

# Dual Enrollment and Other Early College Course-Taking in Pennsylvania

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College is expensive and families are happy to find ways to reduce the cost. One way is to complete college credits early. Many American high school students today earn college credit while still in high school through dual enrollment (DE), advanced placement (AP), and international baccalaureate (IB) programs.

Participation in these programs can improve college outcomes. Dual enrollment participation, for instance, is positively associated with higher college GPA and enrollment and lower remediation rates.<sup>1</sup> And students who take both AP courses and exams outperform all other groups in terms of college enrollment, persistence, and four-year graduation rates.<sup>2</sup>

If these programs are only available to some, such unequal opportunity could be a source of social stratification in the U.S. To investigate this possibility, we explored access to, and participation in, early college programs among Pennsylvania students.

Our analysis is based on student-level data from the Pennsylvania Department of Education on graduating 12th grade cohorts during the years 2013-2022. We looked separately at AP, IB, and DE courses.

FIG 1.

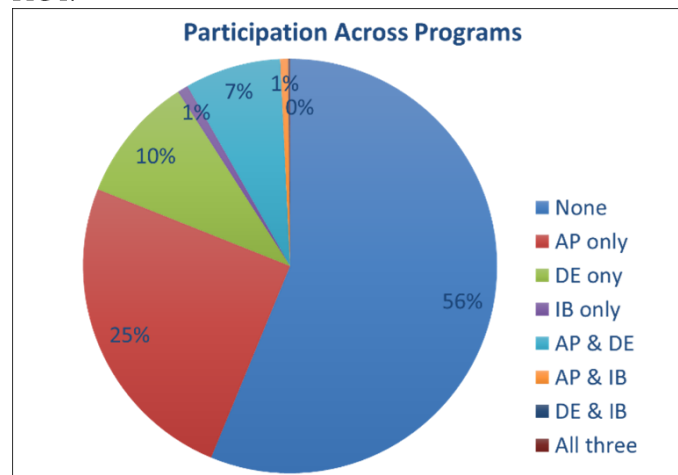
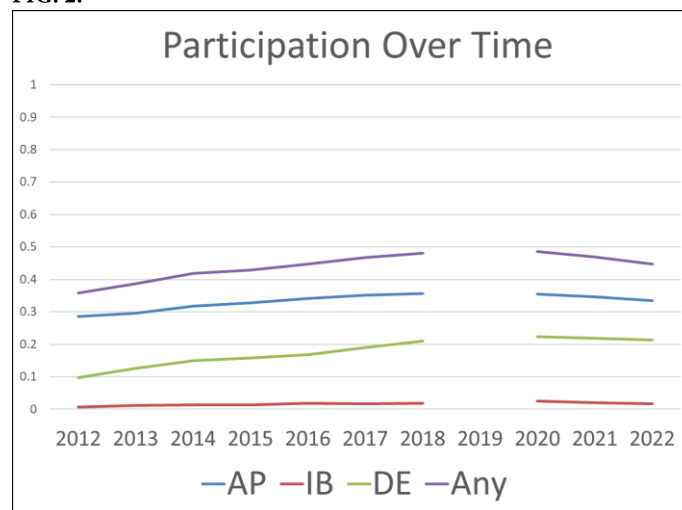


FIG. 2.



"Availability" refers to whether a student attended a school with least one course of the indicated type. "Course-taking" refers to whether a student took at least one course of the indicated type.

Our analysis shows that, while most students have access to AP, DE, or IB courses, 56% of PA graduates don't participate in any of them (see Figure 1 bottom left). In PA, AP is the most common early college program, and DE is common, while IB is rare. Some students take multiple types of advanced coursework.

Participation in advanced courses steadily increased from 2012 until around 2019, with AP and DE driving growth. There has been a slight decline since 2020, possibly reflecting pandemic-era challenges (see Figure 2 above).

There is a large gap between having early college courses in one's school and taking them. Though 92% of students had access to AP and 76% to DE, only 33% and 17% took such courses, respectively. For IB, 10% had access and 2% enrolled (see Figure 3 on next page).

Early college courses are similarly available for students of all racial and income groups, but participation

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FIG 3.

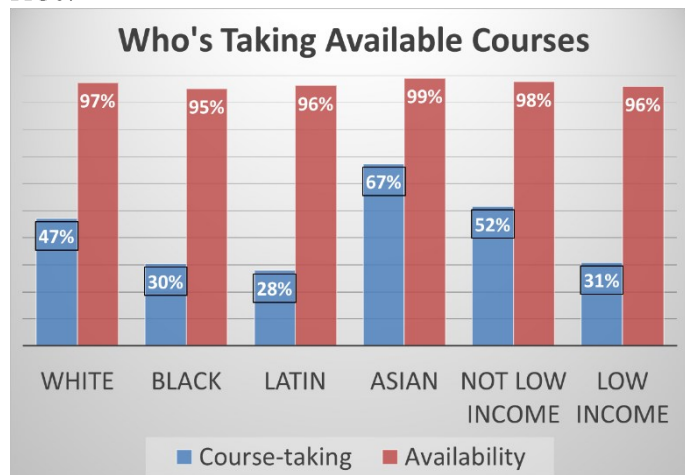
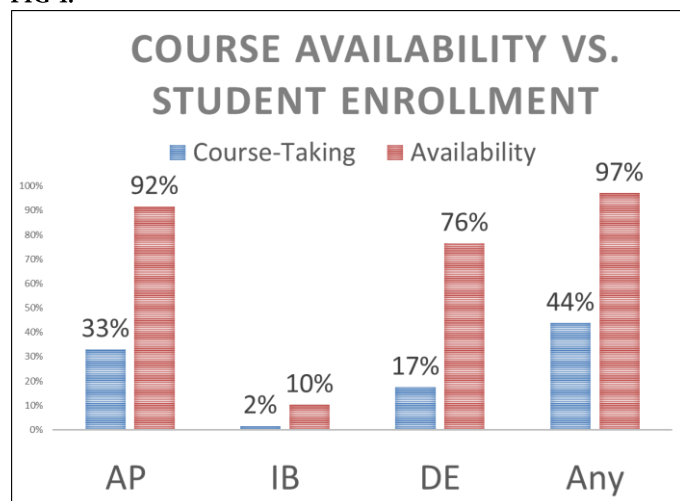


FIG 4.



levels vary greatly. Disparities in participation between advantaged and disadvantaged groups are driven by course-taking, not disparities in availability (see Figure 4 above). It may be the case, though, that there are gaps in the number of such courses available, or in the availability of certain kinds of courses (e.g., AP Calculus).

Our analysis suggests that most students in PA have access to advanced coursework, but access doesn't mean enrollment. There are large racial and socioeconomic gaps in participation in such courses, and this may contribute to overall gaps in academic attainment. However, at least in terms of advanced coursework, it seems that these gaps are driven not by differential availability, but differential uptake when courses are available 📌

## Endnotes

<sup>1</sup> Schaller, T. K., Routon, P. W., Partridge, M. A., & Berry, R. (2025). A systematic review and meta-analysis of dual enrollment research. *Journal of College Student Retention: Research, Theory & Practice*, 27(1), 263-289.

<sup>2</sup> Phillips, S. F., & Lane, B. (2021). The potential of advanced placement to improve college outcomes and narrow racial/ethnic and socioeconomic disparities. *Journal of Advanced Academics*, 32(4), 469-500.