

DATE: 2/14/2018  
TO: AB 705 Implementation Team  
FROM: Doreen Finkelstein, Research Analyst  
RE: Math enrollment under AB 705 for Fall 2018

### **Introduction:**

The passage of Assembly Bill (AB) 705 removed barriers for the placement of students into gateway, transfer-level math (e.g., Math 10, Math 48A), with the goal of increasing the number of students who enroll in, and successfully complete, these courses within one year. In compliance with AB 705, as of Fall 2018, all Foothill College students are eligible to enroll directly into these courses. Depending upon a student's high school achievement (GPA and course grades), students may be required to take a corequisite, Math 248A, along with Math 48A.

While students are no longer being placed into math courses below transfer-level (e.g., Math 105), they may still elect to take these courses.

This study looked at 1) enrollment into Math 10 and Math 48A compared to the previous year (Fall 2017); 2) differences between students who enrolled in Math 10 and Math 48A vs. those who enrolled in below-transfer-level math coursework; and 3) placement and enrollment patterns for the Math 48A corequisite, Math 248A.

### **Results Overview:**

- Enrollment patterns were in line with the goals of AB 705. Enrollment in Math 10 increased by 277 students over the previous year, for a gain of 45%, while enrollment in Math 48A increased by 100 students, for a gain of 38%. There were significant gains in the proportion of Latinx students enrolled in Math 10 (+9%) and Math 48A (+13%).
- Students who enrolled in below-transfer-level math coursework (Math 105, Math 180, and Math 217) were more likely to be African-American (+4%), Latinx (+5%), or Pacific Islander (+3%) than were students who enrolled in Math 10 or Math 48A. They were also more likely to be female (+3%). Future research into these enrollment patterns can help determine whether

more likely to be male (+6%). Awareness of these trends may help inform future pedagogy and curriculum in the Math 48A corequisite.

- Out of the 364 students who enrolled in Math 48A, 53 (15%) underplaced themselves by taking the corequisite when they were not required to take it. These students were more likely to be White (+9%) and female (+8%). A survey of Math 48A students suggests that the primary reasons for self-underplacement were 1) a seeming lack of awareness of higher-level math eligibility, 2) an interest in additional academic support to pass the class, and 3) a desire to take the class with a specific instructor who was only teaching Math 48A with Math 248A. Ongoing research is required to monitor the underplacement trends as more data are needed before any conclusions or implications can be identified.

#### **Results Detail:**

##### ***Enrollment in Math 10***

Math 10 enrollment increased by 277 students (45%) in Fall 2018 as compared to Fall 2017. If the increase in Math 10 enrollment was proportionately equal for all student groups, we would expect to see no change in the proportions across the two years. As shown in Table 1, there was a greater increase in Math 1

to see no change in the proportions across the two years. As shown in Table 2, there was a greater increase in Math 48A enrollment among Latinx students than for other groups, especially Asian students. There was an increase in the relative proportion of Latinx students among the Math 48A student population, going from 28% in Fall 2017 to 41% in Fall 2018 (+13%) and a decrease in the relative proportion of Asian students, going from 33% in Fall 2017 to 20% in Fall 2018 (-13%). The relative proportion of female students also declined slightly (-3%).

**Table 2: Math 48A Enrollment by Student Group**

Student Group	Fall 2017		Fall 2018		Difference
	Head Count	%	Head Count	%	
<b>By Ethnicity</b>					
African American	5	2%	9	2%	0%
Asian	88	33%	72	20%	-13%
Filipinx	14	5%	19	5%	0%
Latinx	74	28%	151	41%	+13%
Native American					

**Table 3: Fall 2018 Enrollment in  
Math 10 and Math 48A vs. Below-Transfer-Level Math by Student Group**

Student Group	Below-Transfer-Level <sup>1</sup>		Math 10 and Math 48A		Difference
	Head Count	%	Head Count	%	
	26	9%	63	5%	+4%
	38	12%	268	21%	-9%
	22	7%	82	7%	0%
	135	44%	496	39%	+5%



Table 5: Fall 2018 Underplacement into Math 48A with Corequisite  
by Student Group

Student Group	Count of Underplaced Students	Percent of Underplaced Students	Count of Students in Math 48A (all)	Percent of Students in Math 48A (all)	Difference
<b>By Ethnicity</b>					
African American	1	2%	9	2%	0%
Asian	8	15%	72	20%	-5%
Hispanic	3	6%	19	5%	+1%
Latino					