

To: Yvette Alva-Campbell, Director of STEM Success Program

From: Lisa Ly, Research Analyst

Date: May 25, 2016

Subject: Completion Rates of MPS and Statway vs. Non-MPS

This memo reflects the analyses conducted to help inform the metric goals for a basic skills RFA grant. Results reflect first-time college students' (1) placement and enrollment into basic skills and transfer level math and (2) enrollment, course completion, and basic skills completion rates in MPS and Statway compared to non-MPS over the past five recent terms (spring 2013-fall 2015).

Key Findings

Overall Placement and Enrollment

- In fall 2015, the majority of first-time college students placed into basic skills compared to transfer level math, 75% and 25%, respectively.
- Most students placed into Math 212 (38%), followed by transfer level (25%).
- Students enrolled in transfer level math at a higher percentage than basic skills math (67% vs. 60%).

Ethnic Composition of Transfer Level and Basic Skills Math

- Asians comprise the majority of students placed (71%) and enrolled (72%) into transfer level math.
- Latino/a and Asian students are the majority placed into Math 114 (68%), Math 212 (68%) and Math 210 (72%). They are also the majority who enrolled in Math 114 (68%), Math 212 (65%) and Math 210 (71%).

Placement by Ethnicity

- Latino/a and African American students, are disproportionately impacted as evident by their placement into three, two, and one level below transfer level math.
 - **Latino/a** students account for 27% of the student population, 54% of Math 210, 44% of Math 212, 25% of Math 114, and 7% of transfer level placement.
 - **African American** students account for 4% of the student population, 7% of Math 210, 6% of Math 212, 4% of Math 114, and 1% of transfer level placement.
 - **Filipino** students account for 7% of the student population, 12% of Math 114, 10% of Math 212, 6% of Math 212, and 6% of transfer level placement.
- In contrast, **Asian** students account for 38% of the student population, 72% of transfer level, 43% of Math 114, 24% of Math 212, and 18% of Math 210 placement.

Enrollment by Ethnicity

- Among the targeted student groups, Filipino students have the highest overall enrollment—67%, of them enrolled in the course in which they placed, followed by African American (59%) and Latino/a (58%). The enrollment rates for Asian and White students are 64% and 65%, respectively.

Completion Rates of MPS and Statway vs. Non-MPS

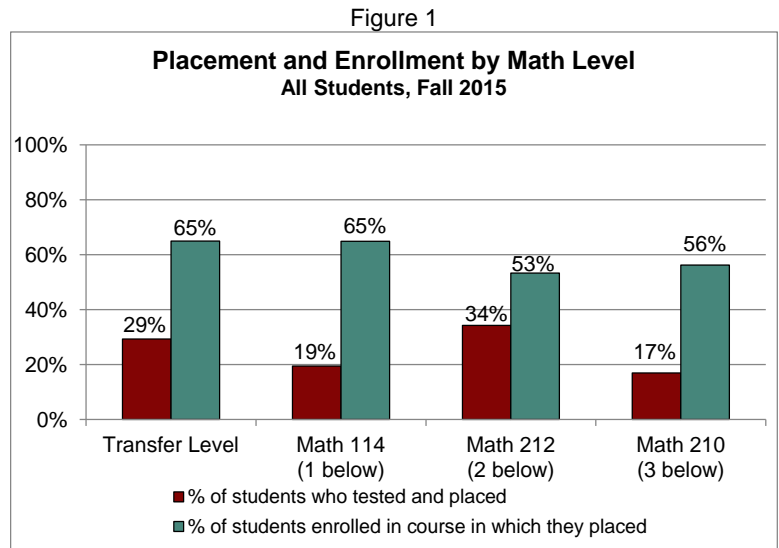
- MPS and Statway courses have higher enrollment, course success, and completion rates than non-MPS courses.

Cohort (starting level)	Enrollment Rate	Course Success Rate	Basic Skills Completion Rate
Fall 2013 (MPS, 3 below)	74% MPS vs. 63% non-MPS	72% MPS vs. 54% non-MPS	8% MPS vs. 2% non-MPS
Fall 2014 (MPS, 2 below)	84% MPS vs. 58% non-MPS	83% MPS vs. 64% non-MPS	38% MPS vs. 8% non-MPS
Fall 2014 (Statway, 2 below)	82% Statway vs. 58% non-MPS	96% Statway vs. 64% non-MPS	75% Statway vs. 8% non-MPS
Winter 2015 (MPS, 1 below)	85% MPS vs. 34% non-MPS	88% MPS vs. 62% non-MPS	66% MPS vs. 13% non-MPS

- The completion rate increased when the number of terms needed to complete the sequence decreased from 3 to 2 terms, evident by Statway's completion rates versus its equivalent traditional sequence.
 - Fall 2013 cohort 67% Statway vs. 51% MPS
 - Fall 2014 cohort 75% Statway vs. 38% MPS
- Cohorts that included a summer term in the sequence saw a drop-off in enrollment after the summer term, which impacted completion rates, regardless of the starting level.
 - 1 below, enrollment rate
 - Winter 2014 cohort 74% MPS vs. 42% non-MPS
 - Spring 2014 cohort (includes summer term) 53% MPS vs. 25% non-MPS
 - 1 below, course success rate
 - Winter 2014 cohort 86% MPS vs. 64% non-MPS
 - Spring 2014 cohort (includes summer term) 76% MPS vs. 59% non-MPS
 - 1 below, basic skills completion rate
 - Winter 2014 cohort 54% MPS vs. 17% non-MPS
 - Spring 2014 cohort (includes summer term) 30% MPS vs. 9% non-MPS

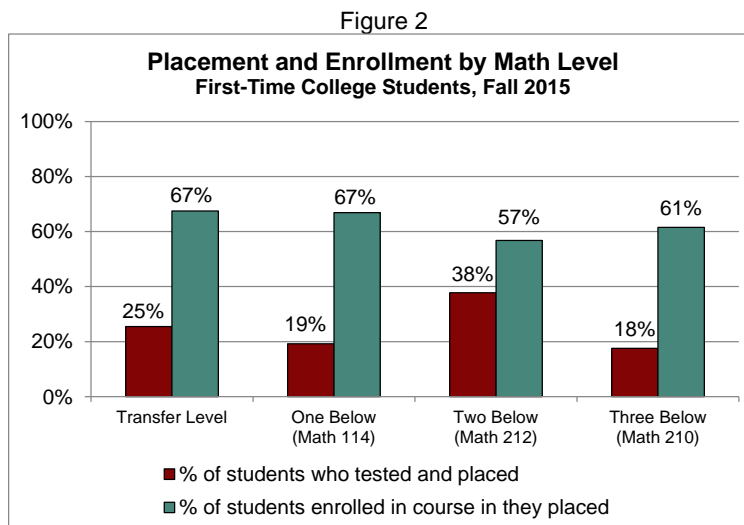
All Students - Math Placement and Enrollment, Fall 2015

- A total of 4,468 students took a math placement test.¹
- 3,158 (71%) students placed into basic skills math, and 1,805 (57%) enrolled in the course in which they placed.²
- 1,310 (29%) students placed into transfer level math, and 851 (65%) enrolled in the course in which they placed.
- Students placed into transfer level or into one level below, enrolled at a higher percentage (65%) than students who placed and enrolled in two (53%) and three levels (56%) below.



First-Time College Students - Math Placement and Enrollment, Fall 2015

- 3,045 out of 3,775 first-time college students, or 81% took a math placement test.
- 2,270 (75%) students placed into basic skills math and 1,373 (60%) enrolled in the course in which they placed.
- 775 (25%) students placed into transfer level math and 523 (67%) enrolled.
- 38% of first-time college students placed into two levels below compared to 25% into transfer level math.
- Students who placed into transfer level or one level below, enrolled at a higher percentage (67%) than students who placed and enrolled in two (57%) and three levels below (61%).



¹ Students who took a placement test on March 1 through September 30, prior to the fall term in which they first enrolled.

Math placement: MATH 210, 212, and 114 for basic skills, and MATH 10, 11, 41, 44, 46, 42, 43, and 1A for transfer level.

² Math enrollment includes MATH 210, 212, 114, and 217 for basic skills; all other remaining math courses are transfer level.

Placement: Ethnic Composition by Math Level

- Transfer level placement consists mostly of Asian students (72%).
- Math 114 placement consists of Asian (43%) and Latino/a (25%) students.
- Math 212 placement consists of Latino/a (44%) and Asian (24%) students.
- Math 210 placement consists of Latino/a (54%) and Asian (18%) students.

Table 1: First-Time College Students Math Placement by Level, Fall 2015

Ethnicity	Transfer Level (Math 10, 11, 41, 44, 46, 42, 43, & 1A)		One Below (Math 114)		Two Below (Math 212)		Three Below (Math 210)	
	Students	Percent	Students	Percent	Students	Percent	Students	Percent
African American	8	1%	24	4%	69	6%	36	7%
Asian	561	72%	252	43%	272	24%	94	18%
Filipino	49	6%	68	12%	115	10%	33	6%
Latino/a	58	7%	145	25%	506	44%	290	54%
Native American	0	0%	2	0%	2	0%	1	0%
Pacific Islander	2	0%	2	0%	11	1%	4	1%
White	72	9%	83	14%	160	14%	67	13%
Decline to state	25	3%	10	2%	14	1%	10	2%
Total	775	100%	586	100%	1,149	100%	535	100%

Enrolled in Course in which Placed: Ethnic Composition by Math Level

- Transfer level enrollment consists mostly of Asian students (71%).
- Math 114 enrollment consists of Asian (43%) and Latino/a (25%) students.
- Math 212 enrollment consists of Latino/a (42%) and Asian (23%) students.
- Math 210 enrollment consists of Latino/a (50%) and Asian (21%).

Table 2: First-Time College Students Math Enrollment by Level, Fall 2015

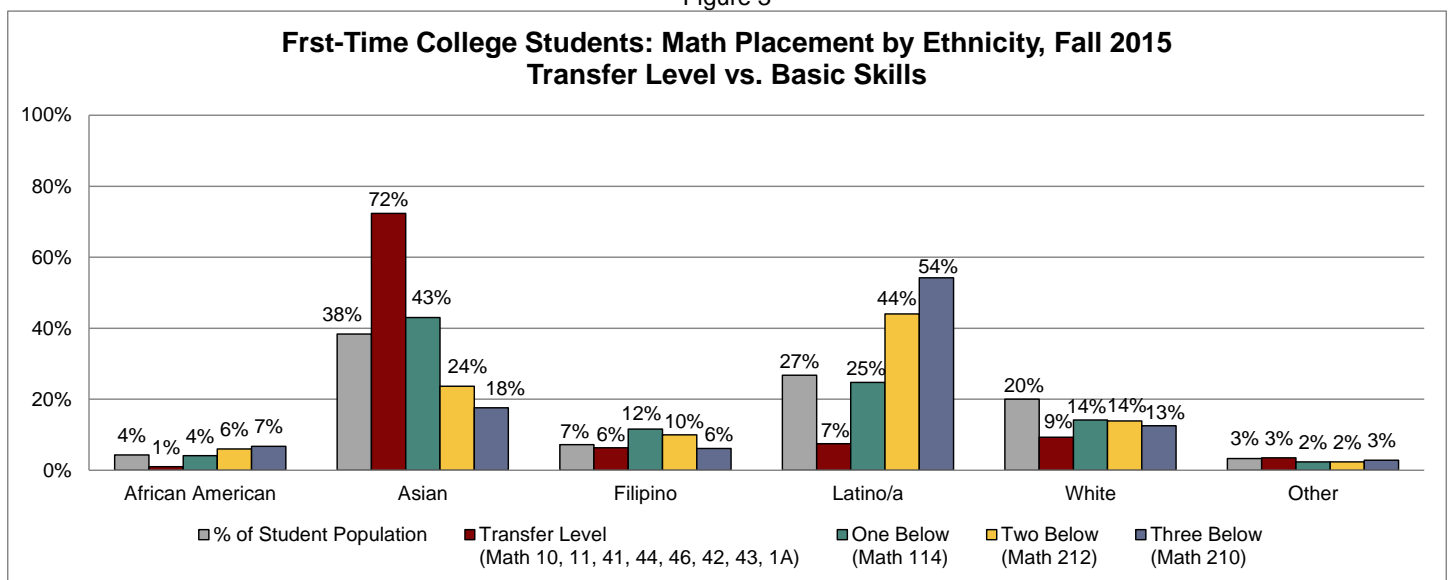
Ethnicity	Transfer Level (Math 10, 11, 12, 22, 41, 44, 57, 46, 42, 43, 1A/B/C)		One Below (Math 114)		Two Below (Math 212, 217)		Three Below (Math 210)	
	Students	Percent	Students	Percent	Students	Percent	Students	Percent
African American	6	1%	20	5%	36	6%	19	6%
Asian	372	71%	169	43%	147	23%	70	21%
Filipino	32	6%	44	11%	75	12%	26	8%
Latino/a	41	8%	99	25%	276	42%	165	50%
Native American	0	0%	1	0%	0	0%	1	0%
Pacific Islander	2	0%	1	0%	6	1%	1	0%
White	53	10%	50	13%	105	16%	41	12%
Decline to state	17	3%	8	2%	7	1%	6	2%
Total	523	100%	392	100%	652	100%	329	100%

Comparison of Ethnic Groups' Placement and Enrollment

Figure 3 provides the ethnic breakout of De Anza's student population and compares it against their Math placement.

- **African American** students account for 4% of the student population, 7% of Math 210, 6% of Math 212, 4% of Math 114, and 1% of transfer level placement.
- **Filipino** students account for 7% of the student population, 12% of Math 114, 10% of Math 212, 6% of Math 210, and 6% of transfer level placement.
- **Latino/a** students account for 27% of the student population, 54% of Math 210, 44% of Math 212, 25% of Math 114, and 7% of transfer level placement.
- **Asian** students account for 38% of the student population, 72% of transfer level, 43% of Math 114, 24% of Math 212, and 18% of Math 210 placement.

Figure 3



Other includes Native American, Pacific Islander, and decline to state

Table 3 displays the percent of students who enrolled in the course in which they placed by ethnicity, and also indicates which math level they are more likely to enroll in.

- **59% of African American** students enrolled in the course in which they placed and exhibit a higher enrollment rate in Math 114 (83%) and transfer level (75%) than compared to Math 212 (52%) and Math 210 (53%).
- **67% of Filipino** students enrolled in the course in which they placed. They have the highest enrollment rate in Math 210 (79%), and are just as likely to enroll in Math 212 (65%) and Math 114 (65%) as they are in transfer level math (65%).
- **58% of Latino/a** students enrolled in the course in which they placed. Although most Latino/a students placed into basic skills, their enrollment rate is highest in transfer level math (71%), followed by Math 114 (68%), Math 210 (57%), and Math 212 (55%).
- **64% of Asian** students enrolled in the course in which they placed. While the majority of Asian students placed into transfer level math, they are more likely to enroll in Math 210 (74%), followed by Math 114 (67%), transfer level (66%), and Math 212 (54%).

Table 3: First-Time College Students Enrolled in Course in which Placed by Ethnicity, Fall 2015

Ethnicity	Transfer Level (Math 10, 11, 12, 22, 41, 44, 57, 46, 42, 43, 1A/B/C)		One Below (Math 114)		Two Below (Math 212, 217)		Three Below (Math 210)		Total	
	Students	Percent	Students	Percent	Students	Percent	Students	Percent	Students	Percent
African American	6	75%	20	83%	36	52%	19	53%	81	59%
Asian	372	66%	169	67%	147	54%	70	74%	758	64%
Filipino	32	65%	44	65%	75	65%	26	79%	177	67%
Latino/a	41	71%	99	68%	276	55%	165	57%	581	58%
Native American	0	-	1	50%	0	0%	1	100%	2	40%
Pacific Islander	2	100%	1	50%	6	55%	1	25%	10	53%
White	53	74%	50	60%	105	66%	41	61%	249	65%
Decline to state	17	68%	8	80%	7	50%	6	60%	38	64%

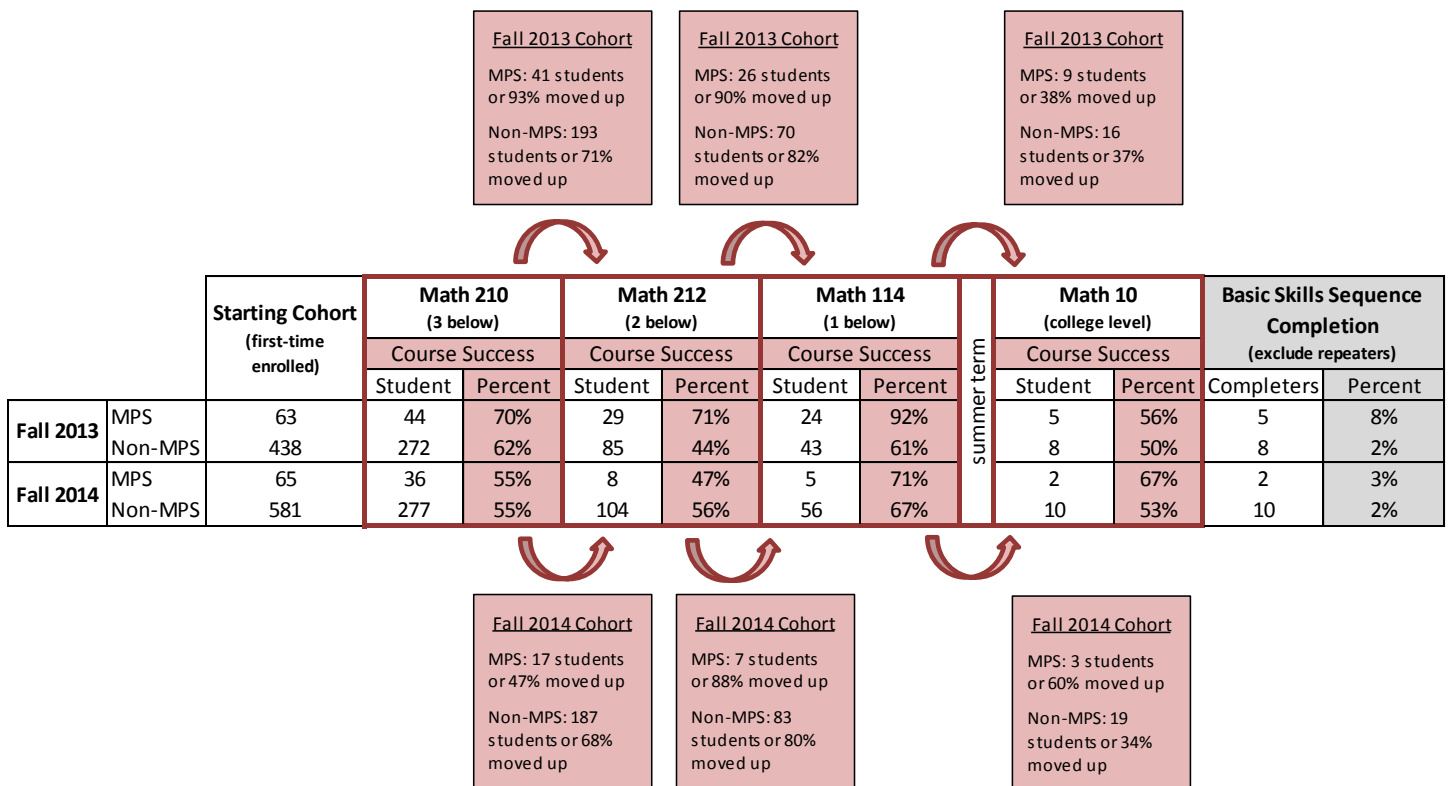
Enrollment, Course Completion, and Basic Skills Completion: MPS vs. Non-MPS

Starting at Math 210 (3 below)

Figure 4 compares the average enrollment, course completion, and basic skills sequence completion rates of MPS versus non-MPS courses. Two cohorts, fall 2013 and fall 2014, were examined.

- At each course level, MPS had higher enrollment rates than non-MPS.
 - Fall 2013 cohort:** average rates are 74% MPS vs. 63% non-MPS
 - Fall 2014 cohort:** average rates are 65% MPS vs. 61% non-MPS
 - Note: the four-course sequence includes a summer break, which could account for the enrollment drop-off observed between Math 114 and Math 10.*
- MPS had higher course success rates than non-MPS.
 - Fall 2013 cohort:** average rates are 72% MPS vs. 54% non-MPS
 - Fall 2014 cohort:** average rates are 60% MPS vs. 58% non-MPS
- MPS students completed their basic skills sequence at a higher rate than non-MPS students.
 - Fall 2013 cohort:** completion rates are 8% MPS vs. 2% non-MPS
 - Fall 2014 cohort:** completion rates are 3% MPS vs. 2% non-MPS

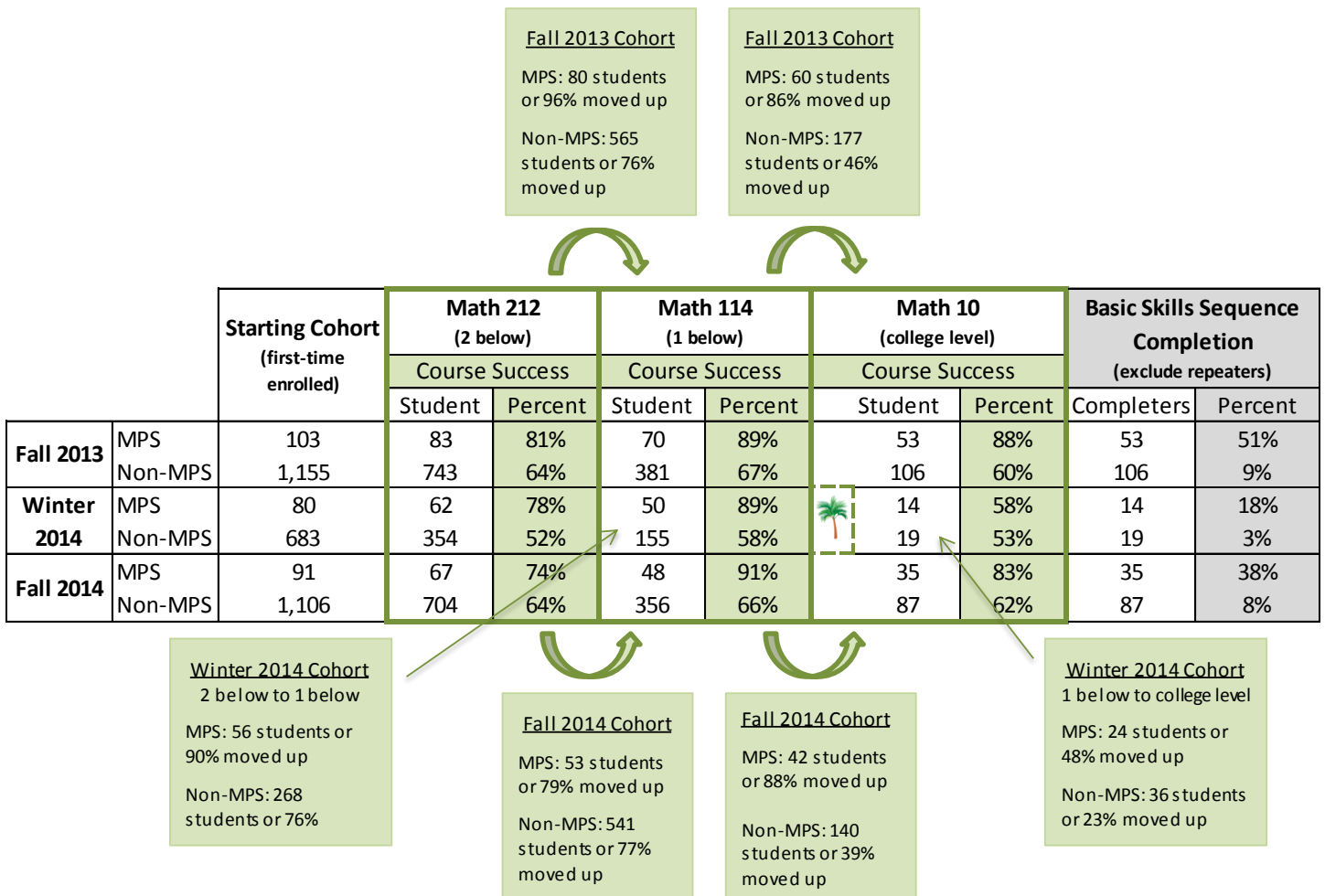
Figure 4




Starting at Math 212 (2 below)

- MPS students enrolled, or moved up, at a higher percentage than non-MPS students at each level.
 - **Fall 2013 cohort:** average rates are 91% MPS vs. 61% non-MPS
 - **Winter 2014 cohort:** average rates are 69% MPS vs. 50% non-MPS
 - **Fall 2014 cohort:** average rates are 84% MPS vs. 58% non-MPS
- MPS had higher course success rates than non-MPS.
 - **Fall 2013 cohort:** average rates are 86% MPS vs. 64% non-MPS
 - **Winter 2014 cohort:** average rates are 75% MPS vs. 54% non-MPS
 - **Fall 2014 cohort:** average rates are 83% MPS vs. 64% non-MPS
- MPS students completed their basic skills sequence at a higher rate than non-MPS students.
 - **Fall 2013 cohort:** completion rates are 51% MPS vs. 9% non-MPS
 - **Winter 2014 cohort:** completion rates are 18% MPS vs. 3% non-MPS
 - **Fall 2014 cohort:** completion rates are 38% MPS vs. 8% non-MPS

Figure 5

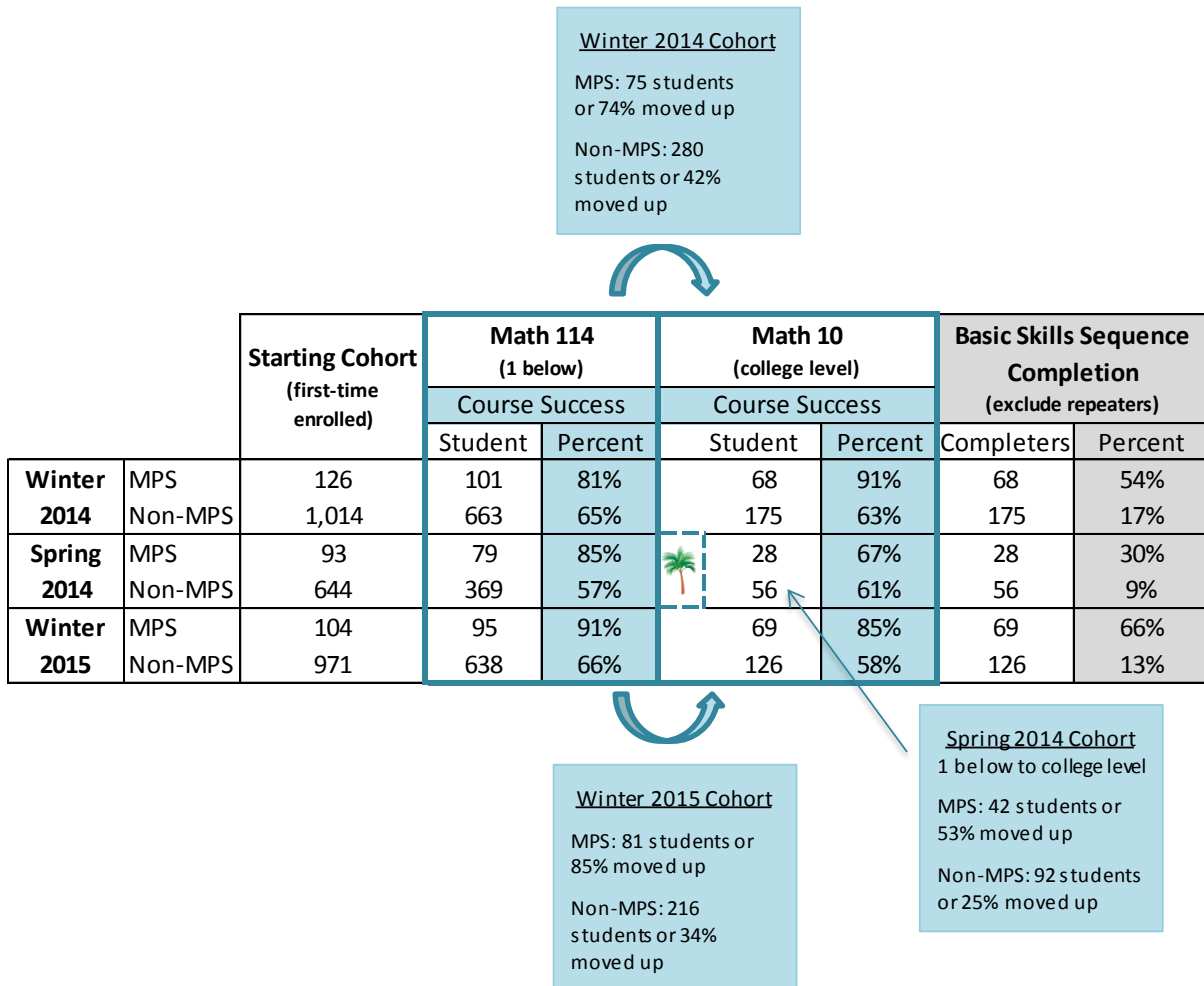



 Winter 2014 cohort has a summer term included in its basic skills sequence

Starting Math 114 (1 below)

- MPS students enrolled at a higher percentage than non-MPS students at each level.
 - **Winter 2014 cohort:** rates are 74% MPS vs. 42% non-MPS
 - **Spring 2014 cohort:** rates are 53% MPS vs. 25% non-MPS
 - **Winter 2015 cohort:** rates are 85% MPS vs. 34% non-MPS
- MPS had higher course success rates than non-MPS.
 - **Winter 2014 cohort:** average rates are 86% MPS vs. 64% non-MPS
 - **Spring 2014 cohort:** average rates are 76% MPS vs. 59% non-MPS
 - **Winter 2015 cohort:** average rates are 88% vs. MPS vs. 62% non-MPS
- MPS students completed their basic skills sequence at a higher rate than non-MPS students.
 - **Winter 2014 cohort:** completion rates are 54% MPS vs. 17% non-MPS
 - **Spring 2014 cohort:** completion rates are 30% MPS vs. 9% non-MPS
 - **Winter 2015 cohort:** completion rates are 66% MPS vs. 13% non-MPS

Figure 6

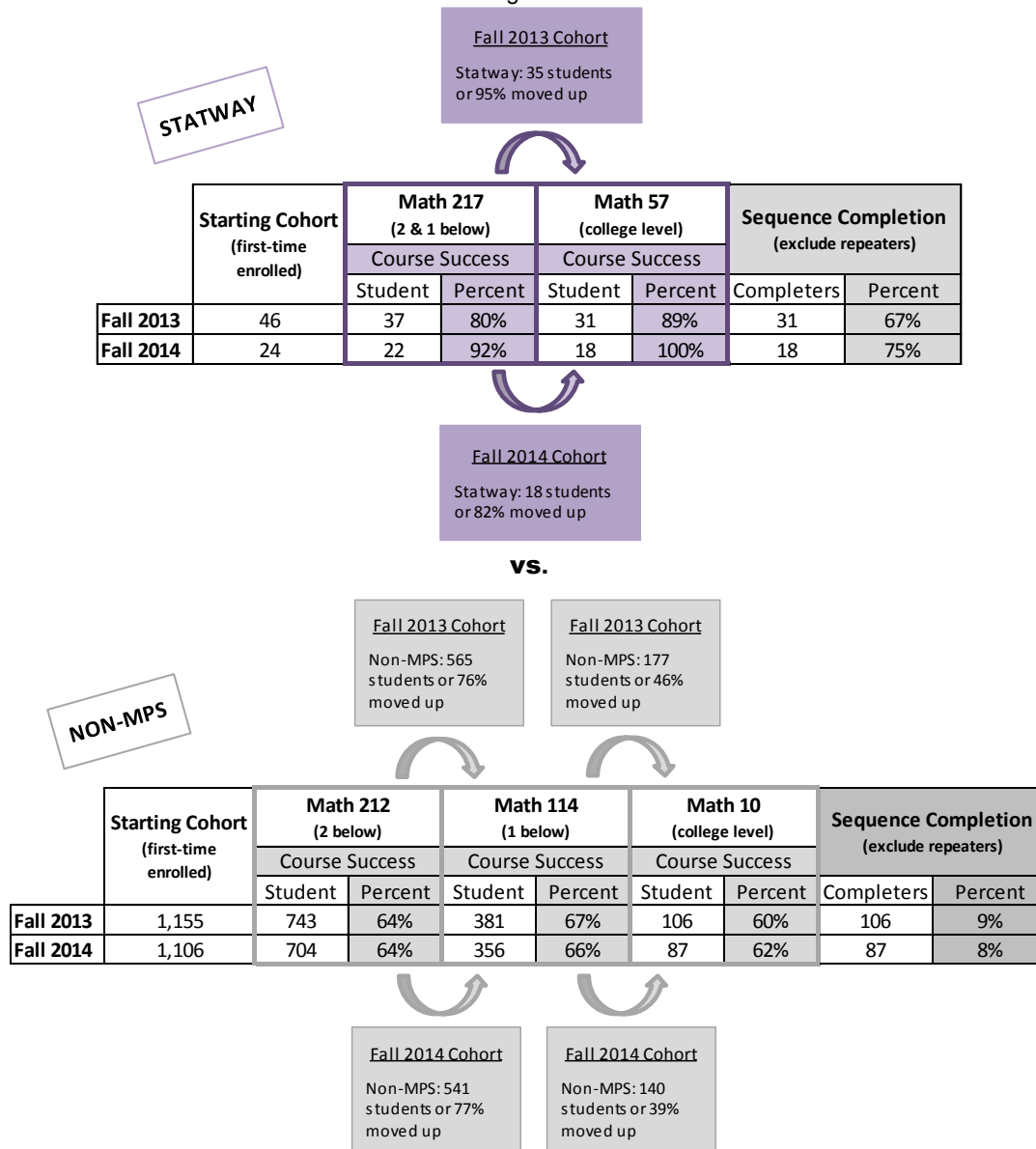


 Spring 2014 cohort has a summer term included in its basic skills sequence

Enrollment, Course Completion, and Sequence Completion: Statway³ vs. Non-MPS

- Statway students enrolled at a higher percentage than non-MPS students at each level.
 - **Fall 2013 cohort:** average rates are 95% Statway vs. 61% non-MPS
 - **Fall 2014 cohort:** average rates are 82% Statway vs. 58% non-MPS
- Statway had higher course success rates than non-MPS.
 - **Fall 2013 cohort:** average rates are 85% Statway vs. 64% non-MPS
 - **Fall 2014 cohort:** average rates are 96% Statway vs. 64% non-MPS
- Statway students completed their basic skills sequence at a higher rate than non-MPS students.
 - **Fall 2013 cohort:** completion rates are 67% Statway vs. 9% non-MPS
 - **Fall 2014 cohort:** completion rates are 75% Statway vs. 8% non-MPS

Figure 7



³ Statway Math 217 is equivalent to Math 212 and Math 114 and is being compared to Non-MPS.