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EFP Takeaways

How College Credit in High School Impacts Postsecondary Course-Taking: The Role of Advanced Placement Exams

Background

STEM education is critical for preparing the future workforce, yet STEM disciplines have high attrition rates. More information is needed regarding interventions that increase STEM degree completion. The strongest correlate of college success more generally is a student's level of academic preparation, and prior studies have demonstrated that AP exams can particularly impact student outcomes. Taking an AP exam has been shown to improve college preparation and increase on-time bachelor degree completion. In vol. 16 issue 2 of *EFP*, Oded Gurantz examines the impact of AP performance on postsecondary curricular choices, including within STEM fields, as well as impact variation by gender.

The Study

Data was taken from the graduating classes of 2004-2006 in a single state and included over 70,000 students. The author utilized a regression discontinuity design, which compared students with almost identical academic performance, but who received different exam scores (a passing 3 versus a non-passing 2). Students who receive a score of 3 can skip introductory college courses, allowing them to either deepen their study or broaden their exposure to different disciplines.

Findings

Results indicated that receiving college credit from a STEM AP exam increased the depth of study within STEM departments, but slightly decreased the breadth of study across departments. Receiving college credit from a non-STEM AP course was found to increase the number of non-STEM courses taken, but mostly outside the discipline of the original AP course. Furthermore, the actual college credit received was found to be the key mechanism in this relationship, as achieving a higher score at a threshold that did not offer college credit had no effect on courses taken. A gender analysis revealed that female students were more likely to benefit from receiving early college credit, as they were more likely to increase their depth of study within a STEM field, which may ultimately improve later career decisions. These findings suggest that more research is needed on why introductory STEM courses in college appear to inhibit the types of courses females take later in college.

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Gurantz, O. (2021). How College Credit in High School Impacts Postsecondary Course-Taking: The Role of Advanced Placement Exams. *Education Finance and Policy*, ????