2016-17 Assessment of Transitional Education

This report was created at the conclusion of the 2016-17 academic year and covers data collected from fall 2009 through spring 2017. Transitional education at Seminole State College (SSC) consists of mathematics, language arts, and student success components offered through three of four SSC academic divisions. SSC conducted a major curriculum redesign of its developmental education program in 2013 and in the process "rebranded" it *transitional education*. As the result of the redesign, the placement process was updated and improved through the use of multiple measures for course placement. The number of transitional courses and the time required for remediation were also significantly reduced in both mathematics and language arts by merging course content in the existing courses. Lastly, transitional language arts students were required to participate in a structured first-year experience. Assessment of transitional education before and after the redesign focusses on four performance rates: (1) transitional course completion, (2) completion of remediation as a whole in a given subject area, (3) completion of gateway college-level courses, and (4) graduation. These data are summarized in the first two sections of this report. Course embedded assessment, student feedback in transitional education courses, and student responses to the transitional education questions on the *Graduate Exit Survey* are covered in the last three sections of this report.

Transitional Mathematics Education

Curriculum Redesign

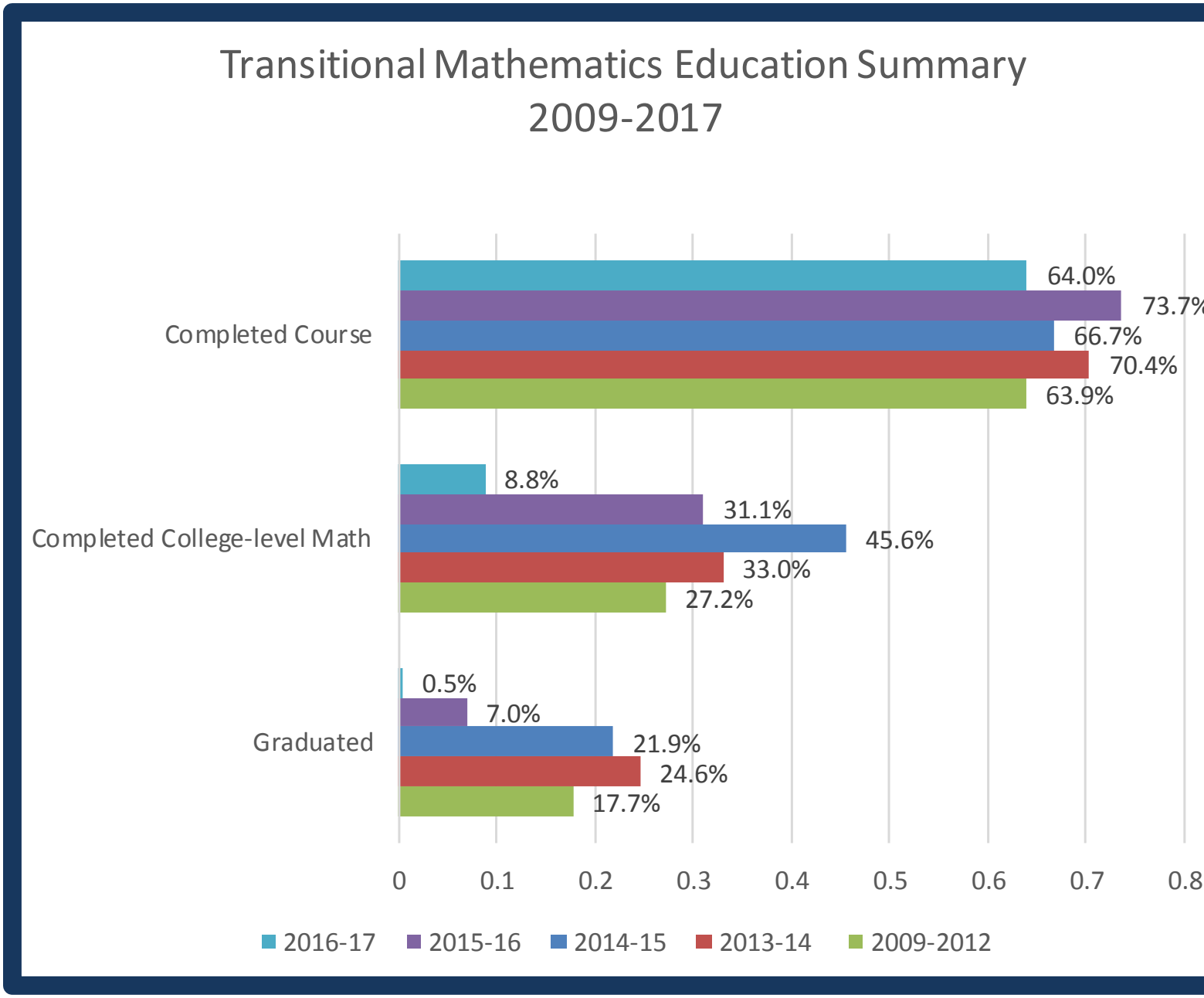
Prior to the curriculum redesign, developmental math students were placed into an appropriate level of a three-course sequence of developmental mathematics courses. For students entering at the lowest level in the pre-redesign model, the best case scenario (i.e. if they passed a math class each and every semester of attendance) would allow them to take a college-level math course in their fourth semester of attendance at the earliest. To alleviate what must have felt to students like an impossible labyrinth of obstacles to a college education, the three courses were merged into a sequence of overlapping courses in which most students take only one transitional course, or take one transitional course followed by a second transitional course in which they were co-enrolled in a college-level course (so-called *corequisite remediation*). With this curriculum redesign, most transitional mathematics students have the opportunity to take college-level math by their second semester of attendance. Transitional students who qualify are able to participate in corequisite remediation and take a college-level course in their first semester of attendance. After the curriculum redesign, only a small percentage of transitional mathematics students consisting of the most challenged students have to pass two transitional courses prior to being able to enroll in college-level math their third semester, which still represents an improvement over the pre-redesign model.

Pre-Redesign Baseline Cohort

To compare student performance before and after the curriculum redesign, all students entering the SSC mathematics developmental program for the first time between fall 2009 and spring 2012 were placed into a pre-redesign *baseline cohort*, regardless of their point of entry into the three-course developmental sequence in use at the time. The year 2012-13 was a transition year, so no data was collected for that year.

Post-Redesign Cohort Performance

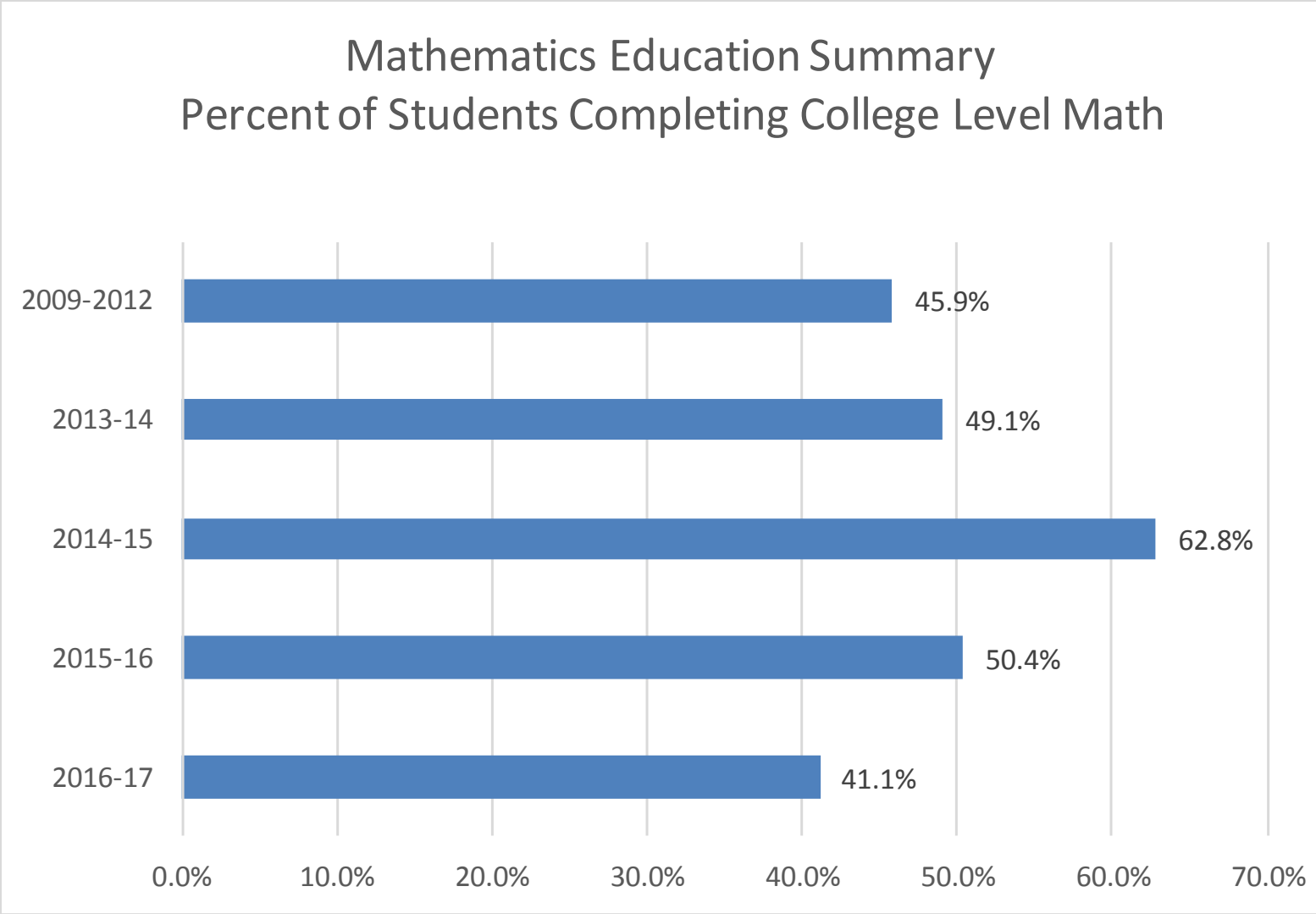
Post-redesign cohorts were created and tracked separately for each of the four academic years since the redesign. A summary of the performance rates for each transitional mathematics cohort is provided in the first graph and table. For each performance rate shown, data are being collected and analyzed cumulatively for the six-year period from the point students begin taking math at SSC. Consequently, within limits to be determined as data accumulates, rates for the completion of remediation, completion of college-level math, and graduation for persisting students could increase as time elapses.



Transitional Mathematics Education Summary				
	2009-2012	2013-14	2014-15	2015-16
Students Entering Transitional Math	1714	557	439	4
Graduated	303	137	96	
Completed Course	1095	392	293	3
Completed College-level Math	466	184	200	1

Apart from the 2016-17 cohort, post-redesign transitional course completion rates show a modest increase over pre-redesign course completion rates. Rates for the completion of remediation have increased more significantly. For example, the 2013-14 cohort completed math remediation at the rate of 55.1% while the 2014-15 cohort did so at the rate of 53.3% compared to 35.4% in the baseline cohort. College-level math completion rates have also shown modest and in some cases impressive improvement over pre-redesign performance. However, the abysmal first-year college-level math completion rate for the 2016-17 cohort is disappointing and is under further inquiry. The fact that the number of courses and the time required for remediation have both decreased while completion rates for remediation courses, remediation as a whole, and college-level math have increased indicates the success of the curriculum redesign. Post-redesign graduation rates have also increased. For example, the 2013-14 cohort of transitional math students has a three-year graduation rate of 24.5% rate compared to 17.7% in the baseline cohort (which had six years to graduate). Although this increase is less than desired, it is nonetheless a significant increase, especially for the students who wouldn't have graduated using the pre-redesign curriculum. Data collection and analysis are ongoing for all cohorts other than the baseline cohort whose data is now fixed. As students complete college-level math and graduate in subsequent years, the long-term completion rates should improve incrementally.

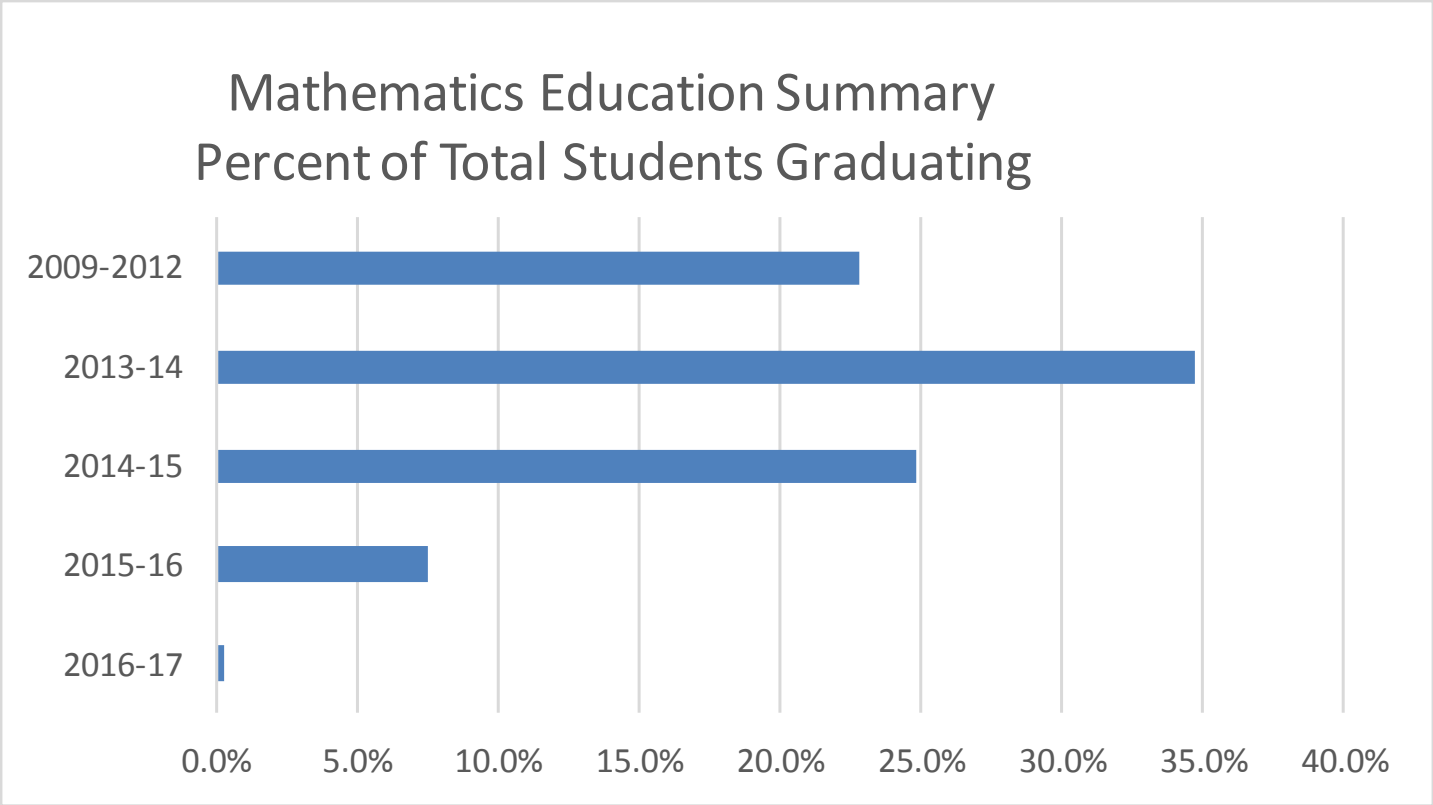
The next graph and table show data for the completion of a college-level mathematics course for ALL students taking a SSC mathematics course for the first time. This includes full- and part-time students placing directly into a college-level mathematics course and those placing into transitional education courses. The 2009-12 baseline cohort completed college-level math at a rate of 45.9% compared to 49.1% for the 2013-14 cohort and 62.8% for the 2014-15 cohort. These early returns seem to indicate the transitional math curriculum redesign is having a positive impact on the completion of college-level math campus wide. As students persist and data collection continues, the percentages of completers in the 2015-16 and 2016-17 cohorts are expected to increase to levels at or near the 2014-15 cohort. Time will tell.



All Cohorts	2016-17	2015-16	2014-15	20
Total Students	739	712	705	
Total Students Completing College-Level Math	304	359	443	
Percent of Total Students Completing College Level Math	41.1%	50.4%	62.8%	

The next graph and table show graduation rates for ALL full- and part-time students taking a SSC mathematics course for the first time. This includes students placing directly into a college-level mathematics course and those placing into transitional education courses. **The performance of the 2013-14 math cohort of full- and part-time students is encouraging. In four years or 200% of the normal time to complete a two-year degree, its graduation rate is 34.7%, which is 11.8 percentage points higher than the six-year rate for**

the baseline cohort. As was the case for completion rates for college-level math, as students persist and data collection continues, the percentages of graduates in the 2015-16 and 2016-17 cohorts are expected to increase to levels at or near the 2014-15 cohort. Again, time will tell.



All Cohorts	2016-17	2015-16	2014-15	2013-1
Total Students	739	712	705	
Total Students Graduating	2	53	175	
Percent of Total Students Graduating	0.3%	7.4%	24.8%	

Transitional Language Arts Education

Curriculum Redesign

Prior to the curriculum redesign, developmental language arts curriculum included two different two-course sequences, one in writing and one in reading. Some students placed into only one of these sequences. Some placed into both reading and writing sequences. In either case, students took one or two courses in a sequence depending on the level of their assessed academic skills. In some cases, students entered college-level composition directly without remediation. Roughly 30% of SSC students typically required some form of language arts remediation. Students who tested into the lowest level of both sequences were required to take four developmental courses amounting to twelve credit hours before they could enroll in college-level composition. To reduce the amount of time and courses required for remediation, language arts faculty designed an intensive course that compressed the

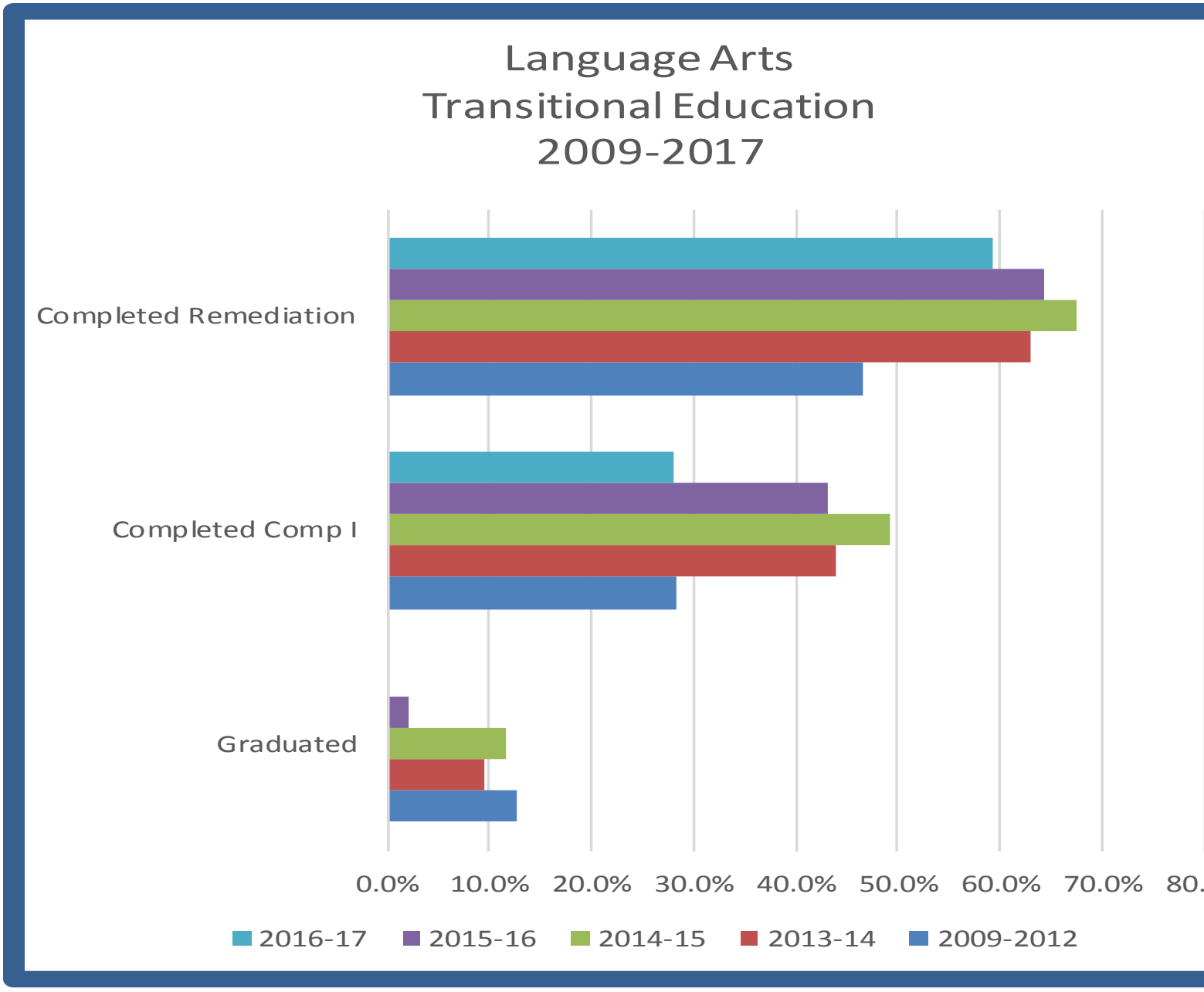
information covered in the four pre-redesign courses into a single five-credit hour course called Fundamentals of Language Arts (FLA). In conjunction with the redesign, all students who placed into FLA were also required to participate in a structured first-year experience which greatly limited enrollment choices. As was the case with mathematics, the goal in addition to reducing the amount of time and courses required for remediation was to increase the rates of completion of transitional courses, remediation as a whole, college-level composition, and graduation. Due to the compression aspect of the redesign, which left only one transitional course for all students requiring remediation, completion of the single transitional course became synonymous with completion of remediation. One contrast from the transitional math redesign is language arts chose not to implement a corequisite remediation model for their curriculum redesign.

Pre-Redesign Baseline Cohort

To compare student performance before and after the curriculum redesign, all students entering the SSC reading and writing developmental program or composition for the first time between fall 2009 and spring 2012 were placed into a pre-redesign *baseline cohort*. The year 2012-13 was a transition year, so no data was collected for that year.

Post-Redesign Cohort Performance

Post-redesign cohorts were compiled and tracked separately for each of the four academic years since the redesign. A summary of the performance rates for each transitional language arts cohort is provided in the graph and table below. For each performance rate shown, data are being collected and analyzed cumulatively for the six-year period from the point students begin taking language arts at SSC. Consequently, as was the case for transitional math cohorts, rates for the completion of remediation, completion of college-level composition, and graduation could increase as time elapses provided students persist.



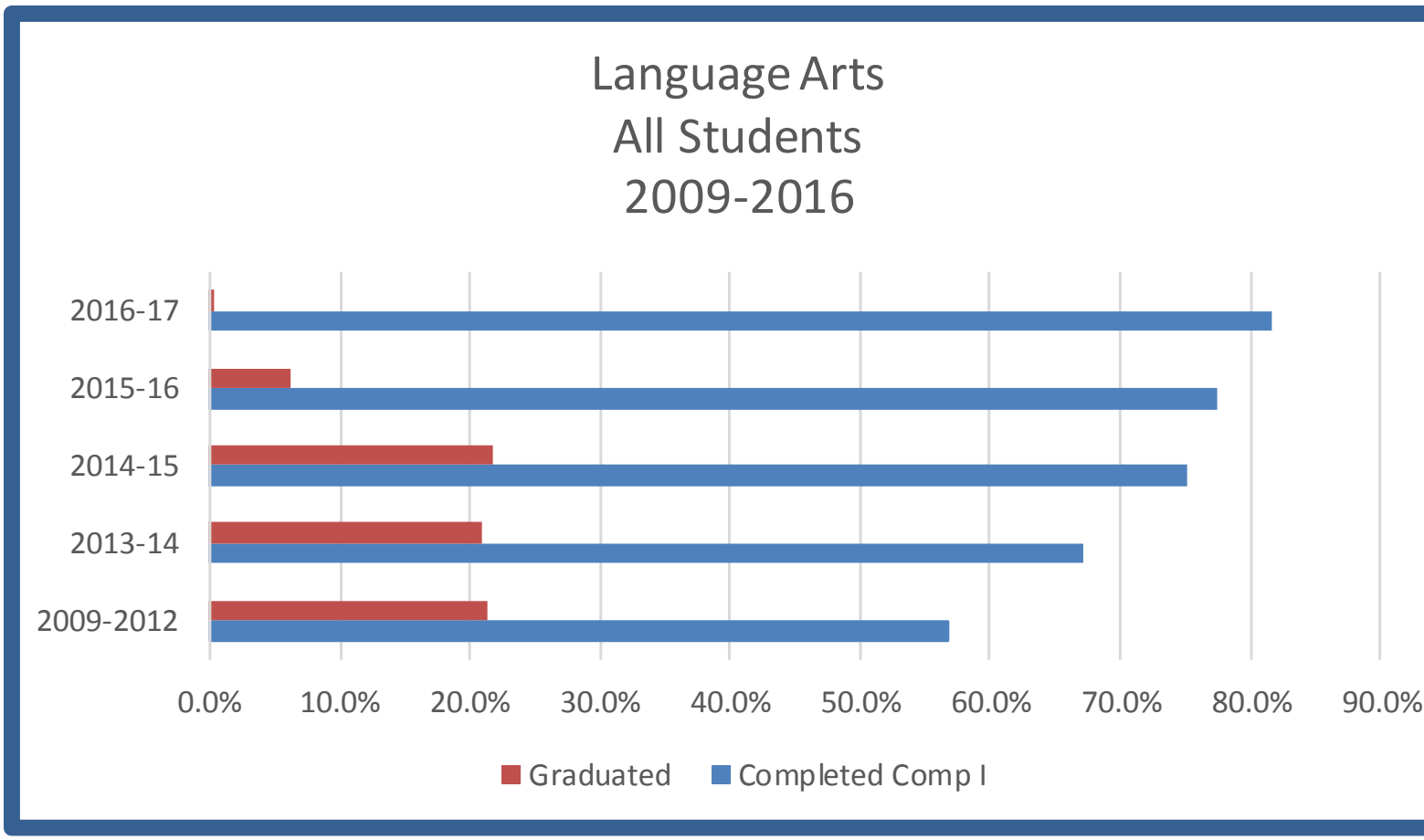
Language Arts Transitional Education					
Cohort 1	2009-2012	2013-14	2014-15	2015-16	2016-17
Students Entering Transitional Language Arts	1020	200	197	202	167
Completed Remediation	46.5% (474)	63.0% (126)	67.5% (133)	64.4% (130)	59.3% (99)
Completed Comp I	28.4% (290)	44.0% (88)	49.2% (97)	43.1% (87)	28.1% (47)
Graduation	12.6% (129)	9.5% (19)	11.7% (23)	2.0% (4)	0% (0)

As shown in the above graph, the pre-redesign rate for completion of language arts remediation was only 46.5%. The post-redesign four-year average rate of completion of remediation was 63.6%, a rather significant increase. The rate of completion of composition I by transitional students experienced a similar but more modest increase from 28.4% in the

baseline cohort to more than 40% in each of the next three cohorts. It is anticipated that the 2016-17 cohort will experience a similar increase over the course of the next academic year.

The story on graduation rates is less encouraging. The pre-redesign graduation rate for developmental language arts students was 12.9%. Each of the post-redesign transitional cohorts to the point have graduated at a rate less than the pre-redesign rate. At this point in the data collection, there appears to be no correlation between increasing the completion rates in composition I and increasing graduation rates for transitional language arts students. Students are completing composition I at an increased rate, but still not graduating. It is possible that post-redesign graduation rates will surpass the pre-redesign rates as each cohort gets deeper into its six-year data collection cycle. Based on the lack of correlation between increased completion rates for composition I and graduation, it seems reasonable to conclude composition I is not serving as a roadblock to graduation for SSC students. Unfortunately, that also might mean students who arrive at SSC requiring language arts remediation are not able to function effectively in reading and writing intensive courses both before and after remediation. This dichotomy is under further discussion and analysis. Of particular use in those discussions will be analysis of sub-cohorts within the larger cohort of transitional language arts students. For example, analysis of the cohort of students who previously placed into the lowest level of developmental courses in both reading and writing might prove informative.

The next graph and table show composition I and graduation rates for ALL full- and part-time students taking a SSC language arts course for the first time. This includes students placing directly into a college-level composition course and those placing into transitional education courses. As was the case for transitional students alone, the post-redesign completion rates in composition I show a steady and impressive increase. The 2016-17 cohort completed composition I at a rate of 81.7% compared to the baseline cohort's rate of 56.8%. However, these increases have not yet had a noticeable positive effect on graduation rates in those cohorts. As students persist and data collection continues within the six-year data collection window, the percentages of graduates in all of the cohorts may increase. Again, time will tell.



Language Arts All Students					
	2009-2012	2013-14	2014-15	2015-16	2016-17
Total Cohort 1 and 3	2399	576	614	784	737
Completed Comp I	56.8% (1362)	67.2% (387)	75.1% (461)	77.4% (607)	81.7% (602)
Graduated	21.4% (513)	20.9% (121)	21.7% (133)	6.3% (49)	0.3% (2)

Course Embedded Assessment

Shown in this section are course-embedded assessment results collected in fall 2016 transitional and PASS courses for the 2016-17 academic year. Personal and Academic Success Skills (SOC 1003) is the first-year student success course in which transitional language arts students are required to enroll. As per the *SSC Assessment of Student Learning Procedure*, transitional course course-embedded assessments aimed at assessing the achievement of general education outcomes were not included with the overall assessment of SSC general education, but have been included in the assessment of transitional education. These assessments quantified transitional student achievement in the first three of the four following General Education Outcomes:

1. Demonstrate effective and scholarly communication skills.
2. Utilize scientific reasoning and/or critical thinking to solve problems.
3. Demonstrate knowledge and display behavior related to functioning in and adding value to a global society.

4. Recognize the role(s) of history, culture, the arts, or sciences within civilization.

All transitional courses used the pre-post embedded testing. Co-Requisite courses were not assessed separately from the related college-level course.

There was a total of 1170 Transitional Education Course-Embedded Assessments of General Education Outcomes reported for 2016-17. The following table shows the assessment percentages for transitional mathematics courses, transitional language arts courses, and the aggregate for transitional education for outcomes 1, 2, and 3. Each outcome showed increases reflecting student learning across the curriculum when comparing pre-test performance to post-test performance. The aggregate percentage increases were 43.3 for Outcome 1, 39.1 for Outcome 2, and 35.8 for Outcome 3.

Table 1. 2016-17 Transitional Education Course-Embedded Assessment of General Education Outcomes

Outcome Assessed	Transitional Mathematics				Transitional Language Arts				Transitional Education			
	Number Assessed	Pre-Test	Post-Test	Difference	Number Assessed	Pre-Test	Post-Test	Difference	Number Assessed	Pre-Test	Post-Test	Difference
Outcome 1	286	30.0%	69.0%	39.1%	72	27.8%	87.5%	59.7%	478	39.0%	82.7%	43.8%
Outcome 2	286	30.0%	69.0%	39.1%					286	30.0%	69.1%	39.1%
Outcome 3	286	30.0%	69.0%	39.1%					406	44.6%	80.4%	35.8%

In evaluating this data, focus on two primary areas for each outcome: the percentage of increase from pre-test to post-test and the magnitude of the post-test percentage. In looking at transitional mathematics, language arts, and the aggregate amounts, the percent of increase falls between 35.8% and 59.7%. The post-test scores closely approach or go beyond 70%. In transitional courses, students must score 70% or a letter grade of C in the course to pass. These post-test scores validate that students demonstrated comprehension in General Education Outcomes 1, 2, and 3.

Graduate Exit Survey

In the *2017 Graduate Exit Survey*, students who participated in transitional education courses had the opportunity to assess the quality of teaching in these courses. Students gave the following responses to 2 attributes from transitional education:

Attribute	Percentage of Responses				
	Excellent	Above Average	Average	Below Average	Poor
Quality of teaching in transitional education courses	41.8%	29.9%	22.2%	0.6%	0.0%
College Orientation through PASS	26.7%	10.4%	10.1%	0.6%	0.3%

Only students who enrolled in these courses were encouraged to respond.

Student Feedback on Classroom Instruction in Transitional Education Courses

In the fall semester, students are asked to give feedback on classroom instruction by completing an online survey made available in a sample of classes. The overall rating for classes at Seminole State College in fall 2016 was 4.49. The overall rating for transitional mathematics was 4.51 while the overall rating for transitional mathematics courses and entry level mathematics college courses was 4.58. The overall rating for Fundamentals of Language Arts was 4.37 while the overall rating for the transitional course and the first composition course was 4.11. The PASS course received a score of 4.73 while the Freshman Seminar course received an overall score of 4.48. Their combined average was 4.57. All of these scores compare well with the overall class rating of 4.49.

Summary in Closing

This report has summarized the ongoing assessment of transitional education before and after SSC's 2013 redesign of developmental education. Course completion rates, remediation completion rates, completion rates in gateway college-level courses, graduation rates, course-embedded assessments, student feedback on instruction, and *Graduate Exit Survey* results, have all been presented. Data collection and analysis will be ongoing through the six-year data collection window established. Preliminary results are promising. Rates for the completion of remediation and college-level math and composition for transitional students have risen noticeably. Completion of math remediation and college-level math seems to have a positive effect on graduation rates. The 2013-14 cohort of transitional math students have graduated to this point at a rate of 24.6% compared to the baseline cohort's rate of 17.7%. Given the preponderance of transitional math students at SSC, it is not surprising that the graduation rate of 2013-14 cohort of all math students (transitional and college-ready) entering SSC that year was 34.7% compared to the baseline cohort's 22.9%. Faculty and administration are optimistic that 2014-15 and 2015-16 cohorts will demonstrate similar graduation rate improvement over the next two years. Although completion of remediation and college-level composition have increased, the redesign does not appear to have had the same effect on graduation rates. This disparity is puzzling and demands more discussion and analysis. Especially since the math and language arts cohorts consist of many of the same students.