

APRIL 2021

# New Analyses of AP Scores of 1 and 2

## Background

Students take rigorous AP courses in high school, in part, for the chance to earn college credit and placement through a score of 3 or higher on the exam. New evidence now shows there are benefits to taking AP courses even for students who don't meet that threshold.

Researchers analyzed college enrollment records of approximately 1.5 million students and a subsample of 410,000 students for whom they had college grades, applying statistical controls to compare AP students to observationally similar college students. The findings show that AP students who earn scores of 1 and 2 have significantly stronger college outcomes than college students who did not take an AP course and exam.

## About the Analyses

AP students may be more likely to attend college and succeed for many reasons in addition to their AP coursework. To account for these other factors, these analyses include statistical controls, including academic achievement (i.e., SAT scores and high school GPA) and background characteristics (i.e., gender, race/ethnicity, and first-generation college student status). This method compares AP students' college outcomes to observationally similar peers. Accordingly, these analyses do not make causal claims that AP course taking independently produces these results, but do provide a strong signal that students earning AP scores of 1 and 2 are likely to achieve better college outcomes than observationally similar students who did not take AP courses and exams.

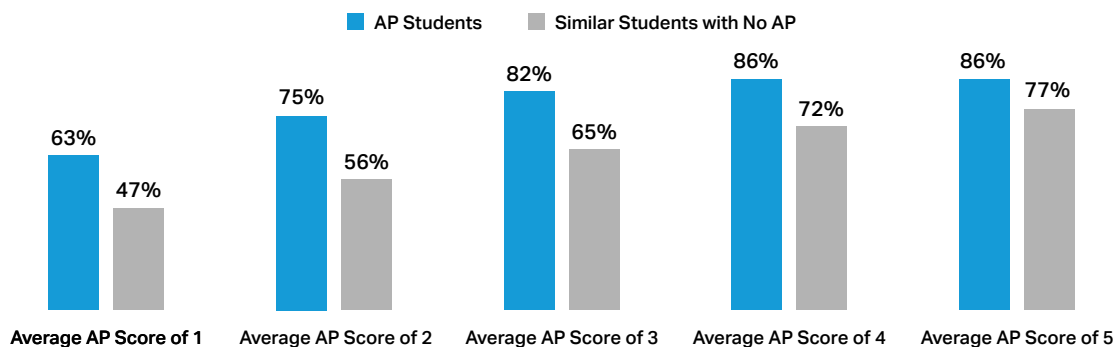
## Findings

**Key Takeaway:** AP students who earn a score of 1 or 2, or average a score of 1 or 2 across their AP Exams in high school, have better college outcomes than academically similar college students who did not take an AP course and exam.

### FINDING #1: COLLEGE ENROLLMENT

**AP students, including those with average scores of 1 or 2, are more likely to enroll in a four-year college compared to academically similar students who did not take AP in high school.** AP students who average scores of 1 or 2 on their AP Exams are 16 and 19 percentage points, respectively, more likely to enroll in a four-year college than academically similar peers who did not take AP.

FOUR-YEAR COLLEGE ENROLLMENT PROBABILITIES, BY AVERAGE AP SCORE



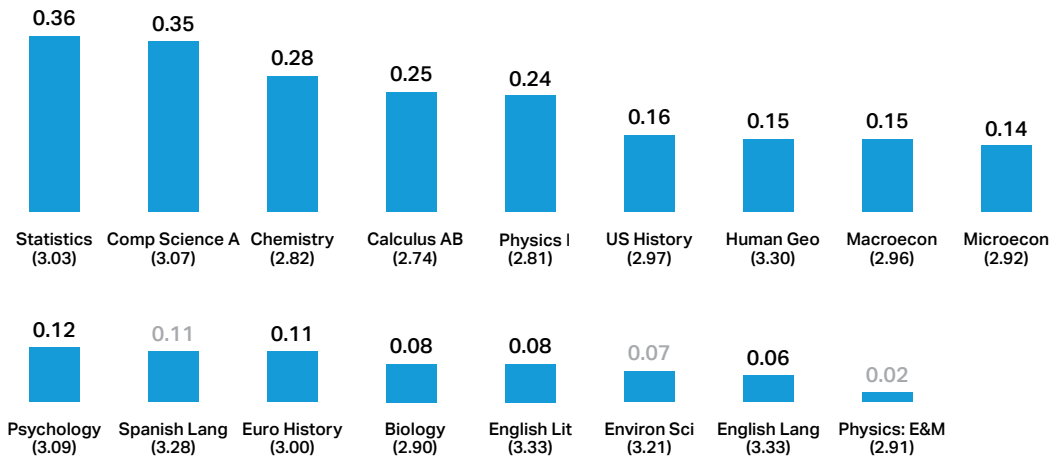
NOTES: Probability of enrollment immediately after high school graduation is calculated for 1,560,229 students who graduated high school in 2017. Probabilities are calculated separately for the average student in each AP score sample conditional on gender, ethnicity, first-generation status, SAT score, and HSGPA.

## FINDING #2: COLLEGE READINESS

### Students who earn AP scores of 2 are well prepared to succeed in introductory college coursework.

Compared to academically similar college peers who did not take the AP course, AP students who earn scores of 2 perform as well or better when they take those introductory college courses. For example, students taking Introductory Statistics in college who did not take AP Statistics earn, on average, a course grade of 3.03 in Introductory Statistics (see value in parentheses under horizontal axis label), while students with a score of 2 on the AP Statistics Exam earn, on average, a course grade of 3.39 in Introductory Statistics: a 0.36 boost in course grade.

#### COURSE GRADE DIFFERENCE IN INTRODUCTORY COLLEGE COURSES AMONG AP STUDENTS SCORING A 2 RELATIVE TO ACADEMICALLY SIMILAR COLLEGE STUDENTS



NOTES: Data for these analyses come from a sample of students who enrolled in one of 171 four-year colleges. Numbers in parentheses below the horizontal axis labels provide mean grade point averages for the students who did not take the AP Exam. Differences in bold font are statistically significant at alpha 0.10. Sample sizes range from 1,717 to 76,378 depending on the subject. Only 17 subjects are listed as sample sizes for remaining subjects were too small to report or AP Exams were recently redesigned and college outcome data for students taking these exams needs to be collected. Results are based on regression models controlling for first-generation and underrepresented minority status, gender, SAT score, and HSGPA. A Non-AP student in this analysis is defined as a student who did not take the AP Exam of interest. Non-AP students could have completed other AP Exams.

## FINDING #3: PATHWAYS AND PROGRESS

### Many students who first score a 1 or 2 on an AP Exam will take further AP courses and score higher.

Depending on when students take their first AP Exam, 61%–84% of students who earn a 2 on their first AP Exam will take another AP Exam in subsequent years. Students who earn a 1 on their first AP Exam are also very likely (49%–70%) to take more AP courses and exams in high school. Many students who first earn an AP Exam score of 1 or 2 will then earn a higher score on the subsequent AP Exams they take. This trend is particularly true for 9th- and 10th-grade students who earn a score of 2 on their first AP Exam.

