Math Corequisite Evaluation

PLANNING, RESEARCH & INSTITUTIONAL EFFECTIVENESS (PRIE)

SPRING 2025 (UPDATED MAY 22, 2025)

Timeframe

This analysis aggregates all student enrollments in MATH 200, 225, and 241 (and their corequisites) from Fall 2019 through Fall 2024

GPA Bands

- GPA and Last math taken come from self report data via CCCApply. In general this information has been identified as reliable overall

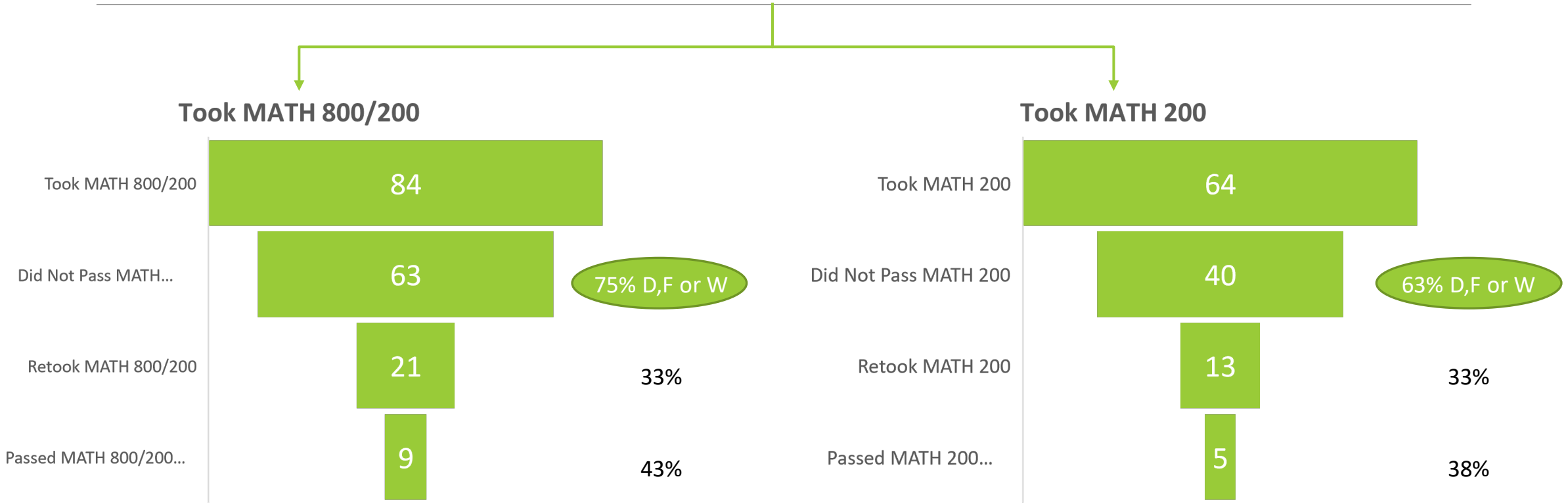
- Statistics (SLAM) or Calculus (BSTEM) program of study GPA Bands
- SLAM:
  - High: GPA >=3.0
  - Medium: GPA 2.3 - 2.99
  - Low: GPA < 2.3
- BSTEM:
  - High: GPA >= 3.4 or >= 2.6 + High School Precalculus
  - Medium: GPA 2.6 - 3.39
  - Low: GPA < 2.6

Disproportionately more Latine students have low or medium High School GPA bands for Math – and therefore – are enrolled in co-requisite support courses.

Self-Reported High School GPA Band	Low	Medium	High	% of Overall College Population
American Indian/Alaskan Native	0%	0.1%	0.2%	0.2%
Asian	3%	4%	9%	6%
Black - Non-Hispanic	4%	2%	2%	3%
Filipino	3%	4%	6%	5%
Latine	67%	60%	44%	53%
Multiraces	5%	6%	8%	7%
Pacific Islander	3%	2%	2%	2%
Unknown	2%	2%	2%	2%
White Non-Hispanic	13%	18%	27%	23%

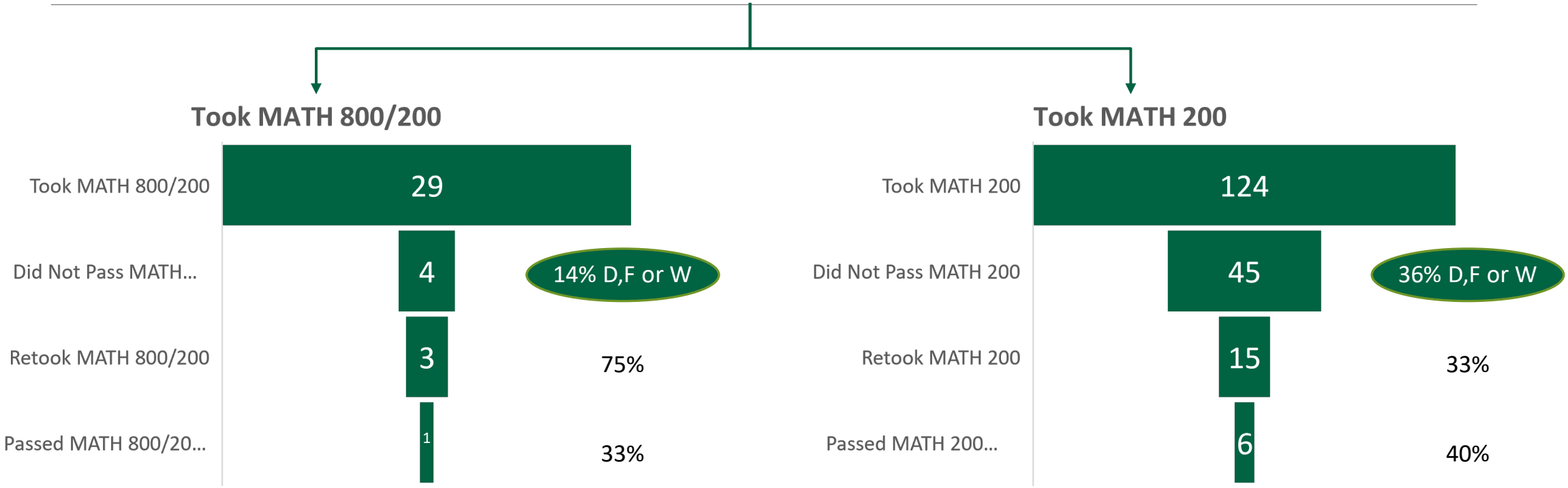
Self-reported HS GPA for all students who enrolled in Math 200, 225, 241, 800, 825, and/or 841 during any of the major terms between Fall 2019 and Fall 2024. Lighter blue indicates underrepresentation, while darker blue indicates overrepresentation. N = 4,038

Students Placed into "Transfer with Support"



Note: Retakes considered over two years following the first attempt.

Students Placed into **"Transfer without Support"**



Note: Retakes considered over two years following the first attempt.

Math 200/800

Math 200 vs. Math 200/800

High School GPA	MATH 200		MATH 200+800	
	# of students	Course Success Rate	# of students	Course Success Rate
High	1941	**68%**	283	**70%**
Medium	652	**42%**	368	**47%**
Low	252	**32%**	188	**30%**
Total	2845	**59%**	839	**51%**

Last Math Class Taken	MATH 200		MATH 200+800	
	# of students	Course Success Rate	# of students	Course Success Rate
Algebra 2 or lower	1542	**51%**	621	**48%**
Precalc or higher	883	**70%**	135	**64%**
Stats	420	**64%**	83	**48%***
Total	2845	**59%**	839	**51%**

* Statistically significant difference for coreq

All students who enrolled in Math 200 and/or 800 during any of the major terms between Fall 2019 and Fall 2024

Math 200 vs. Math 200/800

Last Math Class Taken	GPA band	MATH 200		MATH 200+800	
		# of students	Course Success Rate	# of students	Course Success Rate
Algebra 2 or lower	High	901	**62%**	173	**68%**
Algebra 2 or lower	Medium	428	**37%**	285	**47%***
Algebra 2 or lower	Low	213	**31%**	163	**30%**
Precalc or higher	High	743	**74%**	79	**76%**
Precalc or higher	Medium	118	**54%**	44	**48%**
Precalc or higher	Low	*22*	***32%***	*12*	***42%***
Stats	High	297	**72%**	31	**68%**
Stats	Medium	106	**47%**	39	**44%**
Stats	Low	*17*	***41%***	*13*	***15%***
Total		2845	**59%**	839	**51%**

* Statistically significant difference for coreq

All students who enrolled in Math 200 and/or 800 during any of the major terms between Fall 2019 and Fall 2024
Numbers in italics are very low N and may not reflect true trends

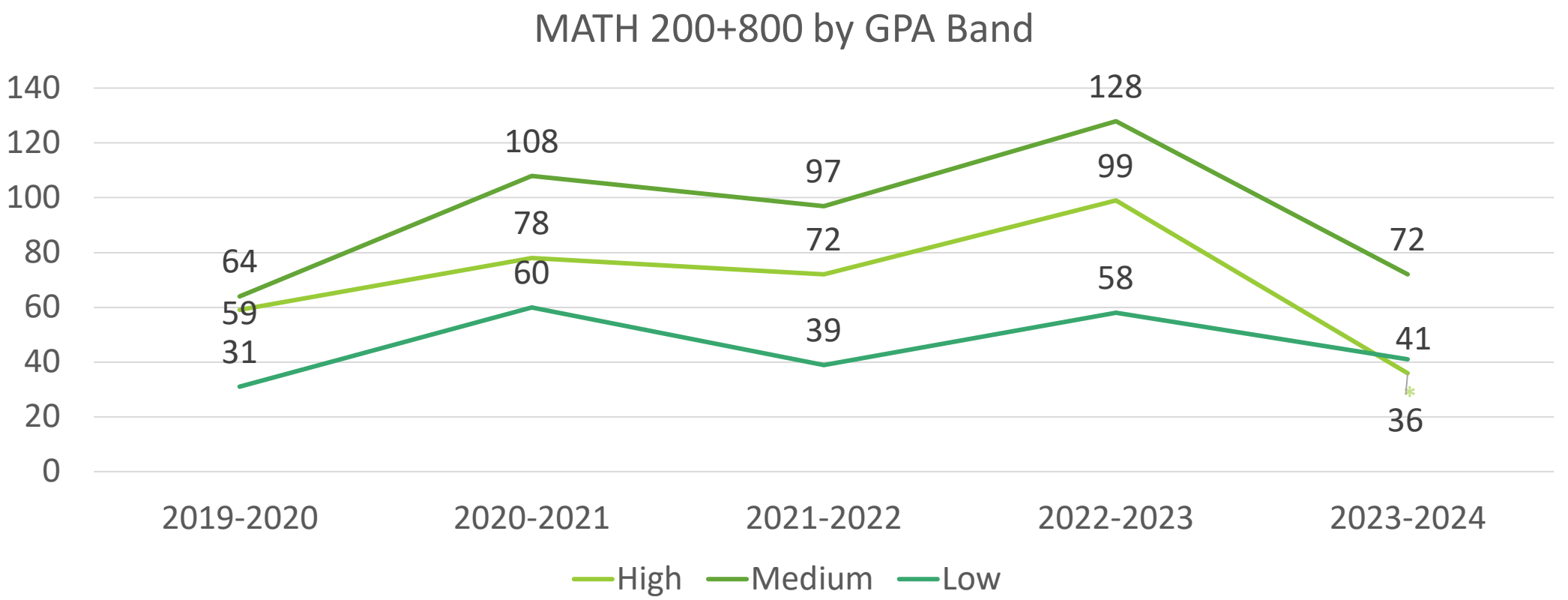
Districtwide Comparison

	MATH 200		MATH 200+800	
	N	Success	N	Success
CAN	3104	60%	880	53%
CSM	2607	61%	1792	52%
SKY	3306	60%	1172	49%

Math 200 vs. Math 200/800: Take-aways

- Taking Math 800 seems to be a slight benefit to students in the top two high school GPA bands, but not those in the lowest GPA band. This was not a significant benefit
- Algebra-2 takers in the middle GPA band saw the clearest benefit to taking Math 800.
- Stats-takers did not see any benefit from taking Math 800, regardless of their high school GPA.

Annual Enrollment Over Time



*This year appears to be an aberration, as Fall 2024 already has more 200+800 students in the highest GPA band than all of 2023-2024

Impact of Primary Language

	MATH 200		MATH 200+800	
Student's Primary Language	**N of each language group who took Math 200**	**% of students successful in the Math 200**	**N of each language group who took Math 200+800**	**% of students successful in Math 200+800**
English	1869	58%	531	53%
Non-English/unknown	226	50%	84	40%
Overall	2095	59%	615	51%

Math 225/825

Math 225 vs. Math 225/825

High School GPA band	MATH 225		MATH 225+825	
	# of students	Course Success Rate	# of students	Course Success Rate
High	223	**84%**	138	**83%**
Medium	164	**57%**	189	**59%**
Low	81	**26%**	141	**37%**
Total	468	**64%**	468	**59%**

Last Math Class Taken	MATH 225		MATH 225+825	
	# of students	Course Success Rate	# of students	Course Success Rate
Algebra 2 or lower	306	**57%**	351	**57%**
Precalc or higher	162	**78%**	117	**65%***
Total	468	**64%**	468	**59%**

* Statistically significant difference for coreq

All students who enrolled in Math 225 and/or 825 during any of the major terms between Fall 2019 and Fall 2024

Math 225 vs. Math 225/825

Last Math Class Taken	High School GPA band	MATH 225		MATH 225+825	
		# of students	Course Success Rate	# of students	Course Success Rate
Algebra 2 or lower	High	112	**87%**	80	**88%**
Algebra 2 or lower	Medium	126	**49%**	148	**59%**
Algebra 2 or lower	Low	68	**22%**	123	**35%***
Precalc or higher	High	111	**81%**	58	**76%**
Precalc or higher	Medium	38	**82%**	41	**56%**
Precalc or higher	Low	*13*	***46%***	*18*	***50%***
Total		468	**64%**	468	**59%**

* Statistically significant difference for coreq

All students who enrolled in Math 225 and/or 825 during any of the major terms between Fall 2019 and Fall 2024
Numbers in italics are very low N and may not reflect true trends

Districtwide Comparison

	MATH 225		MATH 225+825	
	N	**Success**	**N**	**Success**
CAN	511	65%	504	62%
CSM	701	63%	331	51%
SKY	517	67%	271	60%

Math 225 vs. Math 225/825: Take-aways

- In aggregate, students appear to have a lower success rate in Math 225 if they also took Math 825, but there is nuance as to who is being impacted.
- Students in the lowest GPA band showed a modest increase in success when taking Math 825, although the comparison group is small.
- Students who took Precalculus or higher in high school saw a modest decrease in their success rates when taking the corequisite course.
- There appears to be an interaction between high school last math taken and high school GPA band, where lower math taken appears to increase lower GPA band success in the corequisite, while higher math prep and higher GPA band leads to lower success in the corequisite course though the interaction was not significant

Math 241/841

Math 241 vs. Math241/841

High School GPA band	MATH 241		MATH 241+841	
	# of students	Course Success Rate	# of students	Course Success Rate
High	103	87%	*25*	*92%*
Medium	125	69%	34	71%
Low	34	50%	*13*	*54%*
Total	262	74%	72	75%

Last Math Class Taken	MATH 241		MATH 241+841	
	# of students	Course Success Rate	# of students	Course Success Rate
Algebra 2 or lower	178	71%	43	74%
Precalc or higher	84	80%	*29*	*76%*
Total	262	74%	72	75%

All students who enrolled in Math 241 and/or 841 during any of the major terms between Fall 2019 and Fall 2024
Numbers in italics are very low N and may not reflect true trends

Districtwide Comparison

	MATH 241		MATH 241+841	
	N	**Success**	**N**	**Success**
CAN	285	74%	81	74%
CSM	327	54%	263	67%
SKY	395	84%	148	83%

Math 241 vs. Math241/841: Take-aways

- Math 241 and 241 with corequisite (Math 841) have lower overall enrollment, which makes drawing any conclusions from this data difficult.
- By high school GPA band, the benefit of taking the corequisite is small and may be outweighed by the extra units required.

Corequisite takeaways

- Success rates can be affected by the last course a student took in high school, regardless of GPA band.
- Pedagogical practices in Math 225/825 might provide insight for instructors of Math 200/800, especially for students in the lowest GPA band students with Algebra 2 or lower high school math.
- Changes from AB1705 to Precalculus and Calculus I may drastically change the landscape for corequisite support in these courses. Further inquiry is needed in the coming years to see what impacts this legislation will yield.