

Advanced-Course Identification And Support

Learning Collider

EOS analysis update

May 29, 2026

Sample And Coverage

- Analysis sample:
 - **790,816** 10th-to-11th panel rows
 - **790,776** students
 - **765** schools
 - school years **2016–2023**
- Overall rates:
 - Current AP enrollment: **27.7%**
 - Next-year AP enrollment: **44.4%**
 - Teacher recommendation: **30.0%**
 - Survey-feature coverage: **69.5%**

Year	Rows	Current AP	Next year AP	Survey
2016	94,037	26.2%	45.4%	54.5%
2017	82,165	27.7%	47.4%	76.9%
2018	92,961	29.8%	48.5%	82.7%
2019	108,151	28.6%	47.5%	84.9%
2020	106,388	27.9%	43.7%	78.8%
2021	113,811	28.1%	38.9%	48.5%
2022	102,803	26.1%	42.5%	67.7%
2023	90,500	27.2%	42.6%	63.9%

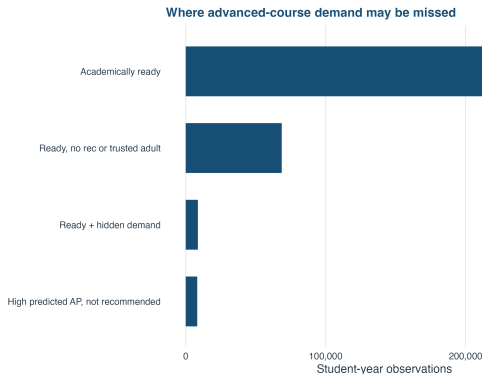
Identification-Gap Opportunity Groups

Takeaway: Among students not currently in AP courses in 10th grade, strong academic signals do not always translate into adult nomination.

- **Academically ready:** 49.7% of observations; 45.3% take AP next year.
- **Within ready group:** 45.3% are not teacher-recommended; 24.2% have no recommendation or trusted adult.
- **Ready + hidden demand:** 3.1% of ready students; 37.9% take AP next year.
- **High predicted AP, not recommended:** 1.4% of observations; model flag, not the same as ready.

Ready = GPA or transcript grade ≥ 3.0 . Hidden demand = ready, no recommendation, no trusted adult, plus a positive planning/access signal. High predicted AP = model-estimated probability $\geq 75\%$, even if not GPA-ready.

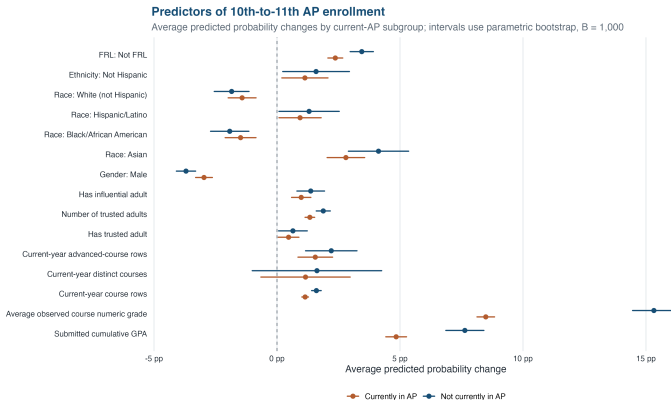
Definitions appendix



Predictors Of AP Class-Taking

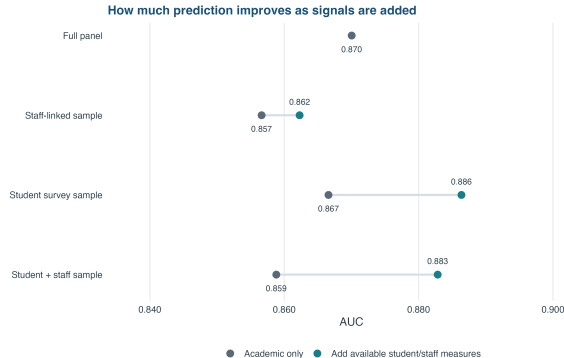
- Academic performance is the largest predictor.
- Adult relationships add smaller but interpretable signal.
- Demographic patterns are descriptive, not causal.

Model specification appendix



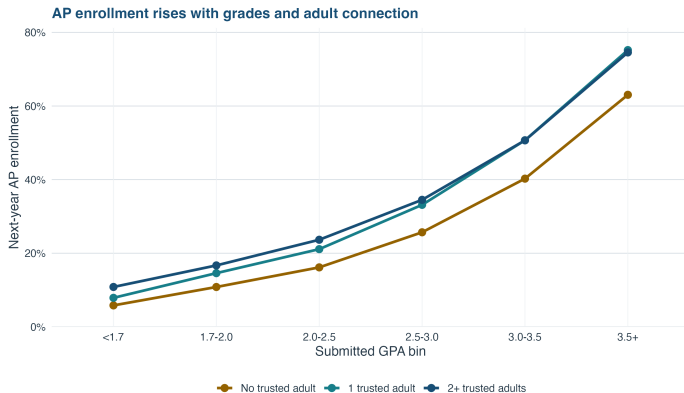
Predictive Lift From Student And Staff Data

- AUC measures how often the model ranks two random students correctly.
- **Takeaway:** Academic records already rank students well; student survey measures add clearer lift.
- Trusted-adult measures can be significant predictors even when they do not move overall AUC much.



Readiness And Adult Visibility

- **Takeaway:** Trusted-adult visibility matters most before the highest GPA band.
- The jump from no trusted adult to one trusted adult is large at most GPA levels.
- Additional trusted adults add less among the most academically ready students.



Using survey data to create student profiles

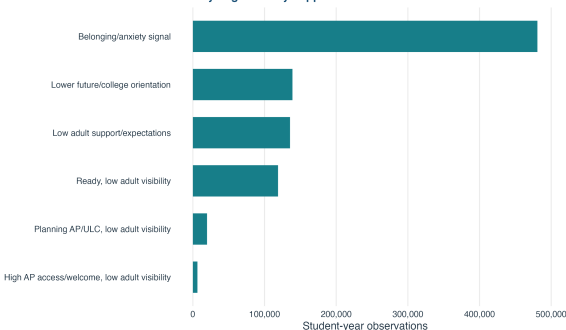
Takeaway: Survey profiles can help trusted adults, advisors, and teachers target support to individual students.

- **Belonging/anxiety:** Student expresses worries about AP coursework or college belonging; 60.8% of panel; AP 48.9%.
- **Future/college orientation:** Student reports lower college-going or future-orientation signal; 17.6% of panel; AP 26.0%.
- **Adult support:** Student reports weaker adult support or expectations; 17.1% of panel; AP 43.0%.
- **Ready, low adult visibility:** Academically ready student lacks recommendation or trusted-adult signal; 15.0% of panel; AP 54.3%.
- **AP/ULC planning:** Student plans AP/ULC but has low adult visibility; 2.5% of panel; AP 64.3%.

Groups are survey/recode flags, not mutually exclusive clusters.

Survey item examples

Survey flags identify support needs at different scales



Summary For State Briefing

- The panel is large enough for stable statewide patterns: 790,816 10th-to-11th observations across 765 schools.
- Main evidence: Some academically ready students are not surfaced by teacher recommendation or trusted-adult channels.
- Student surveys should flag specific next actions: Planning help, access barriers, auto-enroll response, and adult support.
- Staff-linked measures are useful workflow context, but current linkage/timing documentation limits stronger claims.
- Attendance data are pending; once linked, attendance can be used as an additional outcome and predictor of AP uptake.

Appendix: Opportunity Group Definitions

Category	Definition
Academically ready	Not currently in AP; GPA ≥ 3.0 or average transcript/course numeric grade ≥ 3.0 .
High predicted AP, not recommended	Not currently in AP; predicted next-year AP probability $\geq 75\%$; no current teacher recommendation. Not equivalent to academically ready.
Ready, no rec or trusted adult	Not currently in AP; academically ready; no teacher recommendation; no trusted adult named by the student.
Ready + hidden demand	Ready, no recommendation, no trusted adult; plus AP/ULC planning, open-access, auto-enroll, or high AP access/welcome survey signal.

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Appendix: AP Model Specification

- Outcome: Enrollment in any AP course in 11th grade.
- Model: Logistic regression with school-by-year fixed effects.
- Controls: Current 10th-grade AP status, demographics, academic/course history, trusted-adult measures, and available survey/staff-linked measures.
- Plot: Average predicted probability change from each term, averaged separately for students currently in AP and not currently in AP.
- The two plotted dots are subgroup averages from the same model. They are not separate subgroup coefficients unless an interaction term is added.

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Appendix: Survey Item Examples

Signal	Example underlying items
Belonging/anxiety	Q318 asks how often students wonder “Maybe I won’t belong there?” when thinking about two- or four-year college. Q401 asks the same kind of belonging question for AP/advanced coursework.
Future/college orientation	Q5 asks highest educational goal. Q109_7 measures likelihood of working hard to achieve goals. Related items connect coursework to college or career aspirations.
Adult support	Q9_2 measures contact with a teacher, counselor, administrator, or support staff member. Q214 items ask whether students are comfortable asking teachers for help and whether teachers believe they can succeed.
AP/ULC planning/access	Q305 asks plans for taking AP/ULC next year. Q306/Q307 identify help needed for choosing or enrolling. Q71 asks whether a student would remain if automatically enrolled.

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