Goal 4: Middle School Algebra

AUSTIN Independent School District

2024-25

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Mathematics in Austin ISD

In AISD, we believe **all students** can engage in **rigorous mathematics** and **develop mathematical reasoning** through exploration and collaboration to build flexible thinkers in order to thrive in college, career and life.

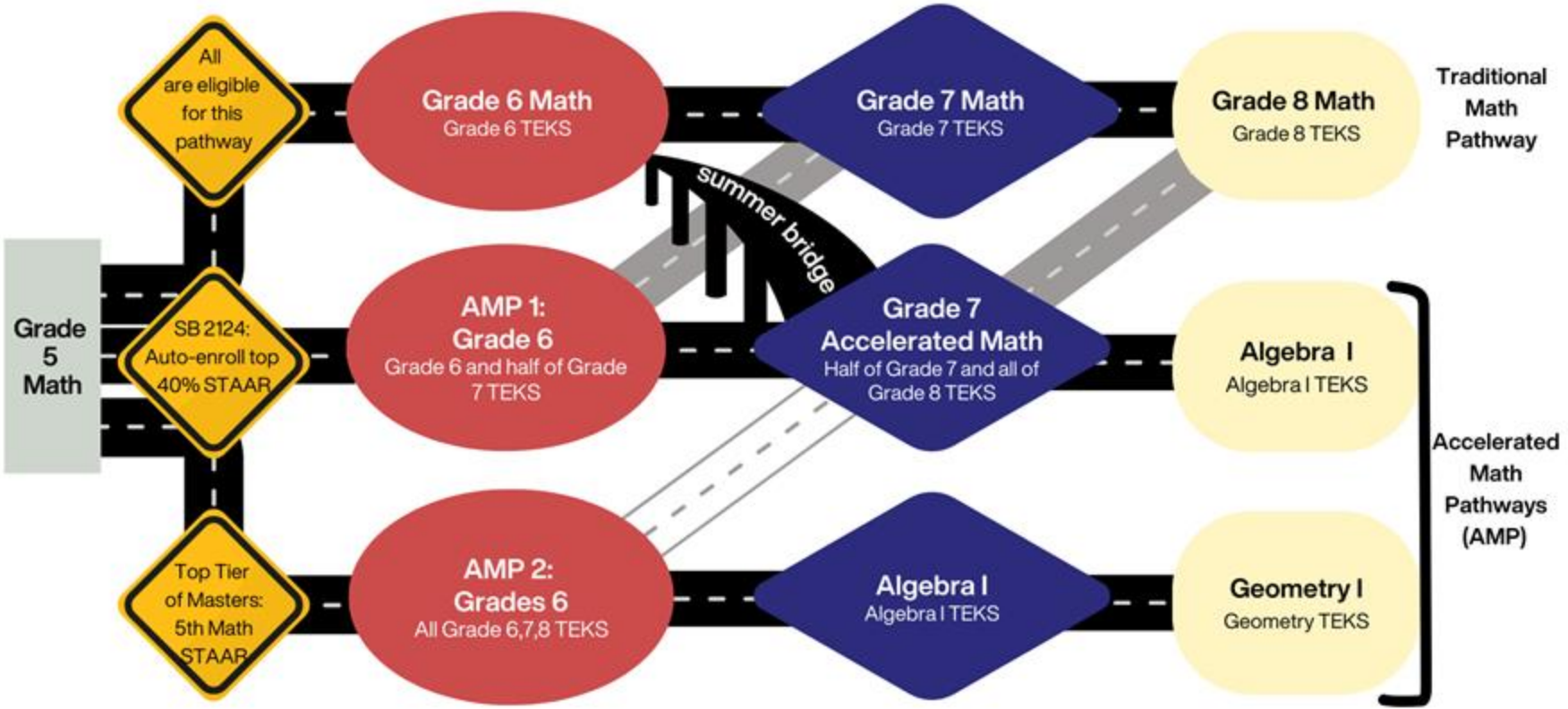
To instill a love for math in our mathematicians, we focus on creating engaging math environments, encouraging student discourse and exploration of mathematical concepts, and expanding ways that students can show their thinking with math solutions.

Goal 4: Middle School Algebra

Goal 4: The percentage of annual 8th grade class members identified as economically disadvantaged who successfully completed the Algebra I course by earning course credit and achieving meets grade level or above on the Algebra I EOC will increase from 8% in June 2024 to 14% by June 2029.

GPM 4.1: The percentage of 6th grade students identified as economically disadvantaged who enroll in accelerated mathematics and persist to course completion will increase from 21% in June 2024 to 39% by June 2029.

Accelerated Math Pathways Access



Student Impact Objectives

- Demonstrating strong mathematical proficiency in grade 5 mathematics coursework provides greater opportunities for students to take Algebra I by grade 8.
- Aligning strong mathematics instruction starts in the early grades (pre-K through 2nd grade) to equitably prepare as many students as possible to enter the accelerated math pathway by 6th grade (E3 Alliance Recommendation).
- Implementing SB2124 will help eliminate existing inequities in middle school math acceleration while ensuring strong math pathways for all through high school and beyond (SB2124) (E3 Alliance).

What the Research Says

- Research finds that completing four years of math in high school, with the fourth year of math aligned to college-level coursework, significantly predicts postsecondary success. This highlights the importance of advanced math pathways beginning in middle school (E3 Alliance).
- The 8th-grade equity disparity across Texas is wide: 18% of students from low-income households are enrolled in Algebra I by the end of 8th grade, compared to 40% of their non low-income peers (E3 Alliance).

Measuring GPM 4.1

# of 6th grade EcD Students Completing AMP	÷	Total of 6th grade EcD Students Completing Any Math Course	=	% of 6th grade EcD Students Completing AMP

- The percent of 6th grade EcD Students Completing AMP was determined by taking the # of 6th grade EcD students completing AMP and dividing it by the total number of EcD students completing any math course.
- The 'Economically Disadvantaged' group is the students identified as economically disadvantaged who completed 6th accelerated math (Course ID: 3016.H0000.Y).
- All other groups represent students who are identified as economically disadvantaged and another characteristic of interest.
- Students must enroll, persist, and complete the accelerated course for yearly credit.

GPM: 4.1 The percentage of 6th grade students identified as economically disadvantaged who enroll in accelerated mathematics and persist to course completion will increase from 21% in June 2024 to 39% by June 2029.

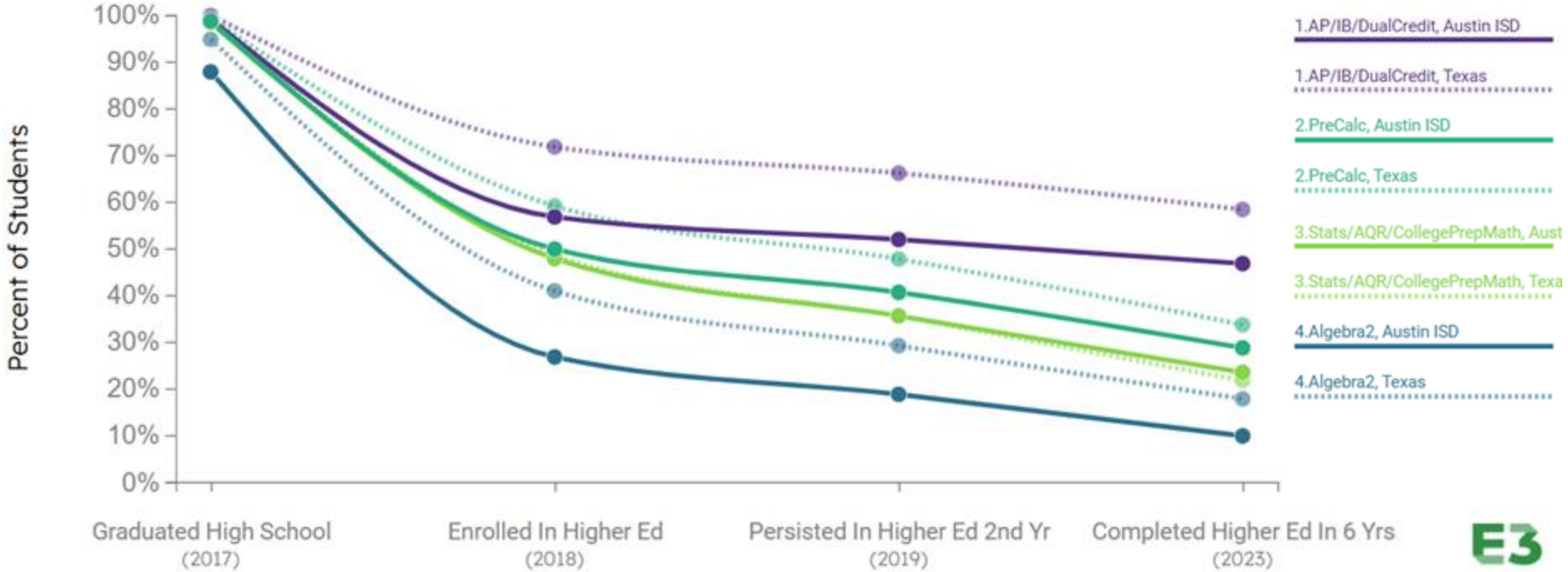
Group	2020-21 (%)	2021-22 (%)	2022-23 (%)	2023-24 (%)	2024-25 Current (%)	2024-25 Target (%)	Progress (%)
All 6th Economically Disadvantaged Students	2,901 Total	2,616 Total	2,538 Total	2,451 Total	2,503 Total		
American Indian & EcD	*	*	*	*	*		
Asian & EcD	28	30	24	37	32	39	-7
African American & EcD	8	20	14	17	22	18	+4
Hispanic/LatinX & EcD	8	19	20	20	24	23	+1
Pacific Islander & EcD	*	*	*	*	*		
Two or More & EcD	24	27	24	21	28	23	+5
White & EcD	23	37	36	28	39	31	+8
Economic Disadvantage	10	22	21	21	25	24	+1
Emergent Bilingual & EcD	8	17	19	21	22	23	-1
Special Education & EcD	<1	7	4	7	11	7	+4

Key Takeaways:

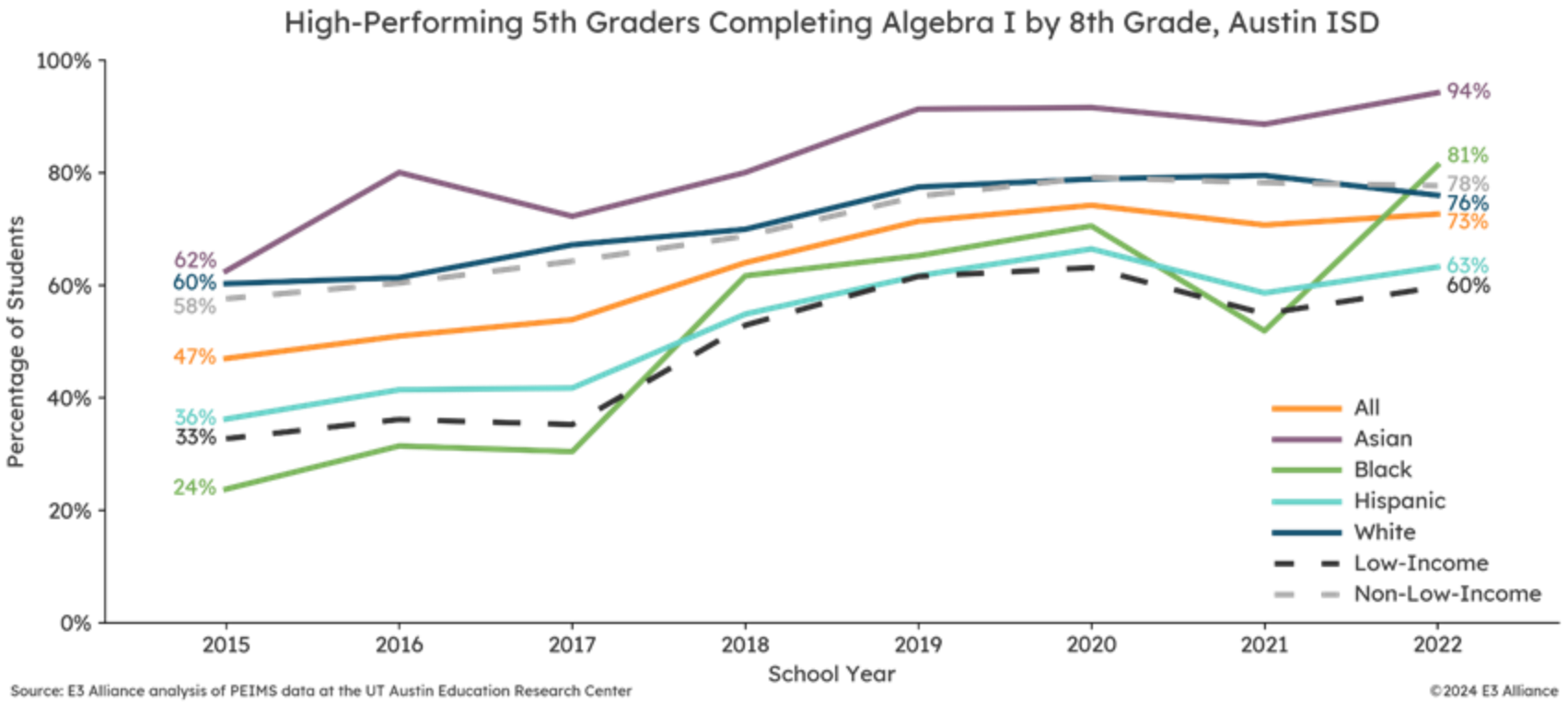
- **25% of grade 6 students identified as EcD** are currently enrolled and **on-track** to complete the Accelerated Math Pathway (AMP).
- Most groups are well above targets based on current enrollment. **Asian & EcD (32%)**, and **Emergent Bilingual & EcD (22%)** are below the 2024-25 progress target range.
- **Asian & EcD (32%)**, and **White & EcD (39%)** continue to enroll at higher percentage rates than other student groups with a **disparity range of 11 to 39** percentage points.

*Denotes less than 10 students

Outcomes of Students in HS for 4 years, By Highest High School Math, By Math Pipeline



High Performing 5th Graders Completing Algebra I By 8th Grade, Austin ISD



Source: E3 Alliance analysis of PEIMS data at the UT Austin Education Research Center

Root Cause Analysis

Implementation of Accelerated Math Pathways

- Inconsistent curriculum implementation leads to disparities in student preparedness and outcomes.
- Criteria across campuses for accelerated mathematics enrollment varies.
- Lack of opportunity to prepare students for accelerated math learning.

Communication and Guidance around Accelerated Math Pathways

- Communication to caregivers around accelerated math pathways varies from campus to campus.
- Student advising around accelerated math pathways varies from campus to campus.
- Lack of alignment with 6th grade models regarding accelerated math access and opportunities.

Strategies for Improvement

Implementation of Accelerated Math Pathways

Design and implement math AVID Summer Bridge program for rising 6th and 7th graders to build the foundational skills necessary for success in an accelerated curriculum.

Communication and Guidance around Accelerated Math Pathways

Design an accelerated math pathways manual to support consistency around accelerated math pathways implementation.

Root Cause Analysis

Professional Learning for Accelerated Math Teachers

- Just in Time professional learning has been focused on on-level courses due to previous District goals.
- Limited resources within the District office has limited access to accelerated math teachers.

Instructional Minutes

- When schedules differ across campuses, math instruction becomes varied and inconsistent. This can result in gaps in student understanding.

Strategies for Improvement

Professional Learning for Accelerated Math Teachers

Enhance counselor, educator and administrator capacity to provide informed guidance, leading to increased student participation and success in accelerated math pathways.

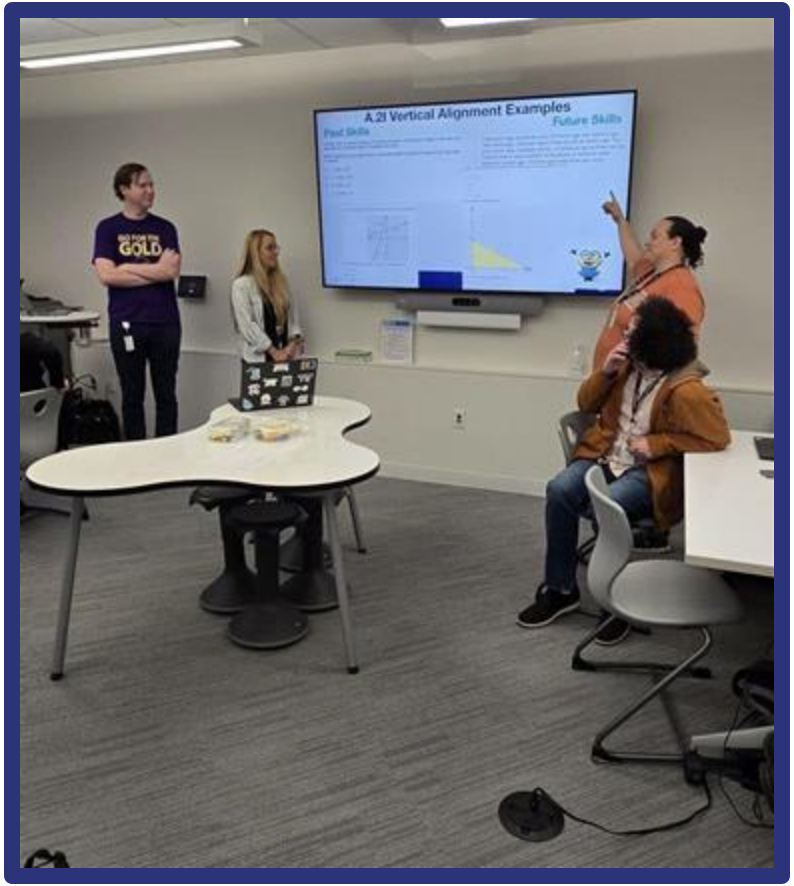
Instructional Minutes

Work with campuses to develop a master schedule that is more consistent across the District. Focus on quality instruction through observation, coaching and feedback with common tools.

Leadership Strategies

Design	Refine	Monitor
• **Develop Just in Time Trainings** for 6th grade accelerated math to support teachers	• **Marketing, PR, and Incentivize** Trainings Opportunities • **Integration of ICs** in high leverage professional learning • **Collaborate with Talent Strategy** to support Algebra I teachers	• **Enrollment and Attendance** for Just in Time Trainings for AMP • **Monitor implementation** of accelerated math pathways
• **Engage families, students, and staff** (including PSS, CIS) to explain options and benefits accelerated math pathways	• **Strategic work with counselors** to align course advising • **Community Meetings** to share AMP	• **Support campuses** in enrollment efforts throughout Spring Semester
• **Expand MATH AVID Bridge program**	• **Develop Bridge Program for 5th** to Accelerated 6 (AMP 1)	• **Student attendance and completion** of Math Bridge Programs
• Design **5 year strategic plan** for Algebra I success	• **Update Accelerated Math Manual** to provide support for campuses and parents	• **Monitor Algebra I 5 year strategic plan**

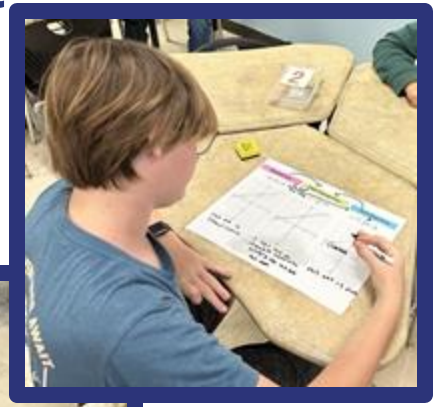
Spotlight

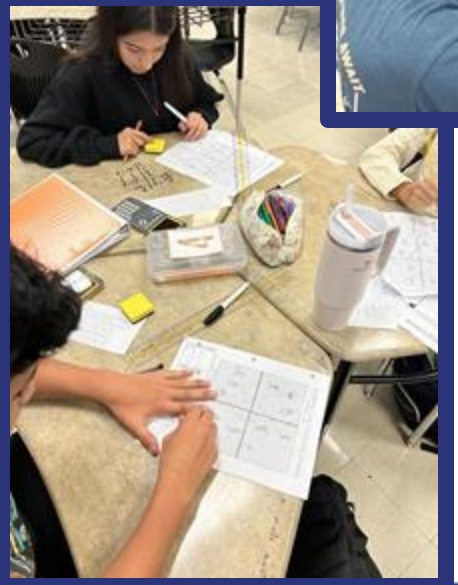


Algebra I teachers and instructional coaches across the district come together to unpack the curriculum through learning progressions, explore relevant resources, and plan as a horizontal team at Just-in-Time Trainings.

Spotlight

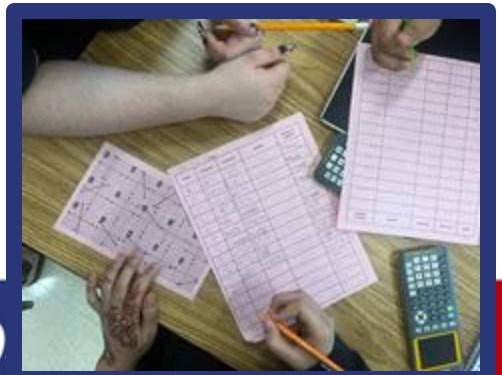
Lively students making connections across multiple representations.





Martin students working collaboratively to clarify their mathematical thinking.

Gus Garcia and Bedichek students using their mathematical tools to support their learning.



Thank You

STRONG Schools
STRONGER Austin