San Francisco Detracking: Early Indicators, Policy Choices, and Holding An Equity-Based Vision

Mathematics of Opportunity
November 2018

SAN FRANCISCO UNIFIED SCHOOL DISTRICT

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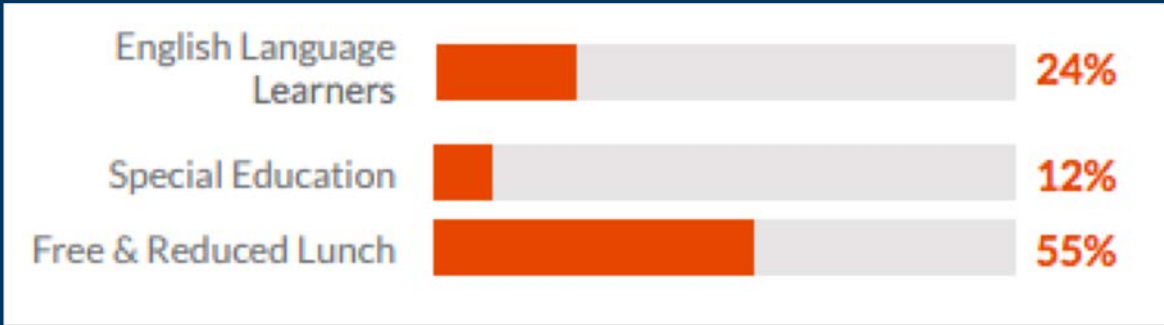
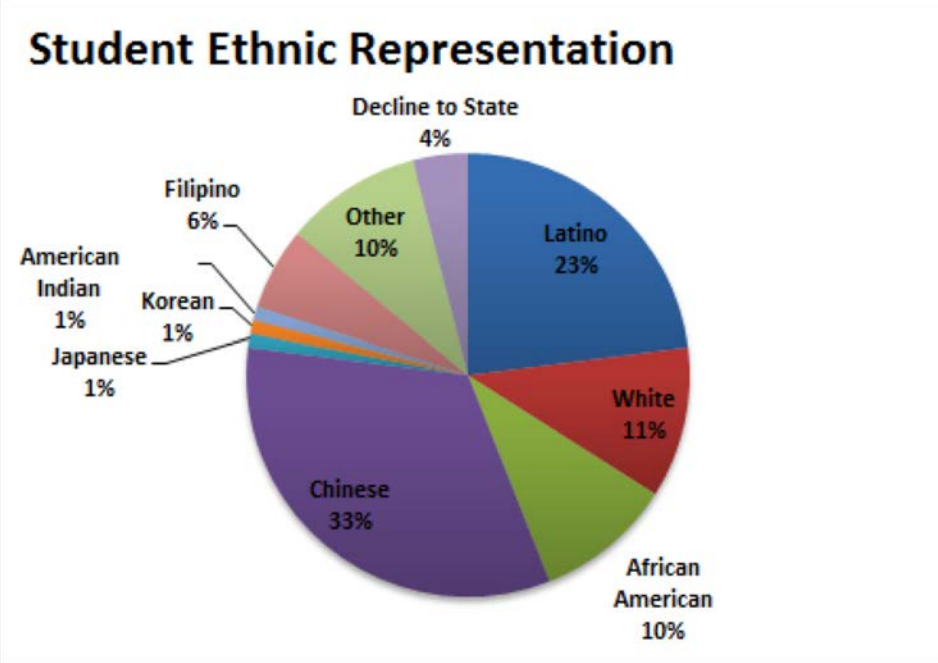
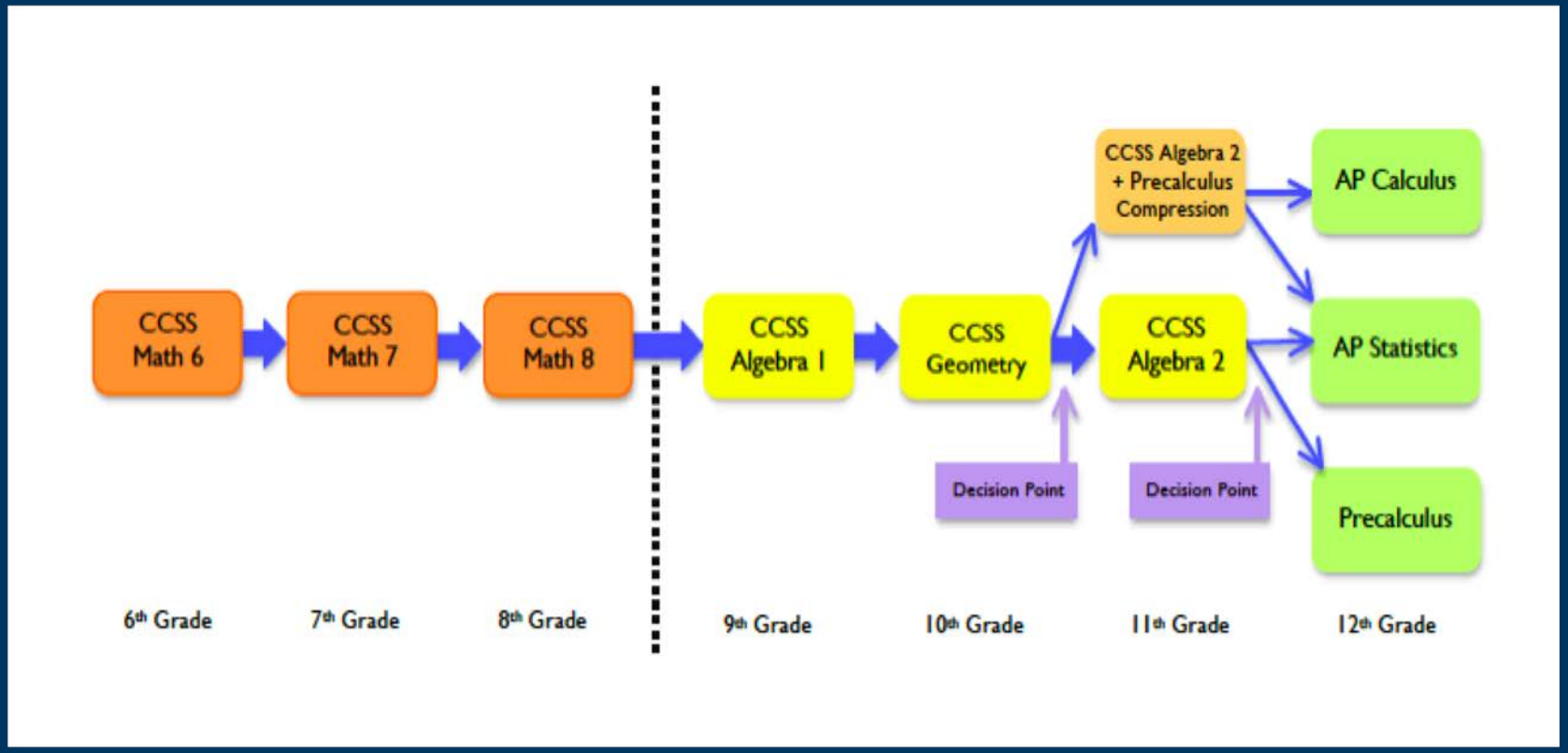
Who are the 56,000 SFUSD Students?





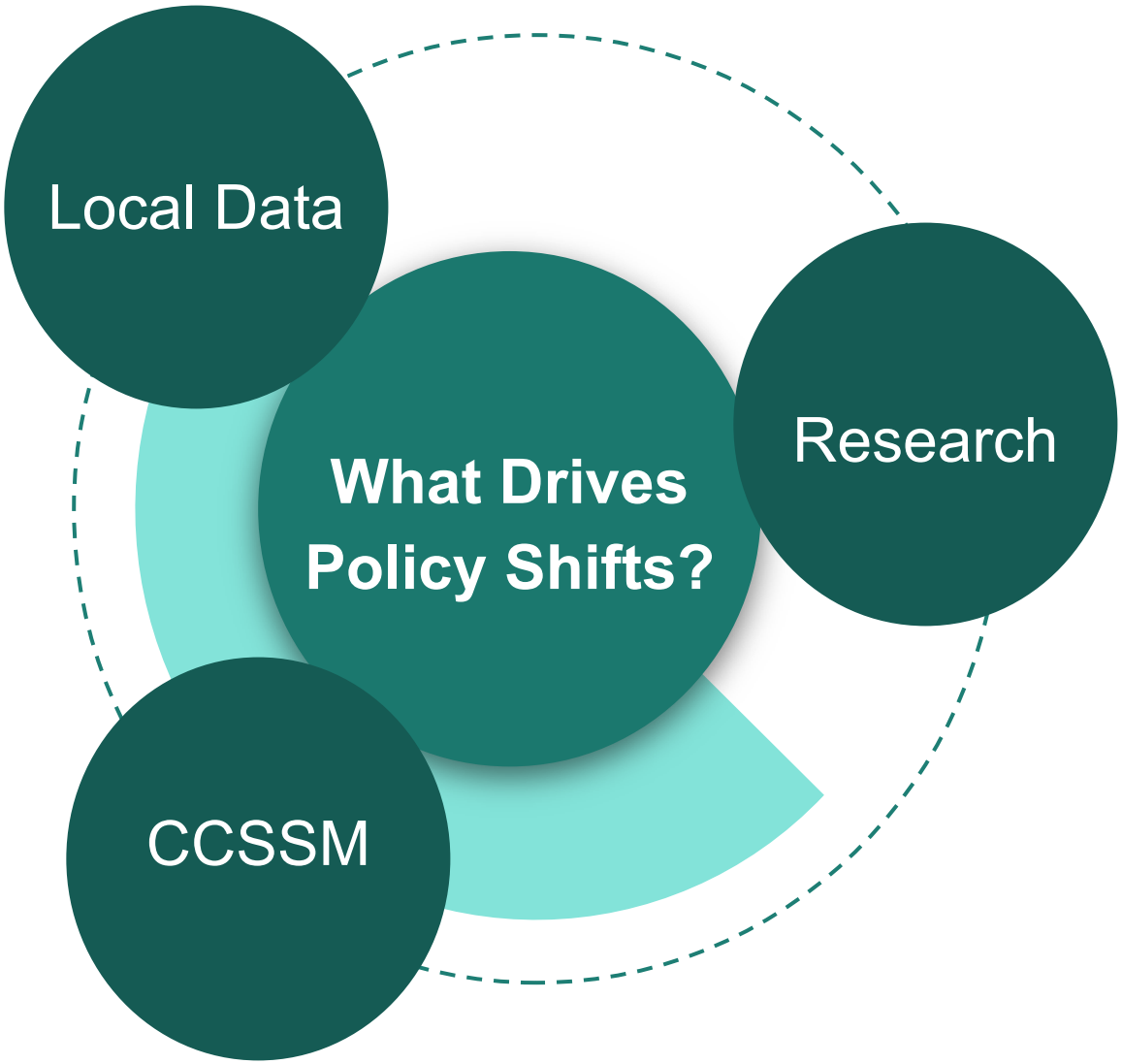
SFUSD

February 2014:
Passage of the **Math Course Sequence Policy**

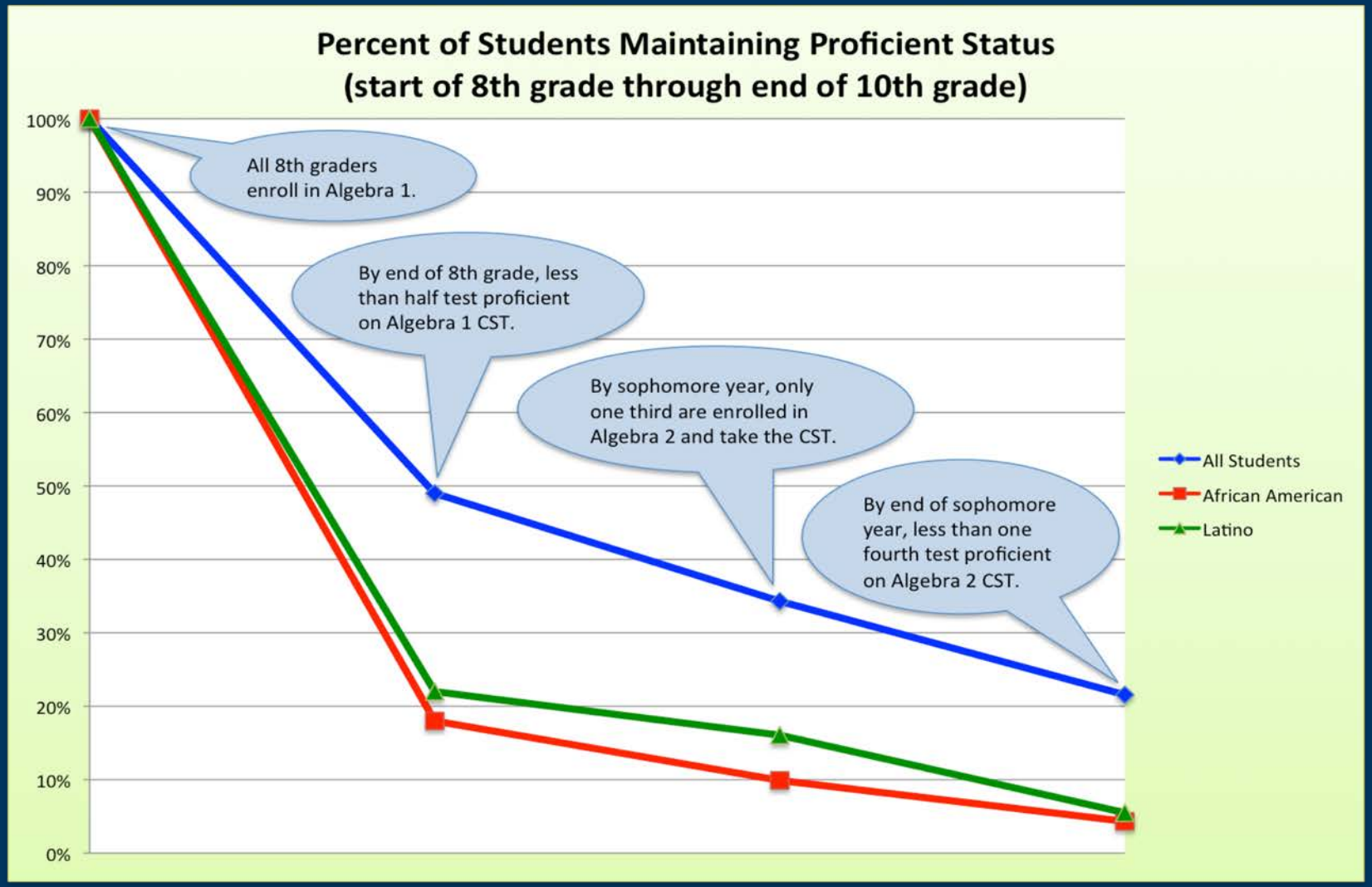


SFUSD

Turning A Proposal Into Policy



SFUSD Class of 2014



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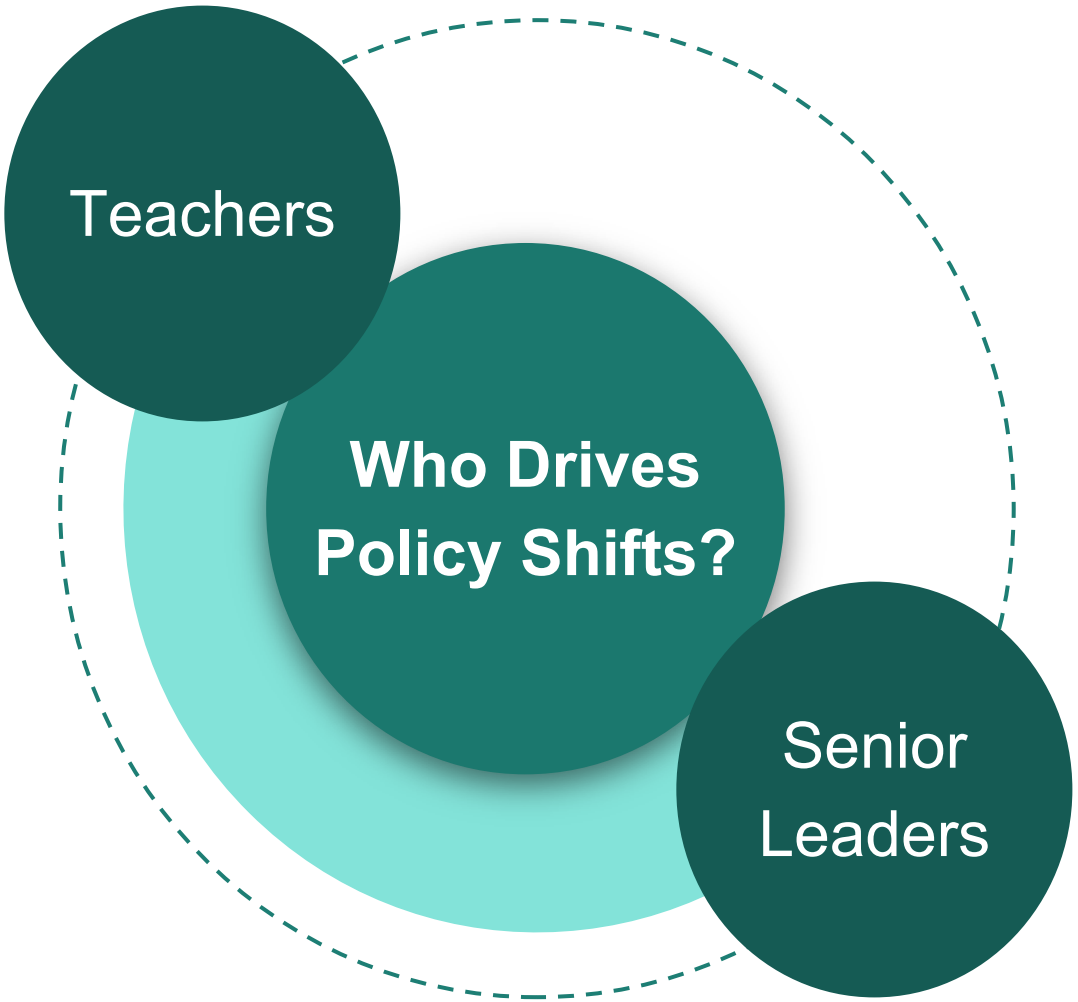

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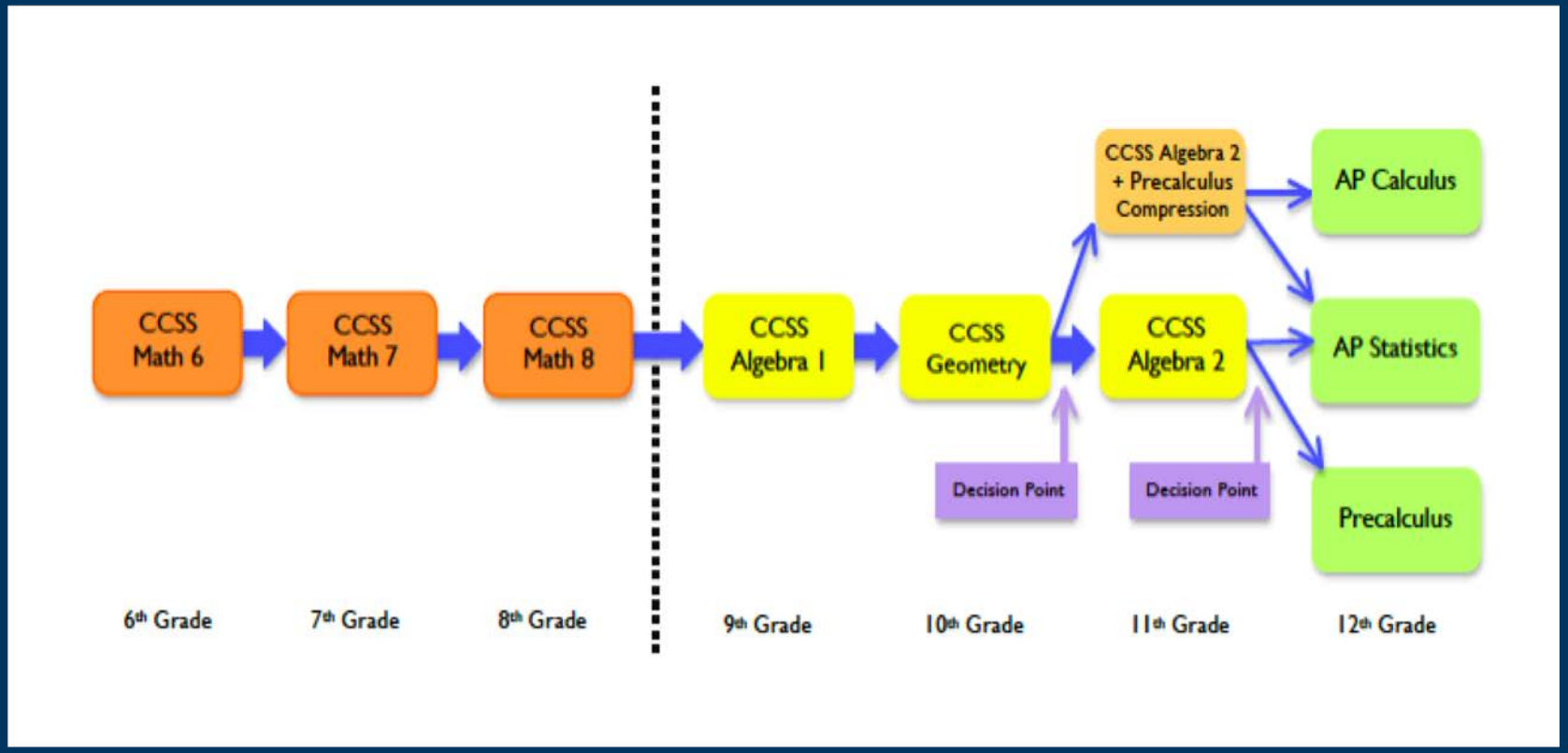


SFUSD Math Department Vision

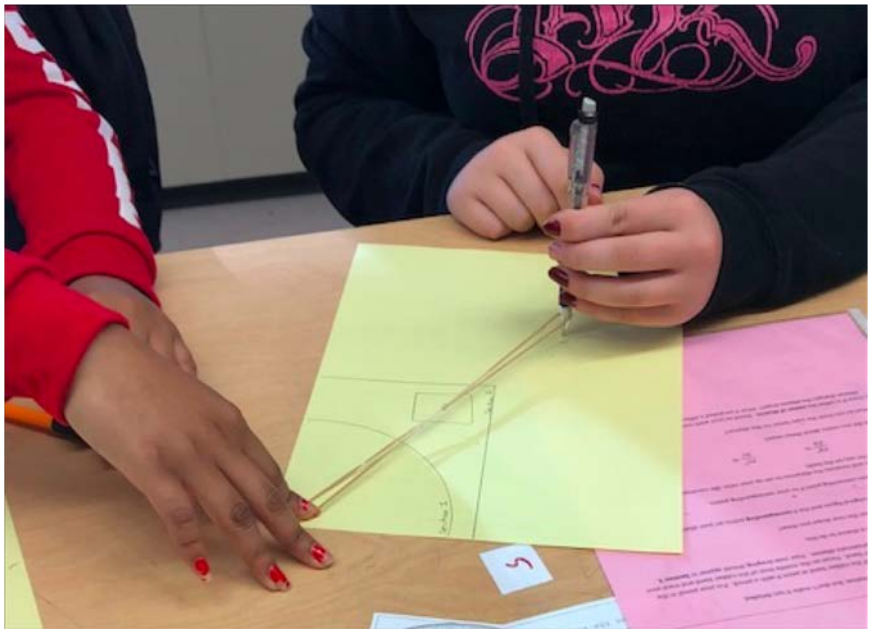
All students will make sense of rigorous mathematics in ways that are creative, interactive, and relevant in heterogeneous classrooms.

Two premises:
All students are brilliant mathematically.

Mathematics is a web.

Levers of Change

- Policy
- Curriculum
- Professional Development
- Coaching



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Early Indicators of Success in Math

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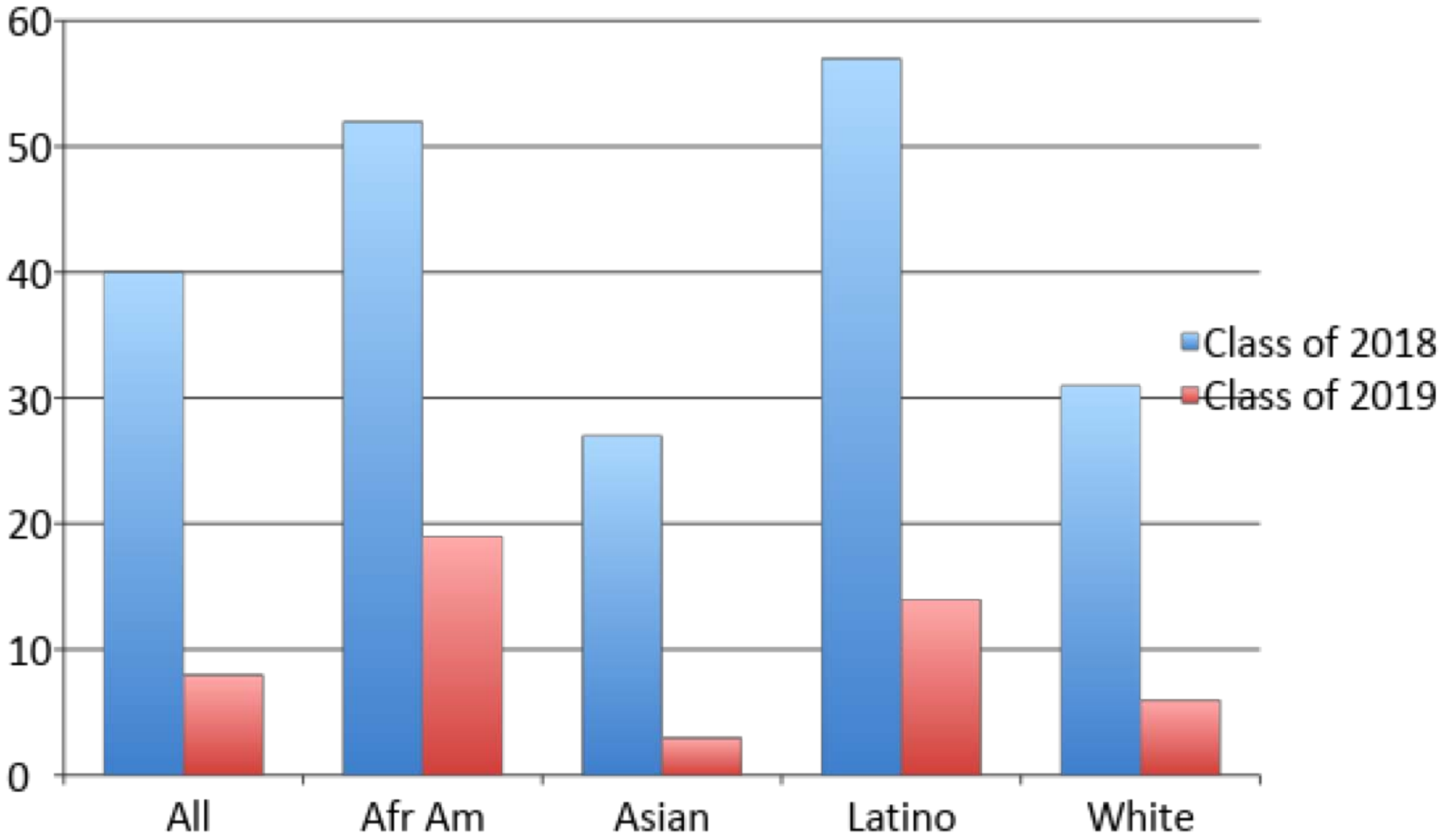
Algebra 1 Repeat Rate, Ethnicity



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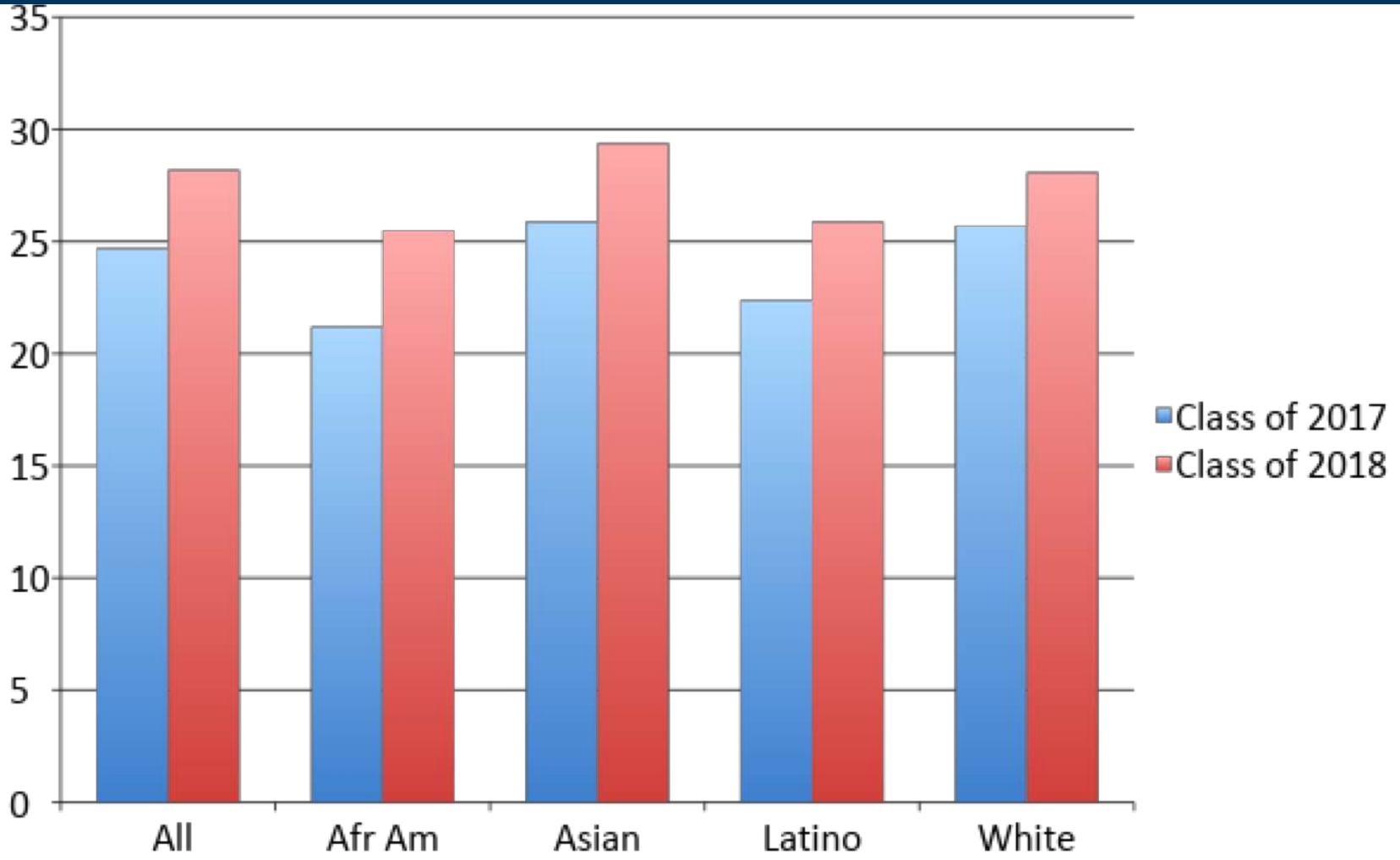
Increase in the amount of Math credits students have earned at the end of 11th grade, Ethnicity



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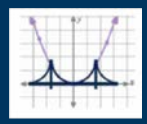
Learnings:

Where should we start?

How should we start?

- Drive from what you believe.
- Use your data as evidence alongside research.
- Build a critical mass amongst teachers.
- Must align and employ all levers of change.
- Unit of change must be school sites/learning communities.



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Contact us!

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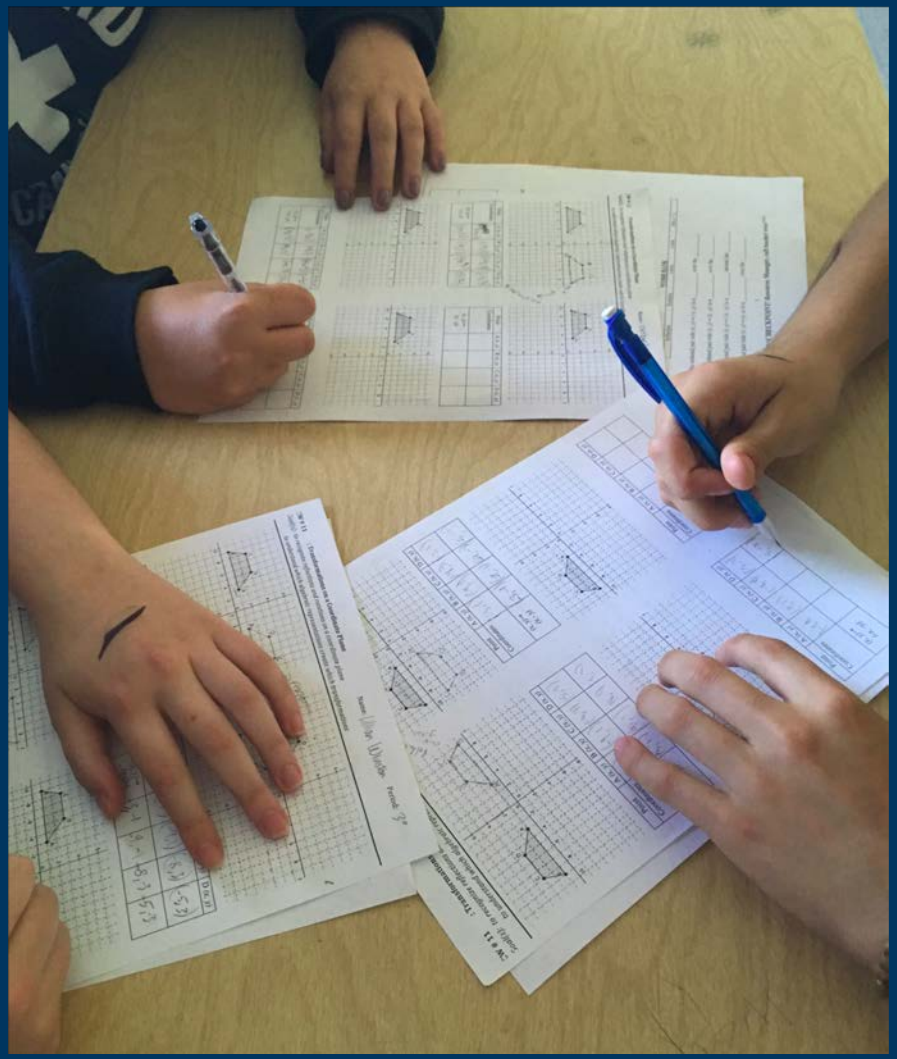

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Pipeline to Calculus is increasing in size and diversity

2017/18 Calculus Enrollment

Ethnicity	Number of Students	% of total
African American	18	1.5%
American Indian	2	0.2%
Asian	861	73.6%
Declines to State	68	5.8%
Filipino	39	3.3%
Hispanic or Latino	77	6.6%
Pacific Islander	3	0.3%
Two or More Races	13	1.1%
White	89	7.6%
Total	**1170**	

2017/18 non-seniors in course immediately preceding Calculus

African American	21	1.4%
American Indian	1	0.1%
Asian	927	60.4%
Declines to State	127	8.3%
Filipino	93	6.1%
Hispanic or Latino	167	10.9%
Pacific Islander	10	0.7%
Two or More Races	29	1.9%
White	161	10.5%
Total	**1536**	

Questions?

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Supplementary Slides

Communication to Stakeholders

- 15 different family and public events during 2017–18
- Featured in major local and national media http://www.sfusdmath.org/in-the-news.html
- http://www.sfusdmath.org is listed as exemplary by CDE with 4000 unique visitors
- 22 different presentations in 17–18 at conferences or within community partnerships
- More than 75 different district, state and policy leaders outside of SFUSD have consulted directly

SFUSD Core Values

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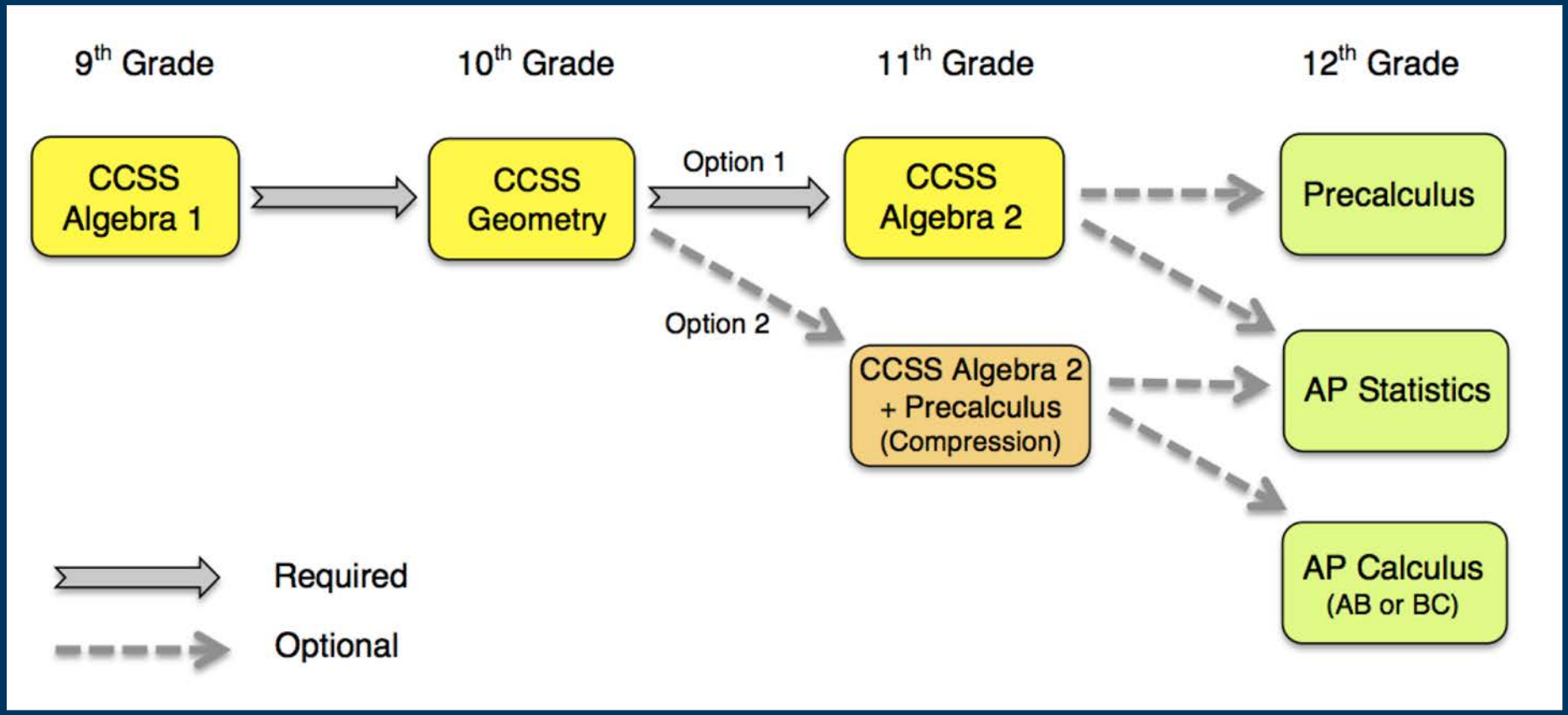
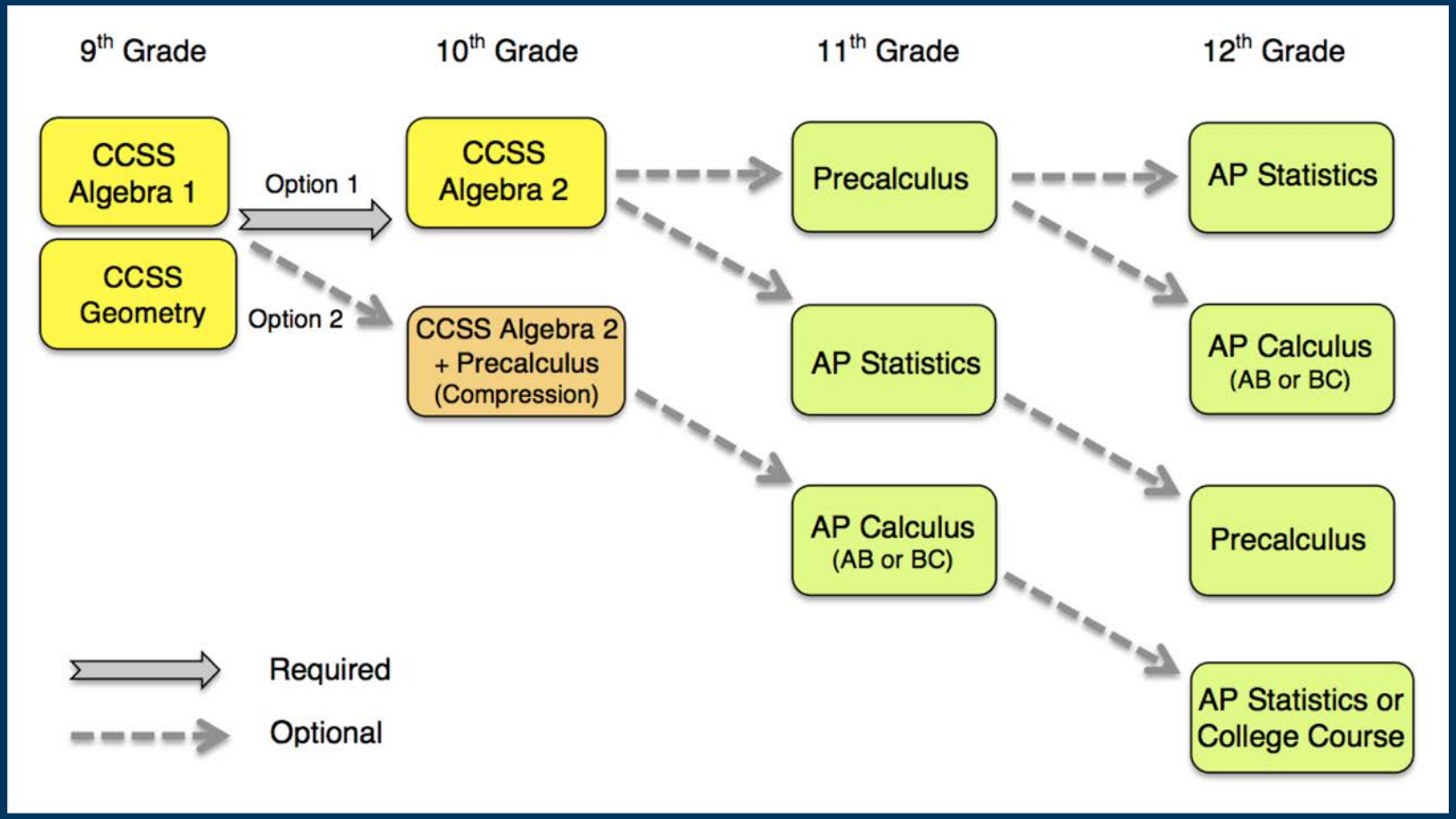
Recommended High School Course Sequence



664 students are currently enrolled in the compression course, 594 of these students are in 11th grade. 177 rising sophomores completed SFUSD Summer School Geometry in 2017 in order to take Algebra 2 in 10th grade.

Doubling Up as a Freshman



187 students are currently doubling-up in Algebra 1 and Geometry in 9th grade

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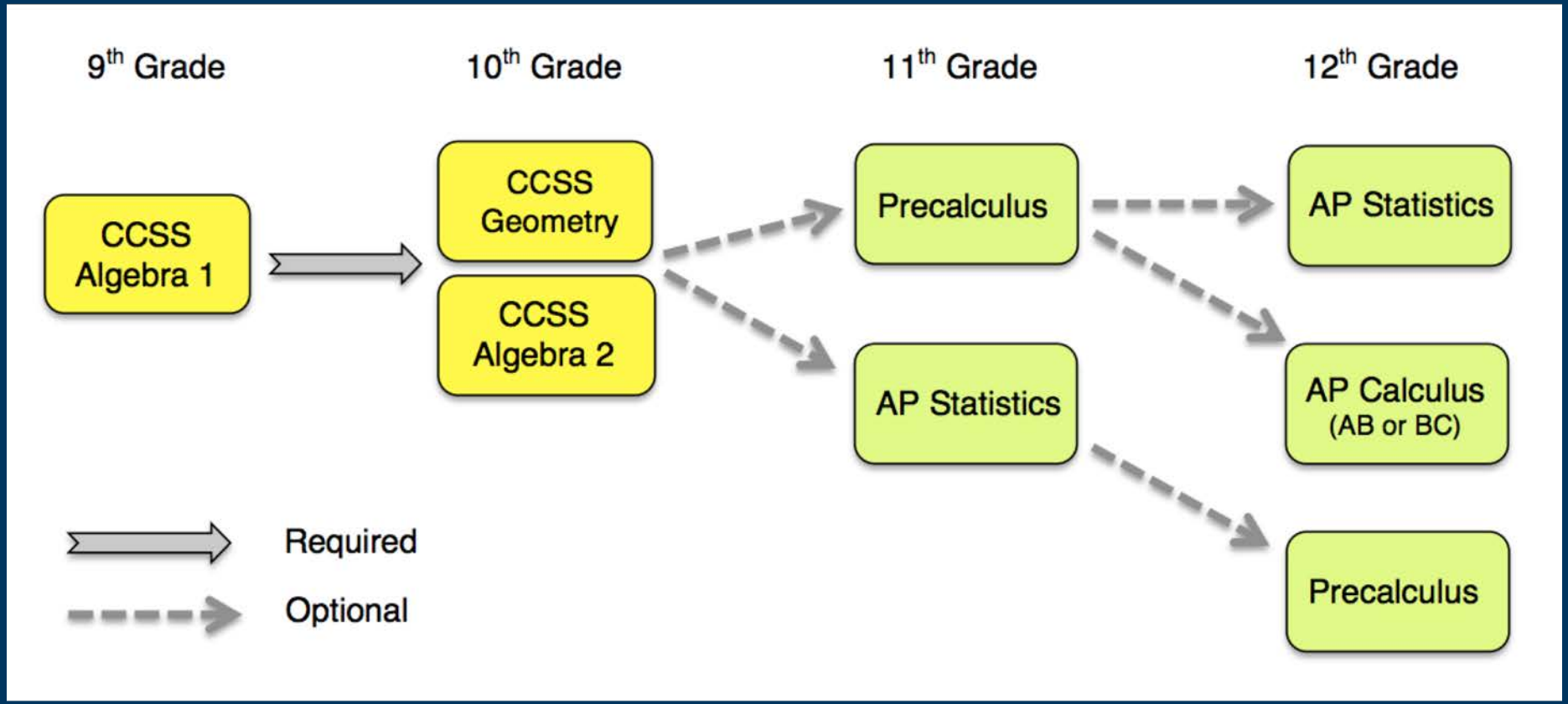
Doubling Up as a Sophomore



446 students are currently doubling-up in Geometry and Algebra 2 in 10th grade

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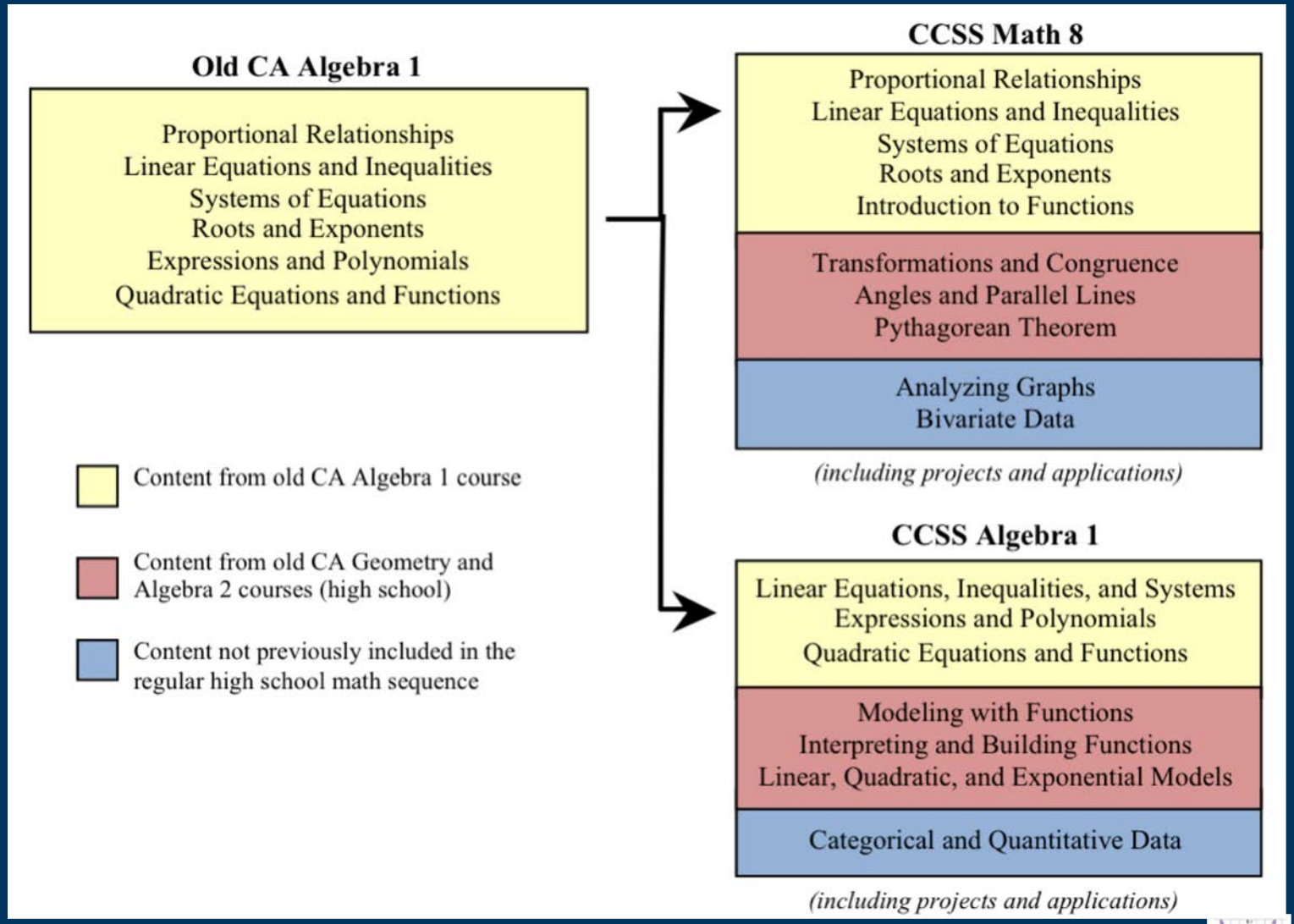
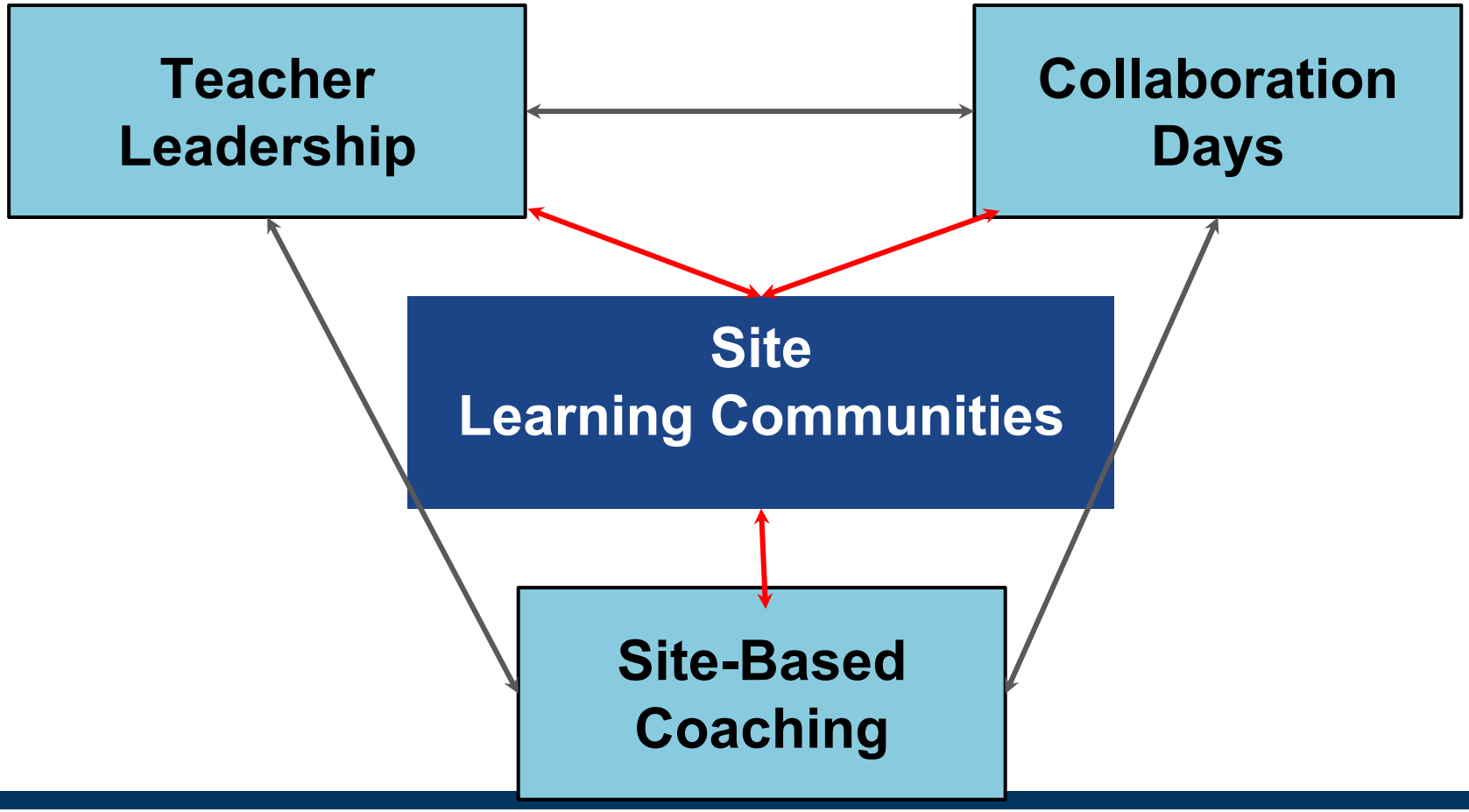
Algebra in 8th and 9th Grade

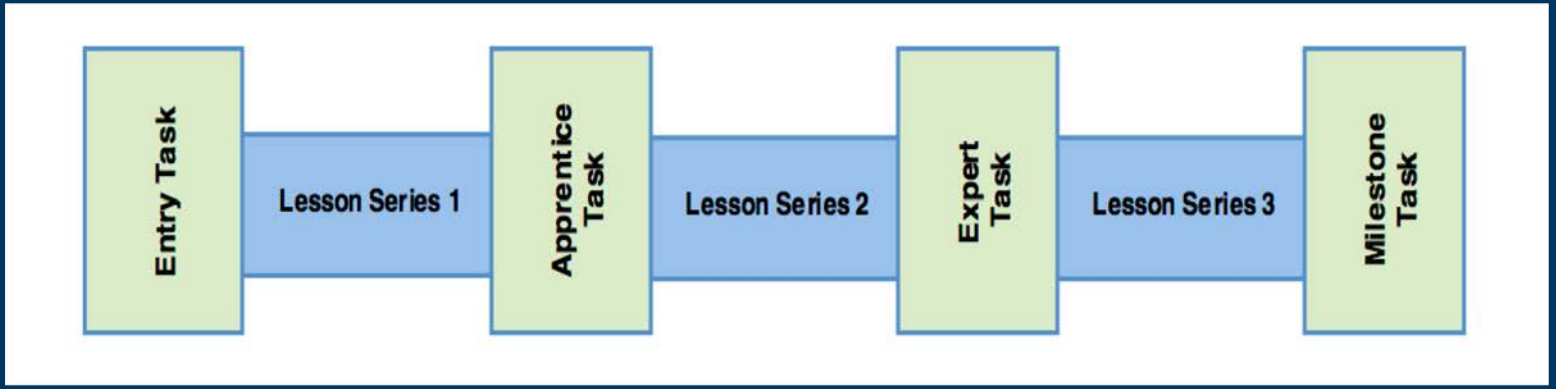


Math Professional Development



SFUSD Math Core Curriculum:

Architecture of each unit



Entry Task: *What do you already know?*
Apprentice Task: *What sense are you making of what you are learning?*
Expert Task: *How can you apply what you have learned so far to new situation?*
Milestone Task: *Did you learn what was expected of you from this unit?*

Math Teaching Toolkit

Focus on 3 Signature Strategies in Curriculum and PD

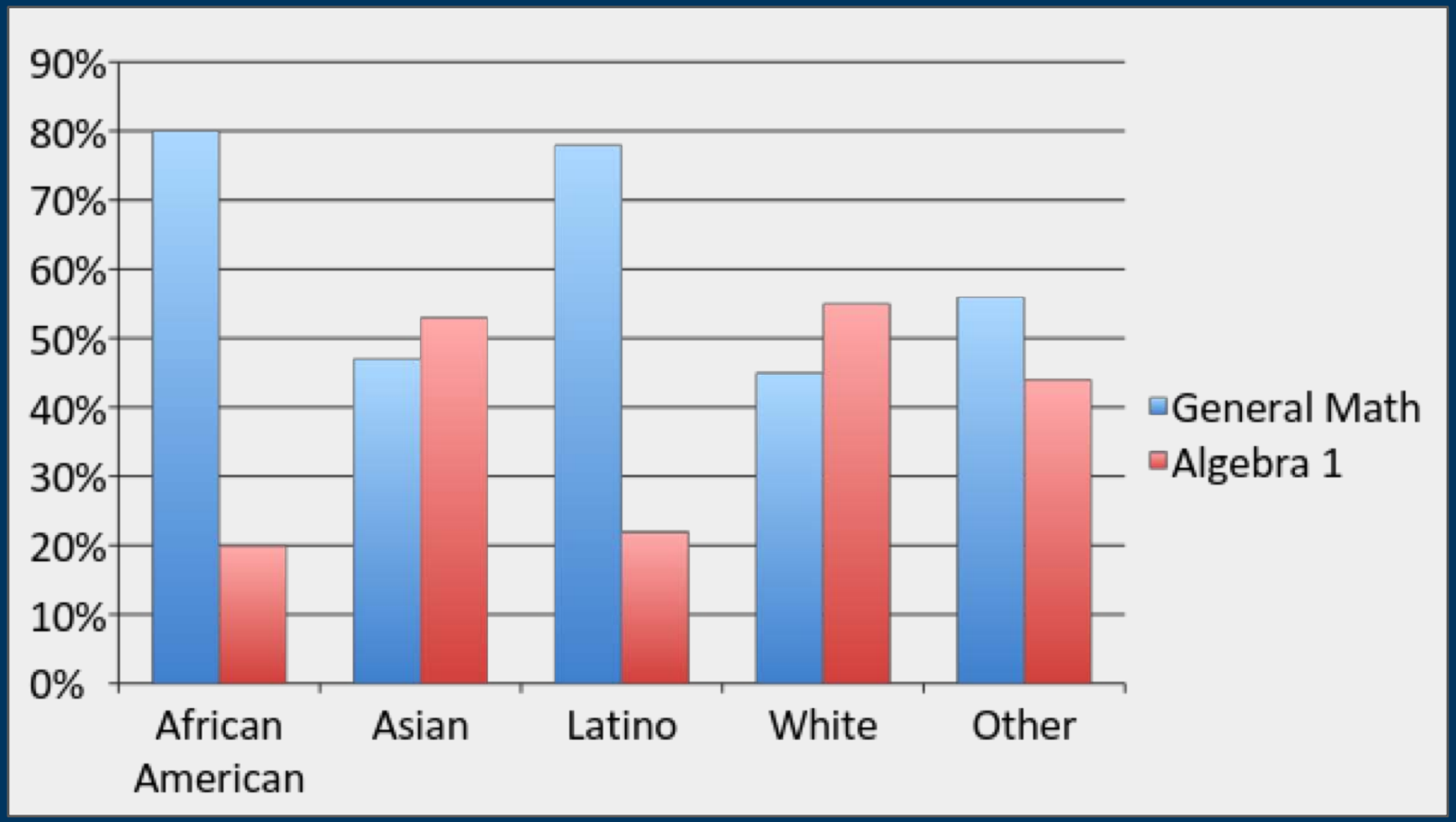
Math Talks

Three Read Protocol

Participation Quiz

SFUSD Classes of 2008 - 2010

Distribution of Algebra 1 and General Math



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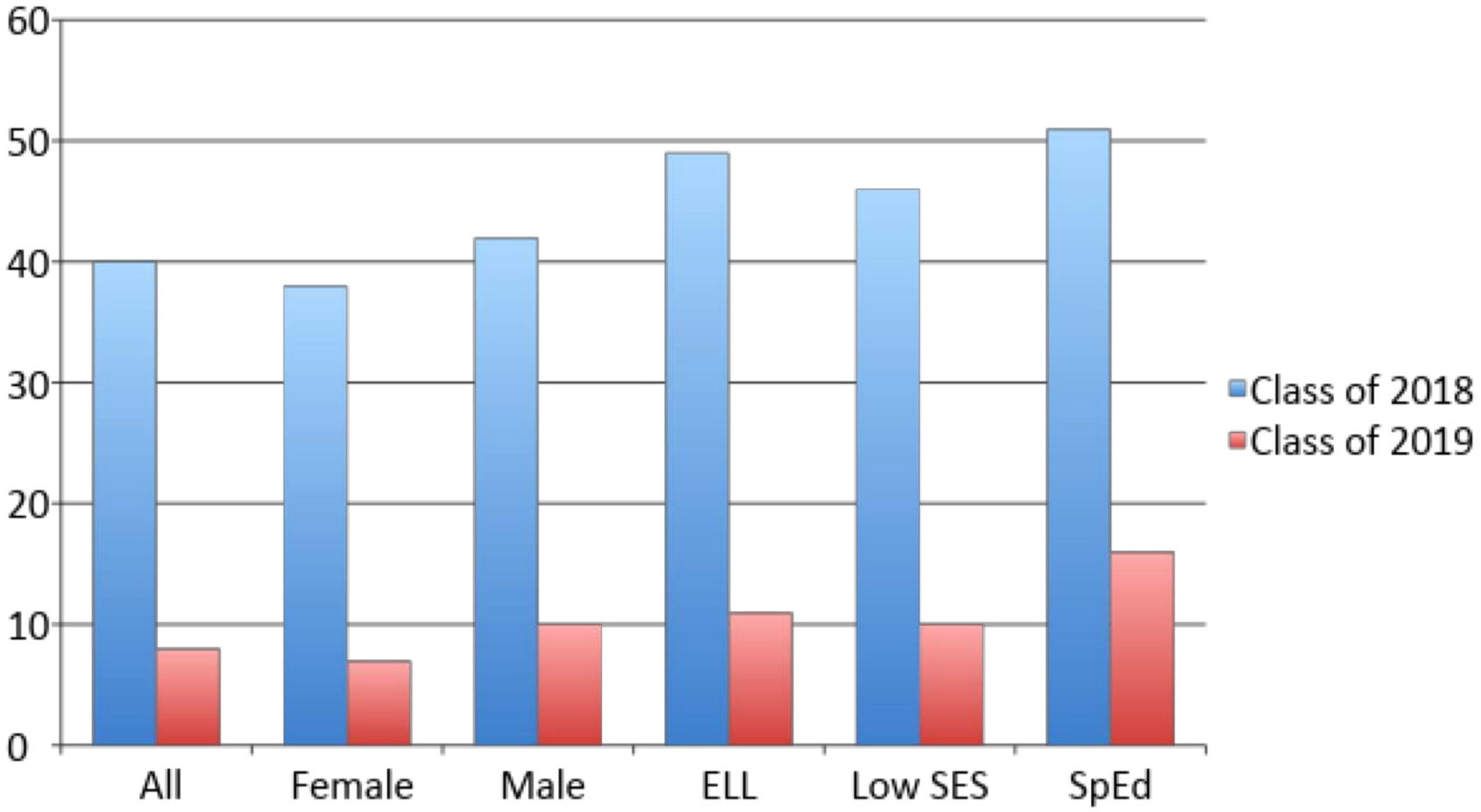
Algebra 1 Repeat Rate, Gender & Program



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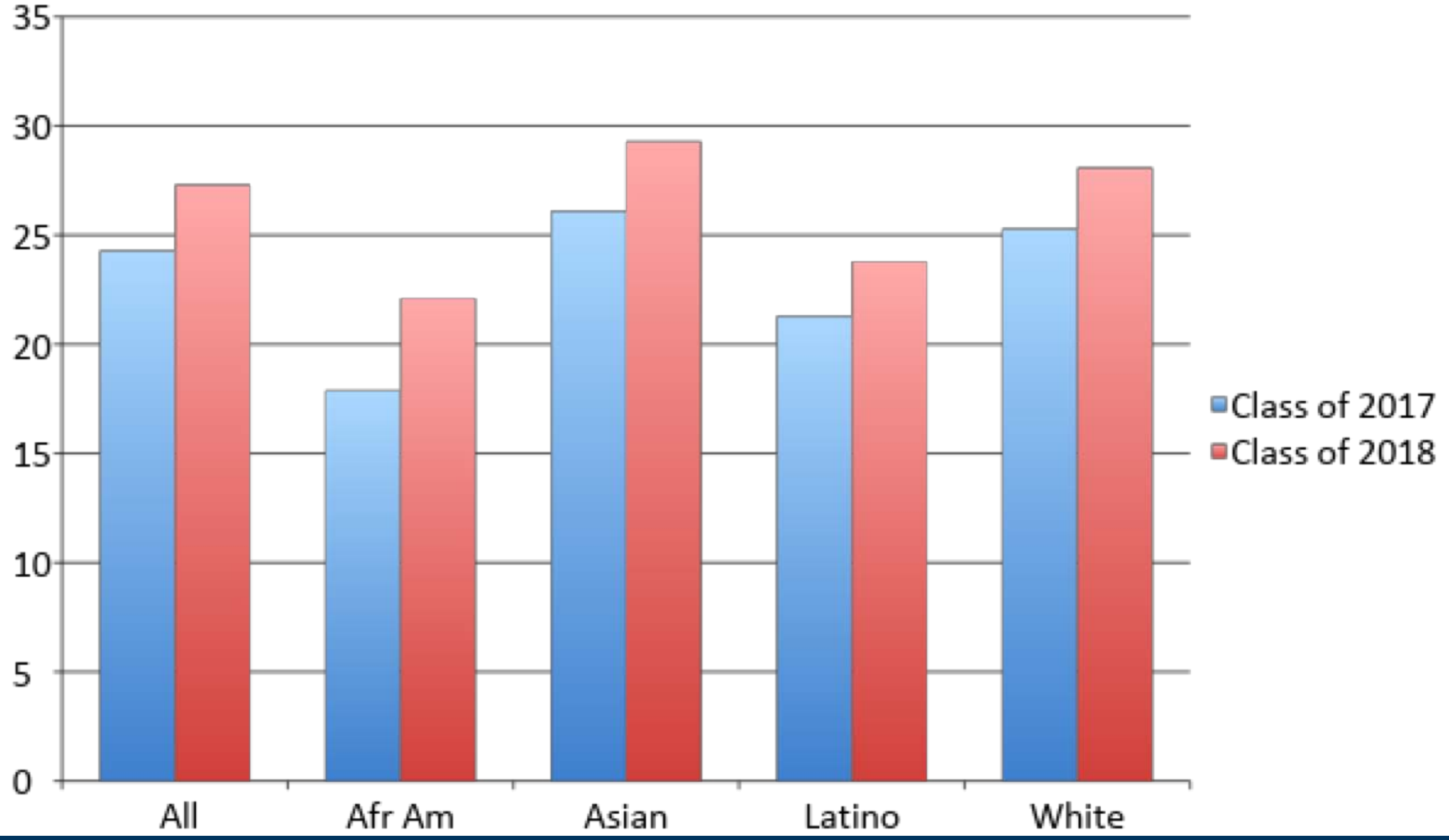
Increase in the amount of Science credits students have earned at the end of 11th grade, Ethnicity



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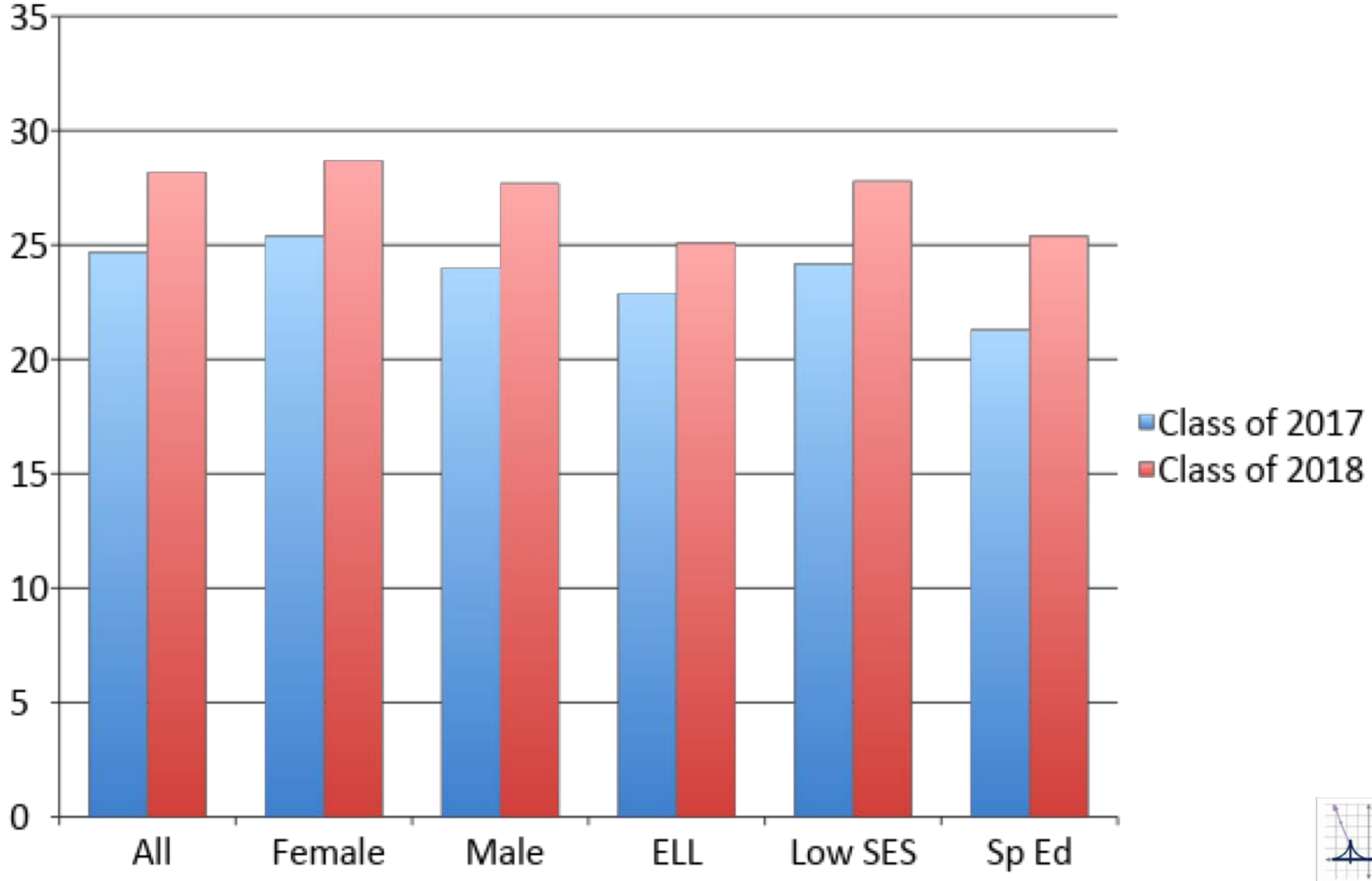
Increase in the amount of Math credits students have earned at the end of 11th grade, Gender and Program.



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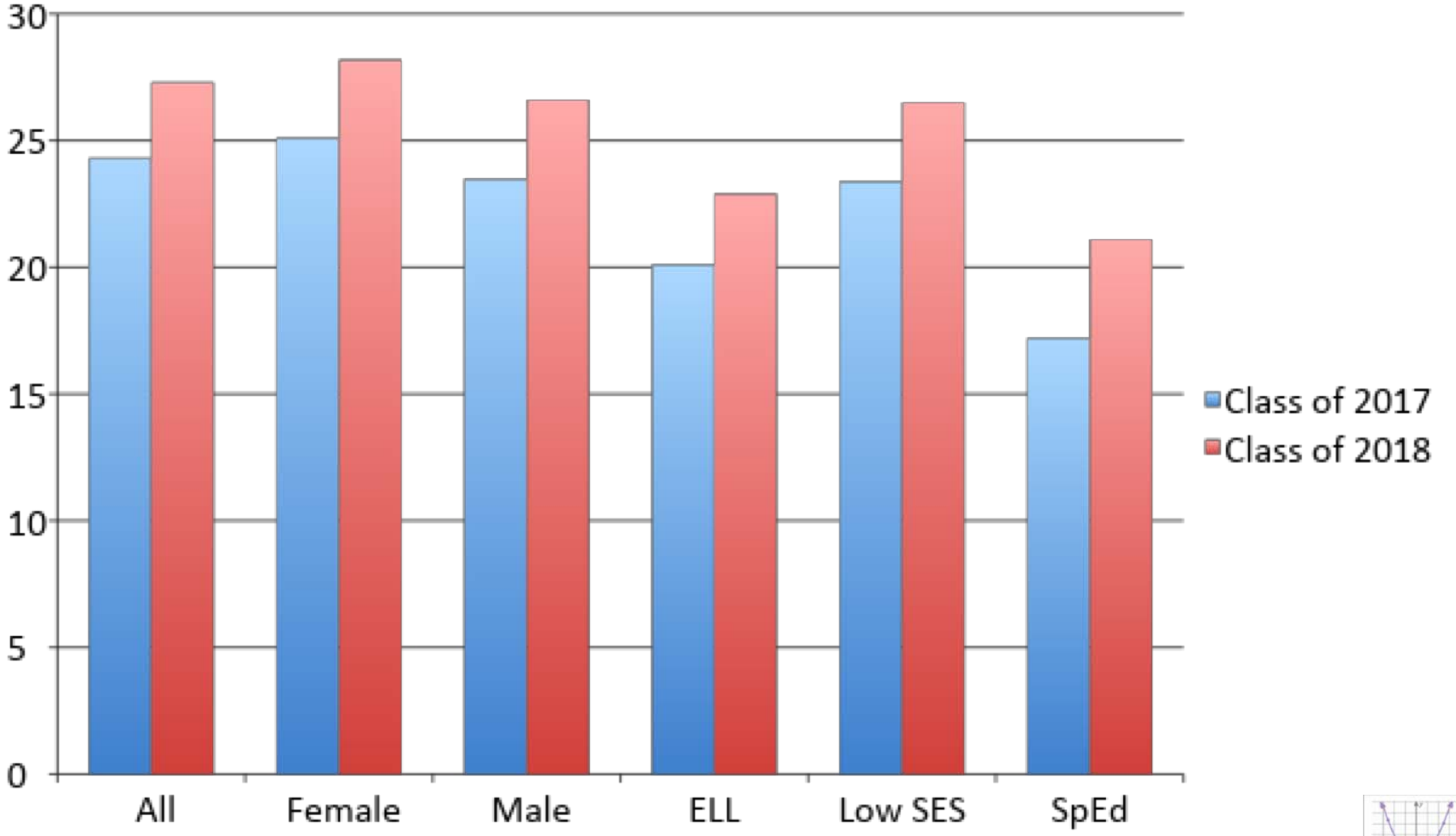
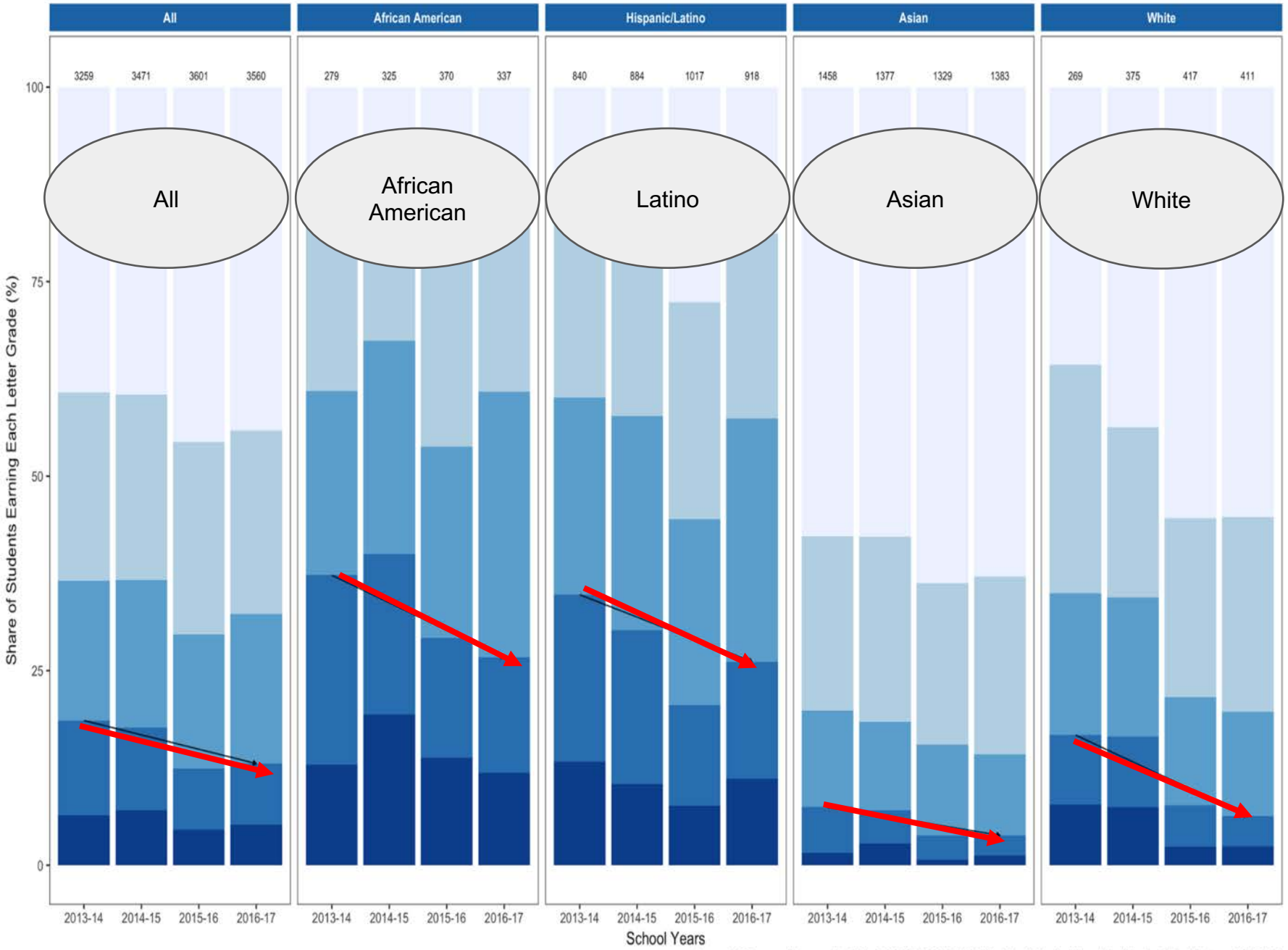
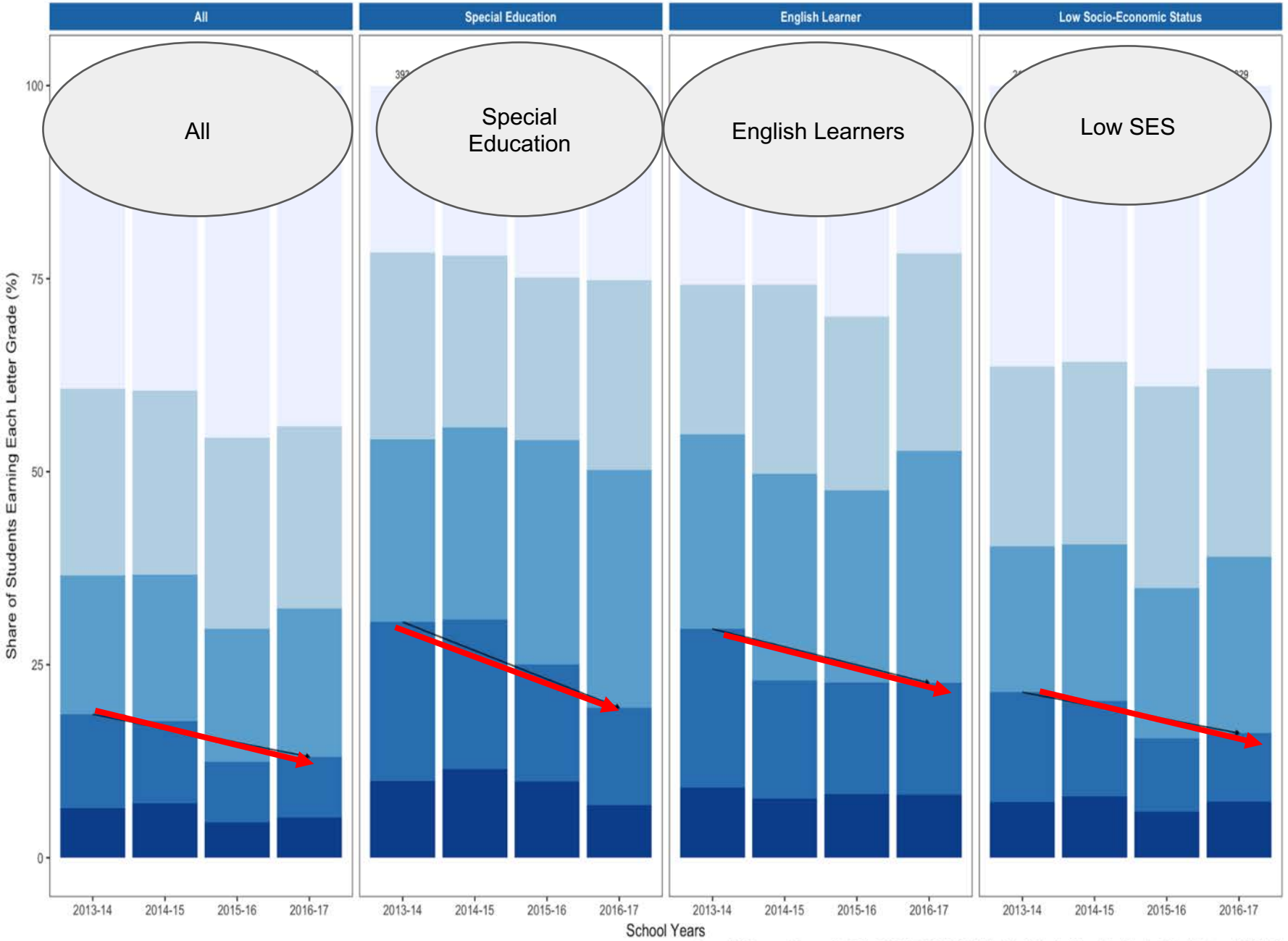


Students of all major ethnic groups increasingly earned fewer Ds/Fs and more As in 8th Grade Math from 2013-14 to 2016-17



Source: RPA Course and Demographics Tables, 2013-14 to 2016-17. 2013-14 includes Algebra I, which majority of the students took that year. (2017-11-29)

Among the main programs, most notably, students receiving special education increasingly earned fewer Ds/Fs and more As in 8th Grade Math from 2013-14 to 2016-17



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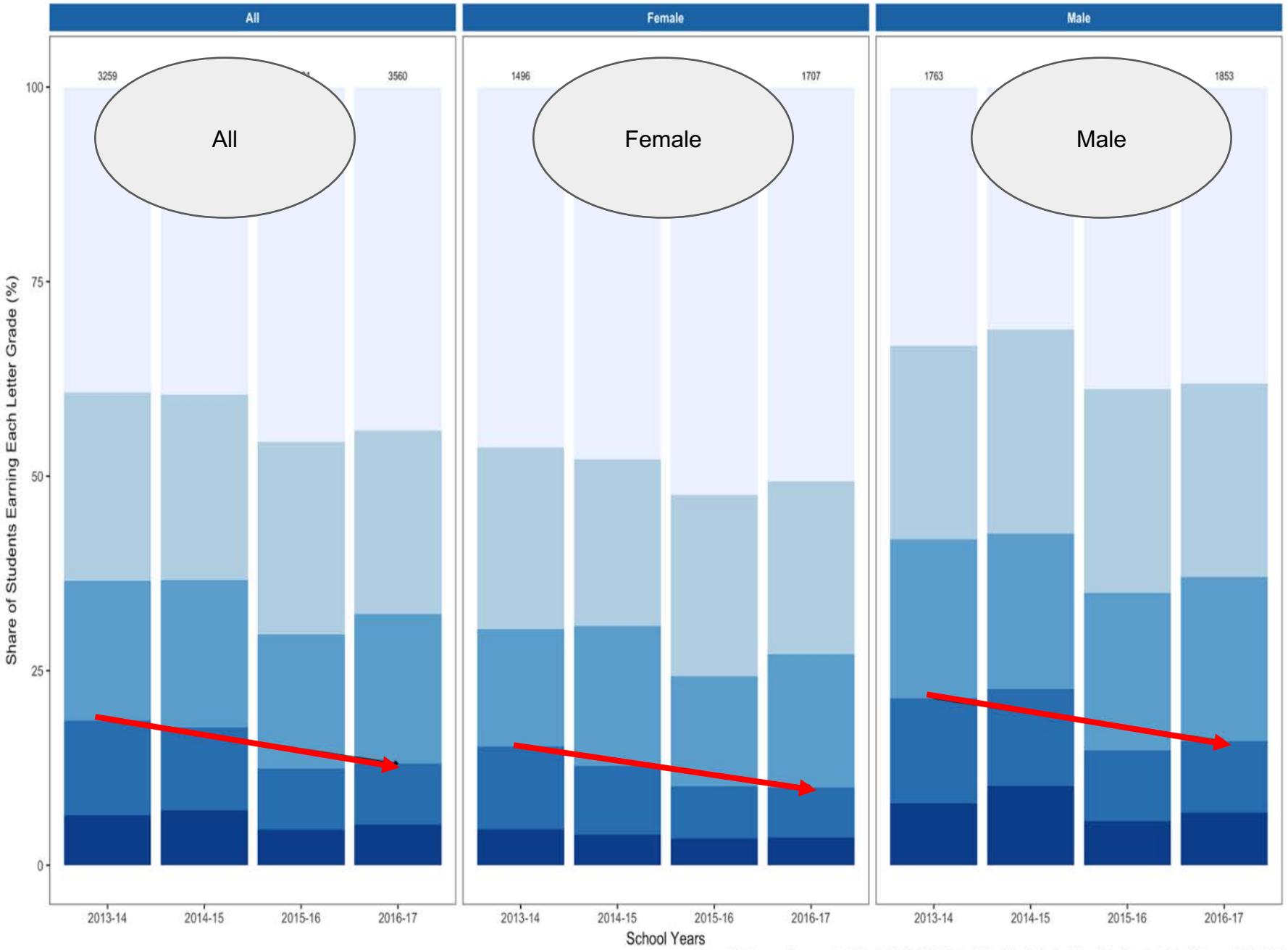
Both female and male students increasingly earned fewer Ds/Fs and more As in 8th Grade Math from 2013-14 to 2016-17



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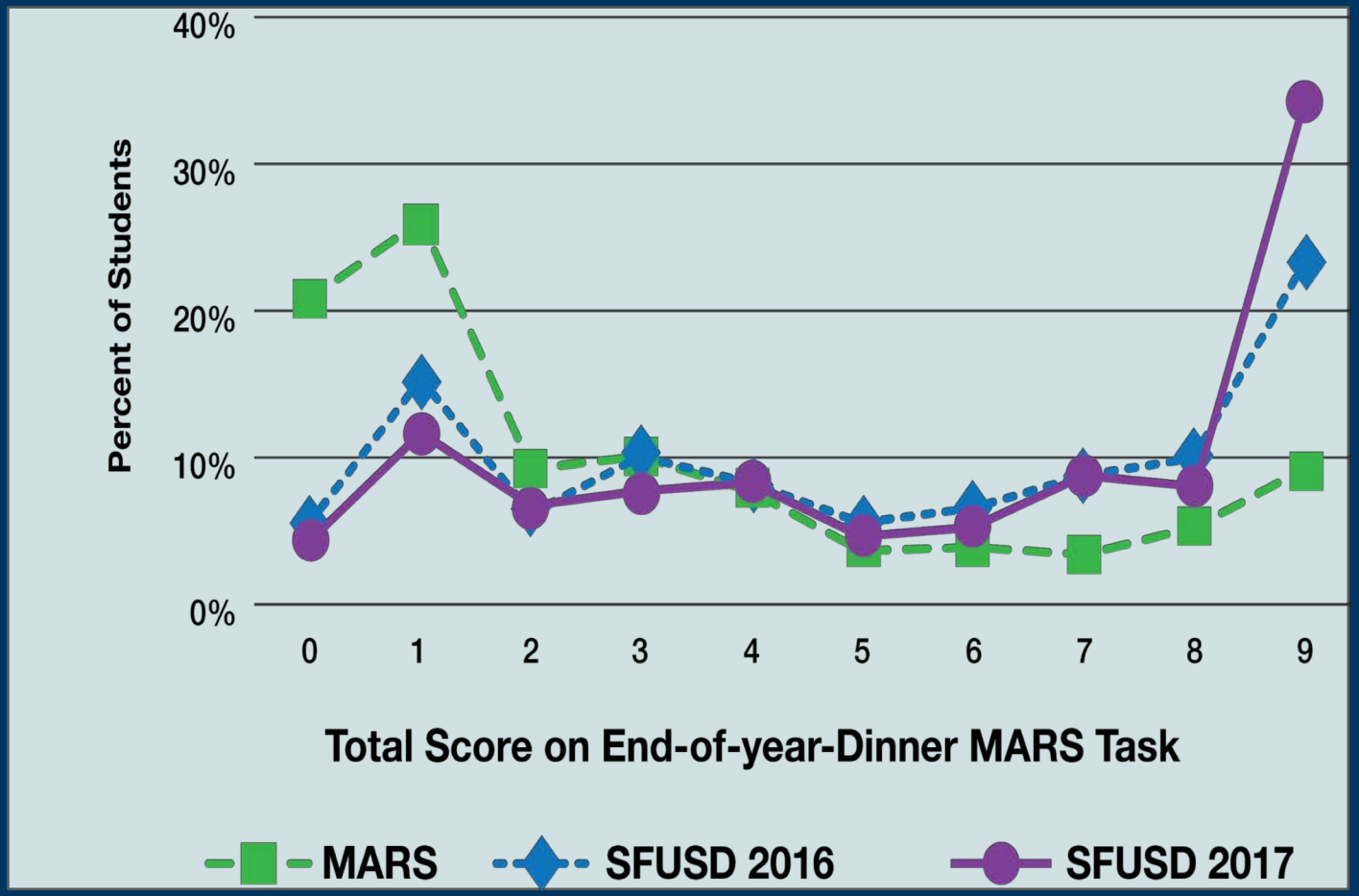
SRI's Final Report: Year 3 SFUSD STEM Learning Initiative Evaluation, *June 2017*



Systemic Barriers

- Accelerated success among our African American students has been elusive
- Public pushback to detracking math policy
- Relational trust among colleagues that allows teaching to be deprivatized is difficult to build
- Adult belief systems about student capacity
- Working to normalize components of a decentralized system creates significant pushback
- Collecting the right data, in the right cycles, for systemic improvement

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