# De Anza College Office of Institutional Research and Planning

To: Jerry Rosenberg, Dean of Physical Sciences, Math and Engineering

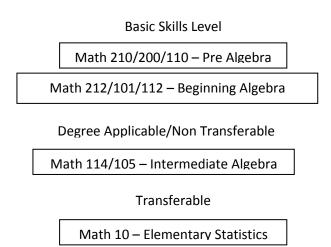
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Date: 1/29/2013

**Subject:** Math Performance Success – 11 Year Tracking – 2001-02 to 2011-12

## **Background**

The Math Performance Success Program (MPS) is modeled as a supportive learning environment with a team of faculty, counselors, and tutors that work with students to help them succeed in Math 210, 212, 114 and 10. The diagram below shows the course progression from basic skills level to transfer level Math.



# Methodology:

MPS sections of 210/200/110, 212/101/112, 114/105 and 10 were compared to the same course in the same year. The instructional method, either face to face or distance was identified for comparison purposes. Only students who received a grade at the end of the term were included. Success is calculated on A, B, C and P grades while non success is D, F, and NP grades and Withdraw is W grades.

## **Main Findings:**

Over 11 years, the course success rates of students in MPS sections of Math 210, 212, 114 and 10 are 12 to 23% higher than the success rates of students in the same course in the traditional format.

Over 11 years, 3,858 students took an MPS math course while 3,100 students (80%) successfully passed their MPS math course.

Over 11 years, 8% of MPS students withdrew from their class compared to 20% of students in a face-to-face and 28% for distance courses.

# Eleven Year History by MPS, Face to Face, or Distance Format

### 2001-2002 to 2011-2012

		Pass	D	oid Not Pas	ss	Withdrew	,	Total	
		Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MPS	FACE_TO_FACE	3,100	80%	458	12%	300	8%	3,858	100%
OTHER	R FACE_TO_FACE	58,788	59%	20,668	21%	19,575	20%	99,031	100%
OTHER	r distance	2,164	47%	1,163	25%	1,319	28%	4,646	100%

Includes Math 210, 212, 114 and 10 for MPS and Other.

• MPS sections exhibited success rates of 80% compared to 59% of similar courses in the face to face format and 47% for similar courses as a distance section.

## Eleven Year History by Course

### 2001-2002 to 2011-2012

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD210. Pre-Algebra	MPS	FACE_TO_FACE	176	69%	54	21%	25	10%	255	100%
	OTHER	FACE_TO_FACE	7,916	57%	3, <del>4</del> 71	25%	2,608	19%	13,995	100%
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	869	76%	155	14%	124	11%	1,148	100%
	OTHER	FACE_TO_FACE	13,621	54%	6,140	24%	5,352	21%	25,113	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	1,073	80%	163	12%	98	7%	1,334	100%
	OTHER	FACE_TO_FACE	18,136	60%	6,614	22%	5,695	19%	30,445	100%
	OTHER	DISTANCE	405	40%	308	30%	299	30%	1,012	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	982	88%	86	8%	53	5%	1,121	100%
	OTHER	FACE_TO_FACE	19,115	65%	4,443	15%	5,920	20%	29,478	100%
	OTHER	DISTANCE	1,759	48%	855	24%	1,020	28%	3,634	100%

Includes students taking multiple courses and/or repeating the same course.

- Over 11 years, the course success rates of students in MPS sections are 12 to 23% higher than the success rates of students in the same course in the traditional format.
- Math 10 exhibited the highest success rate of MPS sections at 88%, followed by Math 114 at 80%.
- Math 210 exhibited the lowest success rate of MPS sections at 69% success, though still higher than the traditional section at 57% success.

# Success Rates by Year and Course

#### 2011-2012

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD210. Pre-Algebra	MPS	FACE_TO_FACE	43	64%	22	33%	2	3%	67	100%
	OTHER	FACE_TO_FACE	683	50%	453	33%	222	16%	1,358	100%
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	139	78%	34	19%	6	3%	179	100%
	OTHER	FACE_TO_FACE	1,581	56%	786	28%	455	16%	2,822	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	163	75%	35	16%	19	9%	217	100%
	OTHER	FACE_TO_FACE	1,930	61%	741	23%	508	16%	3,179	100%
	OTHER	DISTANCE	64	38%	60	36%	45	27%	169	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	100	97%	2	2%	1	1%	103	100%
	OTHER	FACE_TO_FACE	2,256	66%	599	18%	567	17%	3,422	100%
	OTHER	DISTANCE	208	50%	109	26%	96	23%	413	100%

- In 2011-12, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 97% success.
- Math 210 exhibited the lowest success rate of MPS sections at 64% success, though still higher than the traditional section at 50% success.

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD210. Pre-Algebra	MPS	FACE_TO_FACE	41	66%	14	23%	7	11%	62	100%
	OTHER	FACE_TO_FACE	850	58%	416	28%	203	14%	1,469	100%
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	97	68%	27	19%	19	13%	143	100%
	OTHER	FACE_TO_FACE	1,498	56%	735	27%	466	17%	2,699	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	163	82%	21	11%	14	7%	198	100%
	OTHER	FACE_TO_FACE	1,825	59%	762	25%	503	16%	3,090	100%
	OTHER	DISTANCE	64	39%	56	34%	43	26%	163	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	165	78%	34	16%	12	6%	211	100%
	OTHER	FACE_TO_FACE	1,910	60%	590	19%	664	21%	3,164	100%
	OTHER	DISTANCE	25 I	56%	77	17%	120	27%	448	100%

- In 2010-11, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 114 exhibited the highest success rate of MPS sections at 82% success.
- Math 210 exhibited the lowest success rate of MPS sections at 66%, well above the traditional section at 58% success.

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD210. Pre-Algebra	MPS	FACE_TO_FACE	28	78%	4	11%	4	11%	36	100%
	OTHER	FACE_TO_FACE	760	52%	446	31%	246	17%	1,452	100%
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	100	76%	18	14%	14	11%	132	100%
	OTHER	FACE_TO_FACE	1,551	55%	735	26%	538	19%	2,824	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	141	79%	22	12%	15	8%	178	100%
	OTHER	FACE_TO_FACE	1,974	60%	789	24%	509	16%	3,272	100%
	OTHER	DISTANCE	50	31%	61	38%	49	31%	160	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	154	85%	14	8%	13	7%	181	100%
	OTHER	FACE_TO_FACE	1,779	61%	508	18%	611	21%	2,898	100%
	OTHER	DISTANCE	268	46%	165	28%	150	26%	583	100%

- In 2019-10, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 85% success; all other course had success rates above 76%.

			Pass		s Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD210. Pre-Algebra	MPS	FACE_TO_FACE	20	83%	3	13%	1	4%	24	100%
	OTHER	FACE_TO_FACE	732	56%	348	27%	216	17%	1,296	100%
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	66	65%	12	12%	24	24%	102	100%
	OTHER	FACE_TO_FACE	1,543	54%	713	25%	584	21%	2,840	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	110	77%	25	17%	8	6%	143	100%
	OTHER	FACE_TO_FACE	1,816	60%	698	23%	494	16%	3,008	100%
	OTHER	DISTANCE	52	38%	39	29%	45	33%	136	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	111	81%	13	9%	13	9%	137	100%
	OTHER	FACE_TO_FACE	1,886	63%	522	17%	580	19%	2,988	100%
	OTHER	DISTANCE	159	43%	94	26%	113	31%	366	100%

- In 2008-09, all MPS sections had higher success rates then non MPS sections of the same course.
- In this year, Math 210 exhibited the highest success rate of MPS sections at 83% success; Math 210 in other years has one of the lowest success rates of all MPS sections.
- Math 212 exhibited the lowest success rate of MPS sections at 65%, though still above the traditional section at 54%.

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD210. Pre-Algebra	MPS	FACE_TO_FACE	27	71%	5	13%	6	16%	38	100%
	OTHER	FACE_TO_FACE	645	54%	283	23%	277	23%	1,205	100%
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	104	73%	17	12%	22	15%	143	100%
	OTHER	FACE_TO_FACE	1,327	55%	562	23%	504	21%	2,393	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	111	82%	13	10%	12	9%	136	100%
	OTHER	FACE_TO_FACE	1,671	62%	606	22%	433	16%	2,710	100%
	OTHER	DISTANCE	21	33%	24	38%	18	29%	63	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	72	90%	3	4%	5	6%	80	100%
	OTHER	FACE_TO_FACE	1,827	64%	473	17%	540	19%	2,840	100%
	OTHER	DISTANCE	124	48%	86	33%	48	19%	258	100%

- In 2007-08, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 90% success followed by Math 114 at 82%.
- MPS sections of Math 210 and 212 exhibited success rate above 71%.

			Pass		Did N	ot Pass	Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD210. Pre-Algebra	MPS	FACE_TO_FACE	17	61%	6	21%	5	18%	28	100%
	OTHER	FACE_TO_FACE	735	60%	247	20%	234	19%	1,216	100%
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	91	83%	- 11	10%	7	6%	109	100%
MATHD212. Beginning Algebra	OTHER	FACE_TO_FACE	1,220	57%	476	22%	462	21%	2,158	100%
MATHDII4. Intermediate Algebra	MPS	FACE_TO_FACE	84	79%	15	14%	8	7%	107	100%
	OTHER	FACE_TO_FACE	1,468	61%	452	19%	484	20%	2,404	100%
	OTHER	DISTANCE	18	44%	10	24%	13	32%	41	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	68	93%	2	3%	3	4%	73	100%
	OTHER	FACE_TO_FACE	1,670	66%	355	14%	495	20%	2,520	100%
	OTHER	DISTANCE	101	38%	64	24%	100	38%	265	100%

- In 2006-07, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 93% success.
- Math 210 exhibited the lowest success rate of MPS sections at 61% success, slightly higher than the traditional section at 60% success.

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	51	88%	4	7%	3	5%	58	100%
	OTHER	FACE_TO_FACE	984	57%	357	21%	379	22%	1,720	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	64	81%	6	8%	9	11%	79	100%
	OTHER	FACE_TO_FACE	1,264	59%	390	18%	484	23%	2,138	100%
	OTHER	DISTANCE	38	52%	3	4%	32	44%	73	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	76	95%	4	5%			80	100%
	OTHER	FACE_TO_FACE	1,677	66%	319	13%	534	21%	2,530	100%
	OTHER	DISTANCE	119	38%	115	37%	77	25%	311	100%

- In 2005-06, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 95% success. Math 114 and 212 had success rates above 80%.

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	46	64%	14	19%	12	17%	72	100%
	OTHER	FACE_TO_FACE	883	51%	413	24%	426	25%	1,722	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	31	78%	6	15%	3	8%	40	100%
	OTHER	FACE_TO_FACE	1,429	62%	422	18%	461	20%	2,312	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	49	96%	2	4%			51	100%
	OTHER	FACE_TO_FACE	1,562	63%	352	14%	577	23%	2, <del>4</del> 91	100%
	OTHER	DISTANCE	213	58%	40	11%	116	31%	369	100%

- In 2004-05, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 96% success.
- Math 212 exhibited the lowest success rate of MPS sections at 64% success, though still higher than the traditional section at 51% success.

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	62	82%	6	8%	8	11%	76	100%
	OTHER	FACE_TO_FACE	1,019	50%	446	22%	553	27%	2,018	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	68	85%	9	11%	3	4%	80	100%
	OTHER	FACE_TO_FACE	1,687	57%	632	21%	629	21%	2,948	100%
	OTHER	DISTANCE	43	56%	23	30%	П	14%	77	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	67	92%	4	5%	2	3%	73	100%
	OTHER	FACE_TO_FACE	1,538	65%	267	11%	579	24%	2,384	100%
	OTHER	DISTANCE	147	49%	39	13%	112	38%	298	100%

- In 2003-04, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 92% success.
- MPS sections of Math 114 and 212 had success rates above 80%.

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	47	90%	3	6%	2	4%	52	100%
	OTHER	FACE_TO_FACE	1,067	51%	477	23%	530	26%	2,074	100%
MATHDII4. Intermediate Algebra	MPS	FACE_TO_FACE	49	89%	2	4%	4	7%	55	100%
	OTHER	FACE_TO_FACE	1,717	59%	586	20%	619	21%	2,922	100%
	OTHER	DISTANCE	28	45%	15	24%	19	31%	62	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	57	89%	4	6%	3	5%	64	100%
	OTHER	FACE_TO_FACE	1,618	69%	255	11%	473	20%	2,346	100%
	OTHER	DISTANCE	88	51%	41	24%	42	25%	171	100%

- In 2002-03, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 212 had a success rate of 90% while 114 had success rates of 89%.

2001-2002

			Pass		Did Not Pass		Withdrew		Total	
			Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
MATHD212. Beginning Algebra	MPS	FACE_TO_FACE	66	80%	9	11%	7	9%	82	100%
	OTHER	FACE_TO_FACE	948	51%	440	24%	455	25%	1,843	100%
MATHD114. Intermediate Algebra	MPS	FACE_TO_FACE	89	88%	9	9%	3	3%	101	100%
	OTHER	FACE_TO_FACE	1,355	55%	536	22%	571	23%	2,462	100%
	OTHER	DISTANCE	27	40%	17	25%	24	35%	68	100%
MATHD010. Elementary Statistics	MPS	FACE_TO_FACE	63	93%	4	6%	- 1	1%	68	100%
	OTHER	FACE_TO_FACE	1,392	73%	203	11%	300	16%	1,895	100%
	OTHER	DISTANCE	81	53%	25	16%	46	30%	152	100%

- In 2001-02, all MPS sections had higher success rates then non MPS sections of the same course.
- Math 10 exhibited the highest success rate of MPS sections at 93% success.
- MPS sections of Math 114 had success rates of 88%.