent/index.html>

Advanced Placement Incentive Program Grants: Information on government grants given to agencies giving opportunities to low-income students to participate in AP courses.

<http://www.ed.gov/programs/apfee/index.html>

Advanced Placement Test Fee Program: Information on government funds to help subsidize test fees for low-income students to encourage them to take AP exams.

##### Advanced Placement Strategies

<http://www.apstrategies.org/>

A non-profit organization designed to provide assistance for Texas schools and the private sector by providing AP incentive programs.

##### AP Mentor

<http://www.apmentor.com/default.html>

A for profit company offering programs to assist teachers and students in AP subject such as cd-roms, lectures, and study guides.



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