



Enrollment Growth and Academic Course Performance: Traditional vs. Distance Education Courses, 2014–2015

Introduction

This study chronicles the recent growth of online course offerings and enrollments at El Camino College (ECC) and compares academic performance in these courses with their traditional classroom counterparts. While past studies have focused on single semester offerings, this study compares Fall and Spring terms respectively. Like terms (spring to spring rather than fall to spring) are used because scheduling patterns and faculty course loads are more likely to follow similar patterns. This gives a better indication of the growth or change in Distance Education (DE).

Student Demographics

Before discussing the academic performance of students in DE courses, it is important to know who these students are. Figure 1 below shows the basic demographic data for the 2,536 students who enrolled in a DE course during the Fall 2014 term. Distance Education students are largely female. More than 2 out of 3 DE students are women. Most of the students are enrolled in less than 12 units for the term. In terms of age and ethnicity, DE students are very similar to the overall student population of El Camino College.

The major races/ethnicities are all within a few percentage points of the campus population. However, it is important to note that there is a higher percentage of African American students and a lower percentage of Hispanic students taking online courses compared to the overall. Over 50% of those enrolled in DE courses are in the typical college going age range of 18 to 24 years. Another 32% are between 25 and 39 years old. For the most part, DE students represent the same population as overall campus students with the exception of Gender. The breakdown of gender by ethnicity and age can be examined in Figure 2. Figure 3 focuses on DE student enrollment patterns. 68% of DE students took on campus courses concurrently, which shows that a majority of online students are also on campus during the semester.

The demographic data presented shows one semester but similar results can be seen over time. Spring 2015 demographics were similar except for full time status students and students aged 18-24. The Spring 2015 semester showed higher rates for these groups even though the overall rates did not fluctuate similarly. Spring 2015 demographics are located in Appendix A.

**Figure 1. Student Demographics
Online Courses vs Overall, Fall 2014**

Group	Percent Online	Percent Overall
Gender		
Female	70.4%	51.1%
Male	29.6%	48.9%
Ethnicity		
African American	24.2%	15.4%
American Indian	0.1%	0.1%
Asian	14.6%	15.7%
Hispanic	39.8%	49.8%
Two or More	5.0%	4.5%
Pacific Islander	0.5%	0.5%
Unknown	1.3%	0.7%
White/Caucasian	14.5%	13.2%
Age Group		
Under 17	0.7%	3.1%
18 - 24	58.3%	74.2%
25 to 29	20.1%	10.7%
30 to 34	8.2%	4.4%
35 to 39	4.5%	2.5%
40 to 49	4.9%	2.7%
50 +	3.3%	2.3%
Enrollment Status		
Full-Time	39.8%	50.3%
Residence		
In District	43.8%	47.3%
Outside 7.5 mile radius	24.6%	19.2%
Within 7.5 miles (includes In District students)	75.4%	80.8%
Financial Aid Status		
Received Aid	61.8%	61.6%
Did Not Receive Aid	38.2%	38.4%
Course Level		
Basic Skills	0.0%	5.7%
Transfer	94.7%	81.3%
Non Transfer	5.3%	18.7%

Figure 2. Student Demographics Gender by Age and by Ethnicity Online Courses vs Overall, Fall 2014

	Percent Online		Percent Overall	
	Female	Male	Female	Male
Ethnicity				
African American	27.1%	17.4%	17.3%	13.4%
American Indian	0.1%	0.2%	0.1%	0.2%
Asian	12.2%	20.3%	14.0%	17.5%
Hispanic	41.0%	36.8%	51.6%	48.1%
Two or More	5.5%	4.0%	4.5%	4.6%
Pacific Islander	0.3%	0.9%	0.5%	0.6%
Unknown	1.1%	1.8%	0.6%	0.7%
White/Caucasian	12.7%	18.5%	11.5%	15.0%
Age Group				
Under 17	0.7%	0.5%	3.4%	2.9%
18 - 24	54.9%	66.5%	72.3%	76.3%
25 to 29	21.8%	16.2%	10.9%	10.6%
30 to 34	8.4%	7.9%	4.6%	4.2%
35 to 39	5.0%	3.3%	2.8%	2.2%
40 to 49	5.6%	3.2%	3.3%	2.0%
50 +	3.7%	2.4%	2.7%	1.9%

Figure 3. Distance Education Student Demographics Enrollment Patterns, Fall 2014

Enrollment Pattern	Percent
Patterns for Current Semester	
Took Both DE and On Campus courses	67.1%
Patterns for Previous Semesters	
Took DE courses previously	47.3%

ENROLLMENT GROWTH

After a dip in online course and sections offerings in the 2012- 2013 year, the demand for distance education offerings led to an increase in departments, courses, and sections being offered. This movement for more distance education opportunities led to a large increase starting Fall 2014. During this term, there was an increase in courses, instructors, and sections. Growth has continued to grow through to the Fall 2015 semester, which had more than double the amount of FTES than Fall 2013. The Spring semesters have shown similar trends.

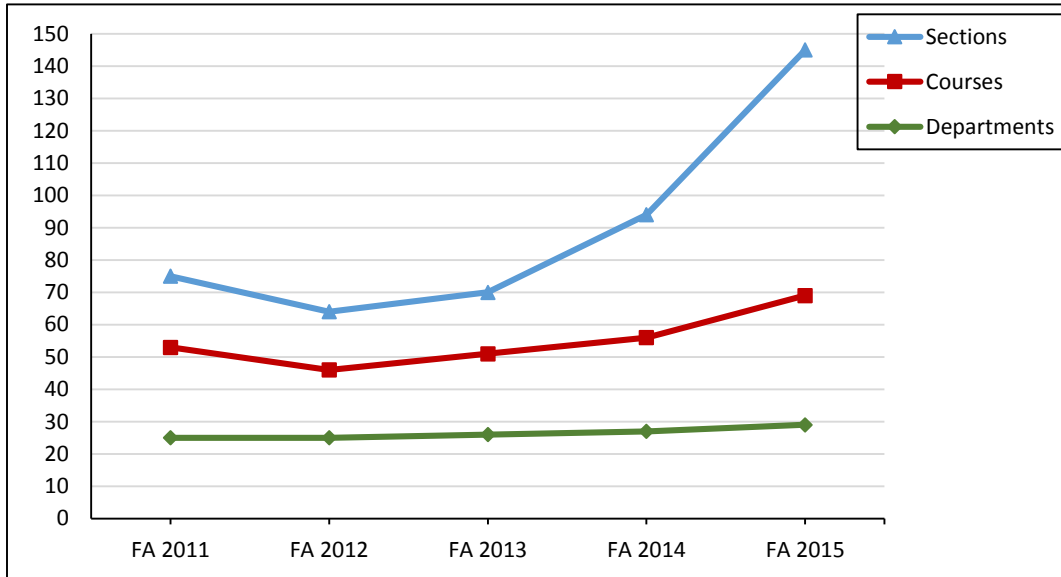
**Figure 4. Course, Section, Instructor, and Enrollment Growth
Online Courses, Fall 2011 to Fall 2015**

Term	FA 2011	FA 2012	FA 2013	FA 2014	FA 2015
Departments	25	25	26	27	29
All DE Courses	53	46	51	56	69
Hybrid Courses	NA	NA	NA	7	23
Instructors	49	46	49	55	70
Sections	75	64	70	94	145
Seats	2,690	2,275	2,585	3,486	4,993
Avg Sec. Size	36	36	37	37	34
Online FTES	278	221	276	436	581

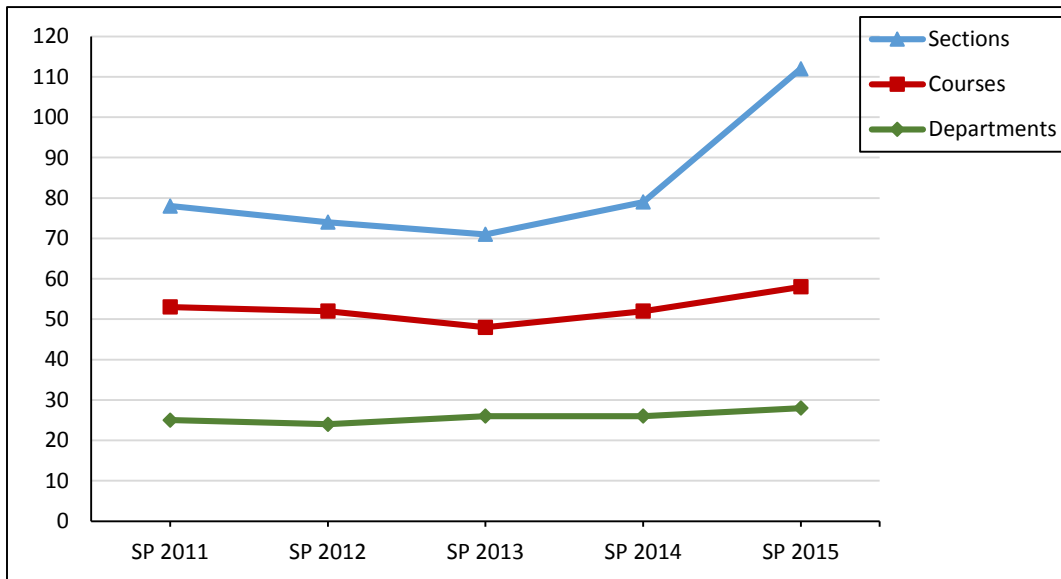
**Figure 5. Course, Section, Instructor, and Enrollment Growth
Online Courses, Spring 2011 to Spring 2015**

Term	SP 2011	SP 2012	SP 2013	SP 2014	SP 2015
Departments	25	24	26	26	28
All DE Courses	53	52	48	52	58
Hybrid Courses	NA	NA	NA	9	9
Instructors	52	49	50	54	63
Sections	78	74	71	79	112
Seats	3,136	2,795	2,669	2,905	4,264
Avg Sec. Size	40	38	38	37	38
Online FTES	324	267	254	270	425

**Figure 6. Department, Course, and Section Trends
Online Courses, Fall 2011 to Fall 2015**



**Figure 7. Department, Course, and Section Trends
Online Courses Spring, 2011 to Spring 2015**



COURSE OFFERINGS

The following tables show all online courses offered during the 2014-2015 year, ordered by department. Section and census date seat counts are included. Appendix B includes tables ordered by course with section and seat counts as well as transfer status.

Figure 8. Online Course Offerings, Fall 2014

Division/Department	Number of Sections	Total Seats
Behavioral and Social Sciences		
Anthropology	5	215
Child Development	8	317
Economics	3	146
History	4	139
Philosophy	2	66
Political Science	6	254
Psychology	10	433
Sociology	7	332
Business		
Business	1	23
CIS	3	53
Law	1	34
Fine Arts		
Art	2	93
Dance	4	170
Music	2	97
Theater	1	45
Health and Physical Science		
Contemporary Health	4	193
Health Sciences and Athletics		
First Aid	1	19
Kinesiology	2	73
Humanities		
English	9	252
Humanities	1	39
Journalism	1	38
Industry and Technology		
Administration of Justice	1	37
Computer Aided Design/Drafting	2	44
Nutrition and Foods	1	48
Mathematical Sciences		
Mathematics	4	101
Natural Sciences		
Oceanography	1	29

Figure 9. Online Course Offerings, Spring 2015

Division/Department	Number of Sections	Total Seats
Behavioral and Social Sciences		
Anthropology	7	308
Child Development	7	276
Economics	3	140
History	7	274
Philosophy	4	184
Political Science	7	280
Psychology	10	479
Sociology	7	330
Business		
Business	2	25
CIS	1	40
Law	1	33
Fine Arts		
Art	2	103
Dance	4	188
Music	4	167
Theater	1	30
Health and Physical Science		
Contemporary Health	6	251
Health Sciences and Athletics		
First Aid	1	18
Kinesiology	2	70
Humanities		
English	13	374
Humanities	1	39
Journalism	1	42
Industry and Technology		
Administration of Justice	2	71
Computer Aided Design/Drafting	2	35
Fashion	1	28
Fire and Emergency Technology	1	38
Nutrition and Foods	2	98
Mathematical Sciences		
Mathematics	7	187
Natural Sciences		
Oceanography	1	23

ACADEMIC PERFORMANCE

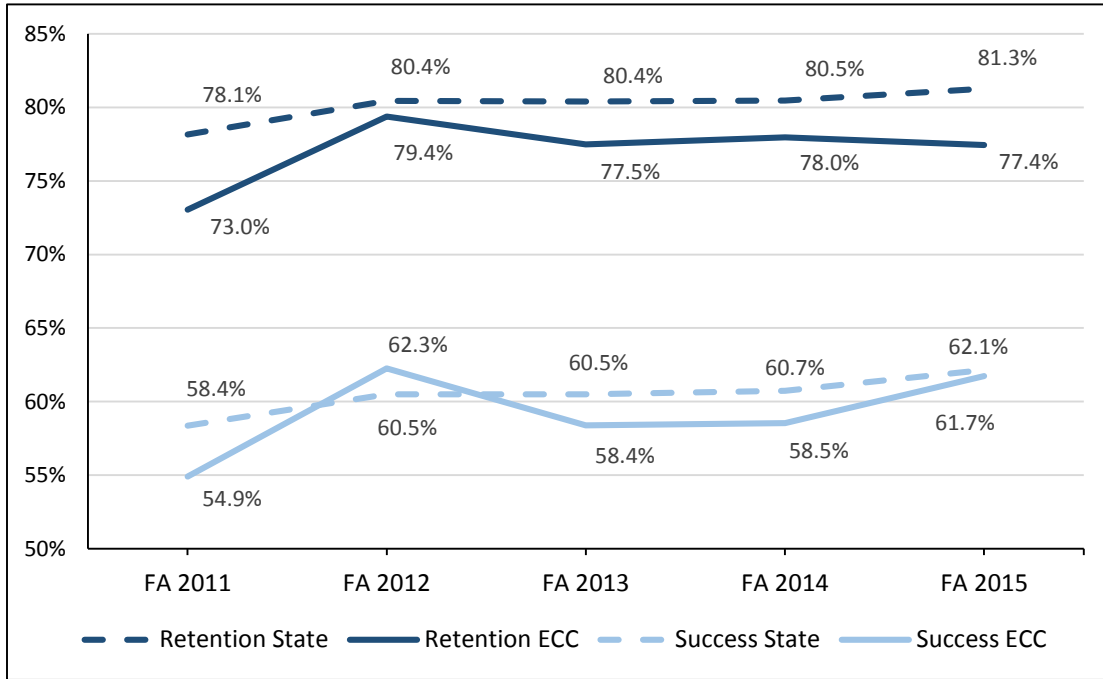
This section addresses the academic performance of students in online courses. Metrics for assessing academic performance include the success and retention rates of students taking distance education courses. First, success and retention comparisons for the El Camino College distance education program are compared with the overall state rates. Success and retention rates have been further broken down by gender, ethnicity, and age. In addition, tables showing gaps between these groups and the overall DE retention and success rates are located in Appendix C. Tables for veteran or foster youth status are included in Appendix C. Next, success rates are compared for courses which are offered in both traditional and distance modes. These side by side comparisons have been clustered by academic division and disaggregated by course.

Hybrid Course Performance

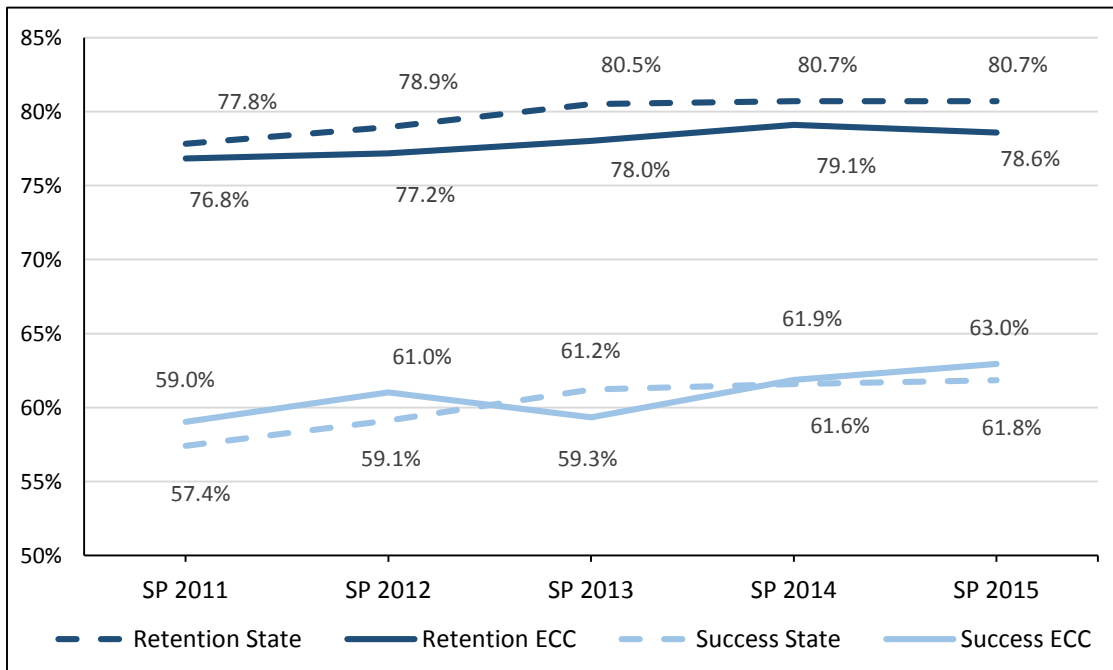
Due to the increase of hybrid courses offered, their success and retention rates were compared to those of fully online courses (not shown). The data suggests that hybrid course students perform slightly below that of fully online course students. It is important to note that the same courses are not offered in hybrid and online sections so the comparisons are not of the same course for each medium but of all hybrid and all fully online courses. For example, hybrid courses are largely mathematics courses.

Figure 10 illustrates the comparison between local success and retention rates with those of the state for all distance education offerings for Fall. The California Community College Chancellor's Office defines success rates as the percentage of students who receive a grade of A, B, C, or P. Retention rates are the percentage of students who stayed in the course until the end, thus did not receive a notation of DR or W. Figure 10 shows the success rates for distance education in the state have remained around 60% from Fall 2011 to Fall 2015. The success rates for ECC increased over 8% from Fall 2011 to Fall 2012 but dipped down below the state success rate From Fall 2013 to Fall 2015. The same can be said for retention rates. The state rate has been consistently around 80%. The ECC rate peaked during Fall 2012 and has stayed around 78% within the last three years. Spring rates show similar trends.

**Figure 10. Success and Retention Rates for Online Courses
Local vs. Statewide, Fall 2011 to Fall 2015**



**Figure 11. Success and Retention Rates for Online Courses
Local vs. Statewide, Spring 2011 to Spring 2015**



**Figure 12. Success and Retention Rates By Gender
Online Courses, Fall 2011 to Fall 2015**

	FA 2011	FA 2012	FA 2013	FA 2014	FA 2015
Success					
Female	52.4%	62.2%	56.7%	58.1%	61.0%
Male	60.4%	62.3%	61.9%	59.5%	63.4%
Total	54.9%	62.3%	58.4%	58.5%	61.7%
Retention					
Female	71.9%	78.9%	76.8%	77.0%	76.6%
Male	75.6%	80.3%	79.0%	80.2%	79.3%
Total	73.0%	79.4%	77.5%	78.0%	77.4%

**Figure 13. Success and Retention Rates By Gender
Online Courses, Spring 2011 to Spring 2015**

	SP 2011	SP 2012	SP 2013	SP 2014	SP 2015
Success					
Female	58.7%	60.5%	57.4%	60.9%	62.4%
Male	59.8%	62.1%	63.4%	63.8%	64.1%
Total	59.0%	61.0%	59.3%	61.9%	63.0%
Retention					
Female	76.9%	76.7%	76.9%	78.8%	78.6%
Male	76.8%	78.2%	80.4%	79.6%	78.6%
Total	76.8%	77.2%	78.0%	79.1%	78.6%

Figure 14. Success and Retention Rates for ECC Students by Age Online Courses, Fall 2011 to Fall 2015

	FA 2011	FA 2012	FA 2013	FA 2014	FA 2015
Success					
Under 17	58.3%	69.2%	92.9%	72.7%	84.6%
18 - 24	54.6%	62.0%	59.2%	60.6%	63.2%
25 to 29	47.9%	61.2%	56.7%	53.0%	57.9%
30 to 34	58.6%	56.0%	58.6%	68.7%	63.2%
35 to 39	56.2%	67.0%	64.6%	58.2%	64.0%
40 to 49	63.2%	61.7%	65.2%	56.7%	62.5%
50 +	81.8%	68.3%	47.7%	58.6%	66.1%
Retention					
Under 17	83.3%	84.6%	100.0%	95.5%	92.3%
18 - 24	72.6%	78.6%	80.2%	79.8%	79.6%
25 to 29	70.8%	78.5%	75.0%	73.8%	73.1%
30 to 34	76.5%	74.2%	79.3%	83.8%	76.4%
35 to 39	72.7%	81.6%	80.0%	75.8%	75.9%
40 to 49	76.8%	85.1%	77.0%	74.4%	74.5%
50 +	87.0%	82.2%	62.8%	79.3%	82.2%

Figure 15. Success and Retention Rates for ECC Students by Age Online Courses, Spring 2011 to Spring 2015

	SP 2011	SP 2012	SP 2013	SP 2014	SP 2015
Success					
Under 17	80.0%	83.3%	80.0%	83.3%	86.4%
18 - 24	58.3%	64.3%	62.7%	65.2%	64.6%
25 to 29	53.6%	54.4%	54.9%	59.0%	60.8%
30 to 34	59.6%	63.2%	58.3%	65.4%	61.4%
35 to 39	65.4%	58.6%	59.9%	52.4%	59.3%
40 to 49	67.2%	68.1%	53.3%	62.1%	67.8%
50 +	66.7%	67.9%	71.1%	54.1%	56.7%
Retention					
Under 17	90.0%	91.7%	100.0%	100.0%	90.9%
18 - 24	77.7%	78.0%	79.9%	82.2%	79.6%
25 to 29	72.4%	72.2%	74.6%	75.3%	77.7%
30 to 34	75.6%	78.9%	76.0%	77.5%	77.8%
35 to 39	79.7%	76.7%	77.4%	70.3%	71.0%
40 to 49	78.1%	79.5%	73.1%	76.4%	82.2%
50 +	83.3%	80.7%	88.9%	74.8%	76.0%

**Figure 16. Success and Retention Rates for ECC Students by Ethnicity
Online Courses, Fall 2011 to Fall 2015**

	FA 2011	FA 2012	FA 2013	FA 2014	FA 2015
Success					
African American	41.2%	48.0%	42.0%	41.9%	43.6%
American Indian	16.7%	100.0%	100.0%	60.0%	60.0%
Asian	64.4%	72.6%	74.9%	79.7%	76.3%
Hispanic	51.8%	61.2%	54.8%	56.5%	60.6%
Two or More	56.7%	69.1%	59.5%	57.6%	63.1%
Pacific Islander	31.0%	33.3%	12.5%	81.3%	34.5%
Unknown	58.6%	62.3%	72.2%	54.5%	55.0%
White/Caucasian	67.8%	75.1%	74.7%	70.5%	75.9%
Retention					
African American	66.7%	73.1%	71.9%	71.5%	65.8%
American Indian	16.7%	100.0%	100.0%	100.0%	80.0%
Asian	78.0%	84.3%	85.7%	86.0%	86.9%
Hispanic	71.6%	78.8%	75.2%	77.2%	77.6%
Two or More	70.1%	83.8%	73.0%	75.3%	79.7%
Pacific Islander	51.7%	41.7%	25.0%	81.3%	51.7%
Unknown	74.7%	83.0%	83.3%	72.7%	85.0%
White/Caucasian	80.2%	84.8%	85.1%	83.8%	83.5%

**Figure 17. Success and Retention Rates for ECC Students by Ethnicity
Online Courses, Spring 2011 to Spring 2015**

	SP 2011	SP 2012	SP 2013	SP 2014	SP 2015
Success					
African American	43.1%	46.3%	37.2%	44.1%	44.1%
American Indian	66.7%	83.3%	100.0%	100.0%	77.8%
Asian	71.8%	73.8%	74.7%	80.5%	85.1%
Hispanic	55.1%	57.3%	59.4%	59.2%	59.5%
Two or More	54.3%	64.2%	56.9%	52.2%	59.5%
Pacific Islander	40.9%	42.9%	35.7%	33.3%	34.8%
Unknown	62.0%	58.9%	75.6%	69.4%	64.5%
White/Caucasian	72.4%	72.8%	72.9%	73.5%	75.0%
Retention					
African American	68.9%	68.0%	68.0%	70.4%	70.1%
American Indian	100.0%	100.0%	100.0%	100.0%	88.9%
Asian	82.1%	84.8%	87.2%	90.7%	90.4%
Hispanic	74.9%	76.1%	76.9%	77.6%	76.1%
Two or More	71.3%	76.8%	75.2%	71.3%	76.8%
Pacific Islander	63.6%	64.3%	64.3%	66.7%	52.2%
Unknown	81.7%	76.8%	92.7%	77.8%	87.1%
White/Caucasian	84.0%	83.1%	84.0%	83.5%	84.3%

Figures 18 and 19 examine students' academic performance in online vs. traditional classes in terms of successful course completion (success rate) and retention in the course. The difference in rates is found in the columns at the right where negative differences indicate traditional courses are performing better and bold shaded numbers show courses where online sections have better outcomes. Only outcomes that showed a difference of 3% or greater were highlighted.

There are some noticeable differences in outcomes for individual courses which are taught both online and on campus. Many courses show traditional courses perform better than their online counterparts. Examination of the charts shows some very large differences in outcomes for certain classes, departments, or divisions. For example, students taking ECON or PSYC courses online were up to 18% more successful than those taking the traditional course. However, semester to semester fluctuations are present. Courses that show negative differences during the Fall may be positive in the Spring or vice versa. Further examination would need to occur in order to investigate commonalities in the courses with large differences in outcomes. On the surface, there does not seem to be any links. Graphic representations of the success rate comparisons for each course are available in Appendix C.

Figure 18. Student Success and Retention Rates by Course Online vs. Traditional Sections, Fall 2014

Course	Online			Traditional			Difference	
	Total	Success	Retention	Total	Success	Retention	Successful	Retained
Behavioral and Social Sciences								
ANTH-1	132	40.9%	68.2%	517	56.9%	77.8%	-16.0%	-9.6%
ANTH-2	83	50.6%	65.1%	393	58.8%	78.4%	-8.2%	-13.3%
CDEV-103	100	63.0%	77.0%	306	73.9%	89.5%	-10.9%	-12.5%
CDEV-104	49	63.3%	79.6%	95	74.7%	86.3%	-11.5%	-6.7%
CDEV-114	49	63.3%	79.6%	47	66.0%	95.7%	-2.7%	-16.2%
CDEV-150	49	67.3%	87.8%	34	91.2%	94.1%	-23.8%	-6.4%
ECON-1	90	72.2%	88.9%	421	75.8%	88.4%	-3.5%	0.5%
ECON-2	55	87.3%	96.4%	181	73.5%	88.4%	13.8%	8.0%
HIST-101	86	59.3%	84.9%	752	67.4%	81.6%	-8.1%	3.2%
HIST-102	53	71.7%	92.5%	650	60.5%	80.6%	11.2%	11.8%
PHIL-2	35	28.6%	65.7%	370	65.1%	85.7%	-36.6%	-20.0%
PHIL-8	28	82.1%	85.7%	77	71.4%	90.9%	10.7%	-5.2%
POLI-1	253	53.0%	71.1%	1,068	66.0%	84.2%	-13.0%	-13.0%
PSYC-15	48	70.8%	83.3%	99	65.7%	79.8%	5.2%	3.5%
PSYC-16	90	76.7%	84.4%	50	64.0%	78.0%	12.7%	6.4%
PSYC-5	248	44.2%	80.2%	1,224	72.5%	87.3%	-28.2%	-7.1%
PSYC-7	97	60.8%	87.6%	53	50.9%	73.6%	9.9%	14.0%
SOCI-101	195	70.3%	87.2%	695	80.0%	89.6%	-9.7%	-2.5%
SOCI-102	48	58.3%	79.2%	100	87.0%	92.0%	-28.7%	-12.8%
SOCI-104	46	63.0%	76.1%	143	67.1%	88.1%	-4.1%	-12.0%
SOCI-112	43	74.4%	88.4%	52	78.8%	88.5%	-4.4%	-0.1%
Business								
BUS-15	23	30.4%	60.9%	34	38.2%	52.9%	-7.8%	7.9%
CIS-13	30	60.0%	70.0%	296	77.0%	84.1%	-17.0%	-14.1%
LAW-4	34	52.9%	73.5%	136	72.8%	90.4%	-19.9%	-16.9%

Figure 18. Continued

Course	Online			Traditional			Difference	
	Total	Success	Retention	Total	Success	Retention	Successful	Retained
Fine Arts								
ART-101	46	65.2%	73.9%	682	66.9%	85.3%	-1.6%	-11.4%
ART-102A	47	61.7%	80.9%	184	64.1%	90.2%	-2.4%	-9.4%
DANC-101	170	57.6%	79.4%	290	65.2%	89.0%	-7.5%	-9.6%
MUSI-111	97	52.6%	79.4%	345	55.8%	81.5%	-3.2%	-2.1%
THEA-103	45	35.6%	55.6%	164	75.6%	86.6%	-40.1%	-31.0%
Health Sciences and Athletics								
CH-1	193	63.2%	78.2%	1,148	73.3%	88.9%	-10.0%	-10.6%
FAID-1	19	84.2%	84.2%	223	74.9%	87.9%	9.3%	-3.7%
PE-277	73	52.1%	87.7%	106	72.6%	86.8%	-20.6%	0.9%
Humanities								
ENGL-1A	82	61.0%	80.5%	2,566	69.0%	82.2%	-8.0%	-1.7%
ENGL-1C	112	63.4%	73.2%	1,070	64.5%	79.1%	-1.1%	-5.9%
ENGL-84	58	37.9%	50.0%	928	69.5%	86.2%	-31.6%	-36.2%
HUMA-1	39	51.3%	59.0%	35	51.4%	60.0%	-0.1%	-1.0%
JOUR-12	38	63.2%	78.9%	102	57.8%	83.3%	5.3%	-4.4%
Industry and Technology								
AJ-100	37	67.6%	67.6%	196	67.3%	81.6%	0.2%	-14.1%
CADD-31	23	26.1%	43.5%	40	65.0%	85.0%	-38.9%	-41.5%
NFOO-11	48	77.1%	81.3%	301	72.8%	83.7%	4.3%	-2.5%
Mathematical Sciences								
MATH-150	25	68.0%	96.0%	759	53.4%	72.5%	14.6%	23.5%
MATH-40	23	34.8%	60.9%	719	49.1%	75.4%	-14.3%	-14.5%
MATH-73	53	52.8%	73.6%	1,078	53.5%	76.4%	-0.7%	-2.9%
Natural Sciences								
OCEA-10	29	24.1%	58.6%	305	66.6%	79.3%	-42.4%	-20.7%

**Figure 19. Student Success and Retention Rates by Course
Online vs. Traditional Sections, Spring 2015**

Course	Online			Traditional			Difference	
	Total	Success	Retention	Total	Success	Retention	Successful	Retained
Behavioral and Social Sciences								
ANTH-1	180	50.0%	71.1%	556	60.8%	82.6%	-10.8%	-11.4%
ANTH-2	128	56.3%	71.9%	295	57.6%	81.7%	-1.4%	-9.8%
CDEV-103	99	58.6%	80.8%	371	90.6%	95.1%	-32.0%	-14.3%
CDEV-114	46	63.0%	84.8%	54	92.6%	94.4%	-29.5%	-9.7%
CDEV-150	47	63.8%	87.2%	35	85.7%	94.3%	-21.9%	-7.1%
ECON-1	39	87.2%	89.7%	413	69.2%	80.4%	17.9%	9.4%
ECON-2	101	93.1%	95.0%	186	77.4%	88.2%	15.6%	6.9%
HIST-101	126	69.0%	81.0%	570	67.4%	81.2%	1.7%	-0.3%
HIST-102	116	69.8%	83.6%	657	66.5%	86.6%	3.3%	-3.0%
HIST-140	32	56.3%	71.9%	103	73.8%	77.7%	-17.5%	-5.8%
PHIL-2	47	46.8%	74.5%	348	64.7%	83.3%	-17.8%	-8.9%
PHIL-3	53	58.5%	90.6%	137	72.3%	86.1%	-13.8%	4.4%
PHIL-8	83	62.7%	75.9%	69	43.5%	68.1%	19.2%	7.8%
POLI-1	245	61.6%	77.6%	1,145	64.9%	80.5%	-3.2%	-2.9%
POLI-10	32	62.5%	78.1%	35	80.0%	88.6%	-17.5%	-10.4%
PSYC-16	92	72.8%	79.3%	93	74.2%	79.6%	-1.4%	-0.2%
PSYC-2	54	92.6%	98.1%	52	82.7%	94.2%	9.9%	3.9%
PSYC-5	239	49.8%	79.9%	1,050	74.9%	87.8%	-25.1%	-7.9%
PSYC-7	94	69.1%	78.7%	56	60.7%	71.4%	8.4%	7.3%
SOCI-101	194	71.6%	83.0%	627	76.7%	88.5%	-5.1%	-5.5%
SOCI-102	43	60.5%	81.4%	101	86.1%	92.1%	-25.7%	-10.7%
SOCI-104	43	62.8%	81.4%	175	71.4%	86.3%	-8.6%	-4.9%
SOCI-112	50	62.0%	82.0%	49	83.7%	89.8%	-21.7%	-7.8%
Business								
CIS-13	40	62.5%	77.5%	447	69.6%	82.1%	-7.1%	-4.6%
LAW-4	33	60.6%	78.8%	106	83.0%	91.5%	-22.4%	-12.7%
Fine Arts								
ART-101	50	86.0%	90.0%	672	63.7%	79.0%	22.3%	11.0%
ART-102A	45	62.2%	80.0%	160	70.0%	88.8%	-7.8%	-8.7%
DANC-101	188	58.0%	72.9%	215	58.1%	87.4%	-0.2%	-14.6%
MUSI-111	130	68.5%	80.0%	297	52.7%	71.0%	15.7%	9.0%
MUSI-116	37	67.6%	70.3%	36	83.3%	94.4%	-15.8%	-24.2%
THEA-103	5	20.0%	20.0%	117	78.6%	89.7%	-58.6%	-69.7%
Health Sciences and Athletics								
CH-1	251	65.7%	80.5%	719	74.7%	87.9%	-9.0%	-7.4%
PE-277	55	58.2%	72.7%	75	84.0%	90.7%	-25.8%	-17.9%
FAID-1	18	55.6%	66.7%	206	74.3%	86.9%	-18.7%	-20.2%
Humanities								
ENGL-1A	146	54.1%	69.9%	2,154	56.2%	80.7%	-2.1%	-10.8%
ENGL-1C	176	63.1%	72.2%	1,359	63.4%	75.5%	-0.3%	-3.4%
ENGL-84	52	57.7%	71.2%	880	58.2%	79.7%	-0.5%	-8.5%
HUMA-1	39	53.8%	64.1%	73	49.3%	63.0%	4.5%	1.1%
JOUR-12	42	81.0%	92.9%	57	70.2%	91.2%	10.8%	1.6%

Figure 19. Continued

Course	Online			Traditional			Difference	
	Total	Success	Retention	Total	Success	Retention	Successful	Retained
Industry and Technology								
AJ-100	26	80.8%	84.6%	156	69.2%	82.1%	11.5%	2.6%
AJ-111	45	82.2%	88.9%	42	95.2%	97.6%	-13.0%	-8.7%
CADD-31	17	23.5%	58.8%	38	73.7%	89.5%	-50.2%	-30.7%
CADD-7	8	0.0%	0.0%	17	94.1%	94.1%	-94.1%	-94.1%
FTEC-1	38	44.7%	55.3%	90	64.4%	82.2%	-19.7%	-27.0%
Mathematical Sciences								
MATH-150	85	62.4%	88.2%	1,213	56.6%	72.3%	5.7%	15.9%
MATH-40	47	46.8%	68.1%	686	46.6%	70.7%	0.2%	-2.6%
MATH-73	55	61.8%	78.2%	823	54.1%	76.8%	7.7%	1.4%
Natural Sciences								
OCEA-10	23	30.4%	47.8%	292	78.1%	84.2%	-47.6%	-36.4%

In order to make a comparison of the academic rigor of online courses in comparison with traditional courses, improvement rates are commonly used. If a student completes one level of a sequence and then completes the next level of the sequence with a passing grade, it is considered *improvement*. The presumption is the lower course in the sequence should prepare a student for success in the next level of the sequence. If the academic rigor of online courses is comparable to the academic rigor of traditional courses, there should be little difference in the success rates for the second course when comparing outcomes based on whether the first course was taken online or on campus.

Since not every course must be followed by another, only courses that serve as prerequisites have been tracked. However, because students are not required to take the follow-up course, students who did enroll in the follow-up course for the first time during the 2014-2015 school year were reverse tracked to determine whether the prerequisite course was taken online. Ten of these courses had students enroll in the subsequent course during 2014-2015. The success rates for these courses have been calculated based on the mode in which the prerequisite course was taken. A comparison of these rates is found in Figure 20 below.

The number of students in the 2014-2015 year who took their prerequisite course online is too small to make any definitive statements but some of the trends are worth investigation. However, courses with larger populations, such as CDEV-103, could be looked into further to examine underlying factors.

Figure 20. Improvement Rates by Prerequisite Course Online vs. Traditional Courses (Selected Courses), 2014-2015

Course	Online		Traditional	
	Total	%	Total	%
ANTH1	*	100.0%	14	92.9%
CDEV-103	118	13.6%	194	82.0%
CIS-13	*	100.0%	27	55.6%
ECON-1	27	85.2%	151	76.8%
ENGL-1A	26	73.1%	1,111	65.3%
ENGL-84	26	69.2%	577	60.0%
MATH-40	27	48.1%	661	46.4%
MATH-73	*	66.7%	91	58.2%
PSYC-5	28	53.6%	285	68.1%
SOCI-101	*	100.0%	15	46.7%
Total	261	70.9%	3,142	65.2%

Enrollments under 5 are denoted by *

CONCLUSION

Distance Education offerings have experienced an increase in the last two years after dropping in 2012-2013. Overall, the success and retention rates for online offerings have continued to rise and were on par with state distant education rates for Fall 2014 and Spring 2015. There are some courses where the outcomes are much lower in online sections compared to on campus sections. In these instances, divisions might want to review the course material as well as the online resources and presentation to see if they are compatible with positive online implementation. In instances where they are not, online instruction may need to be revised or abandoned altogether. Likewise, it is important these classes properly prepare students for subsequent courses. Some differences occur in the outcomes of specific courses when compared based on how the prerequisite was taken so it might be necessary to review these course sections to ensure students are receiving the proper preparation needed to succeed in future courses.

Appendix A: Student Demographics

Student Demographics Online Courses vs Overall, Spring 2015

Group	Percent Online	Percent Overall
Gender		
Female	68.7%	51.4%
Male	31.3%	48.6%
Ethnicity		
African American	20.8%	14.5%
American Indian	0.2%	0.1%
Asian	16.7%	16.0%
Hispanic	40.4%	50.1%
Two or More	5.4%	4.7%
Pacific Islander	0.6%	0.5%
Unknown	0.7%	0.6%
White/Caucasian	15.2%	13.4%
Age Group		
Under 17	0.5%	1.1%
18 - 24	63.8%	75.8%
25 to 29	17.8%	11.1%
30 to 34	7.7%	4.6%
35 to 39	3.9%	2.4%
40 to 49	3.6%	2.6%
50 +	2.6%	2.3%
Enrollment Status		
Full-Time	44.4%	49.8%
Residence		
In District	46.3%	44.7%
Outside 7.5 mile radius	22.2%	18.8%
Within 7.5 miles (includes In District students)	77.8%	81.2%
Financial Aid Status		
Received Aid	63.6%	62.4%
Did Not Receive Aid	36.4%	37.6%
Course Level		
Basic Skills	0.0%	4.3%
Transfer	95.7%	84.7%
Non Transfer	4.3%	15.3%

**Student Demographics Gender by Age and by Ethnicity
Online Courses vs Overall, Spring 2015**

	Percent Online		Percent Overall	
	Female	Male	Female	Male
Ethnicity				
African American	22.6%	16.7%	16.3%	12.6%
American Indian	0.2%	0.3%	0.1%	0.2%
Asian	13.6%	23.5%	14.4%	17.7%
Hispanic	42.7%	35.2%	51.6%	48.5%
Two or More	5.6%	5.1%	4.7%	4.7%
Pacific Islander	0.6%	0.5%	0.5%	0.6%
Unknown	0.6%	1.2%	0.5%	0.7%
White/Caucasian	14.2%	17.6%	12.0%	15.0%
Age Group				
Under 17	0.7%	0.1%	1.2%	1.0%
18 - 24	62.3%	66.9%	74.0%	77.7%
25 to 29	18.5%	16.3%	11.2%	11.0%
30 to 34	7.5%	8.3%	4.6%	4.5%
35 to 39	4.5%	2.8%	2.9%	1.9%
40 to 49	3.8%	3.3%	3.3%	2.0%
50 +	2.7%	2.4%	2.7%	1.8%

**Distance Education Student Demographics
Enrollment Patterns, Spring 2015**

Enrollment Pattern	Percent
Patterns for Current Semester	
Took Both DE and On Campus courses	68.4%
Patterns for Previous Semesters	
Took DE courses previously	49.0%

Appendix B: COURSE OFFERINGS

Online Course Offerings, Fall 2014

Course	Course Title	Sections	Seats	Transferable
AJ-100	Intro to Admin of Justice	1	37	Yes
ANTH-1	Intro to Physical Anthropology	3	132	Yes
ANTH-2	Intro Cultural Anthropology	2	83	Yes
ART-101	Art/Visual Cultr in Modrn Life	1	46	Yes
ART-102A	Hist West;prehist-Gothic	1	47	Yes
BUS-15	Business Mathematics	1	23	No
CADD-31	Orientation to CATIA	1	23	Yes
CADD-7	Wirfrm w/Surf Solid Mod Assem	1	21	Yes
CDEV-103	Child Growth and Development	2	100	Yes
CDEV-104	The Home, School, Community	1	49	Yes
CDEV-114	Observing/Assessing Yng Chldrn	1	50	Yes
CDEV-129	Intro Program Administrtrn	1	35	Yes
CDEV-131	Suprvsing/Mentorgng Adults	2	34	Yes
CDEV-150	Survey Children Special Needs	1	49	Yes
CH-1	Persnl/Commnty Health Issues	4	193	Yes
CIS-13	Computer Information Systems	1	30	Yes
CIS-142	LAN Switchng/Wireless Cisco 3	1	7	No
CIS-143	Accessing the WAN - Cisco 4	1	16	No
DANC-101	Dance Appreciation	4	170	Yes
ECON-1	Principls of Econ - Macroecon	2	90	Yes
ECON-2	Princ Economics:microecon	1	56	Yes
ENGL-1A	Reading and Composition	3	82	Yes
ENGL-1C	Critical Thinking/Comp	4	112	Yes
ENGL-84	Developmental Reading/Writing	2	58	No
FAID-1	Frst Aid CPR/Bsc Emrgncy Care	1	19	Yes
FASH-31	History of Costume	1	35	Yes
HIST-101	U.S. History to 1877	2	86	Yes
HIST-102	U.S. History - 1877-Present	2	53	Yes
HUMA-1	An Introduction to the Humanities	1	39	Yes
JOUR-12	Mass Media and Society	1	38	Yes
LAW-4	Legal Environmnt Business	1	34	Yes
MATH-150	Elemntry Statistcs W/Probabty	1	25	Yes
MATH-40	Elementary Algebra	1	23	No
MATH-73	Intermediate Algebra Gen Ed	2	53	No
MUSI-111	Music Appreciation-Survey	2	97	Yes
NFOO-11	Nutrition	1	48	Yes
OCEA-10	Intro to Oceanography	1	29	Yes
PE-277	Intro to Kinesiology/Phys Ed	2	73	Yes
PHIL-2	Introductn to Philosophy	1	35	Yes
PHIL-8	Introduction to Logic	1	31	Yes
POLI-1	Governments US/Calif	6	254	Yes
PSYC-15	Abnormal Psychology	1	48	Yes
PSYC-16	Lifespan Development	2	90	Yes
PSYC-5	General Psychology	5	198	Yes
PSYC-7	Physiological Psychology	2	97	Yes

Online Course Offerings, Fall 2014 Continued

Course	Course Title	Sections	Seats	Transferable
SOCI-101	Introduction to Sociology	4	195	Yes
SOCI-102	The Family	1	48	Yes
SOCI-104	Social Problems	1	46	Yes
SOCI-112	Introduction to Criminology	1	43	Yes
THEA-103	Theatre Appreciation	1	45	Yes

Online Course Offerings, Spring 2015

Course	Course Title	Sections	Seats	Transferable
AJ-100	Intro to Admin of Justice	1	26	Yes
AJ-111	Criminal Investigation	1	45	Yes
ANTH-1	Intro to Physical Anthropology	4	180	Yes
ANTH-2	Intro Cultural Anthropology	3	128	Yes
ART-101	Art/Visual Cultr in Modrn Life	1	50	Yes
ART-102A	Hist West:prehist-Gothic	1	53	Yes
BUS-15	Business Mathematics	1	25	No
BUS-19	Principles Retail Management	1	0	Yes
CADD-31	Orientation to CATIA	1	17	Yes
CADD-7	Solid Mod Assem 2D Drawings	1	18	Yes
CDEV-103	Child Growth and Development	2	99	Yes
CDEV-104	The Home, School, Community	1	45	Yes
CDEV-114	Observing/Assessing Yng Chldrn	1	46	Yes
CDEV-131	Suprvsing/Mentorg Adults	2	39	Yes
CDEV-150	Intro Children Special Needs	1	47	Yes
CH-1	Persnl/Commnty Health Issues	6	251	Yes
CIS-13	Computer Information Systems	1	40	Yes
DANC-101	Dance Appreciation	4	188	Yes
ECON-1	Principles of Econ - Macroecon	1	39	Yes
ECON-2	Princ Economics:microecon	2	101	Yes
ENGL-1A	Reading and Composition	5	146	Yes
ENGL-1C	Critical Thinking/Comp	6	176	Yes
ENGL-84	Developmental Reading/Writing	2	52	No
FAID-1	Frst Aid CPR/Bsc Emrgncy Care	1	18	Yes
FASH-31	History of Costume	1	28	Yes
FTEC-1	Fire Protect Organization	1	38	Yes
HIST-101	U.S. History to 1877	3	126	Yes
HIST-102	U.S. History - 1877-Present	3	116	Yes
HIST-140	History of Early Civilizations	1	32	Yes
HUMA-1	An Introduction to the Humanities	1	39	Yes
JOUR-12	Mass Media and Society	1	42	Yes
LAW-4	Legal Environmnt Business	1	33	Yes
MATH-150	Elemntry Statistics W/Probablty	3	85	Yes
MATH-40	Elementary Algebra	2	47	No
MATH-73	Intermediate Algebra Gen Ed	2	55	No
MUSI-111	Music Appreciation-Survey	3	130	Yes
MUSI-116	History of Rock Music	1	37	Yes
NFOO-11	Nutrition	2	98	Yes
OCEA-10	Intro to Oceanography	1	23	Yes
PE-277	Intro to Kinesiology/Phys Ed	2	70	Yes

Online Course Offerings, Spring 2015 Continued

Course	Course Title	Sections	Seats	Transferable
PHIL-2	Introductn to Philosophy	1	47	Yes
PHIL-3	Ethics and Society	1	53	Yes
PHIL-8	Introduction to Logic	2	84	Yes
POLI-1	Governments US/Calif	6	248	Yes
POLI-10	Intro-Interntl Relations	1	32	Yes
PSYC-16	Lifespan Development	2	92	Yes
PSYC-2	Psyc Effective Living	1	54	Yes
PSYC-5	General Psychology	5	239	Yes
PSYC-7	Physiological Psychology	2	94	Yes
SOCI-101	Introduction to Sociology	4	194	Yes
SOCI-102	The Family	1	43	Yes
SOCI-104	Social Problems	1	43	Yes
SOCI-112	Introduction to Criminology	1	50	Yes
THEA-103	Theatre Appreciation	1	30	Yes

Appendix C: ACADEMIC PERFORMANCE

Success and Retention Rate Gaps Online Courses, Fall 2015

	Success Gap	Retention Gap
Gender		
Female	-0.7%	-0.8%
Male	1.7%	1.9%
Ethnicity		
African American	-18.1%	-11.6%
American Indian	-1.7%	2.6%
Asian	14.6%	9.5%
Hispanic	-1.1%	0.2%
Two or More	1.4%	2.3%
Pacific Islander	-27.2%	-25.7%
Unknown	-6.7%	7.6%
White/Caucasian	14.2%	6.1%
Age Group		
Under 17	22.9%	14.9%
18 - 24	1.5%	2.2%
25 to 29	-3.8%	-4.3%
30 to 34	1.5%	-1.0%
35 to 39	2.3%	-1.5%
40 to 49	0.8%	-2.9%
50 +	4.4%	4.8%

Note: Gaps larger than -3% are highlighted

**Success and Retention Rate Gaps
Online Courses, Spring 2015**

	Success Gap	Retention Gap
Gender		
Female	-0.6%	0.0%
Male	1.1%	0.0%
Ethnicity		
African American	-18.9%	-8.5%
American Indian	14.8%	10.3%
Asian	22.1%	11.8%
Hispanic	-3.5%	-2.5%
Two or More	-3.5%	-1.8%
Pacific Islander	-28.2%	-26.4%
Unknown	1.5%	8.5%
White/Caucasian	12.0%	5.7%
Age Group		
Under 17	23.4%	12.3%
18 - 24	1.6%	1.0%
25 to 29	-2.2%	-0.9%
30 to 34	-1.6%	-0.8%
35 to 39	-3.7%	-7.6%
40 to 49	4.8%	3.6%
50 +	-6.3%	-2.6%

Note: Gaps larger than -3% are highlighted

**Success and Retention Rates for Veterans and Foster Youth
Local vs. Statewide, Fall 2011 to Fall 2015**

	FA 2011	FA 2012	FA 2013	FA 2014	FA 2015
Success					
ECC Veterans	NA*	90.0%	59.5%	41.8%	34.3%
Veterans State	61.6%	64.2%	63.2%	62.0%	64.2%
ECC Foster Youth	NA*	60.0%	21.4%	19.2%	43.6%
Foster Youth State	38.4%	45.2%	46.7%	45.4%	47.7%
Retention					
ECC Veterans	NA*	97.5%	83.2%	97.7%	69.1%
Veterans State	81.0%	84.7%	83.4%	82.1%	84.1%
ECC Foster Youth	NA*	86.7%	57.1%	50.0%	66.7%
Foster Youth State	58.9%	75.3%	75.7%	74.4%	75.4%

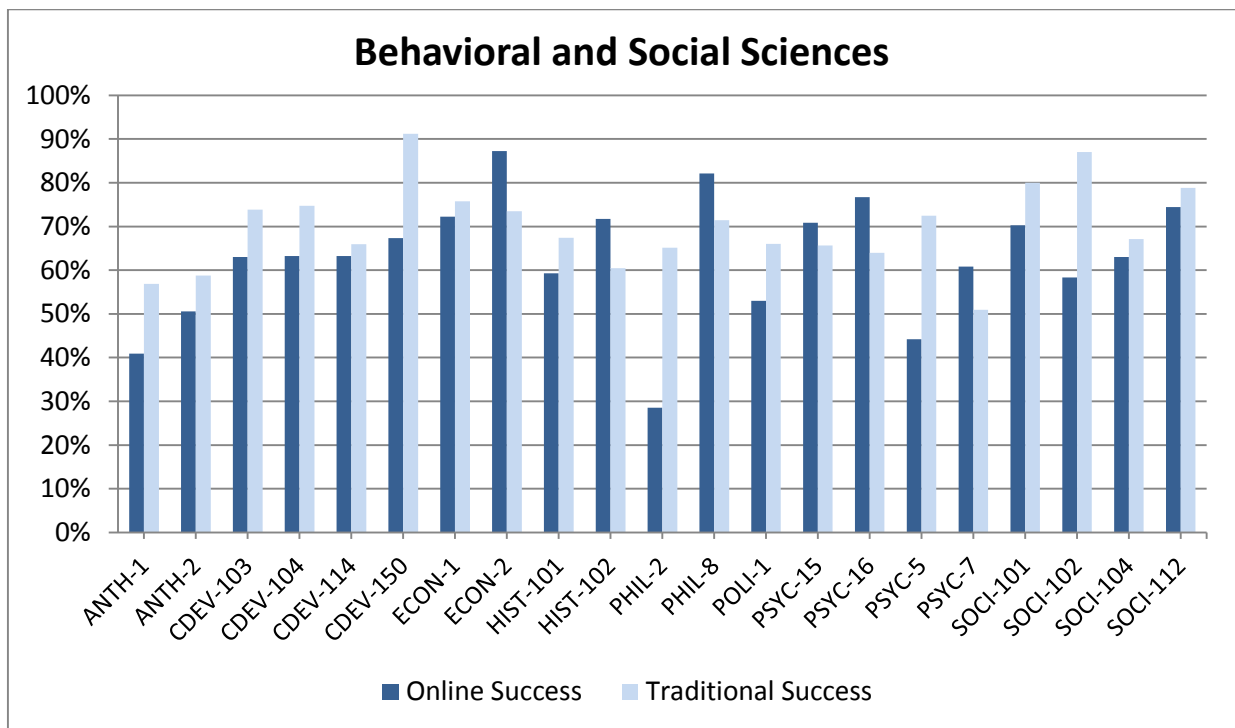
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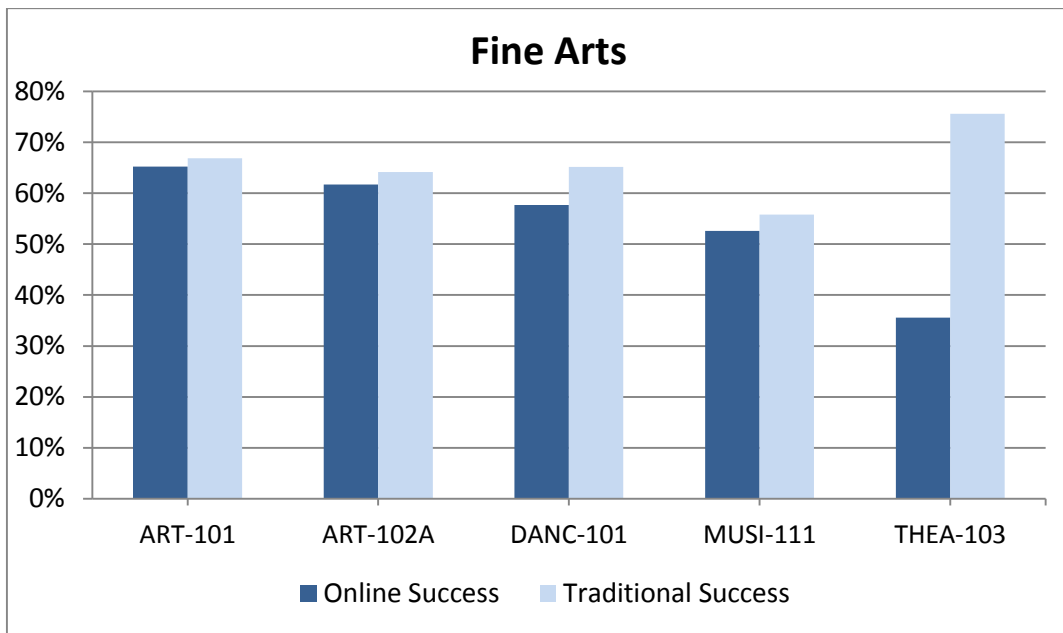
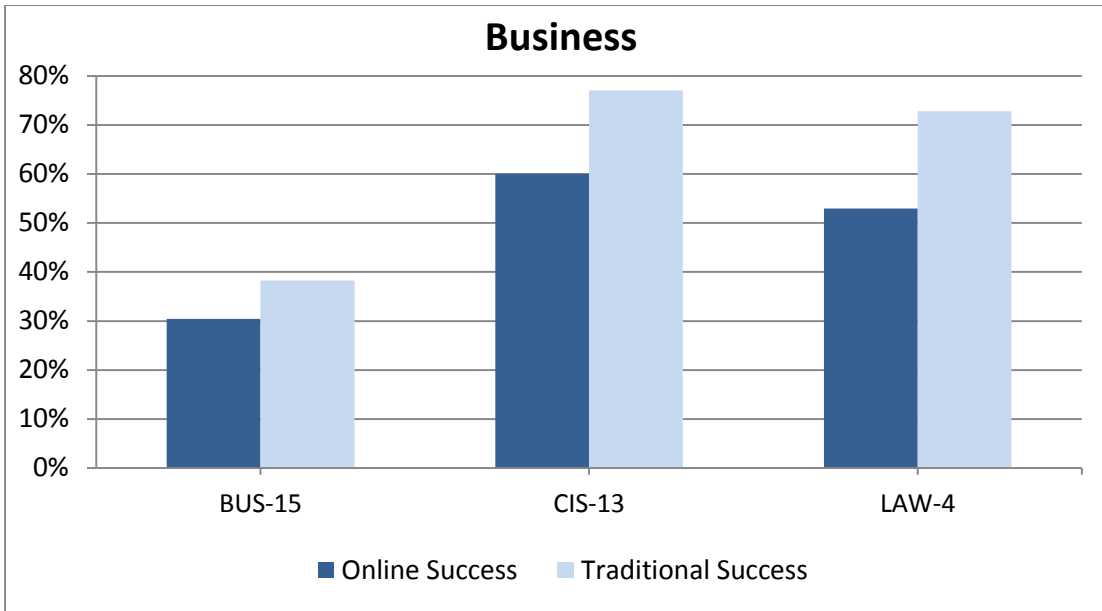
**Success and Retention Rates for Veterans and Foster Youth
Local vs. Statewide, Spring 2011 to Spring 2015**

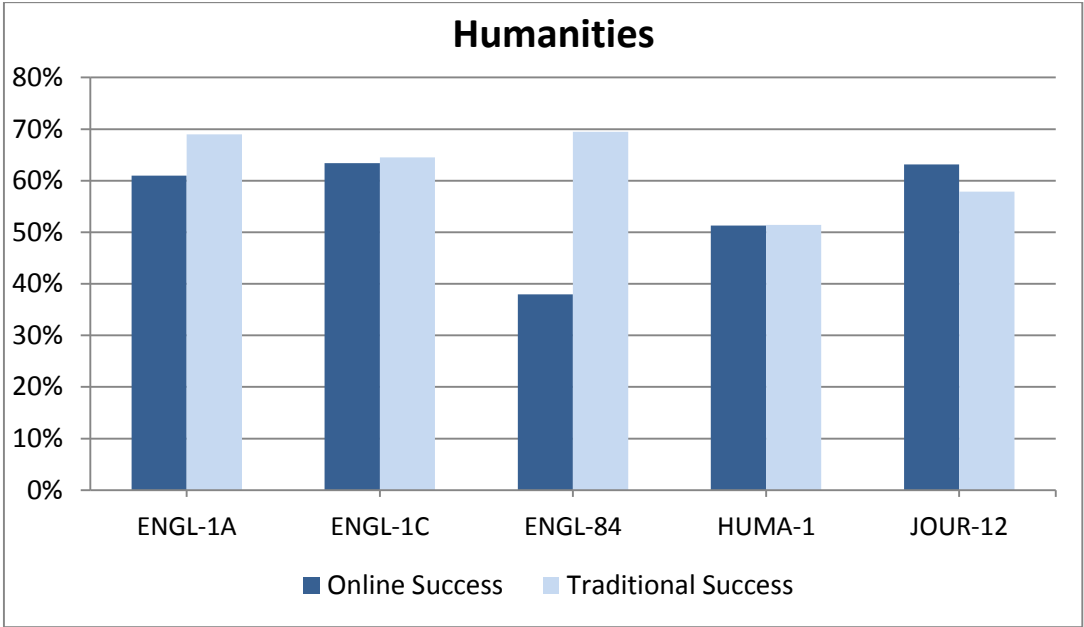
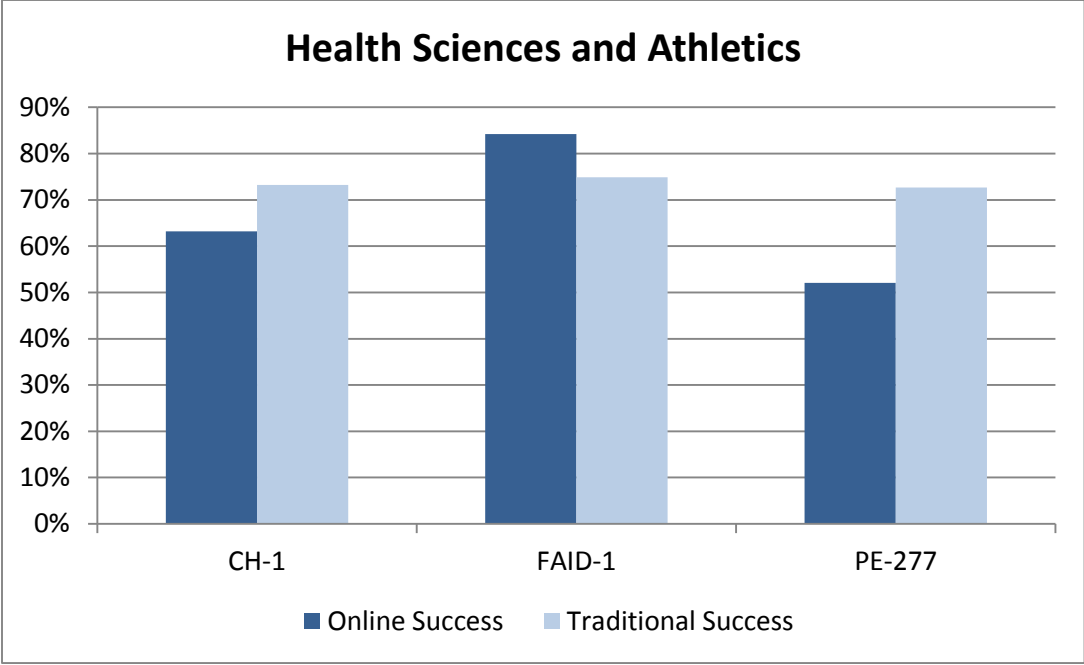
	SP 2011	SP 2012	SP 2013	SP 2014	SP 2015
Success					
ECC Veterans	NA*	NA*	74.1%	54.6%	82.9%
Veterans State	NA*	59.6%	64.2%	64.5%	62.1%
ECC Foster Youth	NA*	NA*	18.2%	18.2%	19.1%
Foster Youth State	NA*	44.7%	45.3%	47.9%	46.7%
Retention					
ECC Veterans	NA*	NA*	83.2%	90.3%	90.2%
Veterans State	NA*	72.5%	83.5%	83.6%	82.3%
ECC Foster Youth	NA*	NA*	54.6%	54.6%	52.4%
Foster Youth State	NA*	71.5%	74.6%	75.6%	74.6%

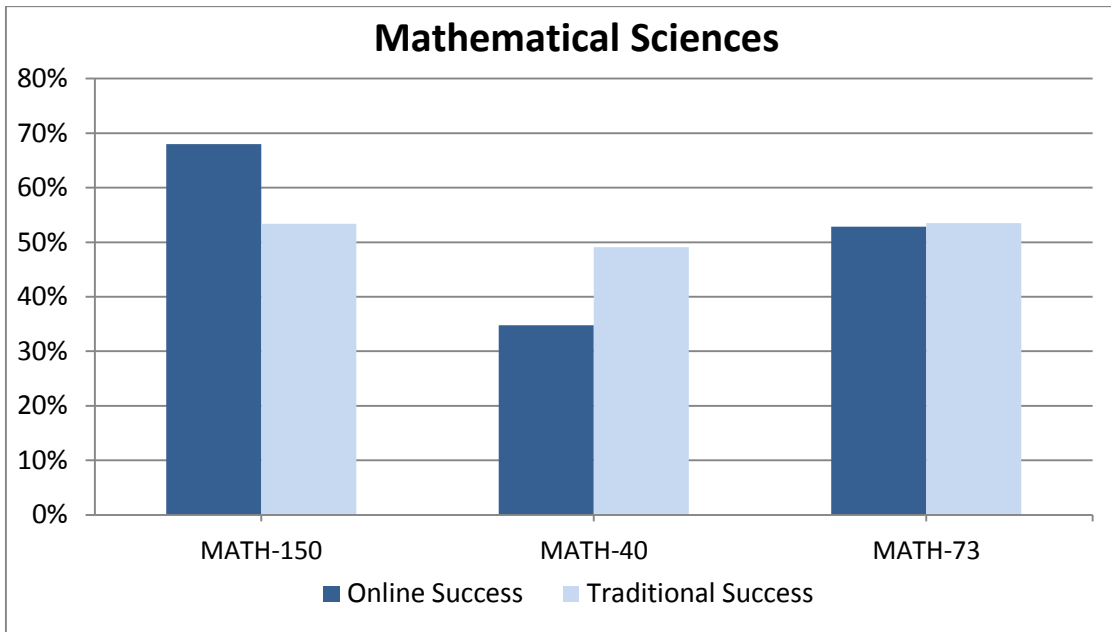
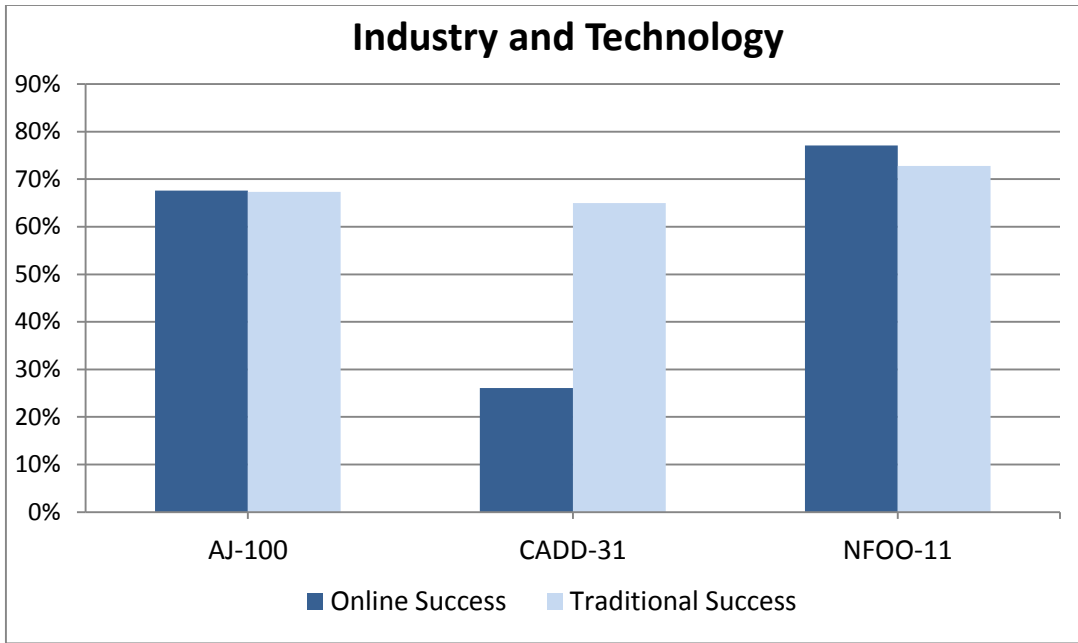
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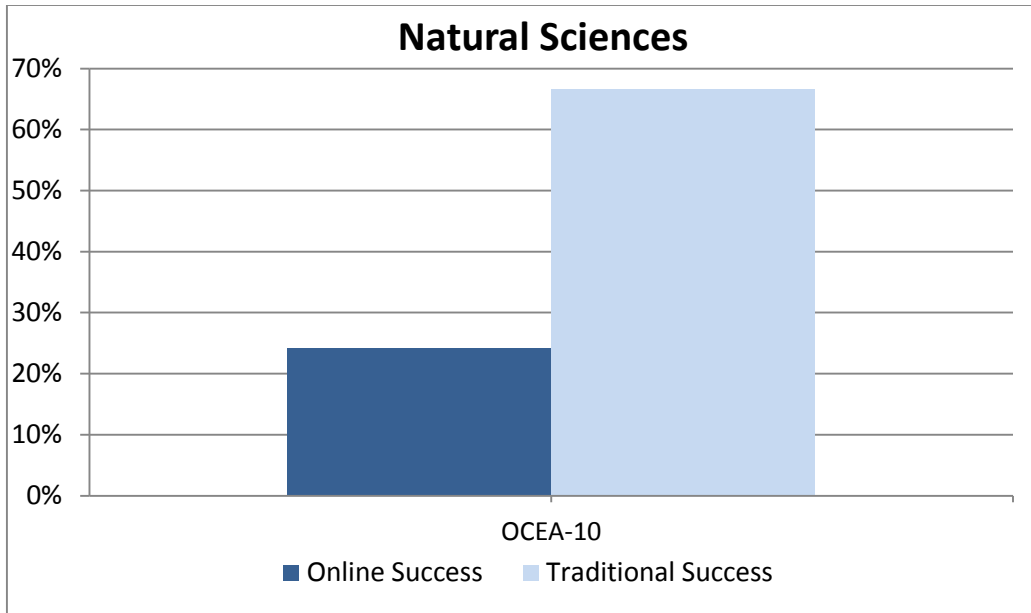
Divisional Success Rate Comparison for Distance Education and Traditional Sections, Fall 2015











Divisional Success Rate Comparison for Distance Education and Traditional Sections, Spring 2015

