



**Indiana High School-to-College
Advisory Committee**

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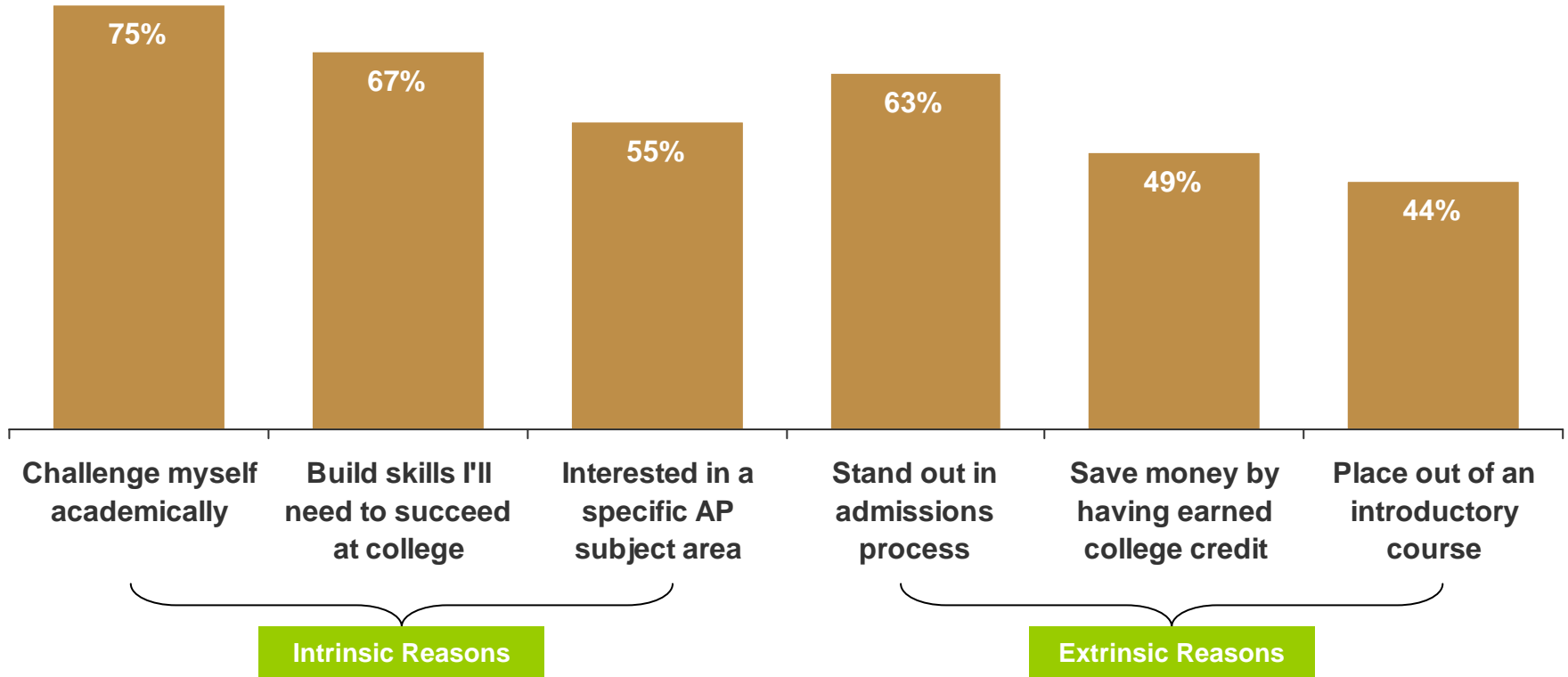
Who Participates in AP?

- 16,000+ secondary schools worldwide offer AP exams
- More than 120,000 AP teachers in over 14,300 schools worldwide teach AP courses
- In 2007, over 1.4 million students took about 2.5 million exams
- 4,700+ college faculty develop and score the AP Exams ensuring college-level standards
- 3,500+ colleges receive AP Exam scores annually

Why do Students take AP Courses?

Which of these are reasons why you have decided to take AP?

■ AP Students

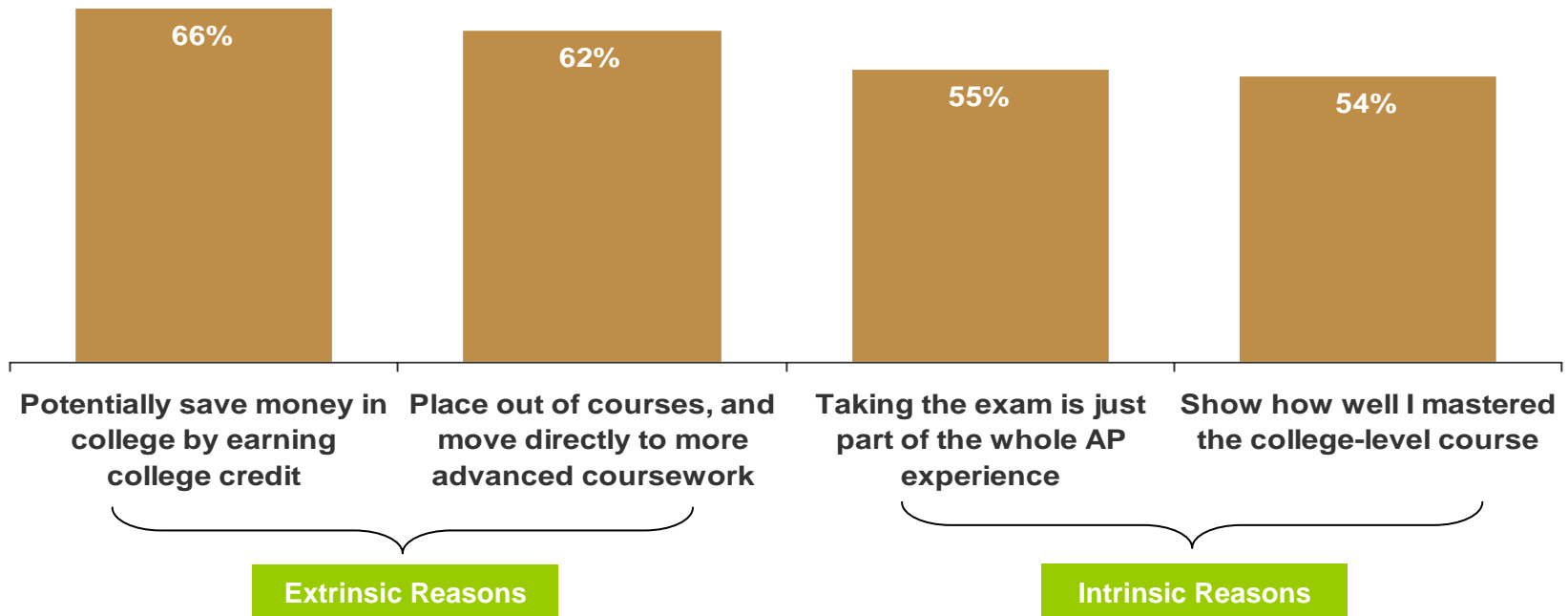


Q310

Credit / Placement Opportunities Remain the Strongest Drivers of the Decision to take the AP Exam

Which are key reasons why you would take an AP Exam at the end of an AP course?

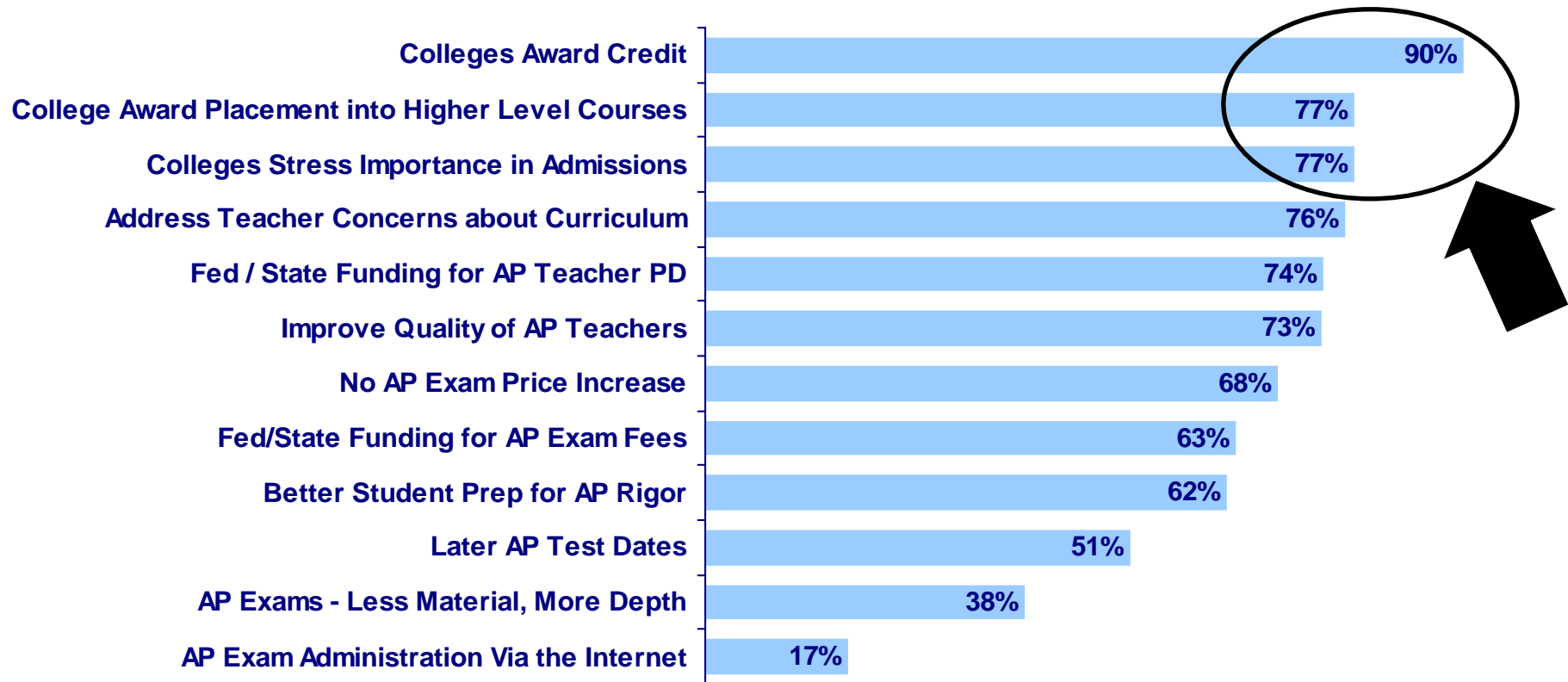
■ AP Students



Higher Education's Support for K-12 is *Critical* if Secondary Schools are to Continue to Increase Academic Opportunities for Students

To sustain your school's current level of participation in AP, how important is it that...

% Extremely / Very Important



AP Teachers – Q345 Base: (n=3,417)

Faculty Expertise is Essential in Every Facet of AP Course and Exam Development

- Pre-test AP Exams by embedding them within exams offered in the college classroom
- Write AP Exam questions and develop all AP course descriptions
 - College faculty serve as Chairs of all AP Development Committees
- Score the free-response sections of AP Exams by attending the AP Reading at a college campus or convention center every June
 - College faculty serve as Chief Readers for all exam gradings
- Teach professional development institutes for experienced and new AP teachers
- Participate in the annual audit of courses labeled “AP” by reviewing electronic copies of AP teachers’ syllabi to provide feedback
- College faculty ensure rigor and quality of AP standards by participating in comparability studies

Some Key Benefits of AP

- AP courses establish a college-level standard in secondary schools that is measured through a national assessment designed and scored by college faculty.
- AP courses expose college-bound students to the amounts of homework, study skills, and habits of mind essential for success in college courses.
- AP provides leverage for aligning and strengthening the grades 6-12 curriculum.
- Students who take AP Exams and score a 3 or higher typically experience greater academic success and college graduation rates than non-AP students.

What Kinds of College Success do AP Exams and Courses Predict?

Performance in upper-level college courses

AP students exempted from introductory college courses, including mathematics and science courses, earned higher course grades than students who took the introductory course on the college campus.

Likelihood of deeper college studies in a discipline

Students who took AP exams were more likely to take at least one additional course in the discipline of their AP exam while in college, compared to their peers who did not take AP Exams in those disciplines.

College Graduation

Students who earned a 3 or higher on one or more AP Exams in the areas of English, mathematics, science or social studies were more likely to graduate from college in five years or less compared to non-AP students.

College Grades in Math and Science

AP Exam grades were a strong predictor of second-year undergraduate GPA in biological sciences, mathematics, and physical sciences, second in strength only to high school grade point average.

Sources

See research by Rick Morgan and Leonard Ramist (1998), corroborated by the investigation by Barbara G. Dodd, et al., (2002), at <http://www.collegeboard.com/press/releases/50405.html>

B.G. Dodd, S.J. Fitzpatrick, R.J. De Ayala, & J.A. Jennings, "An Investigation of the Validity of AP Grades of 3 and a Comparison of AP and Non-AP Student Groups," College Board Research Report No. 2002-9 (New York: The College Board, 2002).

Dougherty, Chrys, Lynn Mellor and Shuling Jiana (2006). "The Relationship between Advanced Placement and College Graduation," Austin: National Center for Educational Accountability.

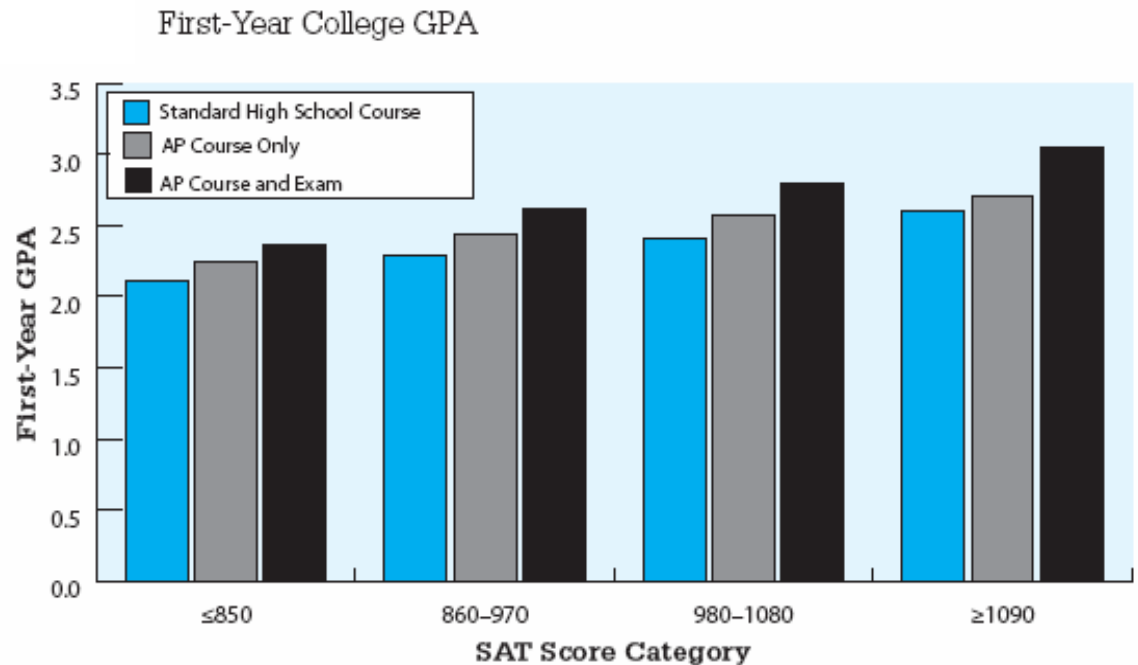
8 Geiser, Saul and Veronica Santelices (2004). "The Role of Advanced Placement and Honors Courses in College Admissions" (Berkeley: University of California).

AP and College Success

Texas researchers Linda Hargrove, Donn Godin, and Barbara Dodd followed five cohorts of students (1998–2002) who enrolled at any Texas public higher education institution after graduating from a Texas public high school. The study provides an extensive comparison of students' performances on several college outcomes—including first- and fourth-year grade point averages (GPAs) and four-year (baccalaureate) graduation status—in relation to the various types of AP and non-AP experiences they had in high school, aggregated across all AP subject areas. Among the groups of students studied were college students who had taken:

- 1 or more AP courses and exams in high school (i.e., the “AP course and exam” group);
- 1 or more AP courses in high school but not the associated AP Exam (i.e., the “AP course only” group);
- not taken any AP courses or exams in high school (i.e., the “standard high school courses” group).

SAT score and Free or Reduced Price Lunch (FRPL) status were included as control variables in an effort to account for possible ability and income differences between the groups. **Results showed that students who took one or more AP courses and exams (i.e., the AP course and exam group) and students who took one or more AP courses but no exam (i.e., the AP course only group) significantly outperformed the “standard high school courses” group on all college outcomes in all years, after statistically controlling for SAT score and FRPL status.** The “AP course and exam” group also significantly outperformed the “AP course only” group on all college outcomes in all years.



Does granting AP credit result in student avoidance of further studies in that discipline? Data show the opposite:

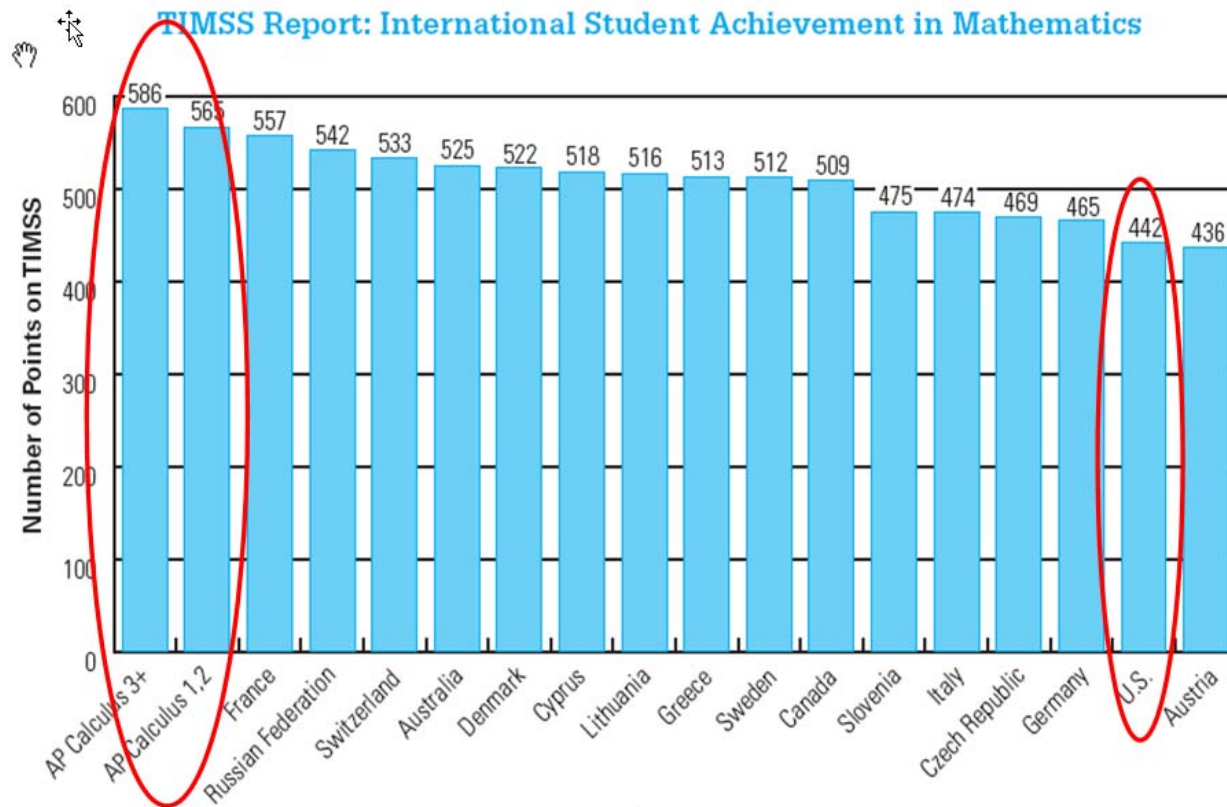
When tracking AP students' selection of college majors, we can see that their interest in the discipline persists. Large percentages of students who take AP math or science exams then major or minor in engineering, mathematics, or science disciplines:

| AP Exam Taken | Percent of AP Students That Major/Minor in Discipline | Percentage of AP Students Earning Bachelor's Degrees |
|---|---|--|
| AP Biology | 28% | 76% |
| AP Calculus AB | 23% | 75% |
| AP Calculus BC | 33% | 82% |
| AP Chemistry | 16% | 76% |
| AP Computer Science A | 23% | 72% |
| AP Computer Science AB | 26% | 70% |
| AP Physics B | 40% | 75% |
| AP Physics C: Mechanics | 39% | 75% |
| AP Physics C: Electricity and Magnetism | 42% | 78% |

Source: Morgan, Rick and Behroz Maneckshana. *AP Students in College: An Investigation of Their Course Taking Patterns and College Majors*. Princeton: ETS, 2000.

International Comparisons

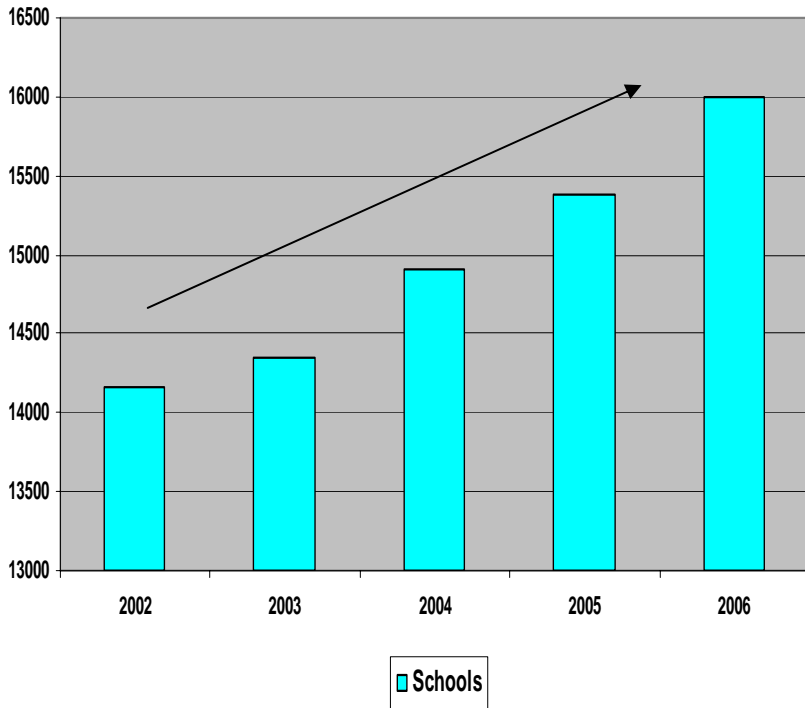
American students taking AP Calculus and AP Physics—particularly those American students scoring 3 or higher on the AP exam—earned a much higher average on the TIMSS assessments than the rest of American students (who jockey with Austrian students for the lowest average scores)



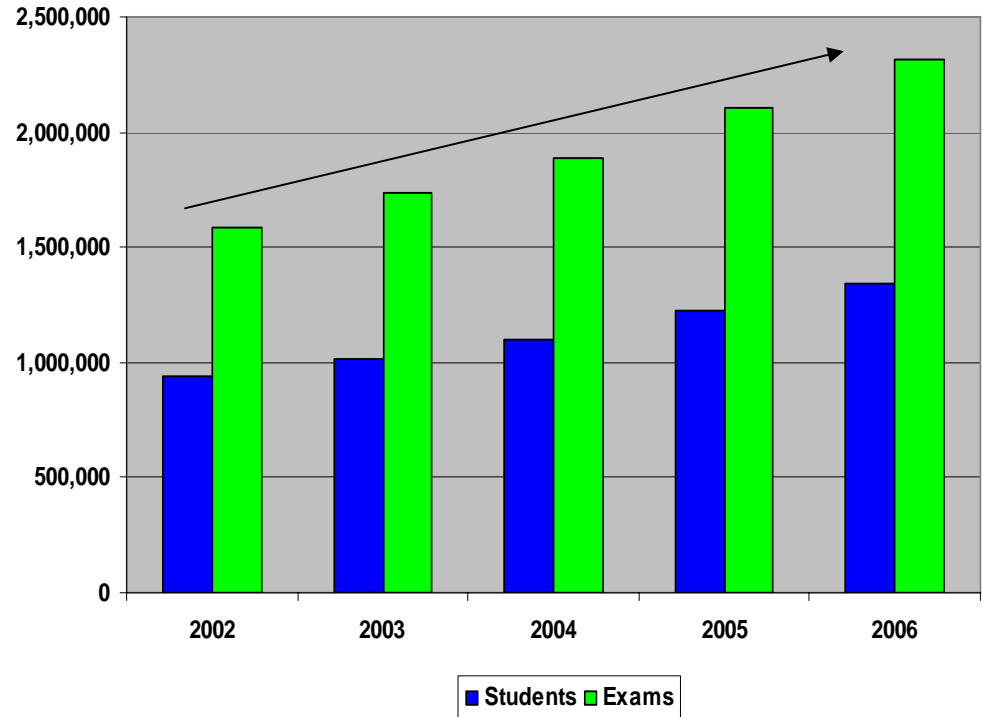
Source: Eugenio J. Gonzalez, Kathleen M. O'Connor, and Julia A. Miles, *How Well Do Advanced Placement Students Perform on the TIMSS Advanced Mathematics and Physics Tests?* (The International Study Center, Boston College, 2001)

AP Continues to Grow in the Number of Participating Schools, Students and Exams

AP Growth: No. of Schools



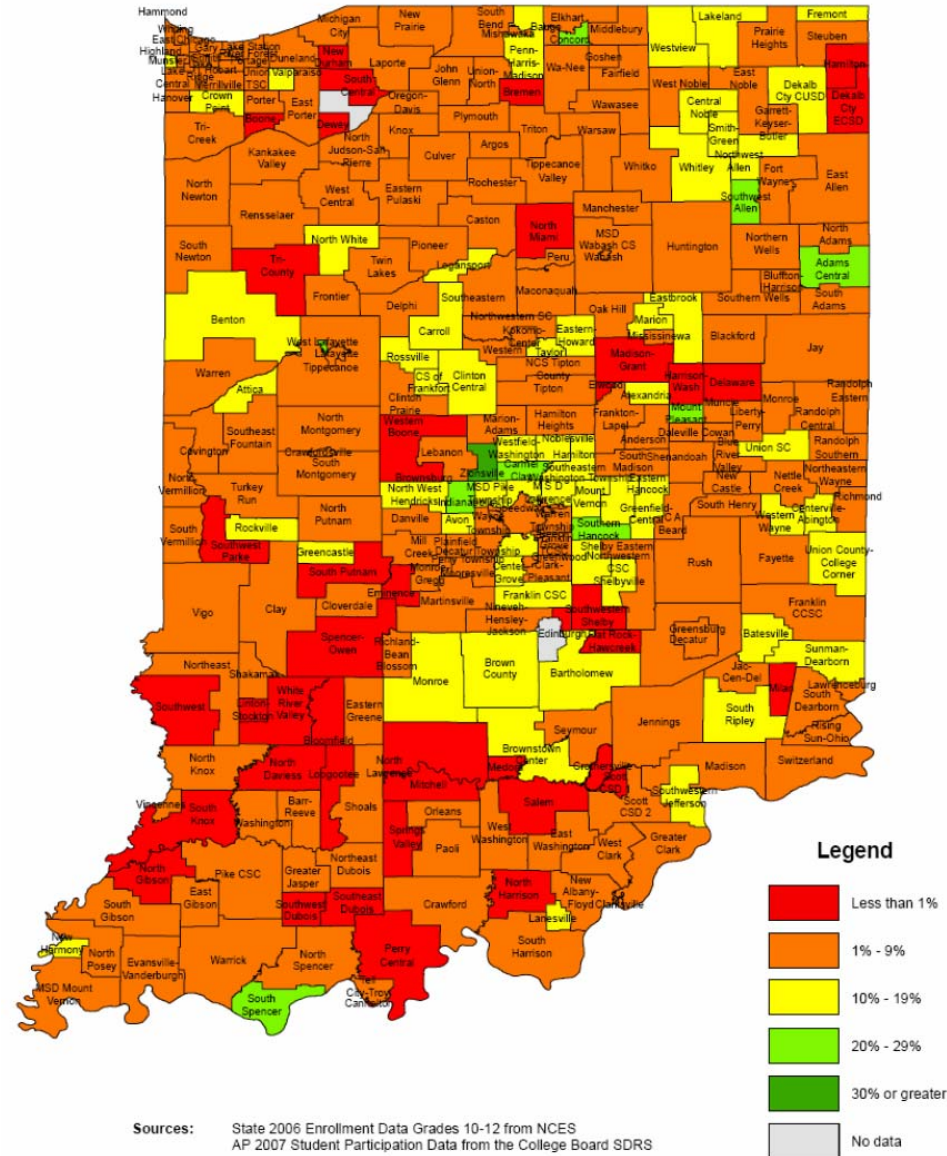
AP Growth: Students/Exams



Source: The College Board SDRS

INDIANA PUBLIC SCHOOLS 2007 AP Participation by District

AP Students as Percent of Student Enrollment Grades 10-12 by District



National and State Trends

Percentage of Students Earning a 3 or Higher on an AP Exam During High School

| State | 2002 | 2006 | 2007 | 1 Yr Chng | 5 Yr Chng |
|---------------------|-------------|-------------|-------------|------------------|------------------|
| Illinois | 11.7 | 15.0 | 14.9 | -0.1 | 3.2 |
| <i>Indiana</i> | 7.3 | 9.2 | 9.7 | 0.5 | 2.4 |
| Michigan | 10.3 | 12.2 | 12.8 | 0.6 | 2.5 |
| Minnesota | 9.8 | 12.3 | 13.4 | 1.1 | 3.6 |
| Missouri | 4.7 | 6.2 | 6.7 | 0.5 | 2.0 |
| Ohio | 8.3 | 10.5 | 11.0 | 0.5 | 2.7 |
| West Virginia | 5.2 | 6.5 | 7.0 | 0.5 | 1.8 |
| Wisconsin | 11.8 | 15.7 | 16.5 | 0.8 | 4.7 |
| Regional Avg | 8.6 | 11.0 | 11.5 | 0.6 | 2.9 |
| National Avg | 11.7 | 14.7 | 15.2 | 0.5 | 3.5 |
| Top States | | | | | |
| New York | 20.2 | 22.4 | 23.4 | 1.0 | 3.2 |
| Maryland | 16.4 | 21.7 | 22.4 | 0.7 | 6.0 |
| Virginia | 16.9 | 20.7 | 21.5 | 0.8 | 4.6 |
| Florida | 15.2 | 19.8 | 20.3 | 0.5 | 5.1 |
| Massachusetts | 15.4 | 19.5 | 20.3 | 0.8 | 4.9 |

State Policy and Funding

Indiana has passed legislation to increase access to and achievement in AP.

Below are three other states who have similar legislation.

A key difference is the amount of funding allocated and how those funds are utilized.

| | Professional Development AP, APSI, Pre-AP | Expansion Courses and Materials | Exam Fees |
|---------------|--|--|-------------------|
| Indiana | \$0 | \$0 | \$953,284 |
| Minnesota | \$3,500,000 | \$6,500,000 | \$75 per exam fee |
| West Virginia | \$2,000,000 | wghtd funding | |
| Illinois | part of expansion | \$1,500,000 | \$500,000 (rqstd) |