

TRANSFER STUDENTS: 1st year performance by prior Math and CS Courses

Highlights*

- Across all CS transfer students, the number of prior CS courses taken does not appear to influence retention rate. For students in SM and SL, students who took more CS courses had a higher retention rate, but the N is very low in both cases
- When disaggregating by entering class level, freshmen and sophomore transfers in CS who have taken 4 or more CS courses have higher retention rates than those who take fewer prior CS courses, the same is not true of junior transfer students in CS
- The number of prior CS courses does not appear to be related to Accumulated GPA at the end of the first year at NJIT for students in any college
- Consideration of retention rates by highest prior CS course does not indicate any overall patterns, but it should be noted that students who had attained the level of CS 114 (but not above) had a 100% retention rate (30 students), whereas students who had taken CS 115 had a retention rate of just 63%
- Retention rates are higher for SL and EN students who have previously taken Math 112 or higher compared to students in these colleges who only transfer with Math 111 or below
- For SL and AD colleges, students who have a higher level of math when they transfer have higher accumulated GPA at the end of their first year at NJIT. The pattern for CC and EN is less clear
- Year-by-year analysis shows a reasonably consistent pattern in terms of accumulated GPA across colleges, but retention rates vary more between years
- For freshmen transfers, in most colleges, a higher level of prior math is related to a higher accumulated GPA after one year, but for sophomore transfers, this pattern is only present for students in AD college

***PLEASE NOTE:** *The conclusions drawn in this report are on the basis of descriptive analysis rather than formal significance testing.*

Dataset & Definitions

The dataset includes both full-time and part-time undergraduate transfer students who enrolled at NJIT fall 2010 to fall 2014. College acronyms were recoded to enable consistent use of two character labels across the period. Students who transferred with a class level of 4 or above were excluded from analysis as they were deemed likely to graduate within a year.

Retention refers to enrollment the following fall semester after the student enrolled as a transfer, throughout we call this the *1st-2nd year fall-fall retention rate*. Accumulated GPA at the end of the first year at NJIT is available for all students who are retained in the fall. For each student we obtained the NJIT equivalent of their prior math courses for which they received credit, and took the highest of these to be their level of prior math. Prior Math courses are

grouped (<111, 11, 112, > 112). The <111 group includes courses Math 135 and Math 138. We also used NJIT equivalent CS courses (for which students received credit) in the analysis.

Number of transfer students by School, Prior Math Level, by transfer cohort year

2010	<111	111	112	>112	Total
AD	26	16	9	6	57
CC	14	11	11	34	70
EN	22	50	33	138	243
SL	8	12	9	15	44
SM	19	4		5	28
Total	89	93	62	198	442

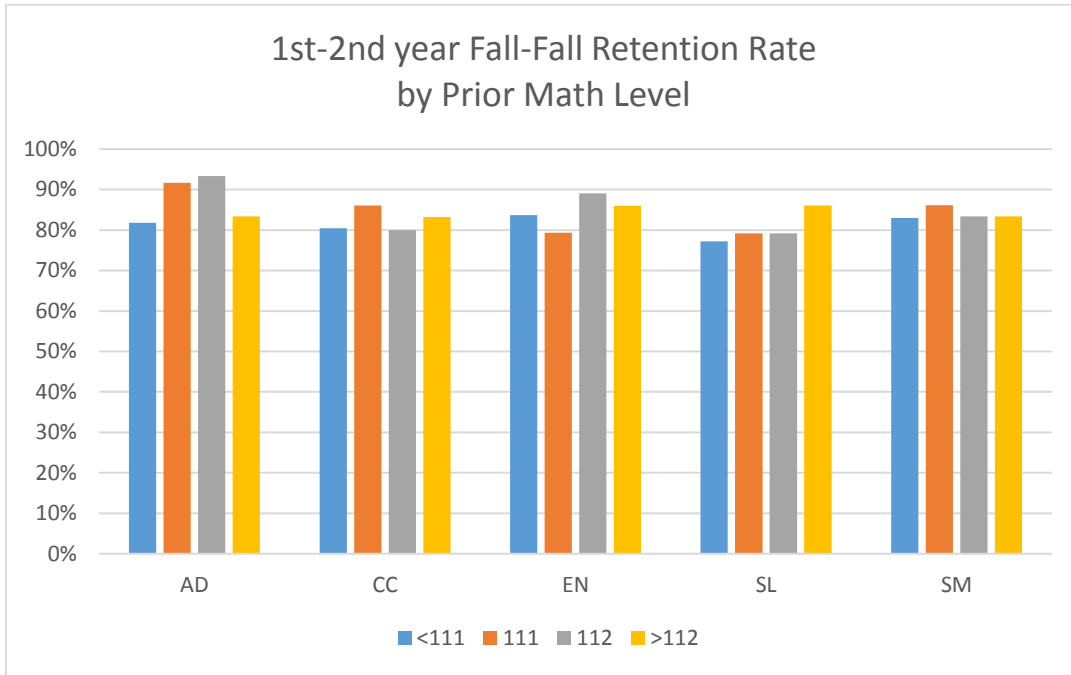
2011	<111	111	112	>112	Total
AD	30	9	8	16	63
CC	18	18	9	46	91
EN	40	39	60	148	287
SL	11	10	16	17	54
SM	25	6	1	3	35
Total	124	82	94	230	530

2012	<111	111	112	>112	Total
AD	28	15	8	11	62
CC	25	13	13	41	92
EN	26	45	51	195	317
SL	14	12	7	11	44
SM	20	10	2	7	39
Total	113	95	81	265	554

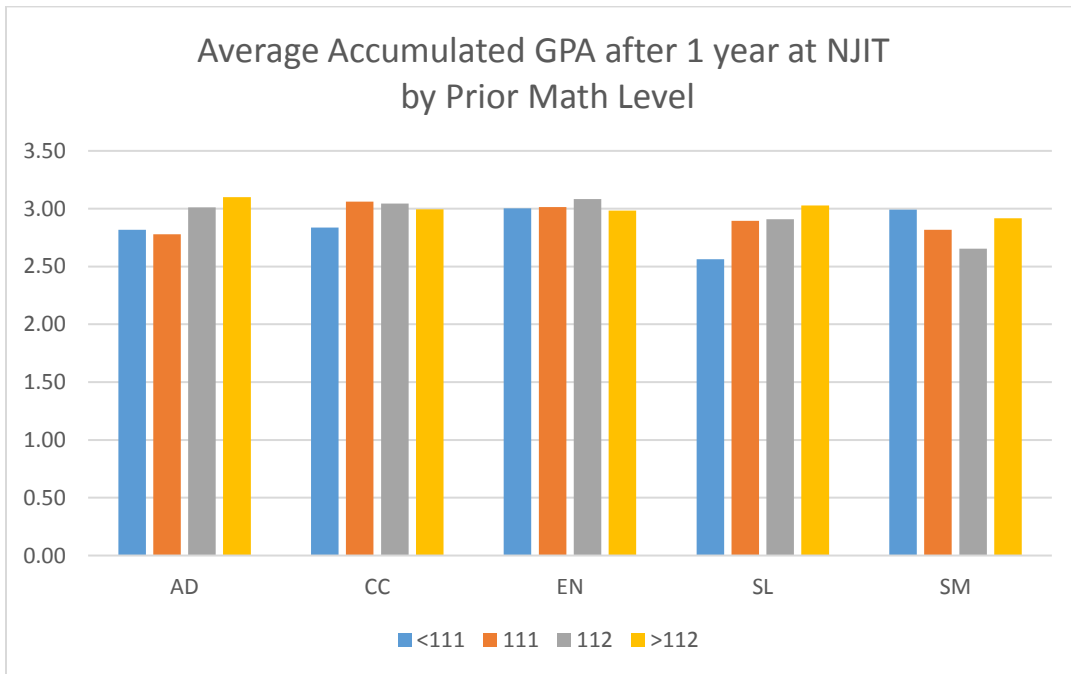
2013	<111	111	112	>112	Total
AD	14	7	2	5	28
CC	45	21	14	57	137
EN	33	36	44	199	312
SL	10	9	8	14	41
SM	16	9	2	3	30
Total	118	82	70	278	548

2014	<111	111	112	>112	Total
AD	12	1	3	4	20
CC	26	23	8	78	135
EN	38	62	59	183	342
SL	14	5	8	22	49
SM	14	7	1		22
Total	104	98	79	287	568

Prior Math Level and 1st-2nd year Fall-Fall Retention Rate (Data combined from 2010-2014 transfer cohorts)



Prior Math Level and Accumulated GPA after 1 year at NJIT (Data combined from 2010-2014 transfer cohorts)



Additional analyses of retention rate and average accumulated GPA by prior math level for each cohort is provided on pages 8-14.

Number of transfer students by College and number of prior CS courses (Data combined from 2010-2014 transfer cohorts)

	1	2	3	4	5	6	7	8	9	10	Total
AD	49	4			1						54
CC	82	76	70	49	54	57	27	10	5	2	432
EN	763	113	30	16	7	6		1			936
SL	39	11	1	2	1						54
SM	28	2	1		1						32

1st-2nd Year Fall-Fall Retention Rate by number of prior CS courses for CS students (Data combined from 2010-2014 transfer cohorts)

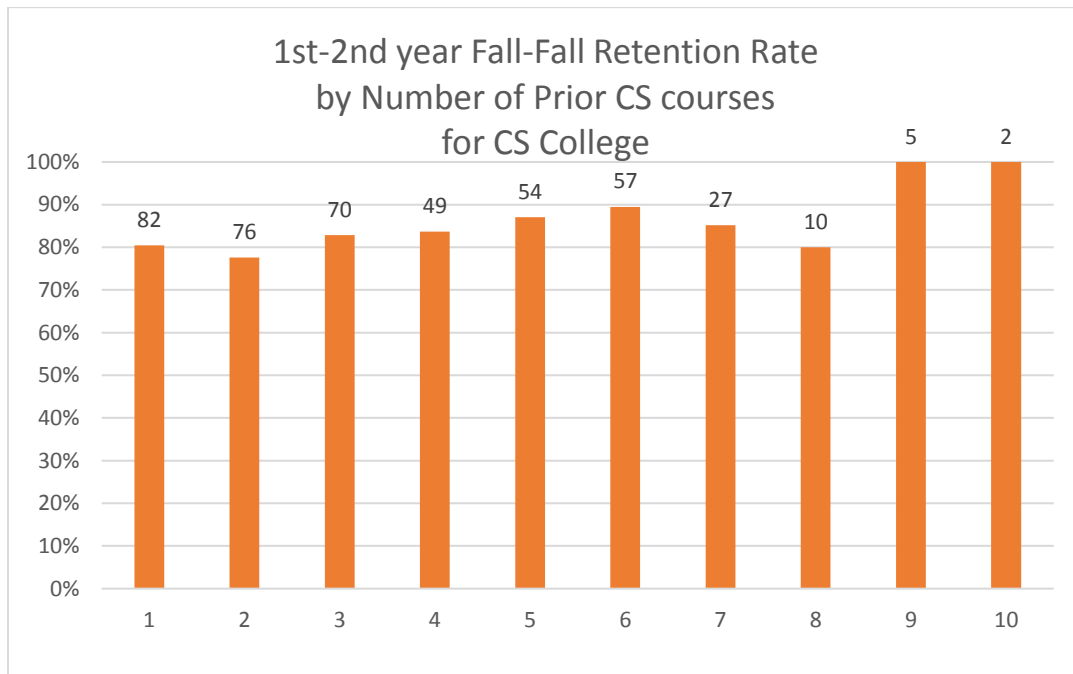


Figure 1 – CS Students Only: The Fall-Fall retention rate (1st-2nd year) by the number of prior CS courses taken before transfer to NJIT. Data labels indicate the number of students.

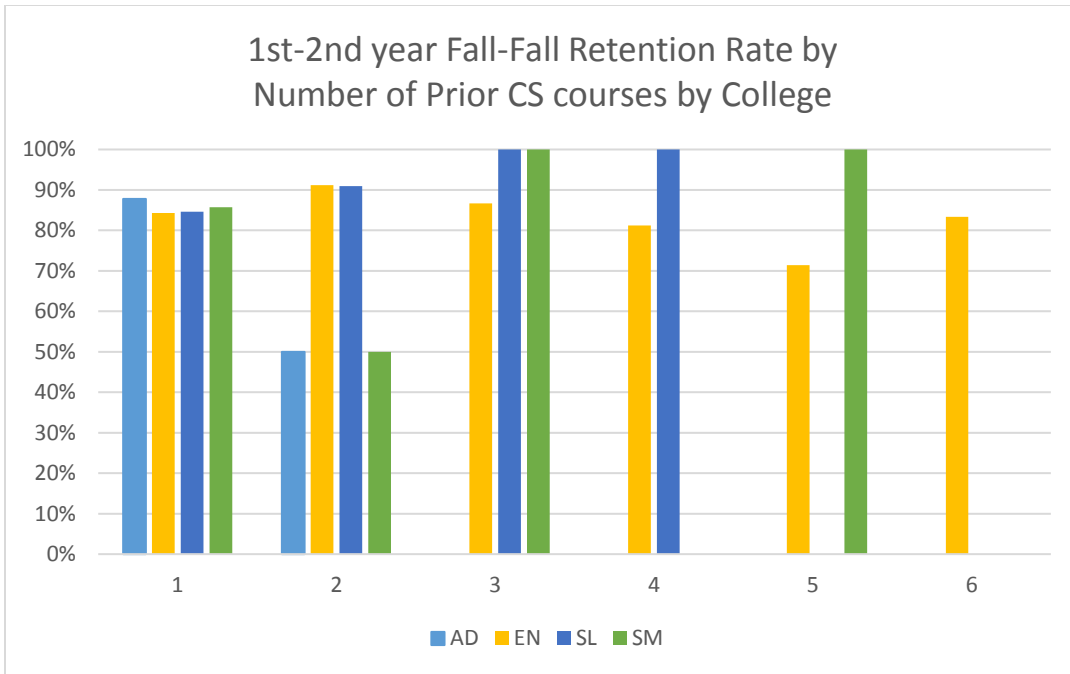
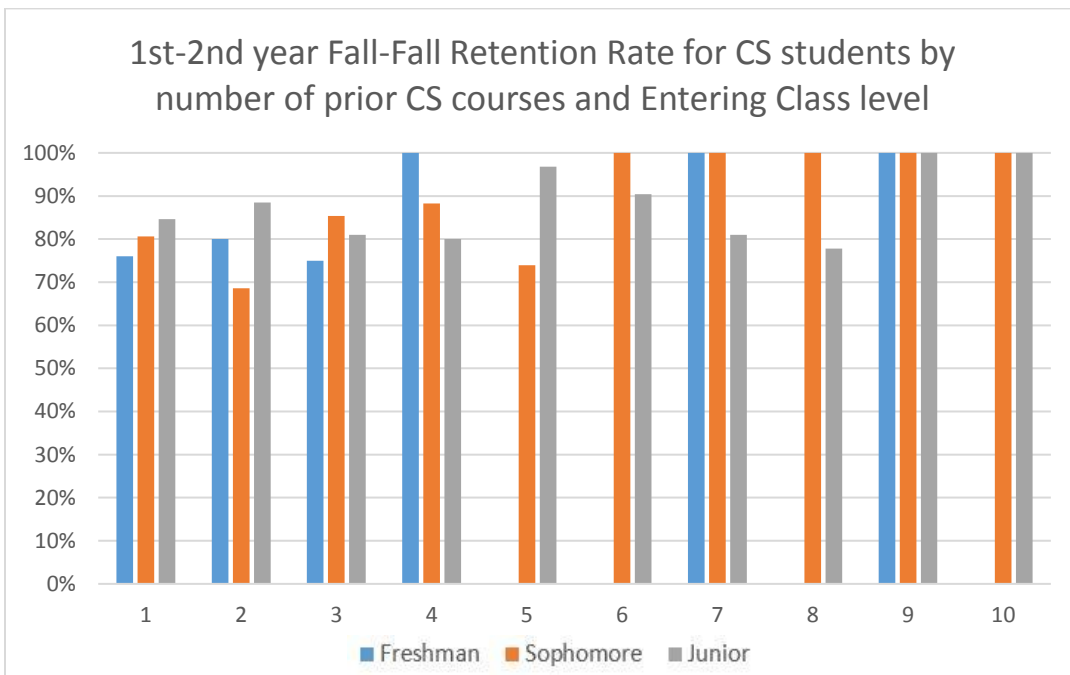


Figure 2 – For all Colleges except CS: The Fall-Fall retention rate (1st-2nd year) by the number of prior CS courses taken before transfer to NJIT.



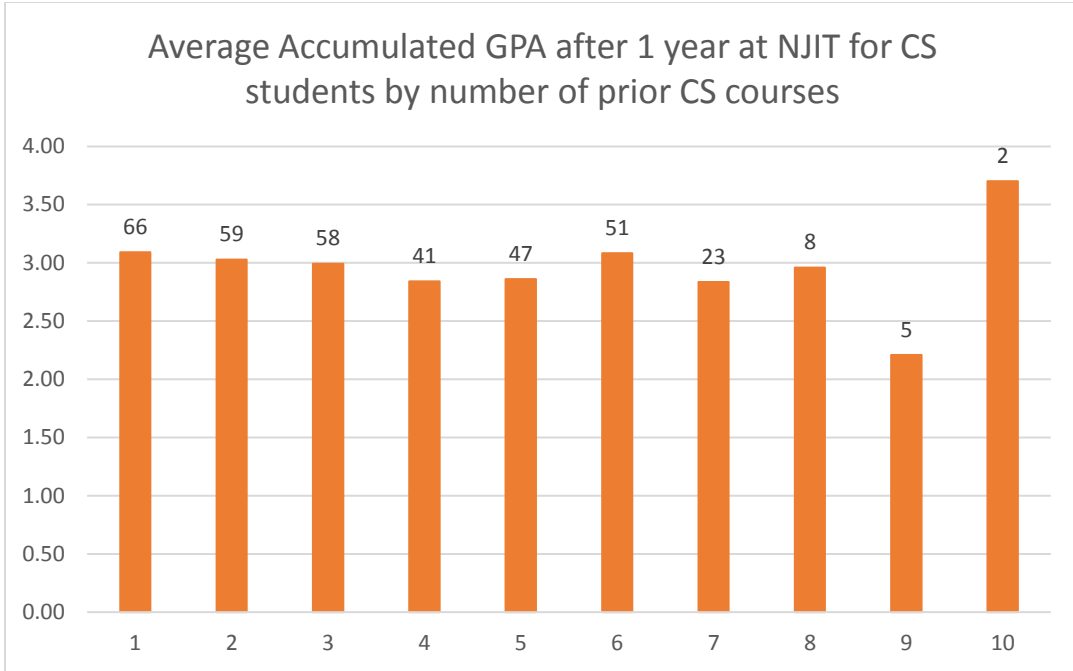
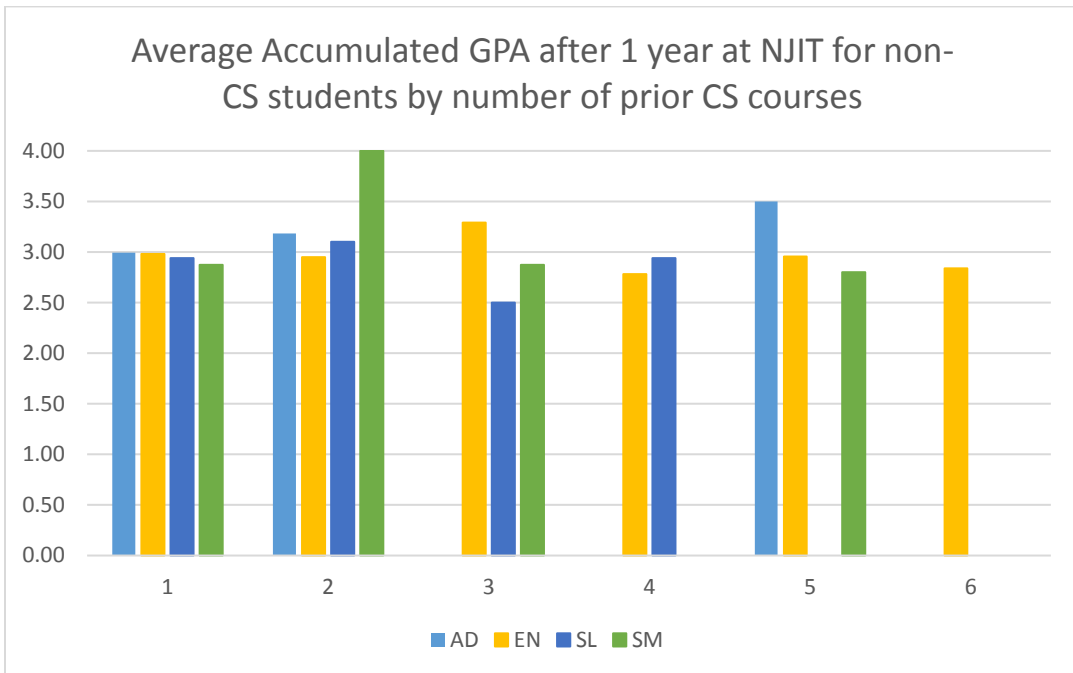
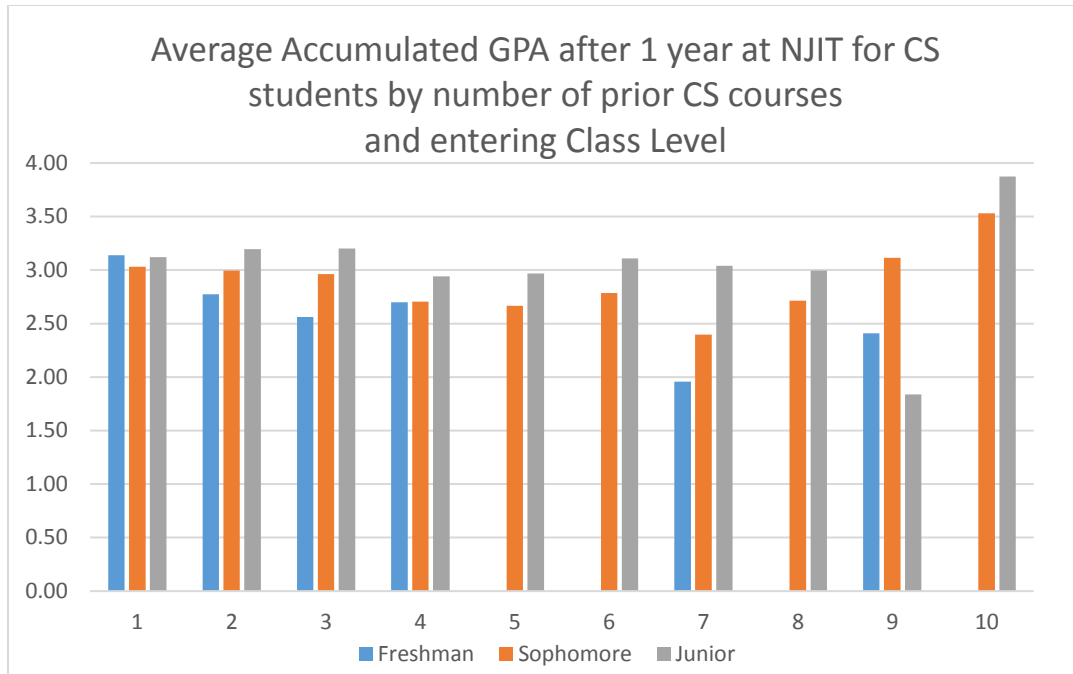


Figure 3 - CS Students Only: Average accumulated GPA at the end of the first year at NJIT by the number of prior CS courses taken before transfer to NJIT. Data labels indicate the number of students.





CS Students only: Accumulated GPA after 1 year at NJIT and 1st -2nd year Fall-Fall Retention Rate by Prior CS Course

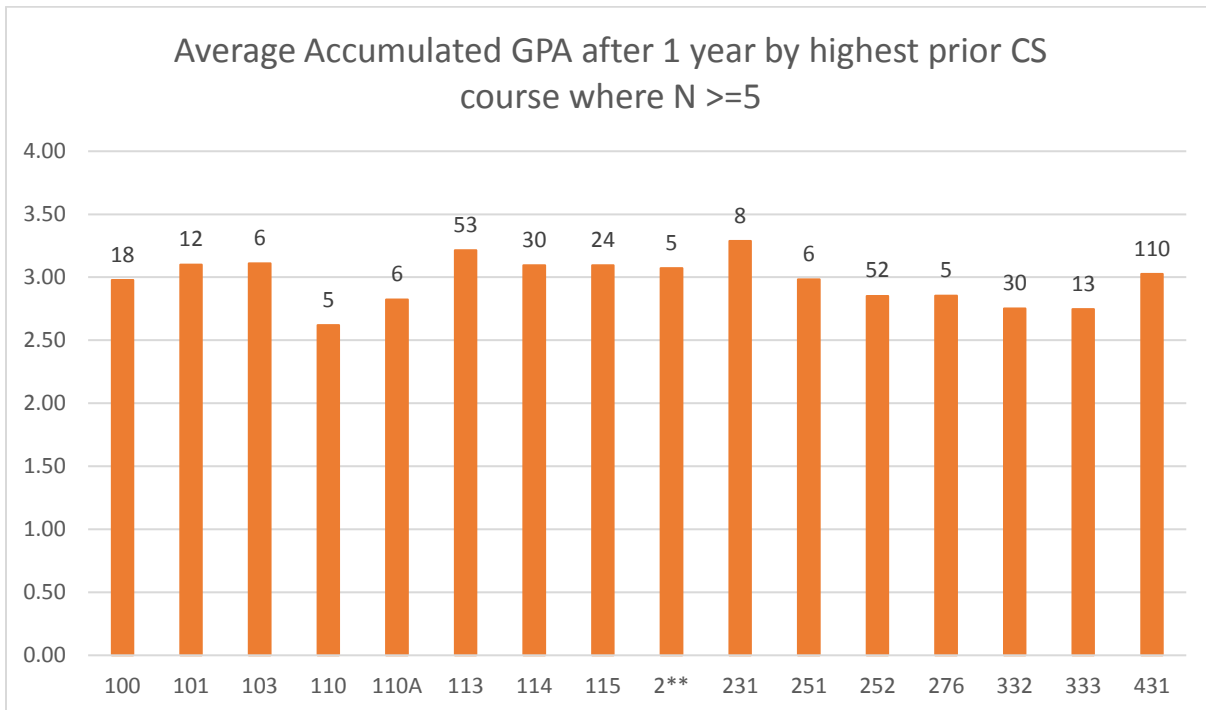


Figure 4 – Data labels indicate the number of students. Highest prior CS course refers to the highest NJIT equivalent course for which the student received transfer credit. Courses are only shown if it was the highest prior course for more than 5 students.

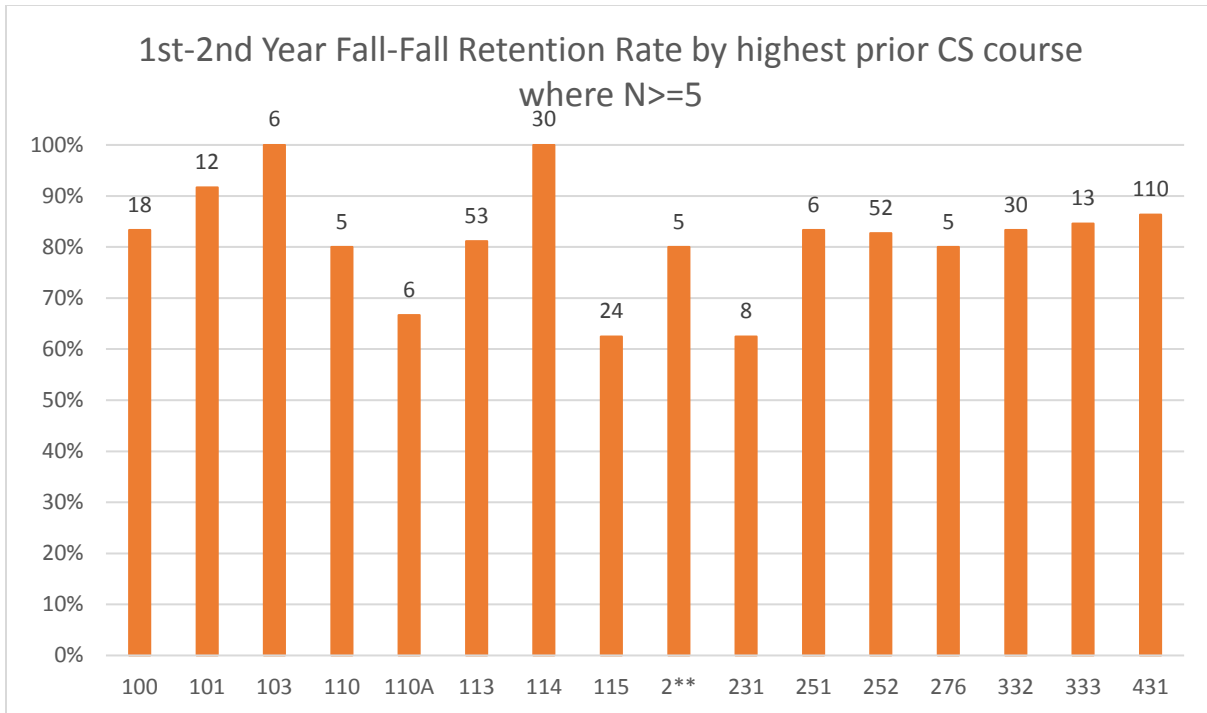
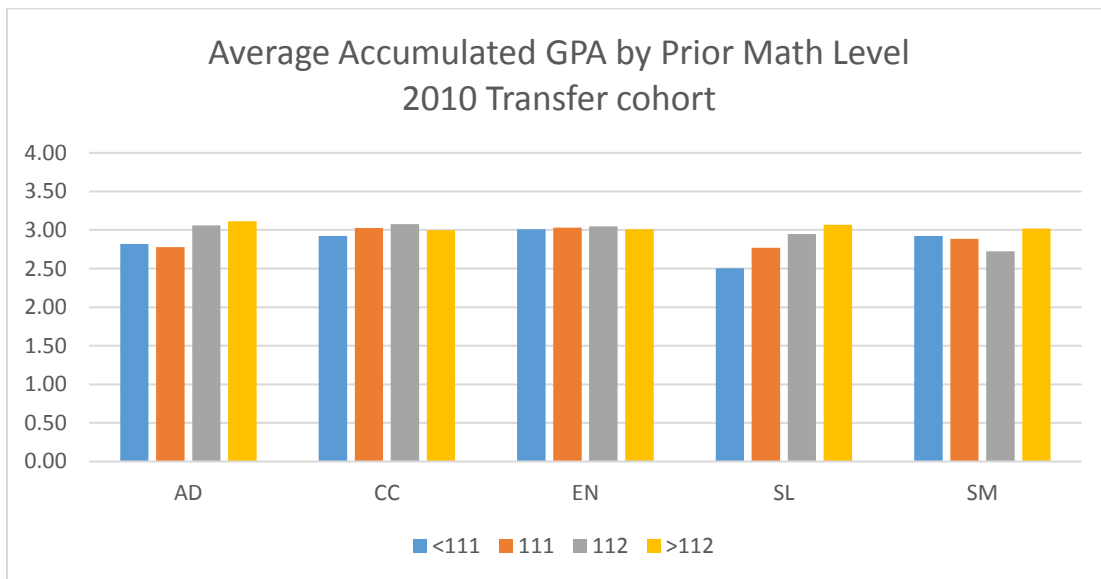
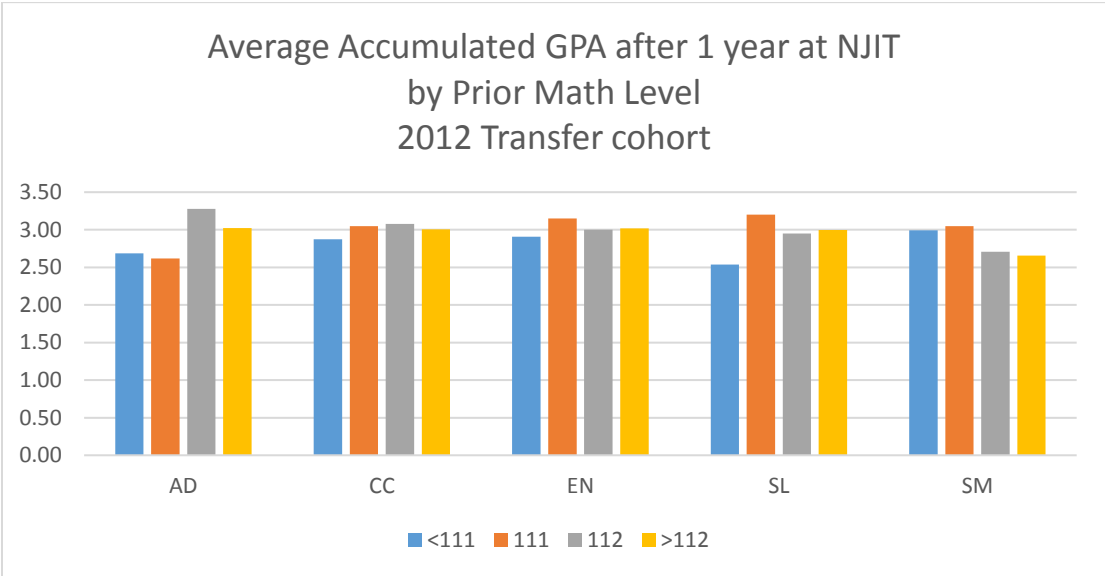
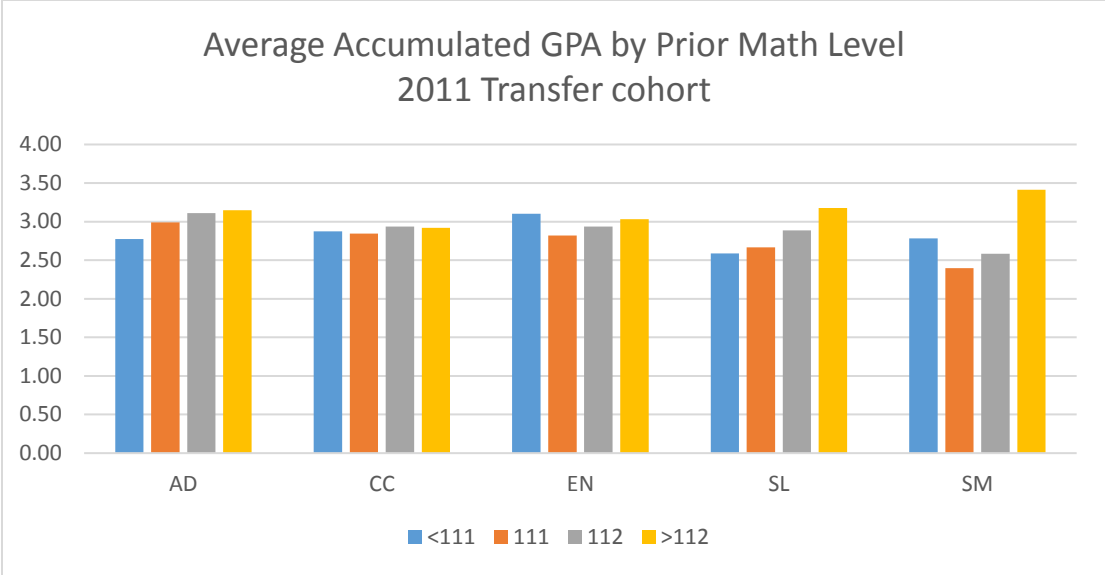


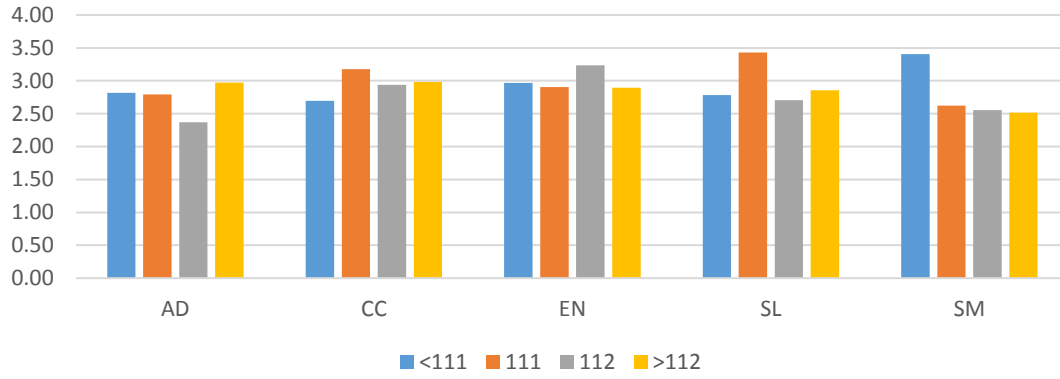
Figure 5 - Data labels indicate the number of students. Highest prior CS course refers to the highest NJIT equivalent course for which the student received transfer credit. Courses are only shown if it was the highest prior course for more than 5 students.

Prior Math Level and Accumulated GPA by Cohort

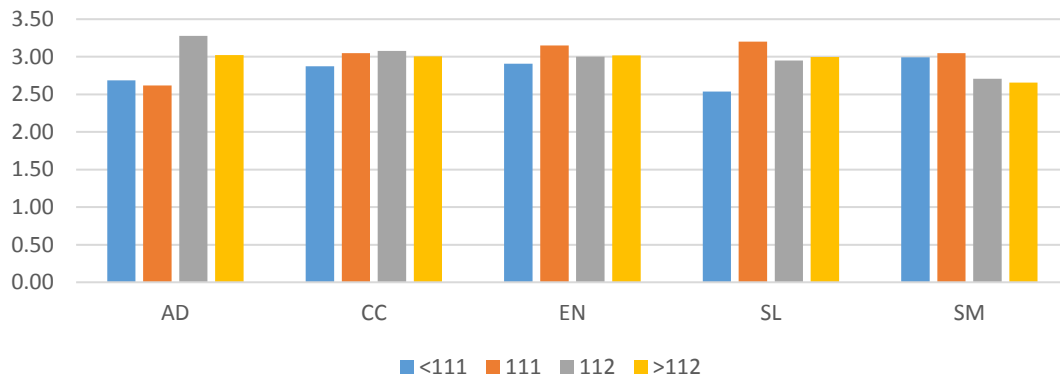




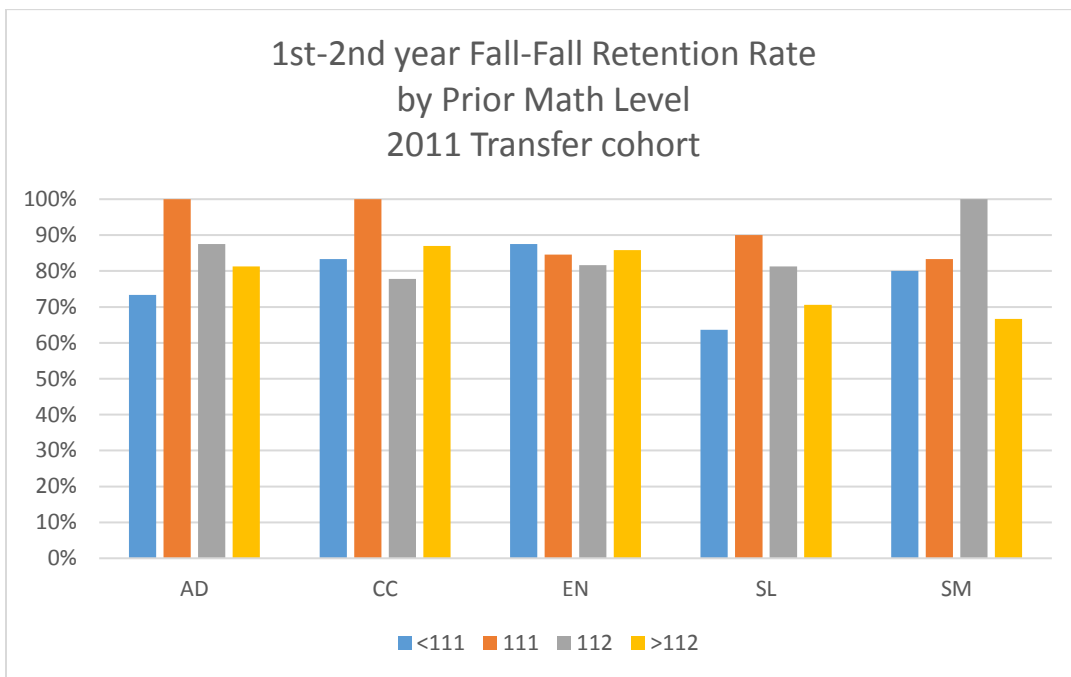
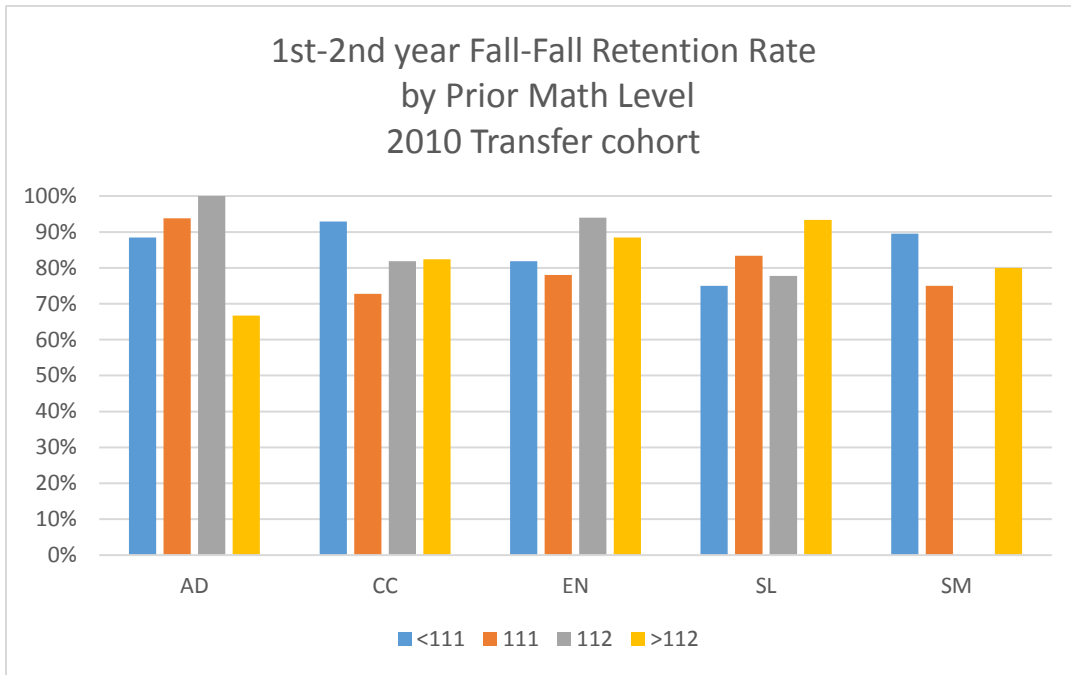
Average Accumulated GPA after 1 year at NJIT
by Prior Math Level
2013 Transfer cohort

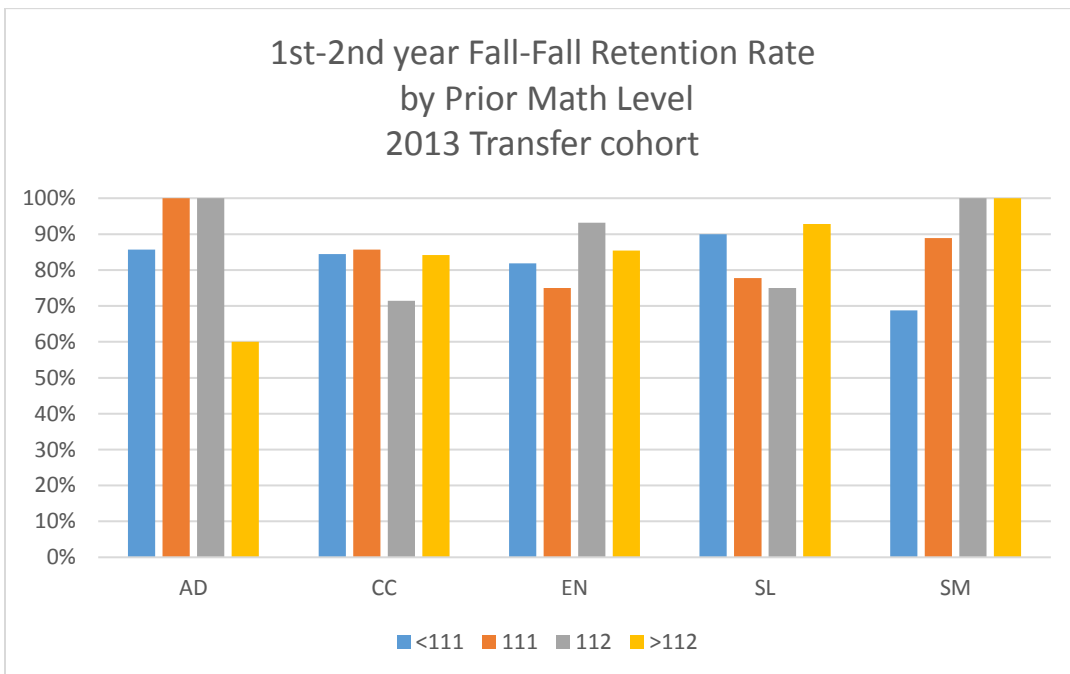
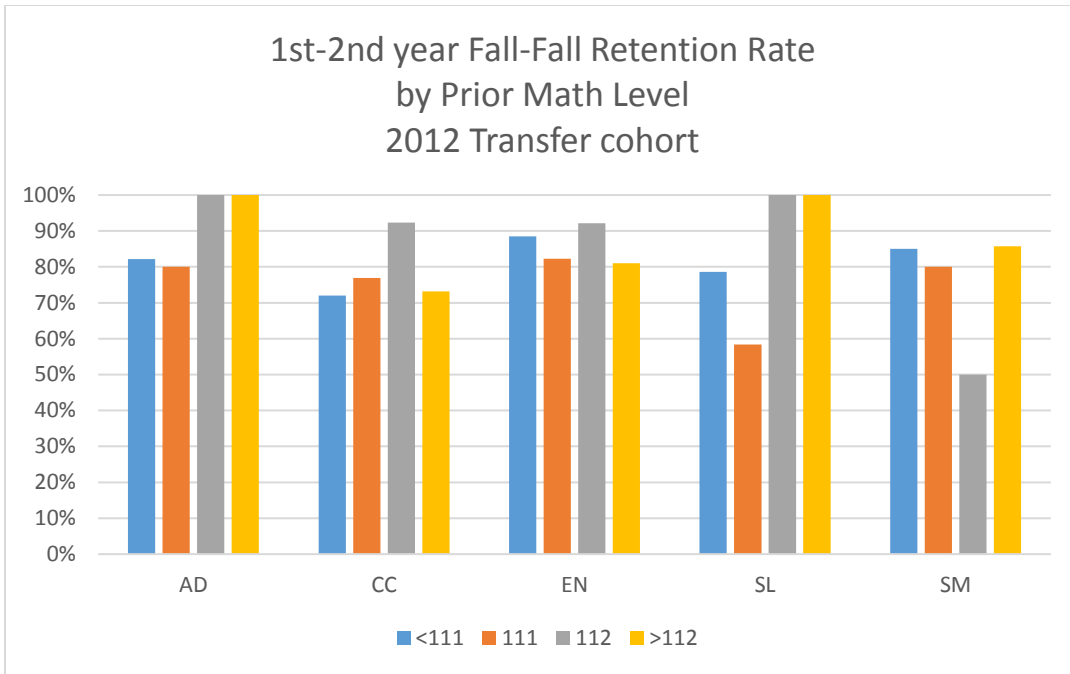


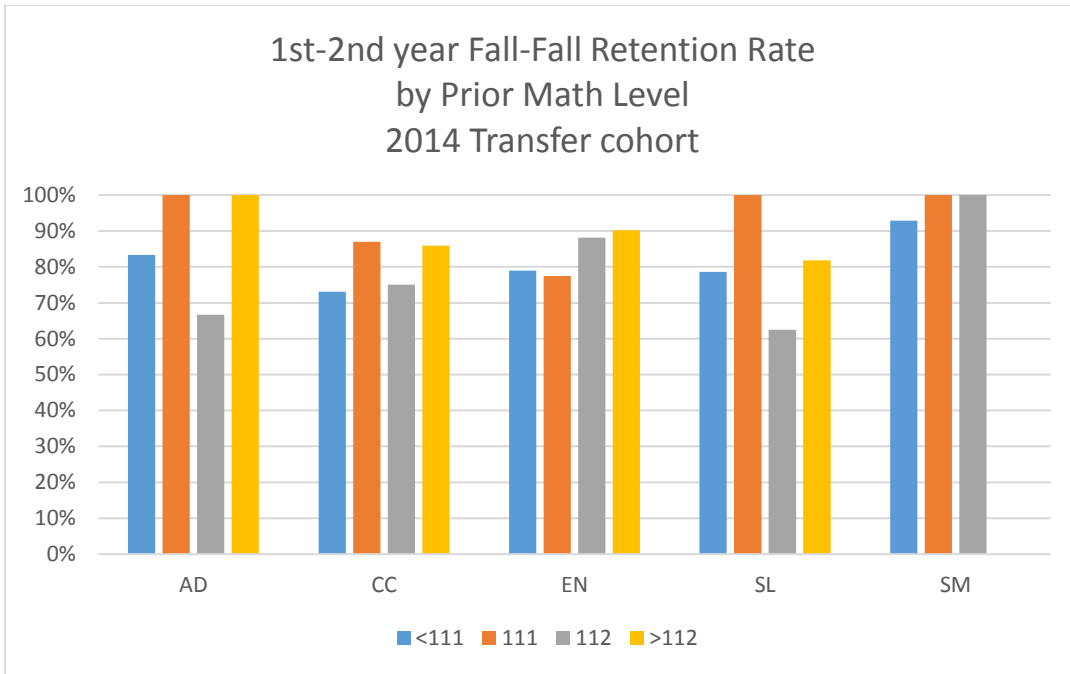
Average Accumulated GPA after 1 year at NJIT
by Prior Math Level
2014 Transfer cohort



Prior Math Level and 1st-2nd year Fall-Fall Retention Rate by Cohort Year







Accumulated GPA after 1 year at NJIT by Prior Math Level by Entering Class Level

