FOOTHILL COLLEGE
Institutional Research and Planning

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TO: Peter Murray, Dean, Physical Sciences, Math and Engineering

FROM: Elaine Kuo, College Researcher

RE: Math 48 and Math 1A

Overview

Course Enrollment

There were 1274 unique students enrolled in Math 48A/B/C and 1A during the 2011-12 academic year (fall, winter, spring quarters). Table 1 shows the distribution of students by each quarter. Enrollment in these four courses was 1,832, with Math 1A and Math 48 A/B/C students each composing about half of the total (45% and 55%). Math 1A enrollment was fairly consistent between Fall 2011 and Winter 2012, each representing roughly 40% of Math 1A enrollment for the year; Math 1A enrollment declined from over 300 students in fall and winter to 173 students in spring.

Table 1. Math 1A and 48 A/B/C Enrollment by Term, 2011-12.

	Fall 2011		Winter 2012		Spring 2012		Total	
Math Course	Students	Percent	Students	Percent	Students	Percent	Students	Percent
F001A	348	42%	311	37%	173	21%	832	100%
F048A	194	31%	234	37%	201	32%	629	100%
F048B	--	--	130	53%	113	47%	243	100%
F048C	--	--	--	--	128	100%	128	100%

Note: Math 48B was only offered in W12 and S12; Math 48C was only offered in S12.

Course Success

Course success rates in Math 1A was around 50% during the 2011-12 academic year, regardless of the academic term. The nonsuccess rate in Math 1A increased from a quarter of the enrollment in Fall 2011 and Winter 2012 to almost 40% in Spring 2012 (Table 2). In the Math 48 series, the success rate among all three courses (A/B/C) was highest during Spring 2012. Math 48C had a higher course success rate (63%) compared to the other two courses in the sequence (45% for Math 48A and 55% for Math 48B).

Table 2. Math 1A and 48 A/B/C Course Success Rates, 2011-12.

		Success		Nonsuccess		Withdraw		Total	
Math Course	Term	Students	Percent	Students	Percent	Students	Percent	Students	Percent
F001A	Fall 2011	181	52%	90	26%	77	22%	348	100%
	Winter 2012	162	52%	78	25%	71	23%	311	100%
	Spring 2012	85	49%	68	39%	20	12%	173	100%
F048A	Fall 2011	79	41%	59	30%	56	29%	194	100%
	Winter 2012	74	32%	84	36%	76	32%	234	100%
	Spring 2012	90	45%	74	37%	37	18%	201	100%
F048B	Winter 2012	69	53%	34	26%	27	21%	130	100%
	Spring 2012	62	55%	34	30%	17	15%	113	100%
F048C	Spring 2012	80	63%	37	29%	11	9%	128	100%

Tables 3 and 4 identify those students who repeated either Math 1A or 48A/B during winter and spring quarters. About one quarter of the students who enrolled in Math 1A or 48A in Fall 2011 repeated the same course in Winter 2012. Among those students enrolled in Math 1A, 48A or 48B in Winter 2012, roughly 30% repeated the same course the following quarter.

Table 3. Students who Repeated Math 1A or 48A, Fall 2011 to Winter 2012.

	Fall 2011	Winter 2012	Fall 2011-Winter 2012
Math Course	Enr	Repeaters	Percent of Repeaters
F001A	348	88	25%
F048A	194	50	26%

Table 4. Students who Repeated Math 1A, 48A or 48B, Winter 2012 to Spring 2012.

	Winter 2012	Spring 2012	Winter 2012-Spring 2012
Math Course	Enr	Repeaters	Percent of Repeaters
F001A	311	85	27%
F048A	234	72	31%
F048B	130	39	30%

Math Placement

About 25% of all students enrolled in Math 1A or 48 A/B/C did not have a math placement recorded. Of those with a math placement, 46% of those enrolled in Math 1A in Fall 2011 were placed into that course while only 19% and 33% of students enrolled in the winter and spring placed into Math 1A (Table 5). In Winter 2012, more Math 1A students placed into Math 49 (26%) based on test score results recorded prior to the Fall 2011 term. Placement results among Math 48A students show that at least half of these students placed in Math 10 or Math 48A (Table 5). Placement into Math 105 by Math 48A students seemed to increase over the course of the academic year, from 10% in Fall 2011 to 21% in Spring 2012.

Table 5. Math Placement for Students Enrolled in Math 1A and 48A, 2011-12.

		Fall 2011		Winter 2012		Spring 2012	
Math Course	Placement	Students	Percent	Students	Percent	Students	Percent
F001A	Math 10	29	9%	72	18%	38	18%
	Math 105	8	3%	16	4%	6	3%
	Math 1A	143	46%	74	19%	68	33%
	Math 220	1	0%	3	1%	1	0%
	Math 48A	21	7%	29	7%	16	8%
	Math 48B	15	5%	34	9%	17	8%
	Math 48C	9	3%	55	14%	22	11%
	Math 49	62	20%	103	26%	35	17%
	Math 51	3	1%	2	1%	1	0%
	Retest	18	6%	9	2%	2	1%
	Total	309	100%	397	100%	206	100%
F048A	Math 10	68	30%	58	27%	48	23%
	Math 105	22	10%	38	18%	43	21%
	Math 108	7	3%	5	2%	3	1%
	Math 11			1	0%		0%
	Math 1A	5	2%				0%
	Math 217			1	0%	11	5%
	Math 220	4	2%	7	3%	15	7%
	Math 230			3	1%	4	2%
	Math 48A	75	33%	74	34%	52	25%
	Math 48B	19	8%	8	4%	10	5%
	Math 48C	4	2%	5	2%	1	0%
	Math 49	7	3%	6	3%	4	2%
	Math 51	5	2%	1	0%	1	0%
	Retest	14	6%	9	4%	13	6%
	Total	230	100%	216	100%	205	100%

When examining Fall 2011 Math course success based on placement results, almost three-fourths of students placed in Math 1A passed that course (Table 6). At least half of the students placing into Math 48B, 48C, 49 or 105 also experienced success in Math 1A. Among Math 48A students, at least half of those who placed into Math 1A, 108, 48B, 48C, 49, 51 or 220, experienced course success (Table 6).

Table 6. Math Placement among Math 1A and 48A Students, Fall 2011.

		2011 Fall Foothill							
		Success		Nonsuccess		Withdraw		Total	
Math Course	Placement	Students	Percent	Students	Percent	Students	Percent	Students	Percent
F001A	Math 10	13	45%	7	24%	9	31%	29	100%
	Math 105	4	50%	1	13%	3	38%	8	100%
	Math 1A	104	73%	20	14%	19	13%	143	100%
	Math 220			1	100%			1	100%
	Math 48A	3	14%	9	43%	9	43%	21	100%
	Math 48B	10	67%	3	20%	2	13%	15	100%
	Math 48C	5	56%	3	33%	1	11%	9	100%
	Math 49	35	56%	16	26%	11	18%	62	100%
	Math 51	1	33%	1	33%	1	33%	3	100%
	Retest	7	39%	4	22%	7	39%	18	100%
F048A	Math 10	31	46%	21	31%	16	24%	68	100%
	Math 105	6	27%	7	32%	9	41%	22	100%
	Math 108	4	57%			3	43%	7	100%
	Math 1A	4	80%			1	20%	5	100%
	Math 220	4	100%					4	100%
	Math 48A	28	37%	28	37%	19	25%	75	100%
	Math 48B	10	53%	4	21%	5	26%	19	100%
	Math 48C	2	50%	1	25%	1	25%	4	100%
	Math 49	4	57%	2	29%	1	14%	7	100%
	Math 51	4	80%			1	20%	5	100%
	Retest	4	29%	6	43%	4	29%	14	100%

Among the course repeaters, 29% of those students who were unsuccessful in Math 1A in Fall 2011 and repeated the course in Winter 2012 initially placed into Math 1A (Table 7). Among the Math 48A students who were unsuccessful in Fall 2011 and repeated the course the following quarter, 53% of these students initially placed into Math 48A.

Table 7. Math Placement among Nonsuccessful Math 1A and 48A Students, Fall 2011.

		2011 Fall Foothill					
		Nonsuccess		Withdraw		Total	
Math Course	Placement	Students	Percent	Students	Percent	Students	Percent
F001A	Math 10	5	12%	7	18%	12	15%
	Math 105			2	5%	2	2%
	Math 1A	12	29%	9	23%	21	26%
	Math 220	1	2%			1	1%
	Math 48A	7	17%	7	18%	14	17%
	Math 48B	3	7%	2	5%	5	6%
	Math 48C	2	5%	1	3%	3	4%
	Math 49	8	19%	7	18%	15	19%
	Math 51	1	2%			1	1%
	Retest	3	7%	4	10%	7	9%
	Total	42	100%	39	100%	81	100%
F048A	Math 10	9	30%	8	29%	17	29%
	Math 105	3	10%	5	18%	8	14%
	Math 108			2	7%	2	3%
	Math 1A			1	4%	1	2%
	Math 48A	16	53%	11	39%	27	47%
	Retest	2	7%	1	4%	3	5%
	Total	30	100%	28	100%	58	100%

Methodology

Students enrolled in Math 1A, 48A/B/C in Fall 2011, Winter 2012 and Spring 2012 and received a final grade was identified. Only those students who received a math placement between May 2010 and April 2012 were included in this analysis. Note that enrollment in Math 1A, 48A/B/C may not be a student's first math course at Foothill.

Source

FHDA IR&P, ODS [Student Course, Test]