

Participation and Performance on Advanced Placement Exams

Executive Summary

DoDEA Research and Evaluation Branch

DEPARTMENT OF DEFENSE EDUCATION ACTIVITY

11/2013



The College Board's AP Program is a rigorous academic program built on a foundation of high-quality assessments. The AP Program offers more than 30 courses, which are developed by college faculty and AP teachers and designed to cover the breadth of information found in the corresponding college course. Each AP course has a corresponding end-of-course exam designed by college and AP high school faculty. According to College Board, each exam is intended to measure the student's mastery of the course content and the "students' ability to perform at a college level."

In addition to providing students a rigorous educational experience and the opportunity to take a college-level course at their high school, participation in AP courses can also provide students the opportunity to earn advanced placement and/or college credit by obtaining a qualifying score on the AP Exam. AP Exams are scored on a scale of 1–5, with five being the highest. According to the College Board, students who score a three or above on an exam are "qualified" in the respective content area and can be expected to earn a "C" or better in corresponding college courses. The National Center on Education and Economics reports that approximately 90% of four-year colleges and universities in the United States grant students some level of credit or placement on the basis of successful AP scores. Frequently, a score of 4 earns credit in a basic level course, and a 5 is required for an intermediate level course. However,

policies vary greatly by college/university; some colleges/universities may only provide credit for AP Exams earning a score of five, or for exams in certain content areas.

The following are key Findings from the analysis of the Advanced Placement Exams in DoDEA in School Year (SY) 2012–13:

- ◆ **The number of Advanced Placement (AP®) Exams taken nationally and by the Department of Defense Education Activity (DoDEA) students continues to rise.** Nationally, a record setting 3,355,934 AP Exams were taken by public school students in 2013, an increase of approximately 200,000 over the previous year. Similarly, the number of AP Exams taken by students in DoDEA has also increased. DoDEA students took 6,053 AP Exams in 2013, an increase of almost 100 over the previous year, and almost 700 over the past three years.

Similar to the Nation, the most frequently taken AP Exams in DoDEA were in English Language and Composition (n=1,073), English Literature and Composition (n=813), U.S. History (n=774), and U.S. Government and Politics (n=633). The fewest number of AP Exams taken by DoDEA students were in Human Geography (n=2), Studio Art 3D (n=4), Computer Science A (n=6), and Physics C: Electricity & Magnetism (n=9).

- ◆ **More students in DoDEA are participating in AP Exams, but there are gaps in participation based on race/ethnicity and gender.** Participation in AP Exams by DoDEA students has increased over the past three years, with approximately 22% of DoDEA students in grades 9–12 taking at least one AP Exam in SY2012–13. Although this remains unchanged from the previous year, it represents a 5% increase over the past five years. White and Asian students in DoDEA participate in AP Exams at rates of 10%–15% above that of Black and Hispanic/Latino students. Almost 30 out of every 100 Asian high school students and 25 out of every 100 White high school students in DoDEA took at least one AP Exam in 2013, compared to only approximately 13 out of every 100 Black/African American and 18 out of 100 Hispanic/Latino students who did the same. Females in DoDEA continue to participate in AP Exams at higher rates than males, a trend that mirrors data found nationally. While 25% of females in DoDEA took at least one AP Exam in SY2012–13, only 20% of males did so. Participation has increased by 5% for both groups over the past five years.
- ◆ **The performance of DoDEA students on AP Exams has increased over five years, but has remained stagnant for the past three years.** Approximately 52% of the AP Exams taken by DoDEA students in SY 2012–13 earned a qualifying score of three or above, representing a 4% increase over the past five years. Although this is 5% below the national average and that of many other states, caution should be used in making comparisons in performance only. A state can possess high percentages of qualifying scores but could limit participation to a few select students. Performance on AP Exams should always be compared in light of participation.
- ◆ **There are gaps in performance in DoDEA based on race/ethnicity and gender.** Black/African American students in DoDEA continue to outperform their public school peers nationally, while White and Asian students in DoDEA perform below their peers nationally. There is a persistent gap of at least 20% between Black/African Americans and White students in DoDEA.
- ◆ **Despite the fact that females in DoDEA participate in AP Exams at higher rates than males, males continue to significantly outperform females.** In 2013, there was a 4% gap between the percentage of AP Exams by males and females in DoDEA earning

a qualifying score, a gap that has persisted over the past five years. DoDEA's gender gap mirrors trends found nationally and across most states; College Board reports that in 2013, 62.2% of AP Exams by males earned a qualifying score, compared to 55.6% of AP Exams by females.

- ◆ **DoDEA students continue to perform strongest in AP Exams in foreign language.** Across curricular areas, the performance of DoDEA students is consistently strongest in foreign language, with approximately 82% of AP Exams taken in this area earning a qualifying score of three or higher. The area of science has seen the greatest improvement, with a 16% increase in qualifying scores over the past five years.
- ◆ **The Participation and Performance of DoDEA students in STEM related courses has increased over the past three years.** According to the U.S. Department of Commerce, jobs in science, technology, engineering, and mathematics (STEM) are expected to grow by 17% between 2008 and 2018, compared to a growth of only 9.8% for non-STEM jobs. In DoDEA, participation in STEM-related AP Exams has gradually increased over the past three years, with approximately 8.5% of DoDEA students taking at least one STEM-related AP Exam in 2013. There have also been incremental increases in the percentage of AP Exams in STEM related courses earning a score of three or higher. In 2013, almost half (49%) of AP Exams in STEM-related courses earned a qualifying score, compared to 46% three years prior.

