City College

High School to College Pipeline

Summary Report
2014/15 - 2018/19

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Introduction

The annual High School to College Pipeline Report provides a longitudinal overview of incoming **first-time to college high school graduates**. The report is part of a larger initiative to provide the colleges and the District with information for integrating plans and strategies that support student completion and enrollment management. The report is intended to inform college and District decision-making, instructional and services planning, outreach, and marketing.

The High School to College Pipeline Report series comprises four reports: 1) All Colleges, 2) City College/ECC, 3) Mesa College, and 4) Miramar College. Each report contains four sections that focus on enrollment patterns and placement as high school graduates enter college for the first time. The first section (Focus of Analysis I) focuses on students' entry into an SDCCD college, and is reported as high school-to-college graduate participation and concurrent student participation rates. Student high school GPA, and reading, writing, ELAC (ESOL/ESL), and math placements are detailed in the second section (Focus of Analysis II); student characteristics and college enrollment patterns are detailed in the third section (Focus of Analysis III); and finally, English and Math success rates are detailed in the fourth section (Focus of Analysis IV). In most instances, benchmark information is provided as a point of comparison, such as three-year or five-year averages and/or percentage change.

Population of Interest

First-time to college high school graduates are students who reported completion from a high school prior to enrolling at an SDCCD college for the first time. Specifically, unless otherwise noted, this population comprises the following parameters:

- ✓ **First-time to college students** are defined as any first-time student who enrolled at an SDCCD college. Excluded from this definition are students concurrently enrolled in a four-year university, degree holders, and students currently enrolled in high school. Additionally, for this study, students attending adult school are excluded.

- ✓ **High school graduates** are defined in this study as having received a certification of California high school proficiency, a G.E.D./high school certificate, or a high school diploma (including a foreign high school diploma).

- ✓ **Students enrolled at an SDCCD college** either in the year following high school completion or within four years of high school completion.

Definitions

1. **Enrollment:** The number of seats enrolled, or duplicated headcount. Drops, never attends, cancelled, and tutoring classes are excluded.

2. **Headcount:** The individual count of students, or unduplicated headcount. Drops, never attends, and cancelled classes are excluded.

3. **Persistence Rate – Term and Annual:** The percentage of census enrolled students in a fall term who enrolled in at least one course in the subsequent spring term (term persistence) or fall terms (annual persistence) and were officially enrolled at a census (SDSU and UCSD-only students and sections are excluded. Intersession, tutoring, in-service, and cancelled classes are excluded).

4. **Retention (Completion) Rate:** The percentage of students who complete a course with a grade of A, B, C, D, F, P, NP, I or RD out of official census enrollments. Tutoring and cancelled classes are excluded.

5. **Successful Course Completion Rate:** The percentage of students who complete a course with a grade of A, B, C, or P out of official census enrollments. Tutoring, non-credit, and cancelled classes are excluded.

6. **Capture Rates:** The percent of previous year high school graduates that enroll at an SDCCD institution.

Placement: Transition to Multiple Measures

In October 2017, Assembly Bill (AB) 705 was signed to take effect on January 1, 2018. AB 705 requires California Community Colleges to maximize the probability that students will enter and complete transfer-level coursework in mathematics and English within one year of beginning their program of study. English as a second language students have a three year period to complete transfer-level mathematics and English in their programs of study.

Although colleges are prohibited from compelling a student to take a pre-requisite course unless they are highly unlikely to succeed, AB 705 enhances the use of multiple measures assessment for course placement. This puts an emphasis on using prior history, such as the use of high school GPA, as a placement measure. The intent of the law, along with the foundational research behind the legislation, puts a focus on improving throughput of students through transfer-level mathematics and English sequences, which tend to work as gatekeepers to program and transfer completion.

Colleges were given until Fall 2019 to implement their new placement measures and to become AB 705 compliant. Each SDCCD college developed placement rules based on high school GPA for students with GPAs within 10 years, with Placement Assistant options for all students. Curricula were developed to offer support for students with cumulative high school GPAs lower than 2.6.

City College implemented Multiple Measures placement in the Fall of 2019. The data reflected in this report will not include any data on these new placements.

Figure 1 of the Appendix illustrates the placement sequences in English and math.

Overall Highlight of the Findings

Participation Rates

✓ In 2018/19, 11% of the 2017/18 SDCCD high school feeder graduates and 5% of the 2017/18 non-SDCCD high school feeder graduates entered City College in the year following high school completion. These are in line with the five-year averages of 12% and 5%, respectively.

✓ Concurrent high school seniors, who were both enrolled at City College and attended a District feeder high school in 2017/18, continued their SDCCD enrollment the following year as college-only students at a rate of 18%, lower than the five-year average of 21% for all first-time to SDCCD high school graduates.

✓ 2018/19 City College top 5 feeders of first-time to college high school graduates by student count:

High School Name	Student Count
San Diego Ed Complex	113
Hoover	75
Lincoln	71
Crawford Ed Complex	48
Morse	39

✓ Nearly half of City College first-time to college high school graduates in 2018/19 attended an SDCCD feeder high school (49%).

Incoming Placement Rates

✓ Over three quarters of 2018/19 City College first-time to college high school graduates completed an assessment test in Reading, Writing, and Math (77%, 77%, and 78%, respectively).

✓ Nearly half (47%) of the 2018/19 City College first-time to college high school graduates who completed an assessment test in reading placed at the transfer/associate level, lower than the three-year average of 49%. Of those who completed a reading assessment in 2018/19, 40% placed at the basic skills level, which is slightly higher than the three-year average of 38%.

✓ In 2018/19, 19% of the City College first-time to college high school graduates who completed an assessment in writing placed at the transfer/associate level (lower than the three-year average of 24%) and 67% placed at the basic skills level (higher than the three-year average of 63%).

✓ Twenty-four percent of the 2018/19 City College first-time to college high school graduates who completed an assessment test in math placed at the transfer/associate level (lower than the three-year average of 28%) and 76% placed at the basic skills level (higher than the three-year average of 72%).

Access/Profiles

✓ Demographics of 2018/19 City College first-time to college high school graduates as compared to the five-year average

- 53% Female (52% five-year average)
- 70% Latinx and 10% White (68% and 11% five-year averages, respectively)
- 40% first generation (40% five-year average)
- 4% DSPS (4% five-year average)

✓ There was an increase in self-reported incoming high school GPA as compared to previous years
- 44% of students in 2018/19 reported a GPA over 3.0 as compared to a 39% average over the past five years, while 53% of students reported an incoming high school GPA of between 2.0 and 3.0 as compared to the 59% five-year average.

Outcomes

✓ 57% of City College first-time to college high school graduates who were enrolled in school full time (12+ units) in 2018/19 successfully completed 12 or more of those units, similar to the five-year City College average of 56%.

✓ 71% of Fall 2017 City College first-time to college high school graduates persisted to the next spring and 52% persisted to fall of the next academic year (lower than the five-year averages of 73% and 54%, respectively).

✓ In 2018-19, City College first-time to college high school graduates completed English and Math courses in their first term at higher rates than the comparison group of all other students enrolled in those courses.

- 87% of City College first-time to college high school graduates **completed** their *transfer-level* Math courses, compared to 79% of the comparison group. In *basic skills* Math courses, these students **completed** at a 91% rate, compared to 84% for the comparison group.

- 93% of City College first-time to college high school graduates **completed** their *transfer-level* English courses, compared to 87% for the comparison group. In *basic skills* English courses, first-time to college high school graduates **completed** at a 91% rate, compared to 81% for the comparison group.

✓ In 2018-19, City College first-time to college high school graduates **succeeded** in their English and Math courses in their first term at higher rates than the comparison group of all other students enrolled in those courses.

- 51% of City College first-time to college high school graduates **succeeded** in their *transfer-level* Math courses, compared to 42% for the comparison group. In *basic skills* Math courses, first-time to college high school graduates **succeeded** at a 50% rate, compared to 37% for the comparison group.

- 75% of City College first-time to college high school graduates **succeeded** in their *transfer-level English* courses, compared to 69% for the comparison group. In *basic skills* English courses, first-time to college high school graduates **succeeded** at a 74% rate, compared to 54% for the comparison group.

✓ In 2018/19, 14% of first-time to college high school graduates from City College feeder high schools passed both *transfer-level* Math and *transfer-level* English in their first year, lower than the five-year average of 20% from City College feeder high schools. *This may be the result of the large increase in transfer-level Math and English courses being offered to students during their dually enrolled high school years.*

✓ 44% of first-time college high school graduates from City College feeder high schools who attempted both transfer-level Math and English in their first year succeeded at both.

Focus of Analysis I: Entering the Community College Pipeline from High School Feeders

College Participation Rates of High School Graduates

The one-year SDCCD capture rate of 2017/18 high school graduates from the City College Service Area was 29%. This is lower than the five-year average of 32% and the previous year's capture rate of 33%.

Table 1 in the Appendix displays high school-to-college participation rates among first-time to college high school graduates from the City College Service Area who enrolled at an SDCCD college in the year following high school completion. When possible, high school-to-college participation rates are disaggregated by feeder and non-feeder high schools. College feeders are based on a combination of the zip codes within each college's service area, as well as other college-specific outreach designations.

Capture Rates 2014/19- 2018/19

- 14/15 Entrants: 34%
- 15/16 Entrants: 33%
- 16/17 Entrants: 34%
- 17/18 Entrants: 33%
- 18/19 Entrants: 29%

■ City Feeder Total
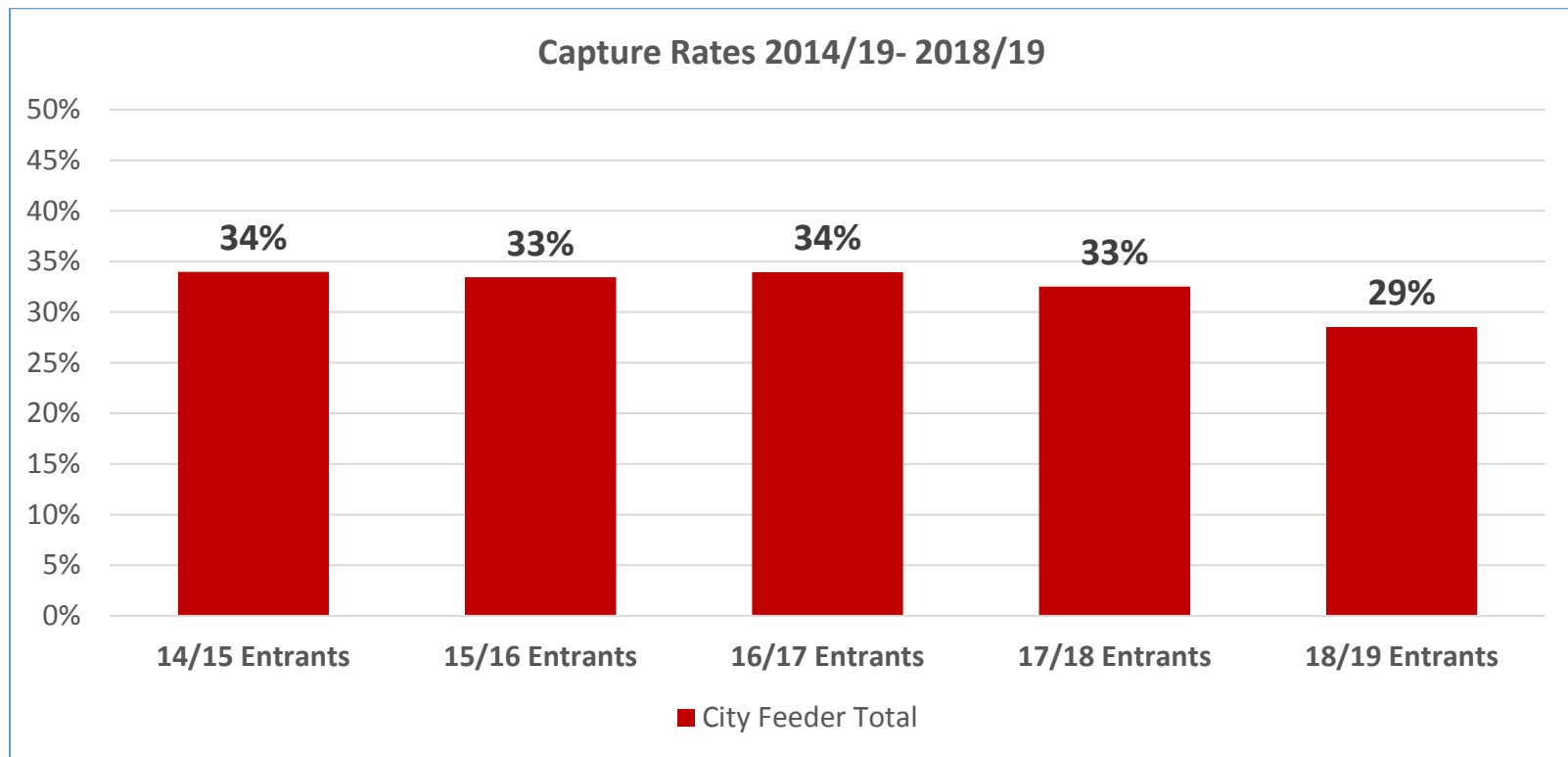
2014/15-2018/19 Top 10 Capture Rates for City College Feeders

The top SDUSD high schools by capture rate are Lincoln (30%), San Diego Ed Complex (29%), Garfield (29%), Crawford Ed Complex (28%) and Hoover (28%). Southwest and Sweeetwater are not in SDUSD but still give City College a high proportion of their graduates (17% and 13%, respectively). As mentioned in the highlights, the top feeders by student count are San Diego Ed Complex (113), Hoover (75), Lincoln (71), Crawford (48), and Morse (39). **Table 1** of the Appendix provides further detail.

Top 10 Capture Rates for City College Feeders

School	Capture Rate
Lincoln	30%
San Diego Ed Complex	29%
Garfield	29%
Crawford Ed Complex	28%
Hoover	28%
Gompers Prep	26%
King-Chavez Comm High	21%
Southwest*	17%
Health Sciences	14%
Sweetwater*	13%
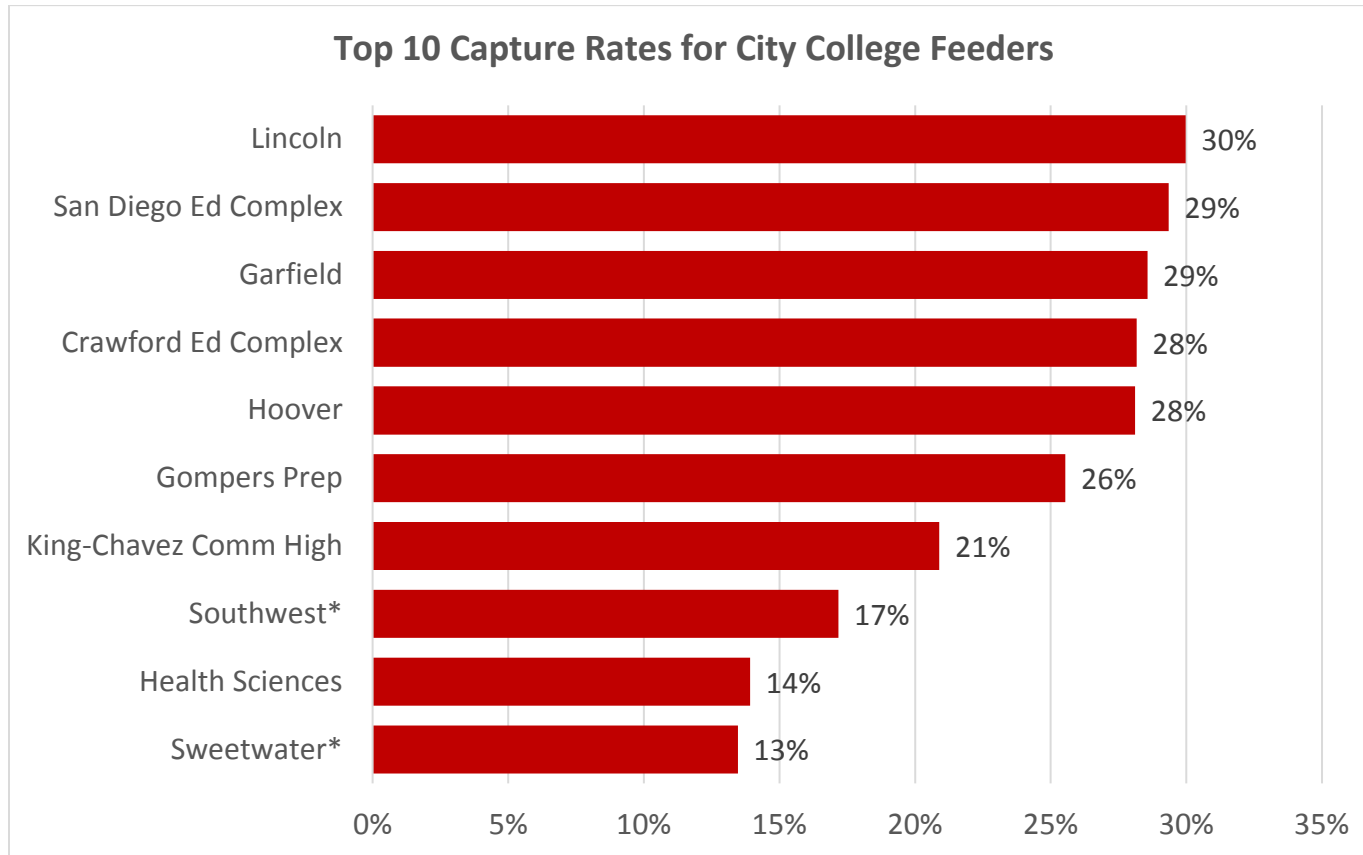
Participation Rates of Concurrent Students

Concurrent high school seniors, who were both enrolled at City College and attended a District feeder high school in 2017/18, continued their SDCCD enrollment in 2018/19 at an 18% participation rate. This is 8% lower than the previous year, and 3% lower than the five-year average of 21%.

	14/15 Re-Enroll %	15/16 Re-Enroll %	16/17 Re-Enroll %	17/18 Re-Enroll %	18/19 Re-Enroll %	14/15-18/19 Re-Enroll Avg %
District Feeder Total	18%	18%	22%	26%	18%	21%
Non-Feeder Total	36%	58%	31%	26%	25%	30%
Other/Unreported	0%	0%	0%	67%	0%	---
Grand Total	**9%**	**10%**	**13%**	**25%**	**19%**	**16%**

Over the past five years, City College has increased the number of concurrently enrolled seniors by 535% (from 69 to 438).

Table 2 of the Appendix displays the percentage of Miramar College concurrently enrolled high school seniors who enrolled at an SDCCD college in the year following graduation from high school. Results are disaggregated by feeder high schools and provide aggregate totals/averages for non-feeder high school students as a point of comparison.
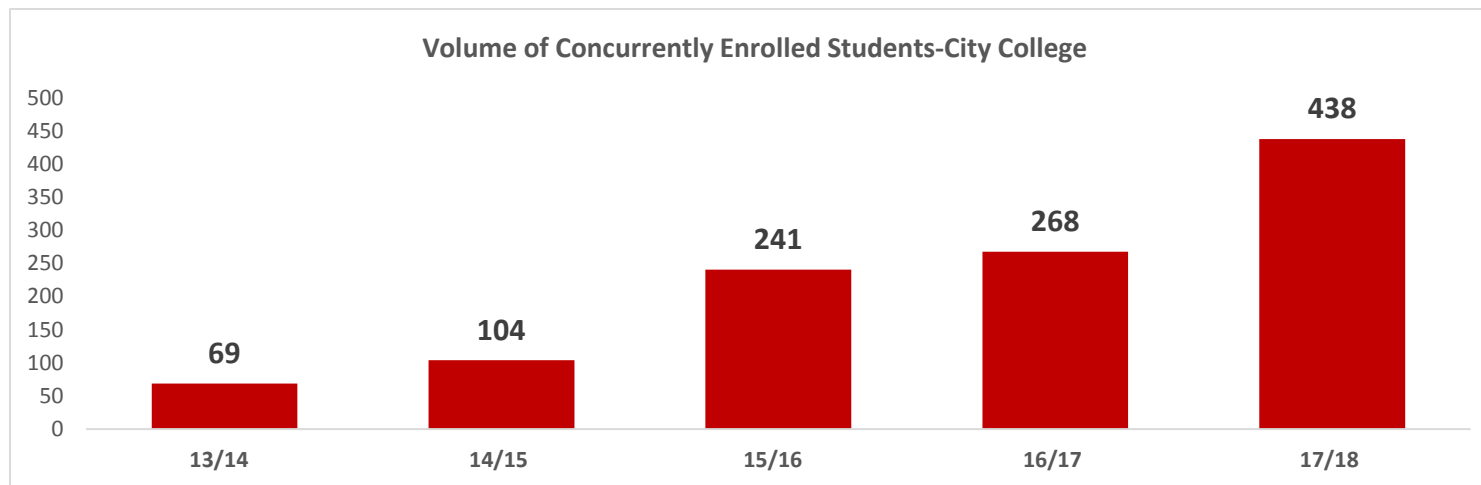
Focus of Analysis II: College Preparedness and Placement

This section of the report looks at high school GPA and the placement levels of first-time to college high school graduates who applied to an SDCCD college within four years of high school completion. It is possible that a student can apply and take the placement test, but not register for classes. The placement information, therefore, may differ from enrollment information. Note that the English and Math placement sequences may change from year to year; therefore, data are represented by current placement level categories (see **Figure 1** in the Course Sequences section). Additionally, students are categorized as 'tested' or 'not tested' based on the following parameters:

✓ **Total Tested** – This group includes students who completed an assessment test or submitted their scores from a standardized test (e.g., SAT, ACT, EAP, EPT, and ELM).

✓ **Not Tested** – This group includes students who did not complete an assessment test or were placed through the MMAP placement assistant. Additionally, this group includes students who received a placement level from degree completion, transfer work, or course completion.

High School GPA of College-Enrolled High School Graduates

Incoming self-reported GPA to City College has been rising the past 5 years and is currently at its highest point. **Table 3** of the Appendix shows the detail on the number of students and 5-year changes.

GPA Range - City College
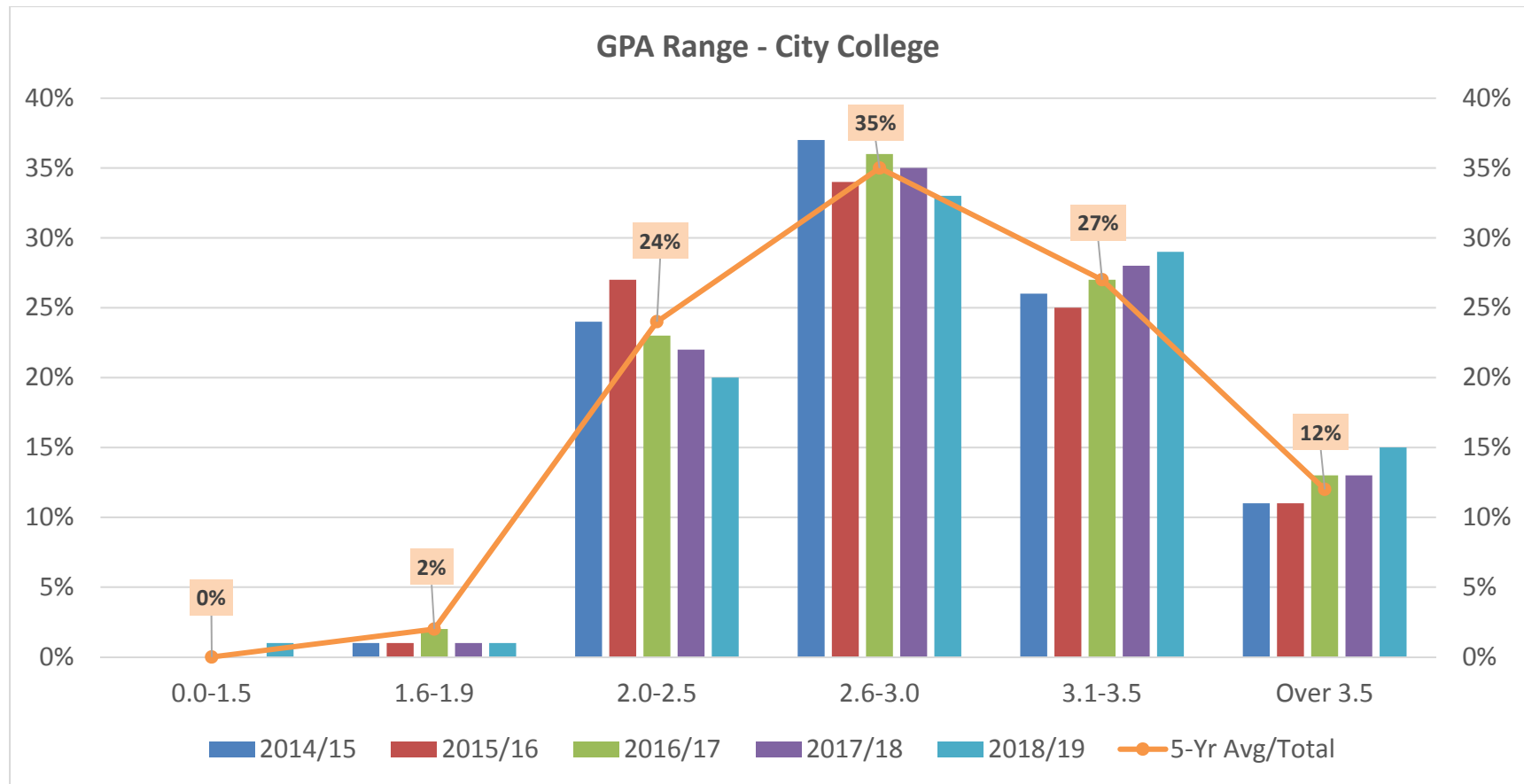
Reading Placement

Nearly half of 2018/19 City College first-time to college high school graduates who took a reading test placed in the transfer/associate levels. **Table 4** of the Appendix shows more detail in the last three years and the cohort totals.
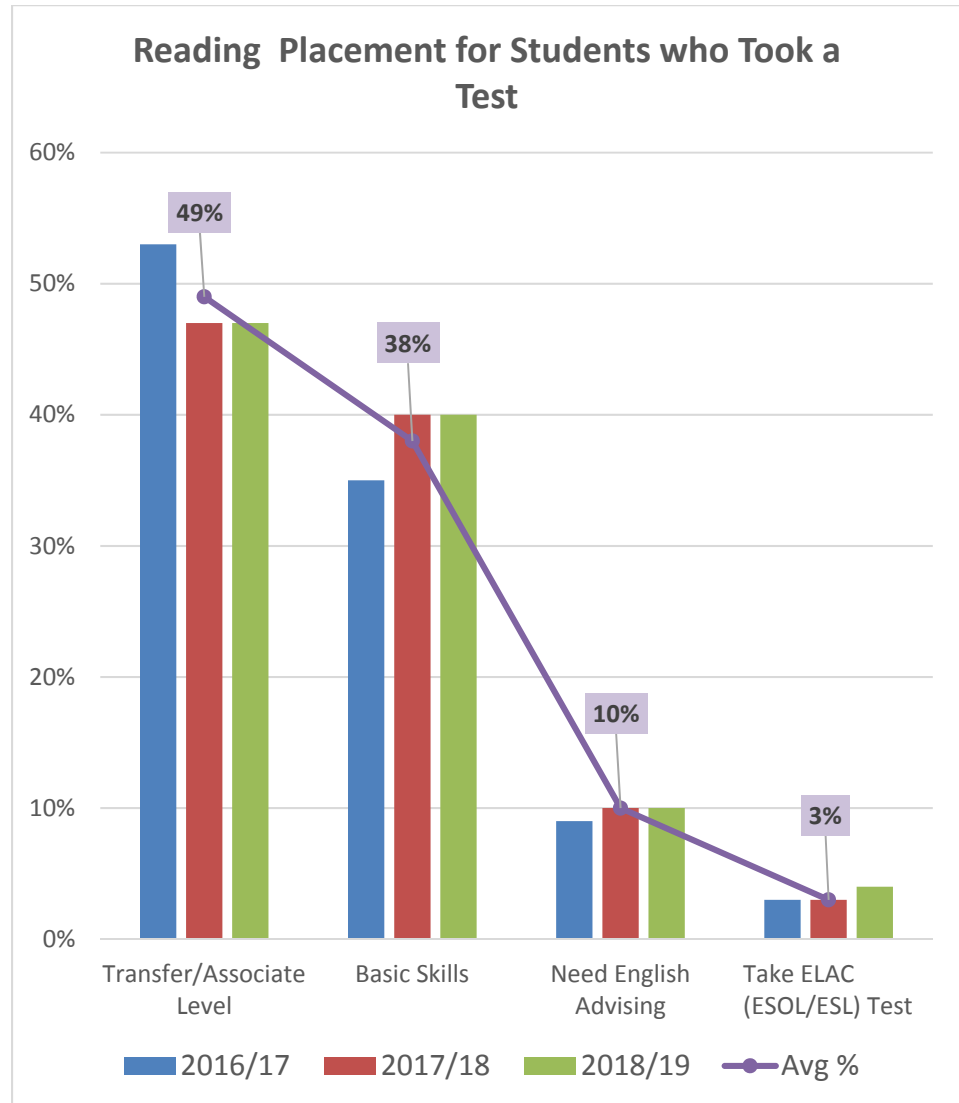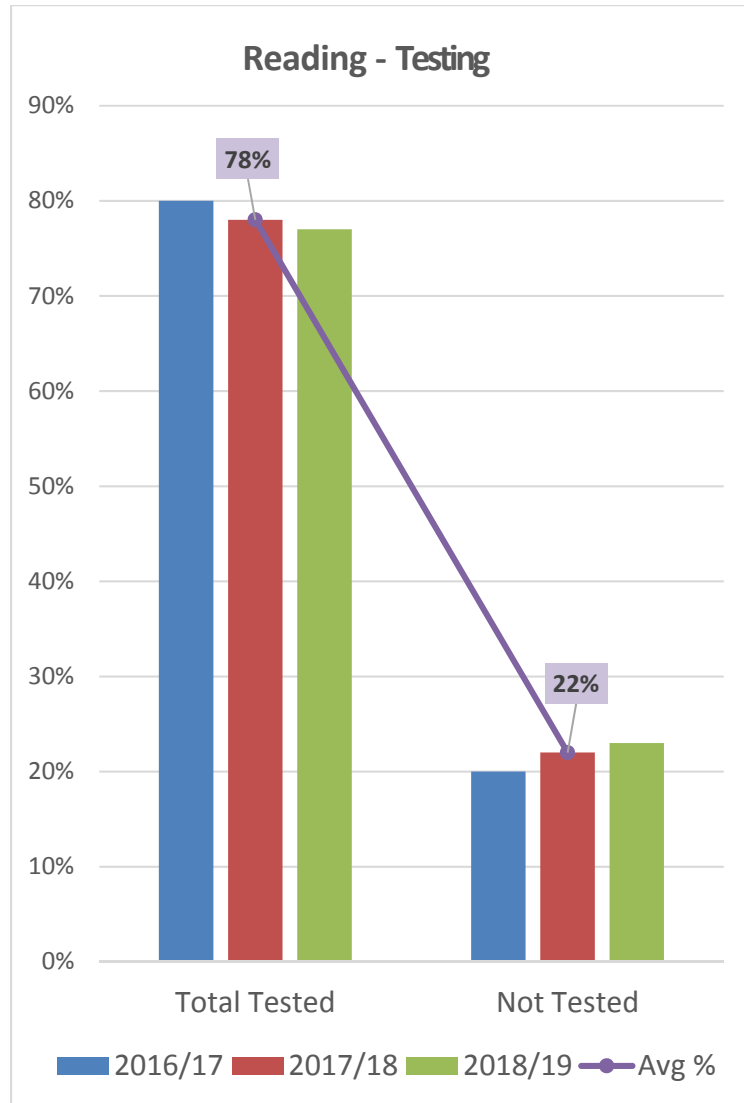
Writing Placement

2018/19 City College first-time to college high school graduates who took a writing test were placed at transfer/associate level at the lowest rate of the past 3 years. **Table 5** in the Appendix shows more detail in the last three years and the cohort totals.
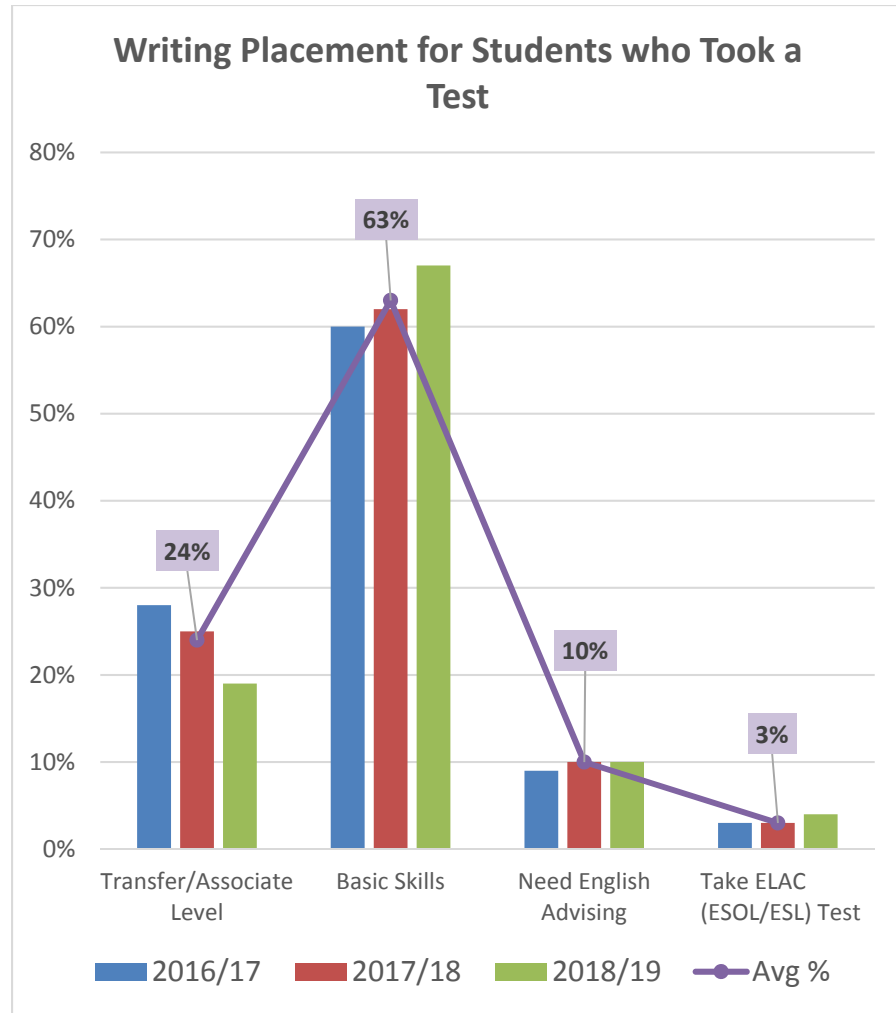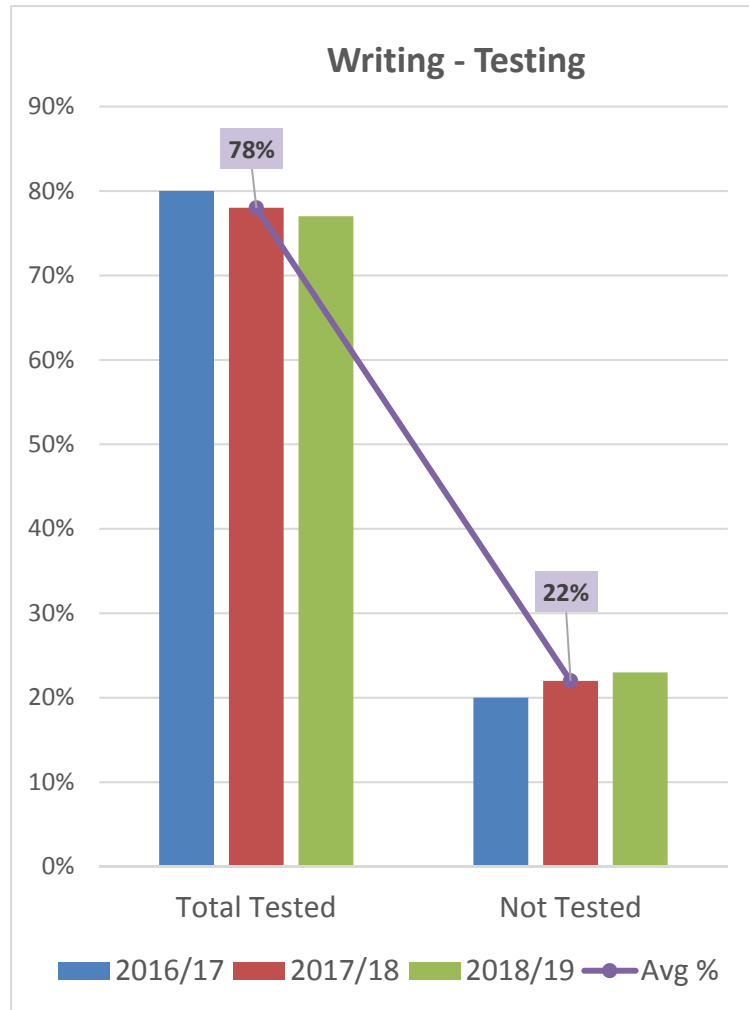
ELAC (ESOL/ESL) Placement

2018/19 City College first-time to college high school graduates who were tested needed English advising at the highest rate of the past 3 years. **Table 6** of the Appendix shows more detail in the last three years and the cohort totals.
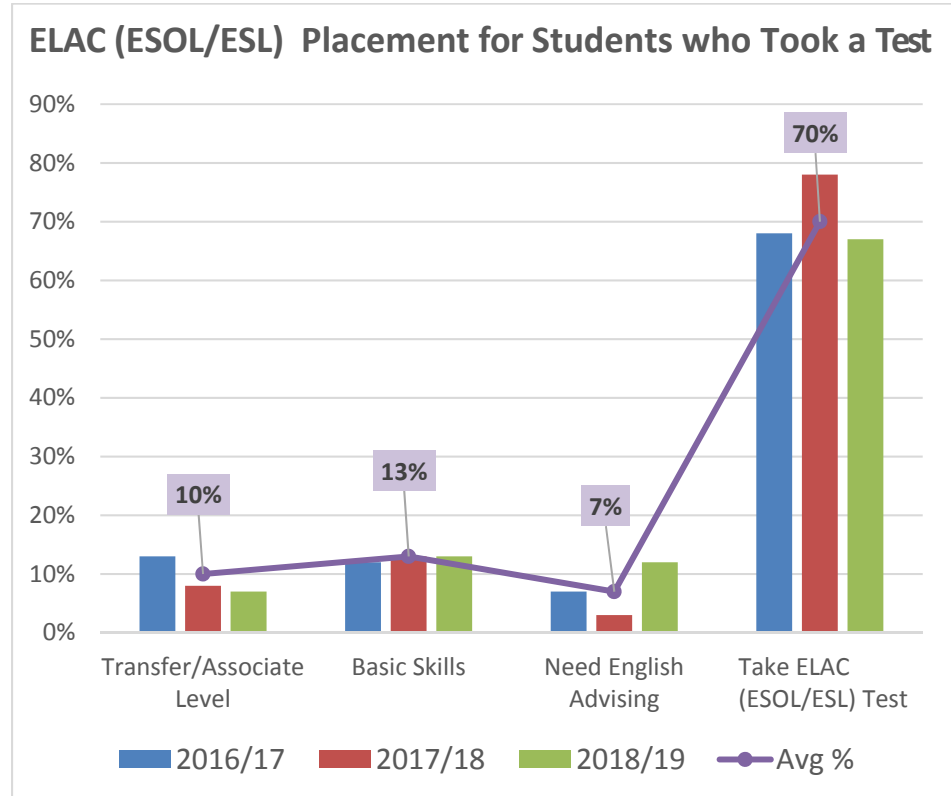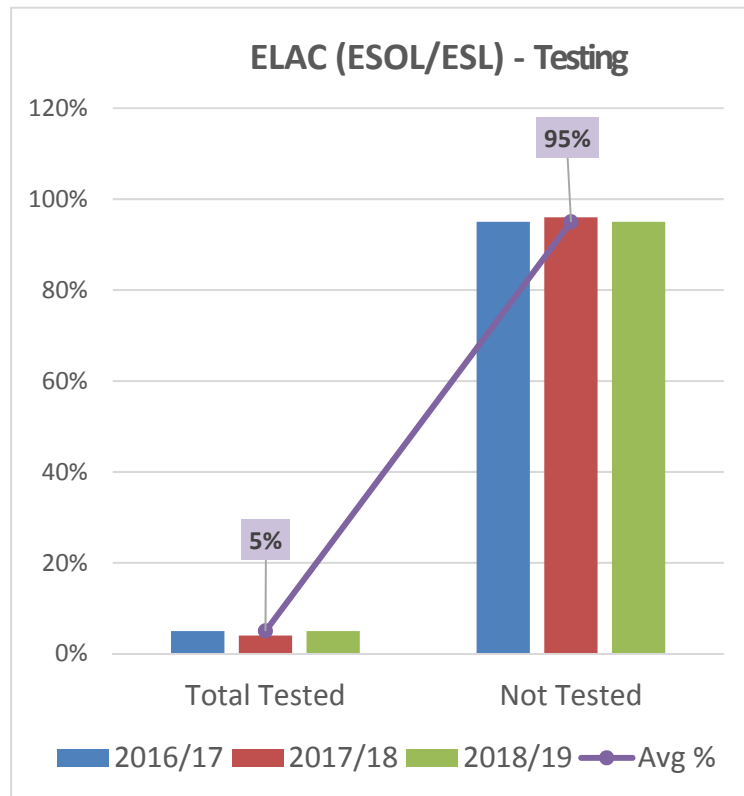
Math Placement

2018/19 City College first-time to college high school graduates who were tested, placed at transfer-level in Math at a lower rate than the previous two years. **Table 7** in the Appendix shows more detail in the last three years and the cohort totals.
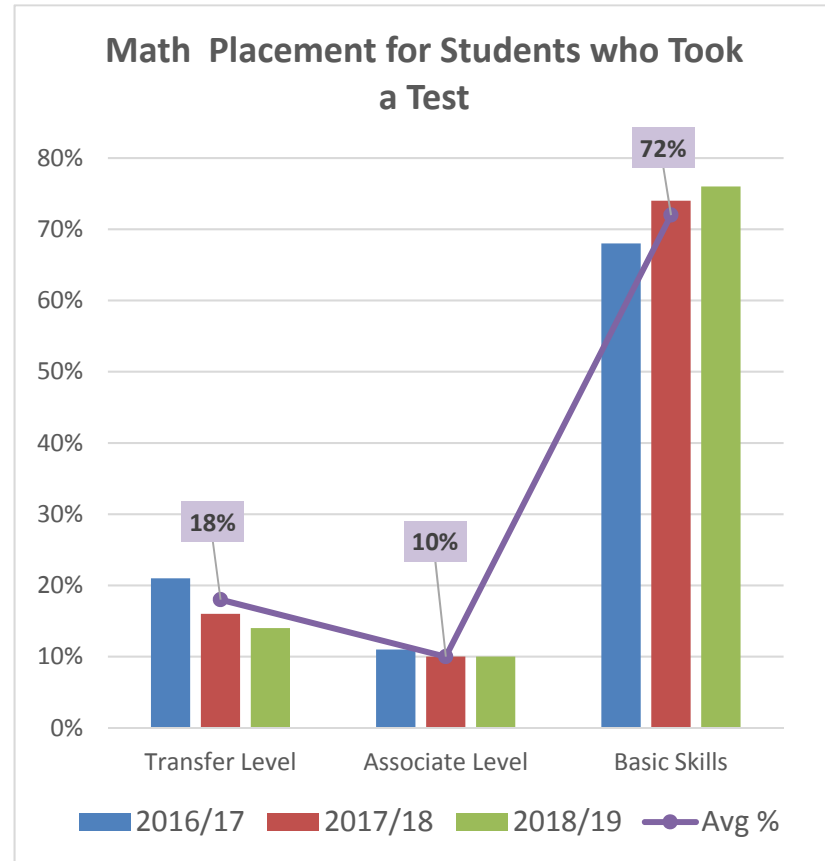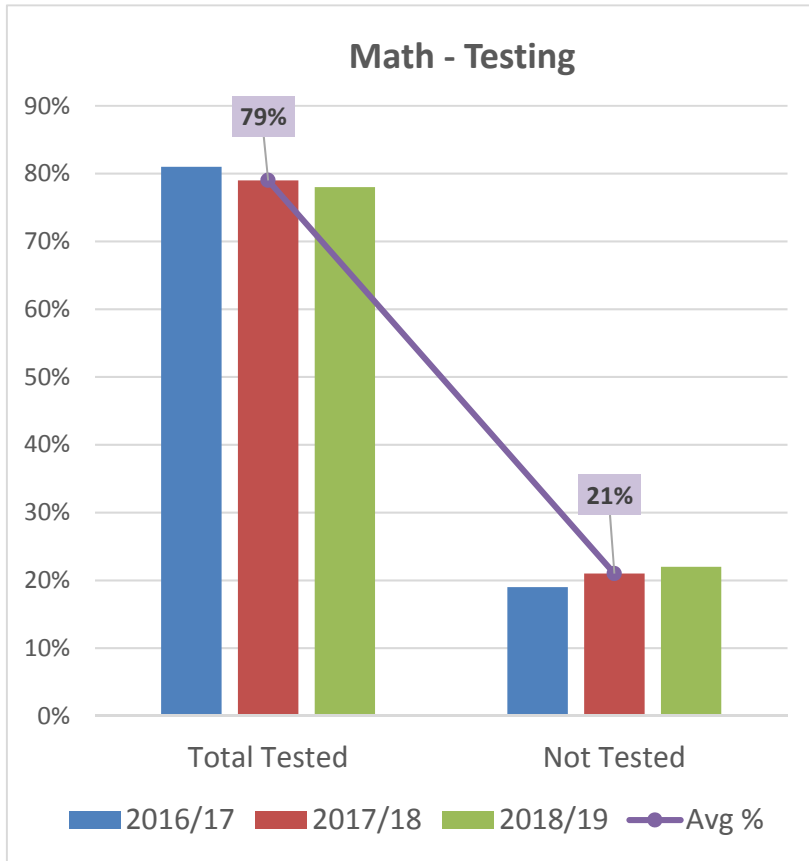
Focus of Analysis III: Student Characteristics and Enrollments Patterns

This section describes different student characteristics and enrollment patterns among first-time to college high school graduates who enrolled at an SDCCD college within four years of high school completion. Headcount, gender, ethnicity, first generation to college, student educational goals, and DSPS status of the first-time to college high school graduates are measured between 2014/15 and 2018/19 (see **Table 8**). Note that the count of students is an unduplicated headcount. The number of units attempted (in rows) by the number of units earned (in columns) across the same five years are displayed among first-time to college high school graduates in **Table 9**. The longitudinal term and annual persistence of the Fall 2013 to Fall 2017 cohorts of first-time to college high school graduates is displayed in **Table 10** of the Appendix.

Student Characteristics

Headcount

The number of first-time to college students enrolling at City College within four years of high school graduation has decreased 27% over the last five years, from 1,999 students in 2014/15 to 1,460 students in 2018/19. See **Table 8.1** in the Appendix for more detail.

Total Student Headcount

2014/15	2015/16	2016/17	2017/18	2018/19
1,999	1,903	1,820	1,712	1,460
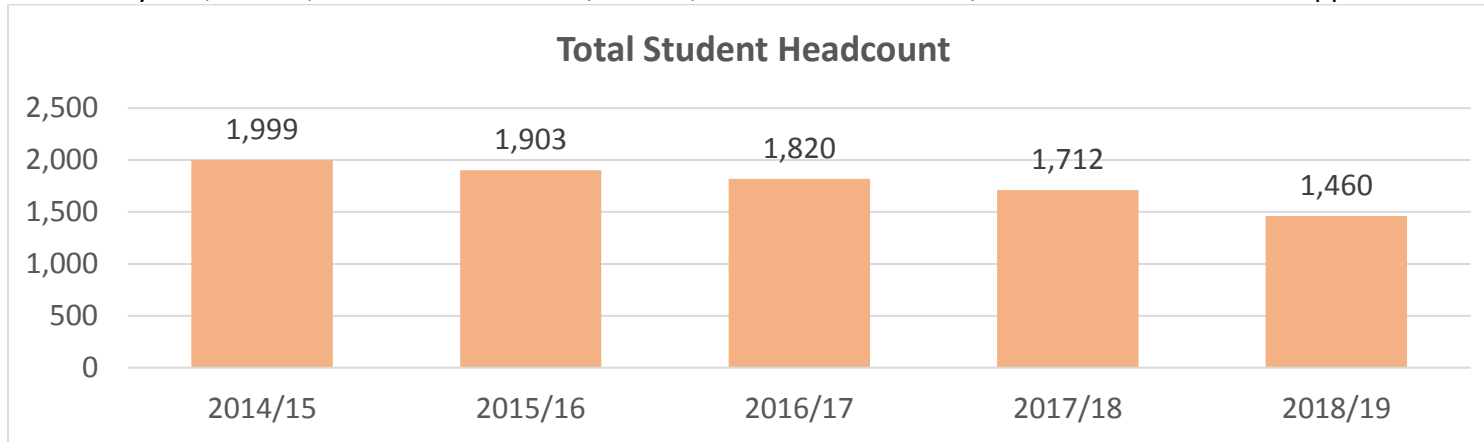
Gender

The proportion of male and female students has remained generally stable over the last five years. See **Table 8.2** in the Appendix for year-by-year detail.

Gender 5-Year Average

- Female: 52%
- Male: 48%

Ethnicity

Ethnicity 5-Year Average

Legend:
- African American
- American Indian
- Asian/Pacific Islander
- Filipino
- Latinx
- White
- Other
- Unreported

Values shown: 1%, 0%, 4%, 9%, 4%, 11%, 68%
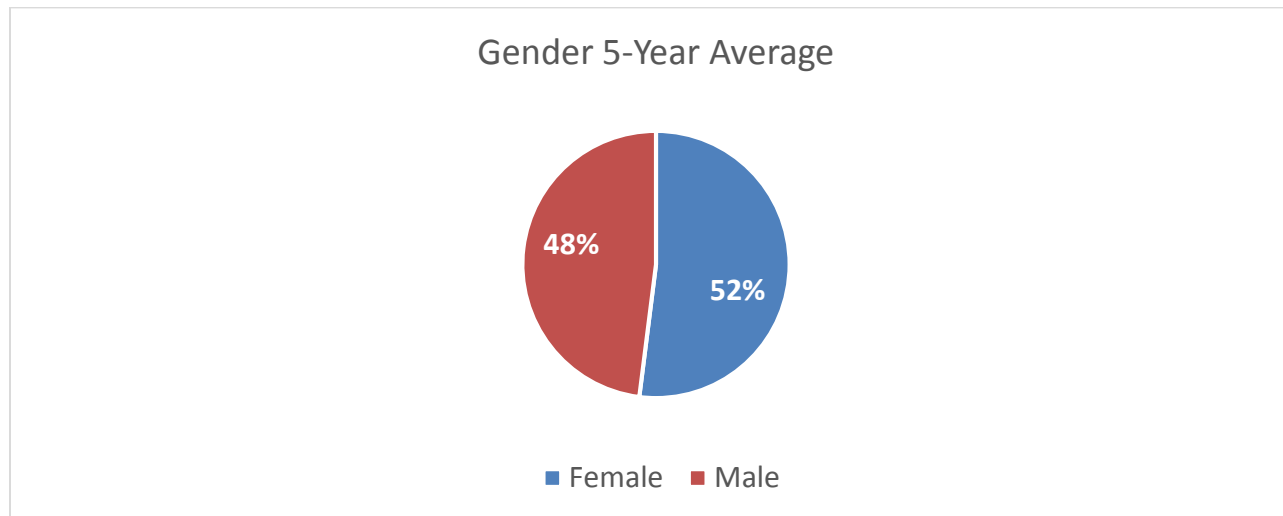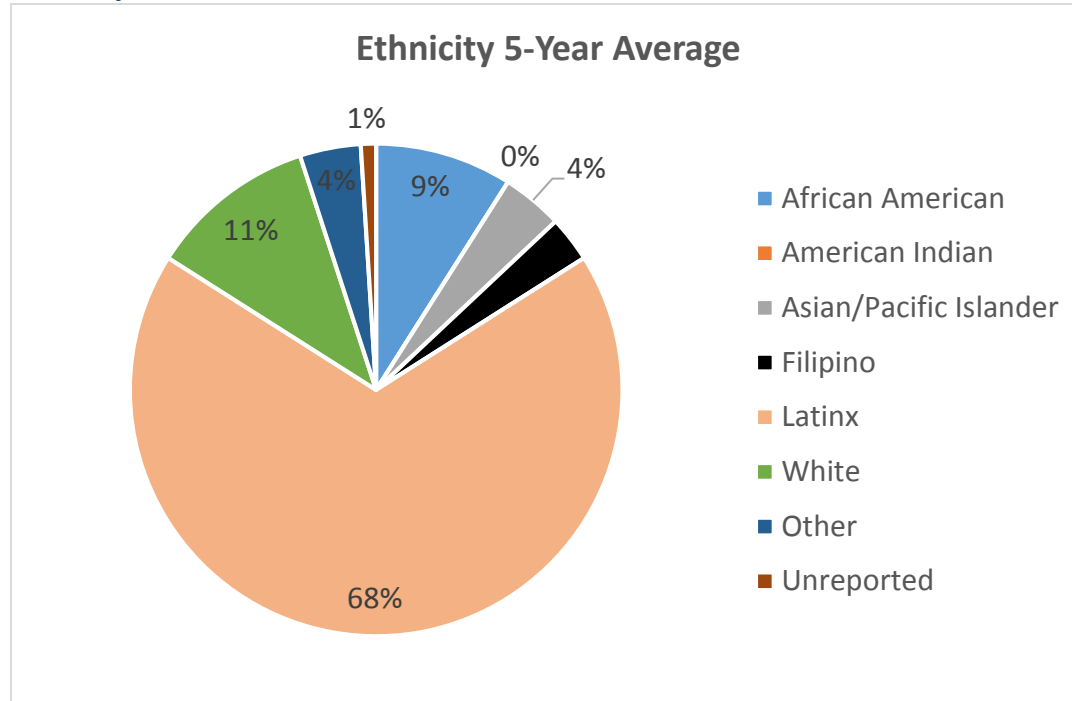
Latinx students make up 68% of 2018/19 first-time to college students who enroll at City College within four years of high school graduation. This is higher than the overall City College population, both over the last five[1] fall terms (49%) and in Fall 2017 (51%).

See **Table 8.3** in the Appendix for year-by-year detail.

First Generation

First Generation 5-Year Average

- Not First Generation: 60%
- First Generation: 40%

(axis: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%)
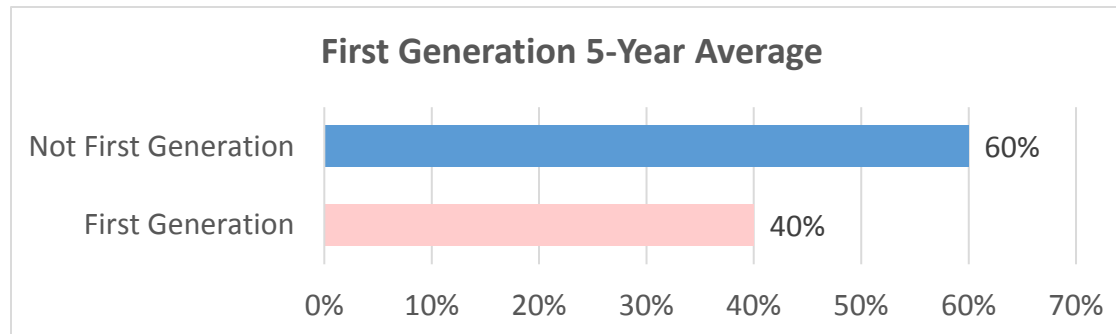
40% of first-time to college students who enroll at City College within four years of high school graduation identified as first generation.

See **Table 8.4** in the Appendix for year-by-year detail.

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[1] Data from Fall 2012 to Fall 2017 was the most recent available comparison data as of the production of this report (from Factbook 2018).

Educational Goal

58% of first-time to college students who enroll at City College within four years of high school graduation indicated their educational goal is to complete a bachelor's degree after completing an AA/AS degree. See **Table 8.5** in the Appendix for year-by-year detail.

Educational Goal 5-Year Average

Category	Percent
BA/BS after Completing AA/AS	**50%**
Undecided	16%
New Career Preparation	8%
4 Yr College Student	**8%**
BA/BS w/out Completing AA/AS	7%
AA/AS w/out Transfer	6%
Certificate/License Maintenance	2%
Voc Cert/Degree w/out Transfer	1%
Educational Development	1%
Current Job/Career Advancement	1%
Basic Skills Improvement	1%
HS Diploma/GED Certificate	0%
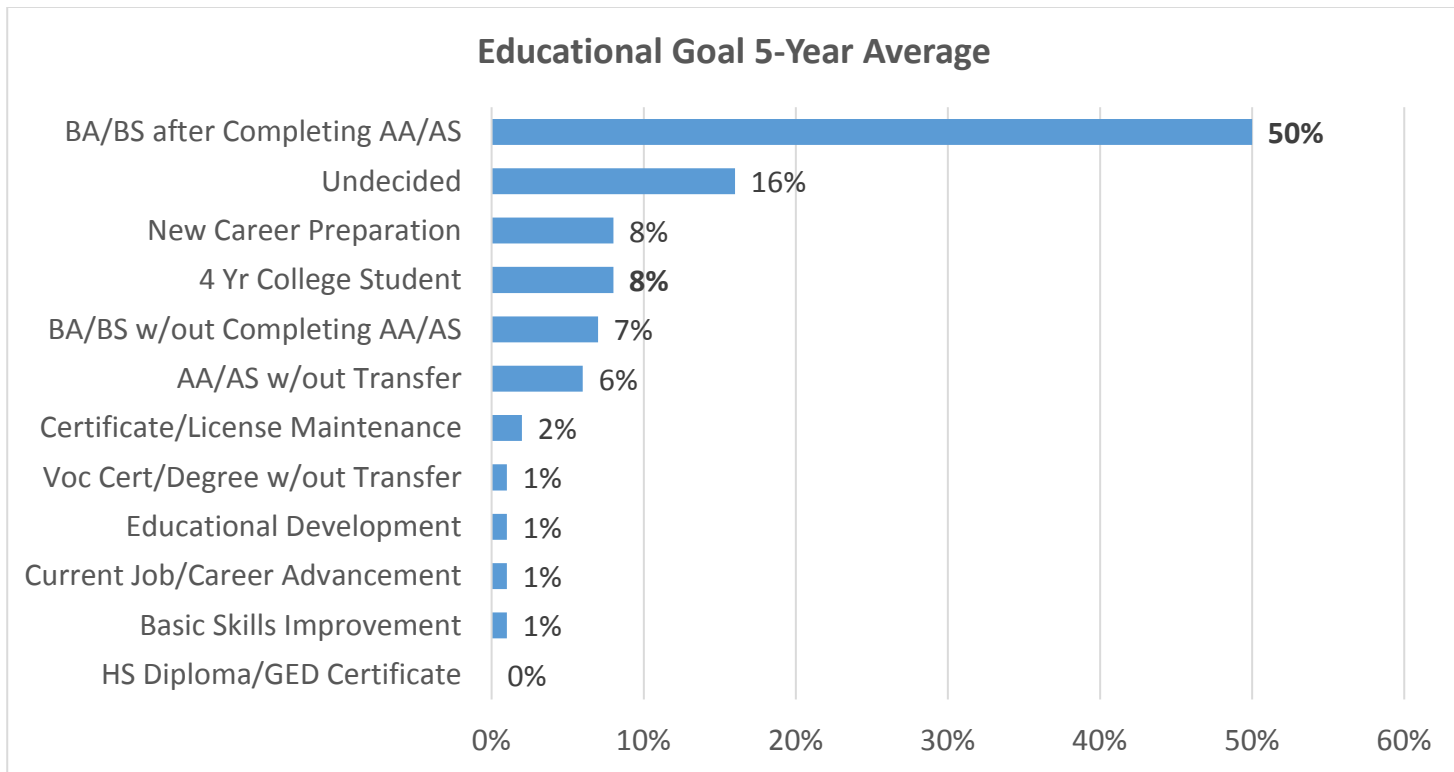
DSPS

On average 4% of the students have received Disability Support Programs and Services at City College. **Table 8.6** in the Appendix displays the figures by year and the 5-year average.

Units Attempted/Earned

Students who attempted fewer units completed their loads at higher rates than students who attempted more units, except for students who attempted 12+ units in an academic year. See **Table 9** in the Appendix for more detail.

Completion of units attempted - 5-yr Average

Units attempted	Completed units attempted	Did NOT complete units attempted
0.1 - 2.9	80%	20%
3.0 - 5.9	66%	34%
6.0 - 8.9	56%	44%
9.0 - 11.9	50%	50%
12.0 +	56%	44%
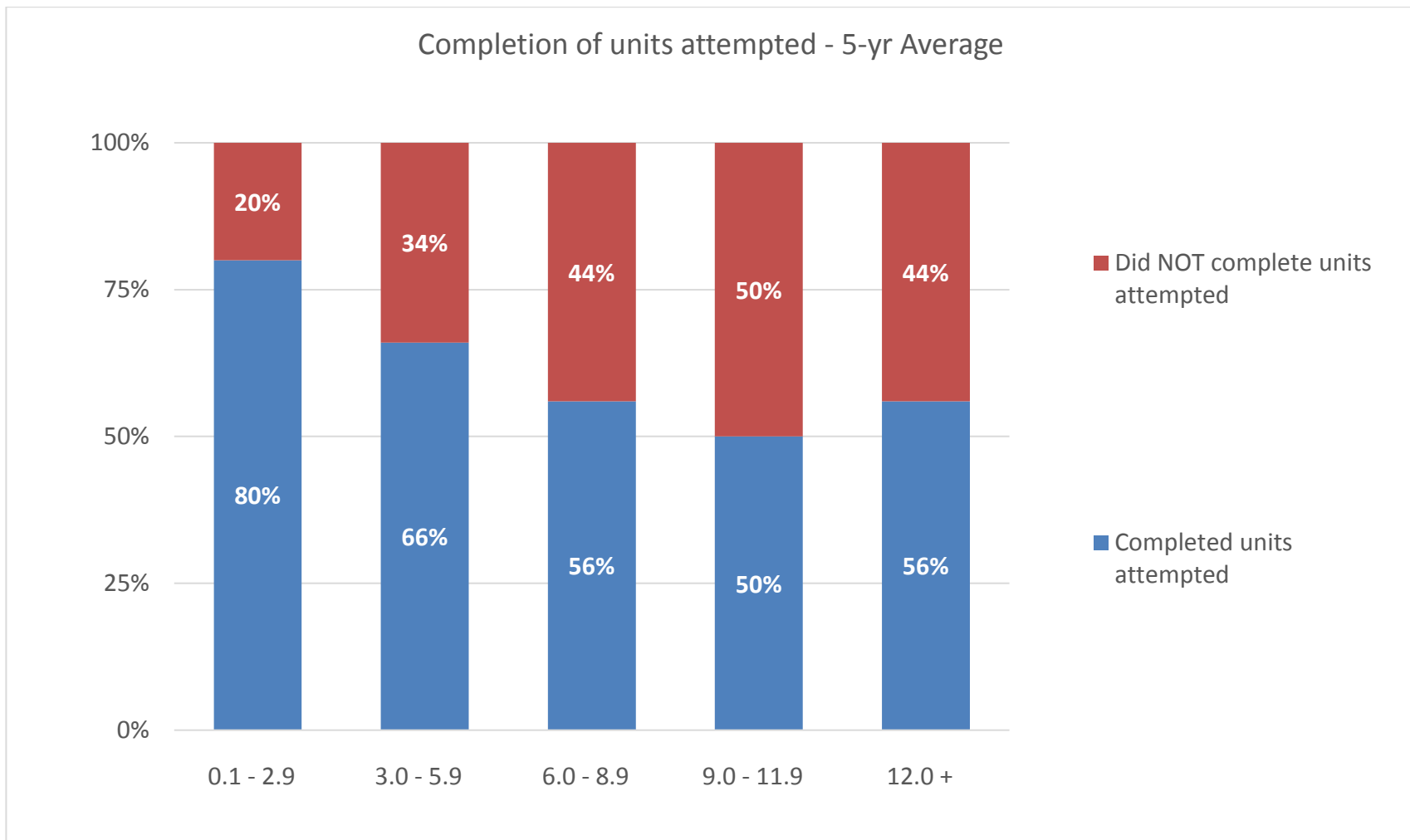
Persistence

Term (71%) and annual (52%) persistence for the Fall 2017 first-time to college high school graduate cohort are both 2% lower than the five-year averages of 73% and 54%, respectively. See **Table 10** in the Appendix for more detail.

Persistence

Year	Term Persistence %	Annual Persistence %
2013	73%	56%
2014	73%	54%
2015	77%	56%
2016	70%	54%
2017	71%	52%

■ Term Persistence % ■ Annual Persistence %
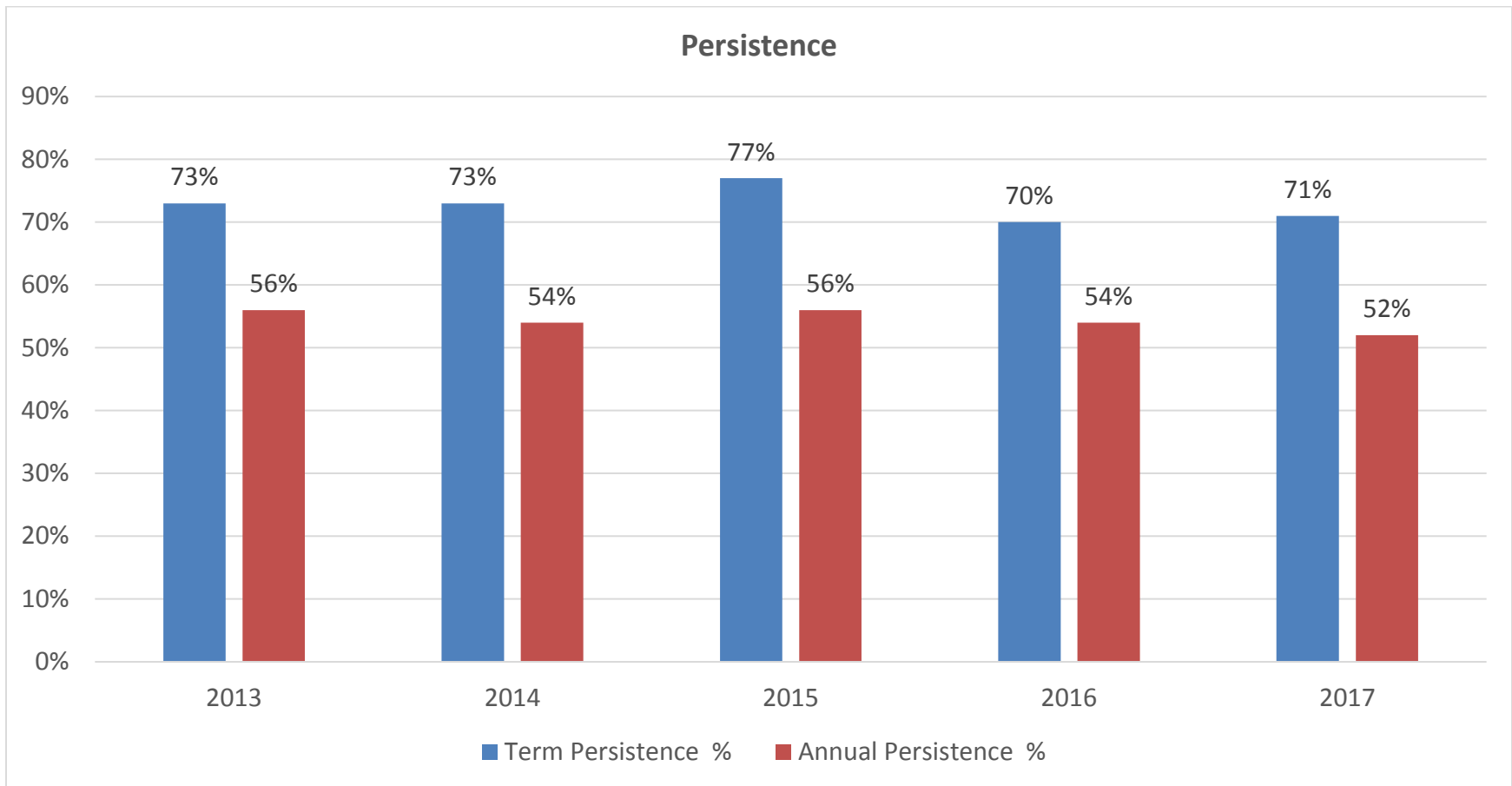
Focus of Analysis IV: Student Outcomes

This section examines English and Math course outcomes of **first-time to college high school graduates who enrolled at an SDCCD college within four years of high school completion** (see **Tables 11 and 12**). Enrollments, retention rates, and successful course completion rates of first-time students who enrolled in an English or Math course as of census between 2014/15 and 2018/19 are reported. Data are represented by basic skills, associate, and transfer-level courses (see **Figure 1** in the Placement Sequences section for specific courses in each level).

English Retention and Success Rates in the First Term

City College first-time to college high school graduates completed and succeeded in their transfer-level English courses in their first term at the higest rates since 2014/15. See **Table 11** in the Appendix for more detail.

Transfer-Level English Retention and Success

Year	Retention	Success
2014/15	94%	71%
2015/16	90%	74%
2016/17	88%	74%
2017/18	90%	73%
2018/19	93%	75%

Legend: ■ Retention   ■ Success
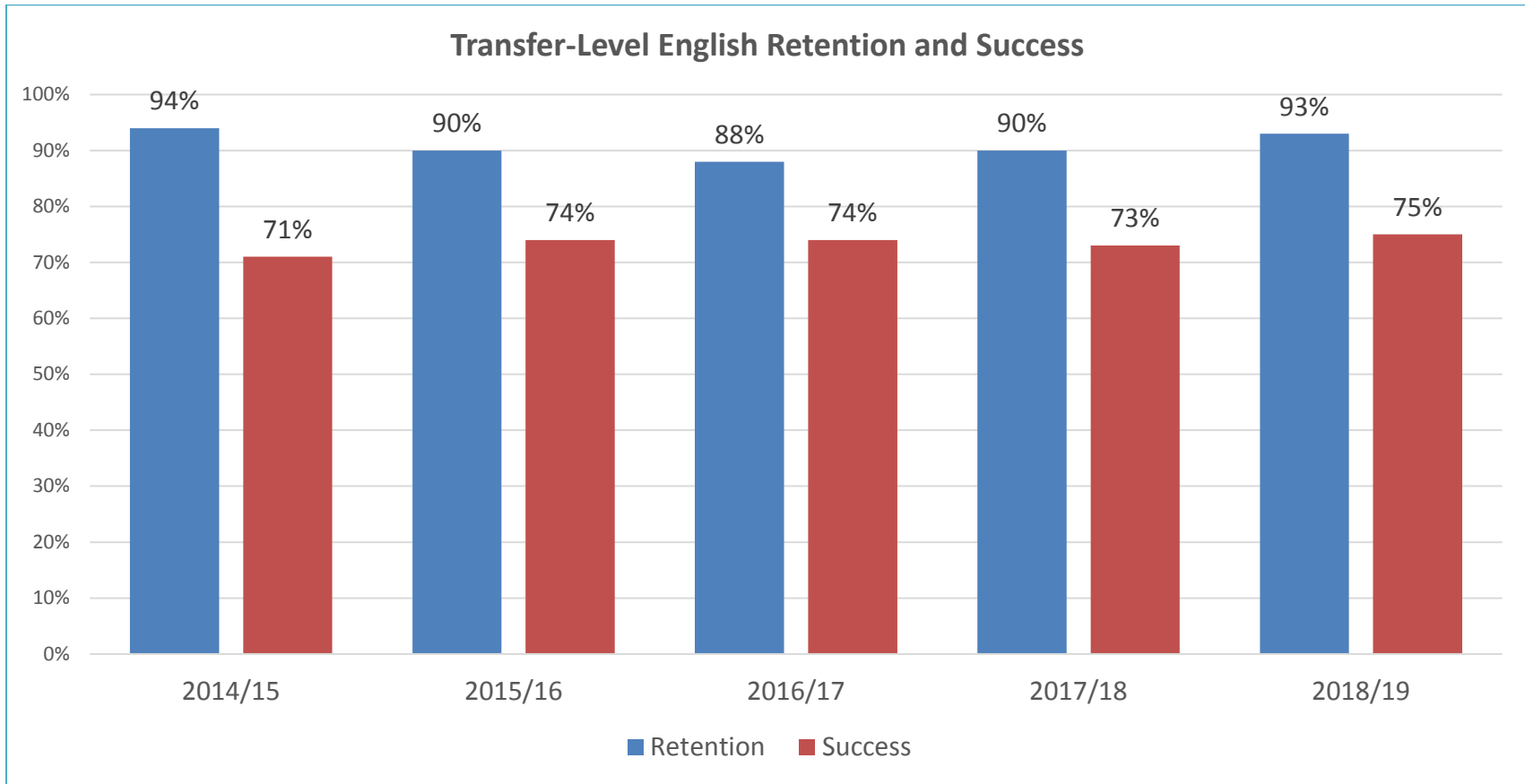
City College first-time to college high school graduates completed (91%) and succeeded (74%) in their basic skills English courses in their first term at rates similar to the five-year average of 91% and 75%, respectively. See **Table 11** in the Appendix for more detail.

Basic Skills English Retention and Success
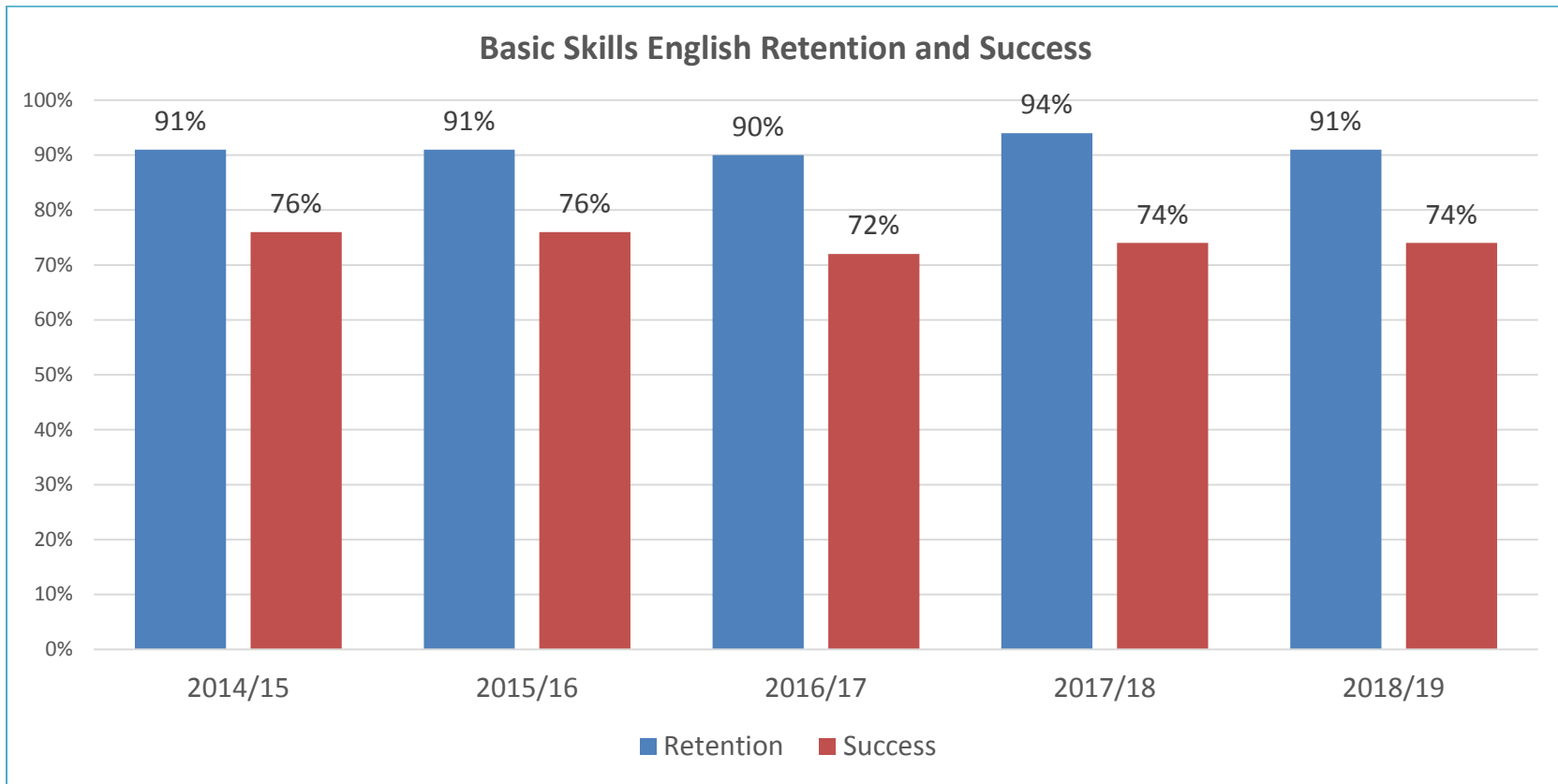
Math Retention and Success Rates

2018/19 City College first-time to college high school graduates succeeded (51%) in their transfer-level Math courses at the lowest rate in the past five years. Completion rate (87%) was above the five-year average of 85%. See **Table 12** in the Appendix for more detail.
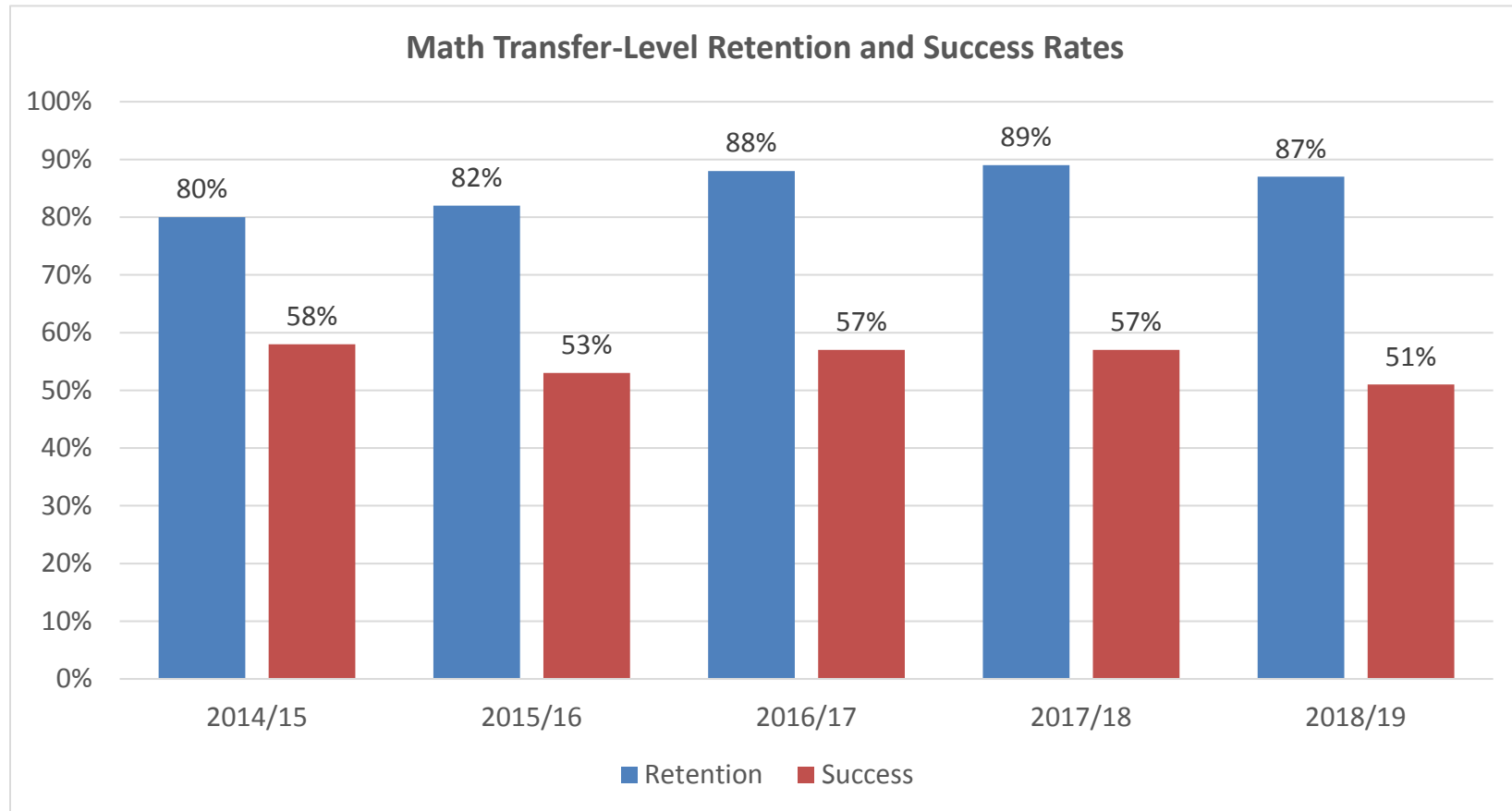
Math Transfer-Level Retention and Success Rates

Year	Retention	Success
2014/15	80%	58%
2015/16	82%	53%
2016/17	88%	57%
2017/18	89%	57%
2018/19	87%	51%

Legend: ■ Retention ■ Success

Math Associate Level Retention and Success Rates

2018/19 City College first-time to college high school graduates completed (80%) and succeeded (38%) their associate level Math courses at the lowest rates of the past five years. See **Table 12** in the Appendix for more detail.
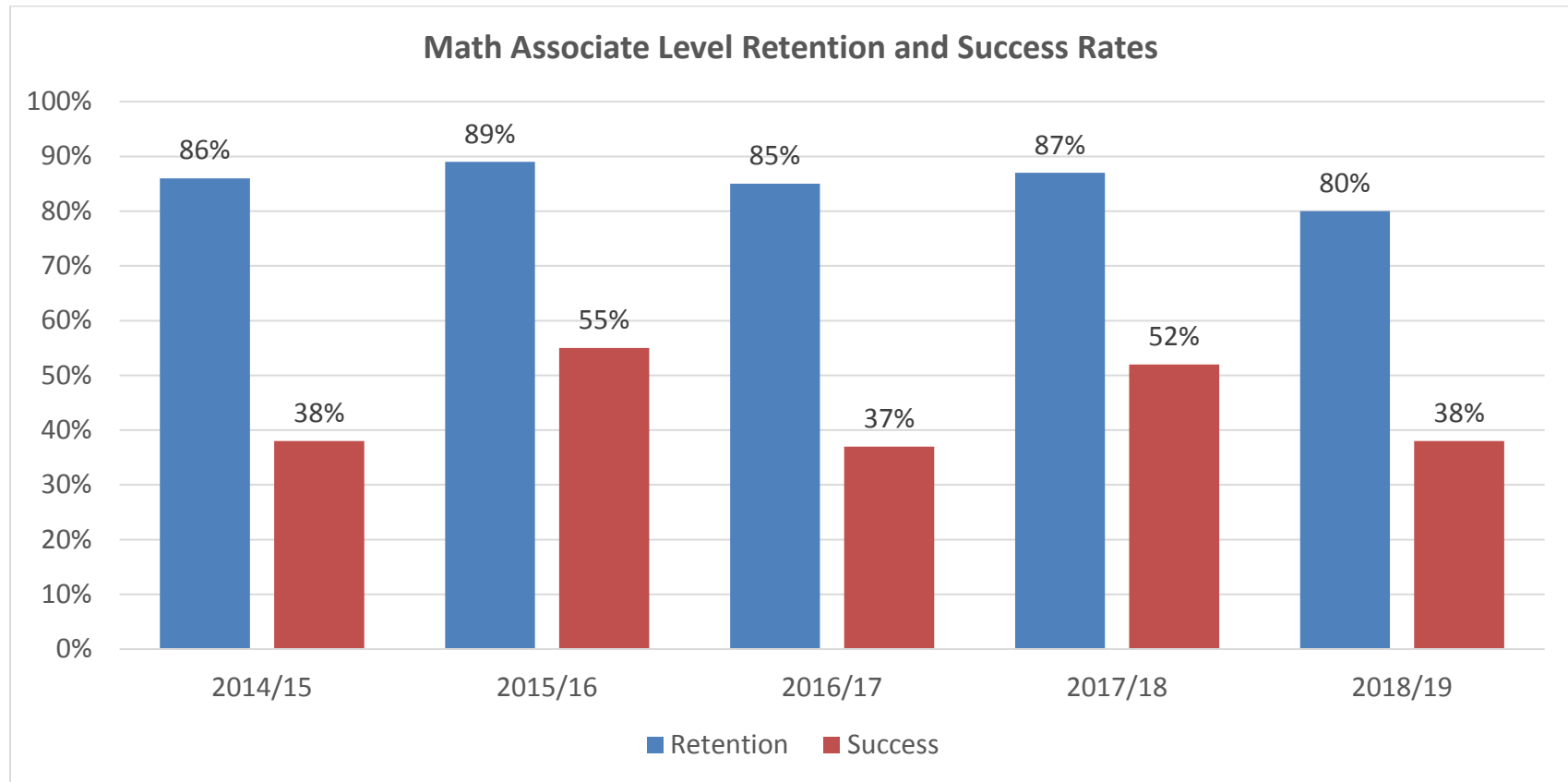
Math Associate Level Retention and Success Rates

Math Basic Skills Level Retention and Success Rates

2018/19 City College first-time to college high school graduates completed their basic skills Math courses at the highest rate of the past five years, and succeeded in them at the lowest rate of the past five years. See **Table 12** in the Appendix for more detail.

Math Basic Skills Level Retention and Success Rates

Year	Retention	Success
2014/15	81%	55%
2015/16	88%	57%
2016/17	87%	58%
2017/18	89%	54%
2018/19	91%	50%
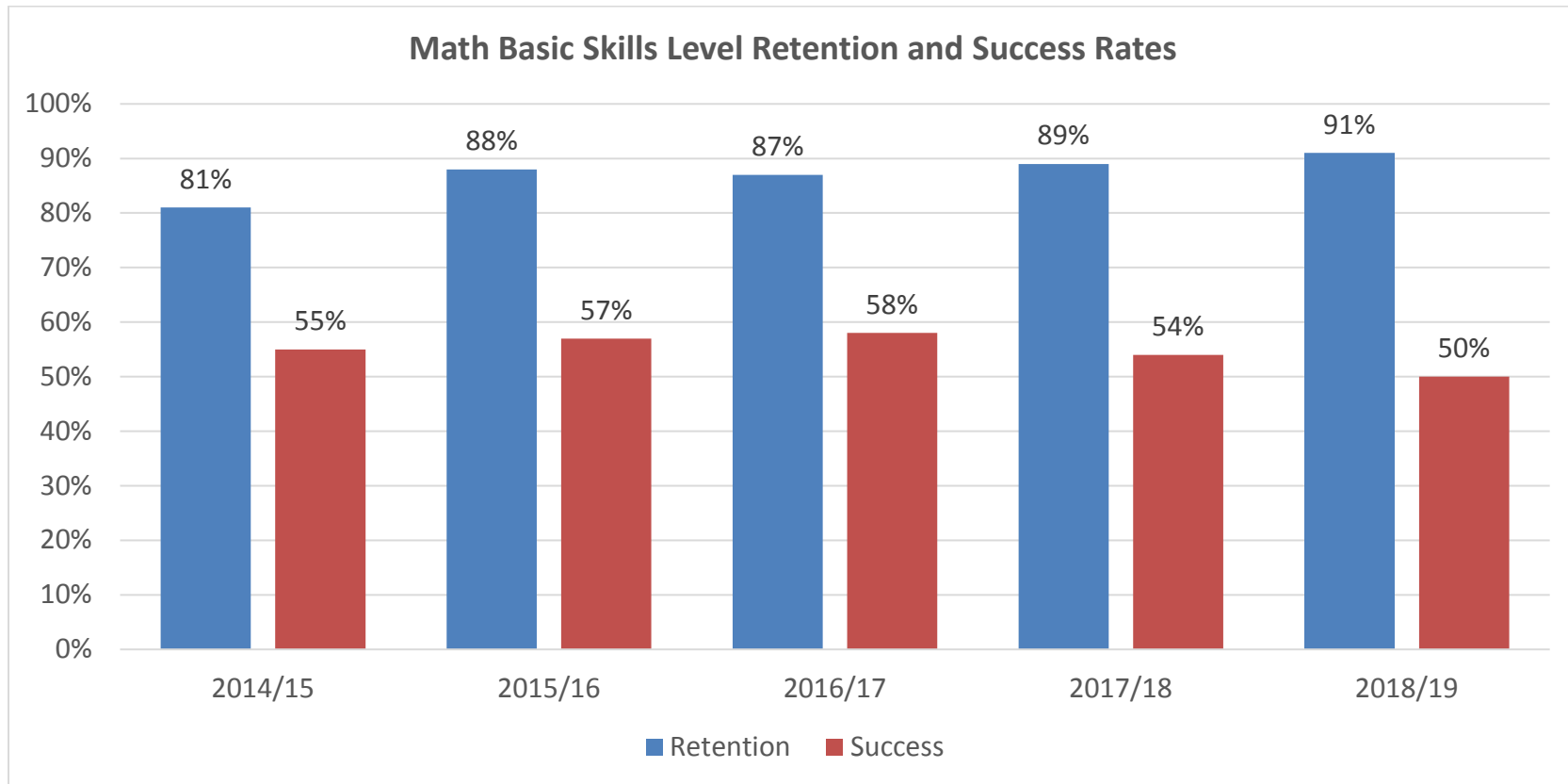
Completion of transfer-level Math and English in first year

As mentioned in preface, AB705 has been put into law and intends to increase completion of transfer-level Math and transfer-level English in the first year. The following table displays the rate of completion of both transfer-level English and transfer-level Math in the first year for first-time to college high school graduates who graduated within the City College Service Area and then attended an SDCCD college. See **Table 13** in the Appendix.

Passed Transfer-level English and Transfer-level Math in first year	2014/15		2015/16		2016/17		2017/18		2018/19	
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
Did not pass	221	77%	294	77%	267	77%	254	85%	262	86%
Passed	65	23%	87	23%	78	23%	45	15%	41	14%
Total	286	100%	381	100%	345	100%	299	100%	303	100%

Appendices

Table 1. Headcount and Participation rates of high school graduates who enroll at an SDCCD credit college within one year of graduation (City/ECC)

		13/14 Grads	14/15 Entrants		14/15 Grads	15/16 Entrants		15/16 Grads	16/17 Entrants		16/17 Grads	17/18 Entrants		17/18 Grads	17/18 Entrants		18/19 Entrants		13/14-17/18 Grads	14/15-18/19 Entrants
		N	N	%	N	N	%	N	N	%	N	N	%	N	N	%	N	%	% Change	Avg%
City Feeder	Crawford Ed Complex	232	66	28%	195	55	28%	174	60	34%	208	58	28%	220	48	22%			-5%	-27%	28%
	Garfield	127	37	29%	107	24	22%	138	46	33%	117	26	22%	70	25	36%			-45%	-32%	29%
	Gompers Prep	89	33	37%	97	21	22%	122	31	25%	112	23	21%	139	32	23%			56%	-3%	26%
	Health Sciences	135	27	20%	149	29	19%	151	9	6%	160	23	14%	153	15	10%			13%	-44%	14%
	Hoover	344	90	26%	343	111	32%	318	101	32%	360	115	32%	410	75	18%			19%	-17%	28%
	King-Chavez Comm High	95	14	15%	139	41	29%	110	29	26%	115	15	13%	120	25	21%			26%	79%	21%
	Lincoln	298	110	37%	285	83	29%	222	65	29%	228	64	28%	268	71	26%			-10%	-35%	30%
	Morse	377	52	14%	340	41	12%	387	51	13%	318	50	16%	339	39	12%			-10%	-25%	13%
	San Diego Ed Complex	393	123	31%	462	123	27%	422	122	29%	410	136	33%	423	113	27%			8%	-8%	29%
	San Diego SCPA	144	9	6%	186	14	8%	197	12	6%	145	21	14%	171	17	10%			19%	89%	9%
	City Feeder Total	**2,234**	**561**	**25%**	**2,303**	**542**	**24%**	**2,241**	**526**	**23%**	**2,173**	**531**	**24%**	**2,313**	**460**	**20%**			**4%**	**-18%**	**23%**
Mesa Feeder	Charter School of SD	441	48	11%	464	66	14%	587	62	11%	495	70	14%	246	38	15%			-44%	-21%	13%
	Clairemont	256	22	9%	210	21	10%	221	17	8%	203	19	9%	205	17	8%			-20%	-23%	9%
	High Tech Ed Complex	312	22	7%	329	20	6%	311	18	6%	341	24	7%	325	16	5%			4%	-27%	6%
	Kearny Ed Complex	322	24	7%	309	17	6%	327	23	7%	264	21	8%	323	19	6%			0%	-21%	7%
	La Jolla	338	12	4%	348	17	5%	352	16	5%	371	19	5%	350	14	4%			4%	17%	4%
	Madison	216	7	3%	214	14	7%	242	14	6%	246	11	4%	210	9	4%			-3%	29%	5%
	Mark Twain	152	7	5%	156	6	4%	145	11	8%	186	16	9%	187	12	6%			23%	71%	6%
	Mission Bay	274	39	14%	237	31	13%	208	25	12%	213	25	12%	199	30	15%			-27%	-23%	13%
	Patrick Henry	523	24	5%	504	19	4%	523	19	4%	487	24	5%	500	19	4%			-4%	-21%	4%
	Point Loma	401	42	10%	426	39	9%	398	39	10%	395	39	10%	410	37	9%			2%	-12%	10%
	Preuss School	88	9	10%	103	3	3%	132	10	8%	102	5	5%	94	7	7%			7%	-22%	7%
	Mesa Feeder Total	**3,323**	**256**	**8%**	**3,300**	**253**	**8%**	**3,446**	**254**	**7%**	**3,303**	**273**	**8%**	**3,049**	**218**	**7%**			**-8%**	**-15%**	**8%**
Miramar Feeder	Mira Mesa	609	19	3%	581	19	3%	555	26	5%	514	32	6%	500	29	6%			-18%	53%	5%
	Scripps Ranch	509	18	4%	517	11	2%	513	19	4%	485	18	4%	505	15	3%			-1%	-17%	3%
	Serra	408	29	7%	379	46	12%	372	39	10%	296	31	10%	359	36	10%			-12%	24%	10%
	University City	409	30	7%	417	17	4%	397	30	8%	345	34	10%	432	25	6%			6%	-17%	7%
	Miramar Feeder Total	**1,935**	**96**	**5%**	**1,894**	**93**	**5%**	**1,837**	**114**	**6%**	**1,640**	**115**	**7%**	**1,796**	**105**	**6%**			**-7%**	**9%**	**6%**
	District Feeder Total	7,492	913	12%	7,497	888	12%	7,524	894	12%	7,116	919	13%	7,158	783	11%			-4%	-14%	12%

Note. Non-Feeder High Schools are continued on the next page

Table 1. Headcount and Participation rates of high school graduates who enroll at an SDCCD credit college within one year of graduation (City/ECC)

		13/14 Grads	14/15 Entrants		14/15 Grads	15/16 Entrants		15/16 Grads	16/17 Entrants		16/17 Grads	17/18 Entrants		17/18 Grads	18/19 Entrants		13/14-17/18 Grads	14/15-18/19 Entrants
		N	N	%	N	N	%	N	N	%	N	N	%	N	N	%	% Change	Avg%
Non-Feeder High Schools	Bonita Vista	550	18	3%	580	16	3%	597	14	2%	551	5	1%	552	11	2%	0%	-39%	2%
	Castle Park	373	39	10%	359	31	9%	342	20	6%	318	21	7%	295	19	6%	-21%	-51%	8%
	Chula Vista	577	74	13%	612	94	15%	644	63	10%	586	57	10%	566	58	10%	-2%	-22%	12%
	Coronado	274	20	7%	288	19	7%	283	27	10%	285	30	11%	288	20	7%	5%	0%	8%
	Del Norte	380	4	1%	435	3	1%	504	13	3%	483	9	2%	484	6	1%	27%	50%	1%
	Eastlake	710	14	2%	721	11	2%	731	21	3%	708	11	2%	788	6	1%	11%	-57%	2%
	Grossmont	428	3	1%	508	6	1%	448	7	2%	464	6	1%	467	12	3%	9%	300%	1%
	Helix	477	17	4%	469	20	4%	467	9	2%	536	11	2%	518	11	2%	9%	-35%	3%
	Hilltop	526	47	9%	502	26	5%	481	31	6%	463	28	6%	441	27	6%	-16%	-43%	7%
	Mar Vista	358	50	14%	341	36	11%	377	43	11%	355	62	17%	362	32	9%	1%	-36%	12%
	Montgomery	347	32	9%	404	33	8%	360	31	9%	366	29	8%	371	34	9%	7%	6%	9%
	Mt. Carmel	488	7	1%	483	2	0%	475	14	3%	503	9	2%	450	10	2%	-8%	43%	2%
	Olympian	435	5	1%	416	8	2%	521	15	3%	689	11	2%	668	19	3%	54%	280%	2%
	Otay Ranch	637	10	2%	664	22	3%	656	21	3%	569	10	2%	630	8	1%	-1%	-20%	2%
	Poway	578	8	1%	496	7	1%	492	7	1%	538	5	1%	504	5	1%	-13%	-38%	1%
	Ramona	363	2	1%	362	2	1%	330	0	0%	351	8	2%	321	4	1%	-12%	100%	1%
	Rancho Bernardo	548	8	1%	520	8	2%	535	13	2%	542	7	1%	531	7	1%	-3%	-13%	2%
	San Ysidro	483	83	17%	538	67	12%	500	49	10%	498	56	11%	512	81	16%	6%	-2%	13%
	Southwest	382	60	16%	374	81	22%	326	58	18%	381	66	17%	396	53	13%	4%	-12%	17%
	Sweetwater	653	116	18%	628	83	13%	614	70	11%	646	87	13%	645	74	11%	-1%	-36%	13%
	Torrey Pines	591	4	1%	700	2	0%	676	6	1%	692	3	0%	579	3	1%	-2%	-25%	1%
	West Hills	389	3	1%	405	6	1%	423	2	0%	429	3	1%	368	5	1%	-5%	67%	1%
	West View	595	11	2%	558	7	1%	554	20	4%	567	16	3%	573	18	3%	-4%	64%	3%
	Non-Feeder Total	**11,142**	**635**	**6%**	**11,363**	**590**	**5%**	**11,336**	**554**	**5%**	**11,520**	**550**	**5%**	**11,309**	**523**	**5%**	**1%**	**-18%**	**5%**
Other High Schools	Foreign School	---	22	---	---	27	---	---	44	---	---	22	---	---	30	---	---	36%	---
	Other	---	245	---	---	238	---	---	241	---	---	220	---	---	199	---	---	-19%	---
	Out of State	---	52	---	---	52	---	---	55	---	---	46	---	---	43	---	---	-17%	---
	San Diego County	---	48	---	---	60	---	---	48	---	---	48	---	---	25	---	---	-48%	---
	Total	---	367	---	---	377	---	---	388	---	---	336	---	---	297	---	---	-19%	---
	Entrants Total	**---**	**1,915**	**---**	**---**	**1,855**	**---**	**---**	**1,836**	**---**	**---**	**1,805**	**---**	**---**	**1,603**	**---**	**---**	**-16%**	**---**

Source: High School Data - Education Data Partnership (Ed-Data) - SDCCD Information System

Note 1. Students are unduplicated within each year.
Note 2. SDSU, UCSD, tutoring, and cancelled classes are excluded from student enrollments. Students with no/unreported high school are excluded.
Note 3. Schools with no SDCCD Entrants are excluded (ALBA, Arroyo Paseo, Audeo, Coleman Tech, e3 Civic, Iftin, iHigh, Laurel Prep, Learning Choice, Riley/New Dawn, San Diego Early/Middle College, The O'Farrell Charter, TRACE, and Whittier).
Note 4. Non feeder schools with an average fewer than 17 SDCCD entrants over the five years), private schools, and schools with no reported/incalidad SDCCD or CDE data are indated as "Other"
Note 5. "Other High Schools" have no data available on high school graduates; therefore, no participation rates are calculated.

Table 2. Percentage of City College concurrent high school seniors who re-enroll the subsequent year as college-only students

	13/14 Seniors (Concur)	14/15 Re-Enroll	14/15 Re-Enroll	14/15 Seniors (Concur)	15/16 Re-Enroll	15/16 Re-Enroll	15/16 Seniors (Concur)	16/17 Re-Enroll	16/17 Re-Enroll	16/17 Seniors (Concur)	17/18 Re-Enroll	17/18 Re-Enroll	17/18 Seniors (Concur)	18/19 Re-Enroll	18/19 Re-Enroll	Concurrent % Change 13/14-17/18	Re-Enroll % Change 14/15-18/19	14/15-18/19 Re-Enroll Avg %
	N	N	%	N	N	%	N	N	%	N	N	%	N	N	%	%	%	%
District Feeder Total	55	10	18%	92	17	18%	198	44	22%	219	57	26%	376	68	18%	584%	580%	21%
Non-Feeder Total	14	5	36%	12	7	58%	42	13	31%	46	12	26%	57	14	25%	307%	180%	30%
Other/Unreported	0	0	0%	0	0	0%	1	0	0%	3	2	67%	5	0	0%	---	---	---
Grand Total	69	15	22%	104	24	23%	241	57	24%	268	71	26%	438	82	19%	535%	447%	22%

Source: SDCCD Information System

Note 1. The concurrent student cohort comprises all concurrent seniors at a District feeder or non-feeder who were also enrolled at City College/ECC. No exclusions limit the concurrent student cohort to AP students. Re-enrollment counts exclude students who continue City College/ECC enrollment as concurrent students.

Note 2. Students are unduplicated within each year. SDSU, UCSD, tutoring, and cancelled classes are excluded.

Note 3. Students with an unreported high school are indicated as "Other/Unreported".

Table 3. High school GPA of first-time to college high school graduates who enroll at City College within four years of graduation

GPA Range	2014/15	2015/16	2016/17	2017/18	2018/19	5-Yr Avg/Total	5-Yr % Change
0.0-1.5	0%	0%	0%	0%	1%	0%	100%
1.6-1.9	1%	1%	2%	1%	1%	2%	-30%
2.0-2.5	24%	27%	23%	22%	20%	24%	-37%
2.6-3.0	37%	34%	36%	35%	33%	35%	-32%
3.1-3.5	26%	25%	27%	28%	29%	27%	-17%
Over 3.5	11%	11%	13%	13%	15%	12%	4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**-25%**
Reported GPA	**1,764**	**1,708**	**1,591**	**1,540**	**1,323**	**7,926**	**-25%**
Total of All Students	**2,011**	**1,913**	**1,827**	**1,721**	**1,468**	**8,940**	**-27%**

Source: SDCCD Information System
Note 1. High school GPA is self-reported on students' college applications. On average, across five years, 11% of students did not report their GPA.
Note 2. In cases where there are few students, the percentage distribution may be 0%; however, a percentage is still calculated.
Note 3. Students who enrolled within four years of high school completion are first-time to college high school graduates.

Table 4. Reading Placement

Testing	Reading	2016/17		2017/18		2018/19		Total N	Avg %	% Change
		N	%	N	%	N	%			
Test/No-Test	**Total Tested**	**1,518**	**80%**	**1,387**	**78%**	**1,185**	**77%**	**4,090**	**78%**	**-22%**
	Not Tested	380	20%	398	22%	363	23%	1,141	22%	-4%
	Total Students	1,898	100%	1,785	100%	1,548	100%	5,231	100%	-18%
Distribution of Students who Took a Test	Transfer/Associate Level	806	53%	650	47%	552	47%	2,008	49%	-32%
	Basic Skills	525	35%	555	40%	471	40%	1,551	38%	-10%
	Need English Advising	143	9%	136	10%	118	10%	397	10%	-17%
	Take ELAC (ESOL/ESL) Test	44	3%	46	3%	44	4%	134	3%	0%
	Total Tested	**1,518**	**100%**	**1,387**	**100%**	**1,185**	**100%**	**4,090**	**100%**	**-22%**

Table 5. Writing Placement

Testing	Writing	2016/17		2017/18		2018/19		Total N	Avg %	% Change
		N	%	N	%	N	%			
Test/No-Test	**Total Tested**	**1,518**	**80%**	**1,387**	**78%**	**1,185**	**77%**	**4,090**	**78%**	**-22%**
	Not Tested	380	20%	398	22%	363	23%	1,141	22%	-4%
	Total Students	1,898	100%	1,785	100%	1,548	100%	5,231	100%	-18%
Distribution of Students who Took a Test	Transfer/Associate Level	419	28%	340	25%	228	19%	987	24%	-46%
	Basic Skills	912	60%	865	62%	795	67%	2,572	63%	-13%
	Need English Advising	143	9%	136	10%	118	10%	397	10%	-17%
	Take ELAC (ESOL/ESL) Test	44	3%	46	3%	44	4%	134	3%	0%
	Total Tested	**1,518**	**100%**	**1,387**	**100%**	**1,185**	**100%**	**4,090**	**100%**	**-22%**

Table 6. ELAC (ESOL/ESL) Placement

Testing	ELAC (ESOL/ESL)	2016/17		2017/18		2018/19		Total N	Avg %	% Change
		N	%	N	%	N	%			
Test/No-Test	**Total Tested**	**99**	**5%**	**80**	**4%**	**82**	**5%**	**261**	**5%**	**-17%**
	Not Tested	1,799	95%	1,705	96%	1,466	95%	4,970	95%	-19%
	Total Students	1,898	100%	1,785	100%	1,548	100%	5,231	100%	-18%
Distribution of Students who Took a Test	**Level 40**	13	13%	6	8%	6	7%	25	10%	-54%
	Level 30	12	12%	10	13%	11	13%	33	13%	-8%
	Level 20	7	7%	2	3%	10	12%	19	7%	43%
	Level 19	67	68%	62	78%	55	67%	184	70%	-18%
	Total Tested	**99**	**100%**	**80**	**100%**	**82**	**100%**	**261**	**100%**	**-17%**

Table 7. Math Placement

Testing	Math	2016/17		2017/18		2018/19		Total N	Avg %	% Change
		N	%	N	%	N	%			
Test/No-Test	**Total Tested**	**1,533**	**81%**	**1,406**	**79%**	**1,213**	**78%**	**4,152**	**79%**	**-21%**
	Not Tested	365	19%	379	21%	335	22%	1,079	21%	-8%
	Total Students	1,898	100%	1,785	100%	1,548	100%	5,231	100%	-18%
Distribution of Students who Took a Test	**Transfer-Level**	329	21%	230	16%	172	14%	731	18%	-48%
	Associate Level	168	11%	140	10%	120	10%	428	10%	-29%
	Basic Skills	1,036	68%	1,036	74%	921	76%	2,993	72%	-11%
	Total Tested	**1,533**	**100%**	**1,406**	**100%**	**1,213**	**100%**	**4,152**	**100%**	**-21%**

Table 8.1. Headcount

Headcount	2014/15	2015/16	2016/17	2017/18	2018/19	Total	5-Yr % Change
Total Student Headcount	1,999	1,903	1,820	1,712	1,460	8,894	-27%

Table 8.2. Gender

Gender	2014/15	2015/16	2016/17	2017/18	2018/19	5-Yr. Avg.	5-Yr % Change
Female	51%	55%	51%	52%	53%	52%	-24%
Male	49%	45%	49%	48%	47%	48%	-30%

Table 8.3. Ethnicity

Ethnicity	2014/15	2015/16	2016/17	2017/18	2018/19	5-Yr. Avg.	5-Yr % Change
African American	9%	10%	8%	9%	9%	9%	-28%
American Indian	0%	0%	0%	0%	0%	0%	-20%
Asian/Pacific Islander	4%	4%	4%	4%	4%	4%	-22%
Filipino	2%	2%	3%	3%	3%	3%	-16%
Latinx	68%	69%	68%	68%	70%	68%	-25%
White	12%	11%	12%	11%	10%	11%	-37%
Other	4%	4%	4%	3%	4%	4%	-30%
Unreported	1%	1%	1%	1%	1%	1%	-47%

Table 8.4. First Generation

First Generation	2014/15	2015/16	2016/17	2017/18	2018/19	5-Yr. Avg.	5-Yr % Change
First Generation	40%	40%	39%	40%	40%	40%	-28%
Not First Generation	60%	60%	61%	60%	60%	60%	-26%

Table 8.5. Educational Goal

Educational Goal	2014/15	2015/16	2016/17	2017/18	2018/19	5-Yr. Avg.	5-Yr % Change
4 Yr College Student	8%	9%	8%	9%	7%	8%	-33%
AA/AS w/out Transfer	7%	6%	6%	5%	6%	6%	-36%
BA/BS after Completing AA/AS	49%	50%	50%	50%	50%	50%	-25%
BA/BS w/out Completing AA/AS	6%	7%	7%	7%	7%	7%	-21%
Basic Skills Improvement	1%	0%	0%	1%	1%	1%	-31%
Certificate/License Maintenance	1%	2%	2%	2%	2%	2%	29%
Current Job/Career Advancement	1%	1%	1%	1%	1%	1%	-9%
Educational Development	1%	0%	1%	1%	1%	1%	-17%
HS Diploma/GED Certificate	0%	0%	1%	0%	0%	0%	-20%
New Career Preparation	9%	8%	8%	7%	8%	8%	-31%
Voc Cert/Degree w/out Transfer	1%	1%	1%	2%	2%	1%	33%
Undecided	17%	16%	16%	16%	15%	16%	-34%

Table 8.6 Disability Support Programs and Services (DSPS)

DSPS	2014/15	2015/16	2016/17	2017/18	2018/19	5-Yr Avg	5-Yr % Change
NOT	97%	96%	96%	96%	96%	96%	-28%
DSPS	3%	4%	4%	4%	4%	4%	-6%

Table 9. Units attempted vs. Units earned

Academic Year	Units Attempted	Units Earned					
		0 Units	0.1 - 2.9	3.0 - 5.9	6.0 - 8.9	9.0 - 11.9	12.0 +
2014/15	0.1 - 2.9 Units	29%	**71%**				
	3.0 - 5.9 Units	37%	3%	**60%**			
	6.0 - 8.9 Units	21%	3%	20%	**56%**		
	9.0 - 11.9 Units	14%	1%	13%	24%	**49%**	
	12.0 + Units	6%	1%	7%	14%	19%	**53%**
2015/16	0.1 - 2.9 Units	22%	**78%**				
	3.0 - 5.9 Units	28%	2%	**70%**			
	6.0 - 8.9 Units	20%	3%	23%	**54%**		
	9.0 - 11.9 Units	14%	0%	13%	20%	**52%**	
	12.0 + Units	8%	1%	8%	11%	16%	**56%**
2016/17	0.1 - 2.9 Units	31%	**69%**				
	3.0 - 5.9 Units	31%	0%	**69%**			
	6.0 - 8.9 Units	22%	1%	19%	**57%**		
	9.0 - 11.9 Units	17%	1%	14%	17%	**51%**	
	12.0 + Units	6%	1%	8%	11%	17%	**57%**
2017/18	0.1 - 2.9 Units	9%	**91%**				
	3.0 - 5.9 Units	30%	1%	**69%**			
	6.0 - 8.9 Units	21%	2%	21%	**56%**		
	9.0 - 11.9 Units	16%	2%	16%	18%	**48%**	
	12.0 + Units	6%	1%	7%	12%	15%	**58%**
2018/19	0.1 - 2.9 Units	16%	**84%**				
	3.0 - 5.9 Units	40%	0%	**60%**			
	6.0 - 8.9 Units	22%	0%	21%	**57%**		
	9.0 - 11.9 Units	18%	1%	13%	17%	**52%**	
	12.0 + Units	6%	1%	7%	12%	17%	**57%**
Five-Year Average		---	80%	66%	56%	50%	56%
% Change 2014/15 to 2018/19		---	-22%	-24%	-36%	-44%	-5%

Table 10. Term and annual persistence

Start Year	Fall Cohorts Count	Term Persistence Count	Term Persistence %	Annual Persistence Count	Annual Persistence %
2013	1,217	894	73%	676	56%
2014	1,341	975	73%	718	54%
2015	1,358	1,052	77%	757	56%
2016	1,296	912	70%	701	54%
2017	1,187	840	71%	614	52%
Total/5-Year Avg	6,399	4,673	73%	3,466	54%

Table 11. English course retention and success rates of first-time to college graduates in their first term compared to all others

			Enrollments Count	Retention Count	Retention Rate	Success Counts	Success Rate
First-time students who enrolled in English in their first term	Basic Skills	2014/15	658	602	91%	499	76%
		2015/16	731	663	91%	558	76%
		2016/17	675	610	90%	486	72%
		2017/18	581	544	94%	432	74%
		2018/19	490	448	91%	361	74%
		Total	**3,135**	**2,867**	**91%**	**2,336**	**75%**
	Transfer-Level	2014/15	122	115	94%	87	71%
		2015/16	188	170	90%	140	74%
		2016/17	208	183	88%	153	74%
		2017/18	245	221	90%	180	73%
		2018/19	369	342	93%	276	75%
		Total	**1,132**	**1,031**	**91%**	**836**	**74%**
Total			**4,267**	**3,898**	**91%**	**3,172**	**74%**

(Cont. next page)

Table 11. (Cont.)

			Enrollments	Retention	Retention	Success	Success
			Count	Count	Rate	Counts	Rate
All Other students	Basic Skills	2014/15	346	303	88%	249	72%
		2015/16	446	373	84%	301	67%
		2016/17	363	298	82%	237	65%
		2017/18	247	199	81%	151	61%
		2018/19	165	133	81%	89	54%
		Total	**1,567**	**1,306**	**83%**	**1,027**	**66%**
	Transfer-Level	2014/15	235	203	86%	153	65%
		2015/16	720	648	90%	525	73%
		2016/17	871	770	88%	621	71%
		2017/18	1,044	902	86%	716	69%
		2018/19	1,011	877	87%	697	69%
		Total	**3,881**	**3,400**	**88%**	**2,712**	**70%**
Total			**5,448**	**4,706**	**86%**	**3,739**	**69%**

Source: SDCCD Information System
Note 1. Tutoring and cancelled classes are excluded. Only students enrolled as of official census are counted in the enrollments.
Note 2. First-time students who enrolled within four years of high school completion are first-time to college high school graduates.
Note 3. 'All other students' encompasses all students who were not first-time to college high school graduates.

Table 12. Math course retention and success rates of first-time to college graduates in their first term compared to all others

			Enrollments Count	Retention Count	Retention Rate	Success Counts	Success Rate
First-term students who enrolled in Math in their first term	Associate	2014/15	78	67	86%	30	38%
		2015/16	97	86	89%	53	55%
		2016/17	103	88	85%	38	37%
		2017/18	93	81	87%	48	52%
		2018/19	108	86	80%	41	38%
		Total	**479**	**408**	**85%**	**210**	**44%**
	Basic Skills	2014/15	469	382	81%	258	55%
		2015/16	539	475	88%	306	57%
		2016/17	482	420	87%	278	58%
		2017/18	536	479	89%	289	54%
		2018/19	474	431	91%	238	50%
		Total	**2,500**	**2,187**	**87%**	**1,369**	**55%**
	Transfer-Level	2014/15	116	93	80%	67	58%
		2015/16	126	103	82%	67	53%
		2016/17	120	105	88%	68	57%
		2017/18	116	103	89%	66	57%
		2018/19	104	90	87%	53	51%
		Total	**582**	**494**	**85%**	**321**	**55%**
	Total		**3,561**	**3,089**	**87%**	**1,900**	**53%**

Table 12. (Cont.)

			Enrollments Count	Retention Count	Retention Rate	Success Counts	Success Rate
All others	Associate	2014/15	120	104	87%	63	53%
		2015/16	257	221	86%	118	46%
		2016/17	322	251	78%	94	29%
		2017/18	357	281	79%	133	37%
		2018/19	285	232	81%	125	44%
		Total	**1,341**	**1,089**	**81%**	**533**	**40%**
	Basic Skills	2014/15	233	184	79%	120	52%
		2015/16	484	389	80%	215	44%
		2016/17	448	377	84%	208	46%
		2017/18	549	443	81%	216	39%
		2018/19	464	384	83%	172	37%
		Total	**2,178**	**1,777**	**82%**	**931**	**43%**
	Transfer-Level	2014/15	93	72	77%	46	49%
		2015/16	351	282	80%	169	48%
		2016/17	502	403	80%	248	49%
		2017/18	527	418	79%	222	42%
		2018/19	650	516	79%	274	42%
		Total	**2,123**	**1,691**	**80%**	**959**	**45%**
	Total		**5,642**	**4,557**	**81%**	**2,423**	**43%**

Source: SDCCD Information System
Note 1. Tutoring and cancelled classes are excluded. Only students enrolled as of official census are counted in the enrollments.
Note 2. Students who enrolled within four years of high school completion are first-time to college high school graduates.
Note 3. 'All other students' encompasses all students who were not first-time to college high school graduates.

Table 13. Completion of transfer-level Math and English in first year by students who attended high school in the City service area

Passed Transfer-level English and Transfer-level Math in first year	2014/15		2015/16		2016/17		2017/18		2018/19	
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
Did not pass	221	77%	294	77%	267	77%	254	85%	262	86%
Passed	65	23%	87	23%	78	23%	45	15%	41	14%
Total	**286**	**100%**	**381**	**100%**	**345**	**100%**	**299**	**100%**	**303**	**100%**

Figure 1. English and Math sequence for City College

SAN DIEGO CITY COLLEGE
ENGLISH (ENGL) OPTIONS

If you are a **non-native speaker of English**, you may benefit
from taking an English Language Acquisition (ELAC) class prior to English.
Please contact the ELAC Chair for more information.

ENGL 47A Pre-transfer level (4 units)	**ENGL 101X or ENGL 105X** Transfer level *with* support (5 units)	**ENGL 101 or ENGL 105** Transfer level (3 units)

4 units of preparation before ENGL 101 or 105

English 47A is an integrated reading and writing course at the pre-transfer level. **This path is an option for students who prefer a semester of preparation prior to taking English 101 or 105.**

2 units of support while taking ENGL 101 or 105

English 101X or **105X** are 3-unit transfer level English courses with a required 2-unit support course for a total of 5 units. **This path is recommended for students who would benefit from taking transfer level English *with* additional support.**

ENGL 101 or 105

English 101 or **105** are 3-unit transfer level English courses. **This path is an option for students who are prepared to go directly into transfer level English *without* additional support.**

MATH PATHWAYS — BY DISCIPLINE

Pathways may vary based upon intended major and transfer institution. For further guidance, please see a counselor.

ASSOCIATE DEGREE

M30/40	M30/40	M30/40	M30/40	
MATH 59 EXPLORATIONS IN FOUNDATIONS OF MATH (5)	**MATH 96** INT. ALGEBRA/GEOMETRY (5)	**MATH 96X** INT. ALGEBRA/GEOMETRY + SUPPORT (6)	**MATH 57A** BEGINNING ALGEBRA AND PRACTICAL DESCRIPTIVE STATISTICS (4)	**OTHER** (COMMUNICATION/ANALYTICAL THINKING COURSES)
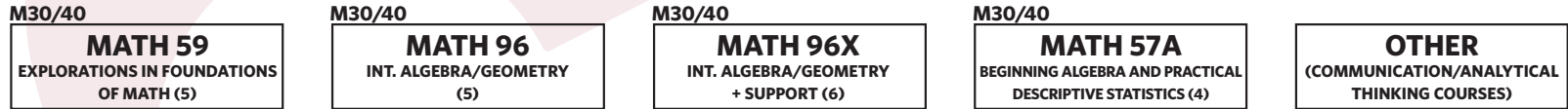
HUMANITIES/SOCIAL & BEHAVIORAL SCIENCES

M30/40 **MATH 96X** INT. ALGEBRA/GEOMETRY + SUPPORT (6) **OR**
M30/40 **MATH 96** INT. ALGEBRA/GEOMETRY (5)
M40/50 **MATH 119** INTRO TO STATISTICS (3) **OR**
M30/40 **MATH 119X** INTRO TO STATISTICS + SUPPORT (4)

M40/50 **MATH 118** MATH FOR LIBERAL ARTS (3)
M40/50 **MATH 116** COLLEGE ALGEBRA (3) **OR**
M30/40 **MATH 116X** COLLEGE ALGEBRA + SUPPORT (4)
M40/50 **OTHER DISCIPLINE SPECIFIC STATISTICS** PSYC 258, POLI 201, ETC.

STATWAY
M30/40 **MATH 57A** BEGINNING ALGEBRA AND PRACTICAL DESCRIPTIVE STATISTICS (4)
→ **MATH 115** GATEWAY TO EXPERIMENTAL STATISTICS (4)

MATH EXPLORATION
M30/40 **MATH 59** EXPLORATIONS IN FOUNDATIONS OF MATH (5)
→ **MATH 109** EXPLORATIONS IN MATHEMATICAL ANALYSIS (5)

BIOLOGY

M40/50 **MATH 116** COLLEGE ALGEBRA (3) **OR**
M30/40 **MATH 116X** COLLEGE ALGEBRA + SUPPORT (4)
OR
M30/40 **MATH 96X** INT. ALGEBRA/GEOMETRY + SUPPORT (6) **OR**
M30/40 **MATH 96** INT. ALGEBRA/GEOMETRY (5)

→ **MATH 121** APPLIED CALCULUS I (3)
→ **MATH 122** APPLIED CALCULUS II (3)

M50 → **MATH 104** TRIGONOMETRY (3)
→ **MATH 141** PRECALCULUS (5)
→ **MATH 150** CALCULUS I (5)

NOTES

- Strongly recommended that undecided students see a counselor prior to selecting a math course.
- **M30**: Require students to enroll in Math course with an "X" or "E", or MATH 96.
- **M40**: Advise students to enroll in Math course with an "X" (concurrent support lab).
- **M50**: Advise students to enroll in transfer level Math.
- Course levels of **100** and above correspond to transfer level courses.
- **MATH 96X**: 5 lecture unit + 1 lab unit = 8 contact hours per week.
- **MATH 57A/115/116X/119X**: 3 lecture unit + 1 lab unit = 6 contact hours per week.
- **MATH 59/109**: 4 lecture unit + 1 lab unit = 7 contact hours per week.
- **MATH 15's**: 1 lab unit = 3 contact hours per week.

MATH PATHWAYS—BY DISCIPLINE

Pathways may vary based upon intended major and transfer institution. For further guidance, please see a counselor.

BUSINESS

M30/40
MATH 96
INT. ALGEBRA/GEOMETRY
(5)

OR

M30/40
MATH 96X
INT. ALGEBRA/GEOMETRY
+ SUPPORT (6)

M50
MATH 116
COLLEGE ALGEBRA
(3)

OR

M30/40
MATH 116X
COLLEGE ALGEBRA +
SUPPORT (4)

M30/40
MATH 119X
INTRO. STATISTICS +
SUPPORT (4)

OR

M40/50
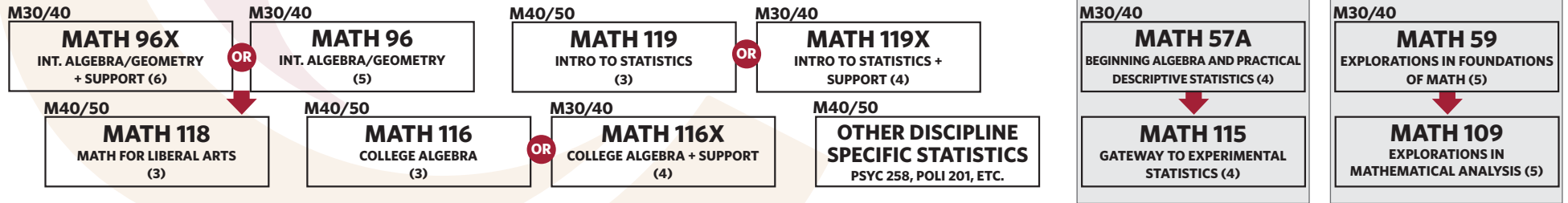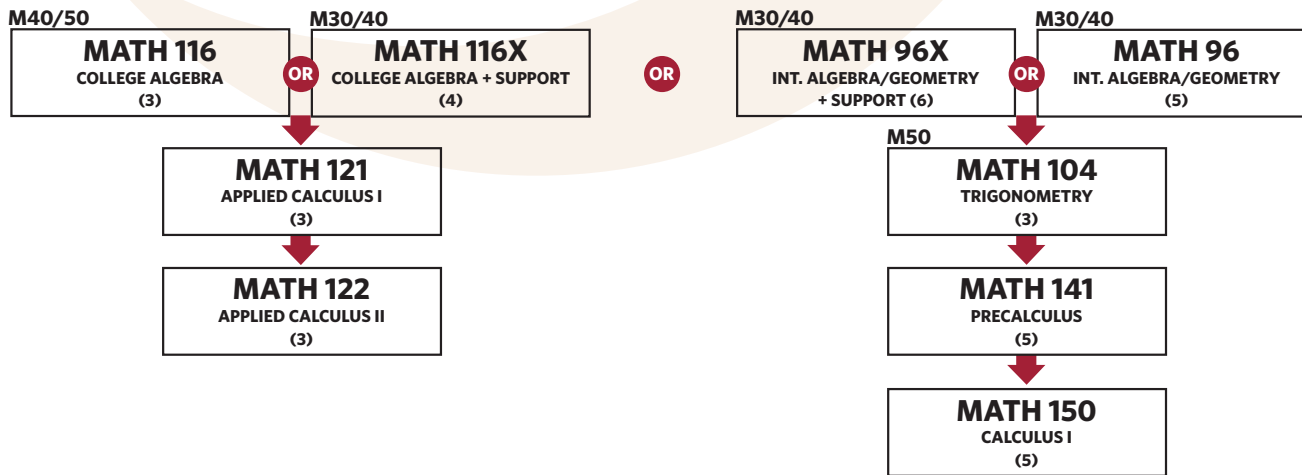**MATH 119**
INTRO. STATISTICS
(3)

MATH 121
APPLIED CALCULUS I
(3)

ELEMENTARY EDUCATION

M30/40
MATH 96
INT. ALGEBRA/GEOMETRY
(5)

OR

M30/40
MATH 96X
INT. ALGEBRA/GEOMETRY
+ SUPPORT (6)

M40/50
MATH 210A
CONCEPTS OF ELEM.
SCHOOL MATH I (3)

MATH 212*
CHILDREN'S MATHEMATICAL
THINKING (1)

MATH 210B
CONCEPTS OF ELEM.
SCHOOL MATH II (3)

*Corequisite: Completion or concurrent enrollment in 210A

SCIENCE TECHNOLOGY ENGINEERING MATH (STEM)

M30/40
MATH 96X
INT. ALGEBRA/GEOMETRY
+ SUPPORT (6)

OR

M30/40
MATH 96
INT. ALGEBRA/GEOMETRY
(5)

M50
MATH 104
TRIGONOMETRY
(3)

MATH 141
PRECALCULUS
(5)

MATH 150
CALCULUS I
(5)

MATH 151
CALCULUS II
(4)

MATH 245
DISCRETE MATH
(3)

MATH 252
CALCULUS III
(4)

&

MATH 254
LINEAR ALGEBRA
(3)

MATH 255
DIFFERENTIAL EQUATIONS
(3)

MATH PATHWAYS — COMPREHENSIVE CHART

BASIC SKILLS AND REFRESHER COURSES

MATH 15E*
TRIGONOMETRY REFRESHER
(1)

*Through challenge procedure

MATH 15A/B/C*/F*
ALGEBRA/GEOMETRY REFRESHER COURSES
(1 EACH)

*15C & 15F only: Through challenge procedure

M30
MATH 46
ELEM. ALGEBRA/GEOMETRY
(5)

M30
MATH 38
PREALGEBRA
(4)

DEGREE APPLICABLE

M30/40
MATH 57A
BEGINNING ALGEBRA AND PRACTICAL DESCRIPTIVE STATISTICS (4)

M30/40
MATH 96X
INT. ALGEBRA/GEOMETRY + SUPPORT (6)

OR

M30/40
MATH 96
INT. ALGEBRA/GEOMETRY
(5)

M30/40
MATH 59
EXPLORATIONS IN FOUNDATIONS OF MATH (5)

TRANSFER LEVEL

MATH 115
GATEWAY TO EXPERIMENTAL STATISTICS (4)

M50
MATH 104
TRIGONOMETRY
(3)

M30/40
MATH 119X
INTRO. STATISTICS + SUPPORT
(4)

M40/50
MATH 119
INTRO. STATISTICS
(3)

M40/50
MATH 118
MATH FOR LIBERAL ARTS
(3)

MATH 109
EXPLORATIONS IN MATHEMATICAL ANALYSIS (5)

MATH 141
PRECALCULUS
(5)

M40/50
MATH 107
INTRO. TO SCI. PROGRAMING (3)

M40/50
MATH 210A
CONCEPTS OF ELEM. SCHOOL MATH I (3)

M30/40
MATH 116X
COLLEGE ALGEBRA + SUPPORT
(4)

OR

M40/50
MATH 116
COLLEGE ALGEBRA
(3)

MATH 150
CALCULUS I
(5)

MATH 210B
CONCEPTS OF ELEM. SCHOOL MATH II (3)

MATH 212*
CHILDREN'S MATHEMATICAL THINKING (1)

MATH 121
APPLIED CALCULUS I
(3)

MATH 151
CALCULUS II
(4)

*Corequisite: Completion or concurrent enrollment in 210A

MATH 122
APPLIED CALCULUS II
(3)

MATH 245
DISCRETE MATH
(3)

MATH 252
CALCULUS III
(4)

&

MATH 254
LINEAR ALGEBRA
(3)

MATH 255
DIFFERENTIAL EQUATIONS (3)

M30/40
MATH 116X
COLLEGE ALGEBRA + SUPPORT
(4)

M50
MATH 104
TRIGONOMETRY
(3)

Transition from non-STEM track to STEM track.

MATH PATHWAYS—BY MILESTONE

Pathways may vary based upon intended major and transfer institution. For further guidance, please see a counselor.

M30

MATH 38 PREALGEBRA (4)	**MATH 96X** INT. ALGEBRA/GEOMETRY + SUPPORT (6)
MATH 46 ELEM. ALGEBRA/GEOMETRY (5)	**BUSE 101** BUSINESS MATHEMATICS (3)
MATH 57A BEGINNING ALGEBRA AND PRACTICAL DESCRIPTIVE STATISTICS (4)	**MATH 116X** COLLEGE ALGEBRA + SUPPORT (4)
MATH 59 EXPLORATIONS IN FOUNDATIONS OF MATH (5)	**MATH 119X** INTRO. STATISTICS + SUPPORT (4)
MATH 96 INT. ALGEBRA/GEOMETRY (5)	

M40
Milestone M40 students can also access M30 courses.

MATH 107
INTRO. TO SCI. PROG.
(3)

MATH 116
COLLEGE ALGEBRA
(3)

MATH 118
MATH FOR LIBERAL ARTS
(3)

MATH 119
INTRO. STATISTICS
(3)

POLI 201
ELEM. STATS. FOR POLI SCI
(3)

MATH 210A
CONCEPTS OF ELEM. SCHOOL
MATH I (3)

PSYC 258
BEH. SCIENCE STATS.
(3)

OR ANY M30 COURSE

M50
Milestone M50 students can also access M30 and M40 courses.

MATH 104
TRIGONOMETRY
(3)

OR ANY M30 COURSE

OR ANY M40 COURSE

All students have access to refresher/support courses, regardless of their milestone number.