

December
2020

Alternative Delivery Mode Analysis: Spring 2020

College of the Canyons

Santa Clarita Community College District
26455 Rockwell Canyon
Santa Clarita, CA 91355

Institutional Research, Planning, and
Institutional Effectiveness

Catherine Parker, M.A.

Daylene M. Meuschke, Ed.D.



Table of Contents

Introduction.....4
Methods.....6
Research Results7
Recommendations.....21

Figures and Tables

Figures

Figure 1. Retention and Success Rates for 8 Week Online Courses Taught in Same Full Semester
Face-to-Face Courses: Fall 2016-20198
Figure 2. Retention and Success Rates for Full Semester Face-to-Face Courses Taught in the Same 8 Week Online
Courses: Fall 2016-2019.....8
Figure 3. Retention and Success Rates for 8 Week Hybrid Courses Taught in the Same Full Semester
Face-to-Face Courses: Fall 2017-20199
Figure 4. Retention and Success Rates for Full Semester Face-to-Face Courses Taught in the Same 8 Week Hybrid
Courses: Fall 2017-2019.....9
Figure 5. Retention and Success Rates for 8 Week Face-to-Face Courses Taught in the Same Full Semester
Face-to-Face Courses: Fall 2017-20199
Figure 6. Retention and Success Rates for Full Semester Face-to-Face Courses Taught in the Same 8 Week
Face-to-Face Courses: Fall 2017-20199
Figure 7. Retention and Success Rates for Full Semester Online Courses Taught in the Same Full Semester
Face-to-Face Courses: Fall 2016-201910
Figure 8. Retention and Success Rates for Full Semester Face-to-Face Courses Taught in the Same Full Semester
Online Courses: Fall 2016-201910
Figure 9. Retention and Success Rates for Full Semester Hybrid Courses Taught in the Same Full Semester
Face-to-Face Courses: Fall 2016-201911
Figure 10. Retention and Success Rates for Full Semester Face-to-Face Courses Taught in the Same Full Semester
Hybrid Courses: Fall 2016-201911
Figure 11. Retention and Success Rates for PAL Courses Taught in the Same Full Semester
Face-to-Face Courses: Fall 2016-201912

Figure 12. Retention and Success Rates for Full Semester Face-to-Face Courses Taught in the Same PAL
 Courses: Fall 2016-2019 12

Figure 13. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2016 (Percentage).... 12

Figure 14. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2017 (Percentage).....12

Figure 15. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2018 (Percentage).....13

Figure 16. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2018 (Percentage).....13

Figure 17. Gender Distribution for 100% Online Courses Compared to the College as a Whole (Fall 2016-2019).....15

Figure 18. Percentage of Exclusive Enrollment in 100% Online Courses Fall 2016-2019.....15

Figure 19. Percentage of Students Enrolled in 100% Also Enrolled in Face-Face and/or Hybrid Courses
 Fall 2016-2019.....17

Figure 20. Community of Residence Distribution for 100% Online Courses Compared to the College as a
 Whole (Fall 2016-2019).....18

Figure 21. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students:
 Fall 2016.....18

Figure 22. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students:
 Fall 2017.....19

Figure 23. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students:
 Fall 2018.....19

Figure 24. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students:
 Fall 2019.....20

Tables

Table 1. Overall Retention Rates: Fall 2016-Fall 2019 (Percentage).....7

Table 2. Overall Success Rates: Fall 2016-Fall 2019 (Percentage).....7

Table 3. Median Class Size: Fall 2016-Fall 2019.....13

Table 4. Median Class Sizes for Same Courses Taught in Each Delivery Mode: Fall 2016-2019 (Percentage)..... 14

Table 5. Ethnic Distribution for 100% Online Courses Compared to the College as a Whole (Fall 2016-2019).....15

Table 6. Age Distribution for 100% Online Courses Compared to the College as a Whole: Fall 2016-Fall 2019
 (Percentage).....16

Table 7. Table 7. Percentage of Students taking at Least one Hybrid Class by Campus: Fall 2016-2019
(Percentage).....16

Table 8. Cumulative GPA: Fall 2016-2019 (Percentage).....17

Introduction

At the request of the Online Education Department, the Office of Institutional Research, Planning and Institutional Effectiveness compared alternative instructional delivery methods (full semester online, full semester hybrid; five and eight week face-to-face, online, and hybrid courses; Personalized Accelerated Learning (PAL), College Now (CNOW), and Dual Enrollment (DUENR) to courses taught in a traditional format (face-to-face full term). This is a follow-up to the “Analysis of Alternative Delivery Modes: Fall Terms 2011-2015” report (Parker, Meuschke, and Gibbons, 2016).

This study assesses patterns in alternative instructional delivery methods and how they compare to courses taught in a traditional learning format. More specifically, this study sought to answer the following research questions:

1. What are the overall retention and success rates for Fall 2016 – Fall 2019 by instructional delivery method?
 - Five week online
 - Eight week face-to-face
 - Eight week hybrid
 - Eight week online
 - Full semester online
 - Full semester hybrid
 - Full semester face-to-face
 - Personalized Accelerated Learning (PAL)
 - Dual Enrollment (DUENR)
 - College Now (CNOW)
2. What are the overall retention and success rates for Fall 2016 – Fall 2019 for each alternative instructional delivery mode compared to the same courses taught in a traditional format?
3. What are the retention and success rates for all Fall 2016 – Fall 2019 online and hybrid courses (accelerated and full semester) compared to the same courses offered in a face-to-face format (accelerated and full semester)?
4. What are the median class sizes for Fall 2016 – Fall 2019 by instructional delivery method?
5. What are the median class sizes for Fall 2016 – Fall 2019 for each alternative instructional delivery mode compared to the same courses taught in a traditional format?
6. Compared to the college population as a whole, what is the gender distribution for students taking 100% online classes for Fall 2016 – Fall 2019?

7. Compared to the college population as a whole, what is the racial and ethnic distribution for students taking 100% online classes compared to the college population as a whole, for Fall 2016 – Fall 2019?
8. Compared to the college population as a whole, what is the age distribution for students taking 100% online for Fall 2016 – Fall 2019?
9. Are students who take classes at the Canyon Country campus more or less likely to enroll in hybrid classes? Are students taking classes at the Valencia Campus more or less likely to enroll in hybrid?
10. Are there differences in prior achievement of students enrolling in 100% online classes?
11. Of the students taking 100% online classes, what is the percentage of students enrolling exclusively in 100% online classes for Fall 2016 - Fall 2019?
12. Of the students enrolled in 100% online classes, what percentage also enrolled in face-to-face and/or hybrid classes during the same semester for Fall 2016 - Fall 2019?
13. What percentage of students taking at least one 100% online class reside outside versus inside the district?
14. What is the distribution of retention and success rates for part-time and full-time students enrolled in face-to-face, 100% online, and hybrid courses for Fall 2016 - Fall 2019?

Methods

To conduct the analysis, the IRPIE Office obtained Fall 2016, 2017, 2018, and 2019 enrollment data from the College's 320 file and were matched with the student ID file. Data were then merged with the College's grade files (USX referential file) and student demographic files (UST referential file) for Fall 2016, 2017, 2018, and 2018. Local cumulative grade point average data was obtained from MIS. To perform the analyses data were analyzed using the Statistical Package for the Social Science (SPSS, 2020) and Excel (2018). Analysis excludes CWEE, Noncredit, ISA, and Nursing courses. Note: "--" indicates either insufficient data to report or the delivery method was not offered in that particular semester. Also, data for a particular learning format may not be available in a chart for the same reasons.

Definitions:

Throughout this report, the following definitions are used:

- **Accelerated:** a course offered in a shorter period of time than semester-length courses (e.g. five-week and eight-week courses). Accelerated courses are offered in an online, hybrid, or face-to-face format.
- **Full Semester:** a class that meets for the length of a semester. Full semester courses are offered in an online, hybrid, or face-to-face format.
- **Hybrid:** a course that meets occasionally face-to-face in a classroom at scheduled times, but has much of the coursework done in an online or alternative format.
- **Personalized Accelerated Learning (PAL):** back to back short-term (eight-week) math and English courses, in which students can complete their math and English coursework at a faster pace and personalize their learning experience. Students enter as a cohort, take two math and/or two English courses back-to-back, and have the same instructor and classmates for both courses.
- **Dual Enrollment (DUENR):** college courses offered during the regular high school day during period one or period seven.
- **College Now (CNOW):** college classes designed for high school students offered at College of the Canyons.
- **Course Retention:** the percent of students retained in courses out of total enrolled in courses: Numerator = Number of students (duplicated) with A, B, C, D, F, I, CR/P, FW, NC/NP; Denominator = Number of students (duplicated) with A, B, C, D, DR, F, I, W, CR/P, FW, NC/NP. (This report uses the RP Group definition, which facilitates statewide comparisons.)
- **Course Success:** the percent of students successful in courses out of total enrolled in courses: Numerator = Number of students (duplicated) with A, B, C, CR/P; Denominator = Number of students (duplicated) with A, B, C, D, F, FW, CR/P, NC/NP, W, I. (This analysis uses the RP Group definition, which facilitates statewide comparisons.)

Research Results

Research Question 1: What are the overall retention and success rates for Fall 2016 – Fall 2019 by instructional delivery method

Overall, PAL had the highest retention rates for the Fall 2016, 2017, 2018, and 2019 semesters, while full-semester online courses had the lowest retention rates. Examining success rates, PAL had the highest in Fall 2016 (83%), however, eight-week face-to-face had the highest in Fall 2017 (86%). In Fall 2018, five-week online courses had the highest success rates (80%), while DUENR courses had the highest in Fall 2019 (88%). See Tables 1 and 2 for detailed percentages by instructional delivery method.

Table 1. Overall Retention Rates: Fall 2016-Fall 2019 (Percentage)

Instructional Delivery Method	Fall 2016	Fall 2017	Fall 2018	Fall 2019
GO	90%	89%	87%	--
5 weeks Online	--	--	89%	91%
8 Weeks Online	85%	86%	85%	89%
8 Weeks Hybrid	92%	86%	91%	90%
8 Weeks Face to Face	85%	92%	91%	91%
Full Semester Online	81%	81%	83%	83%
Full Semester Hybrid	82%	85%	86%	87%
Full Semester Face to Face	89%	88%	88%	88%
PAL	95%	92%	93%	97%
DUENR	--	--	--	99%
CNOW	--	--	--	93%

Table 2. Overall Success Rates: Fall 2016-Fall 2019 (Percentage)

Instructional Delivery Method	Fall 2016	Fall 2017	Fall 2018	Fall 2019
GO	71%	72%	73%	--
5 weeks Online	--	--	80%	71%
8 Weeks Online	67%	68%	68%	73%
8 Weeks Hybrid	82%	72%	77%	75%
8 Weeks Face to Face	66%	86%	75%	80%
Full Semester Online	65%	66%	70%	68%
Full Semester Hybrid	66%	70%	73%	72%
Full Semester Face to Face	74%	74%	75%	73%
PAL	83%	74%	78%	85%
DUENR	--	--	--	88%
CNOW	--	--	--	80%

Research Question 2: What are the overall retention and success rates for Fall 2016 – Fall 2019 for each alternative instructional delivery mode compared to the same courses taught in a traditional format?

Eight Weeks Online: Between Fall 2016 and Fall 2019, retention rates slightly increased by four percentage points (86% – Fall 2016 and 89% – Fall 2019; see Figure 1) for eight-week online courses. Success rates increased by 12 percentage points between Fall 2016 and Fall 2018 (68% – Fall 2016 and 80% – Fall 2019), but then decreased by seven percentage points in Fall 2019 (73%).

Across all four terms, the **average retention rate** for eight-week online classes is 88%, which is also the average retention rate for the **same** face-to-face full semester courses. The **average success rate** across all four terms for eight-week online courses is 73%, while it is 72% for the **same** face-to-face courses. Overall, there is no substantial difference in **average retention rate** and only a modest increase (5%) in the **average success rate** for the same eight-week online and face-to-face full courses.

Figure 1. Retention and Success Rates for 8-Week Online Courses Taught in Same Full Semester Face-to-Face Courses: Fall 2016-2019

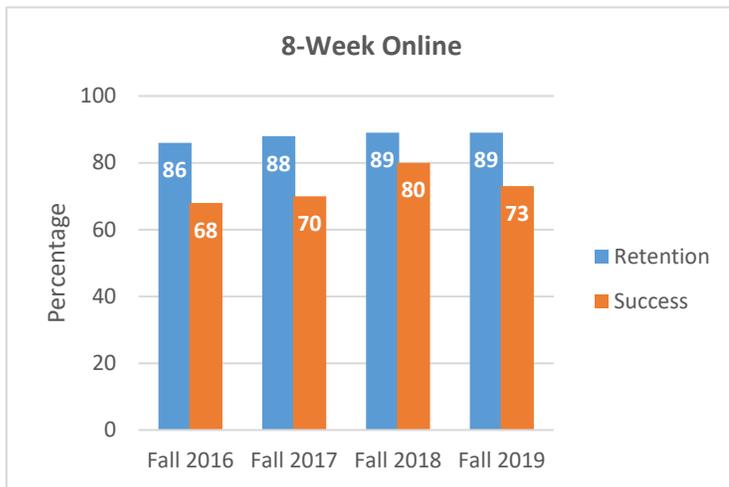
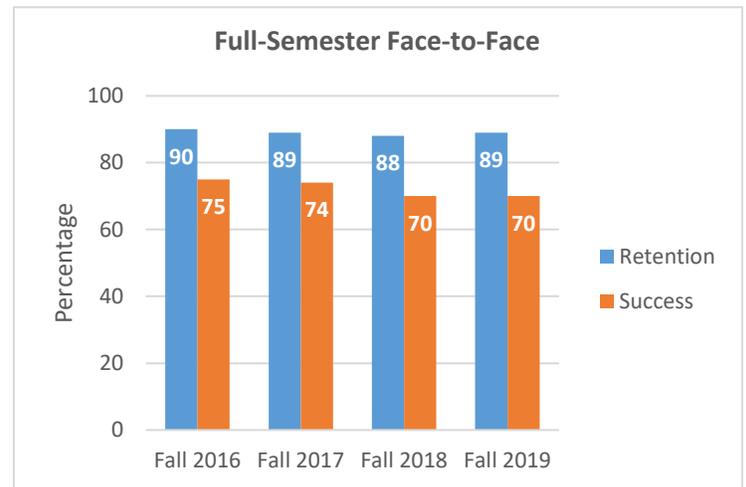


Figure 2. Retention and Success Rates for Full-Semester Face-to-Face Courses Also Taught as 8-Week Online Courses: Fall 2016-2019

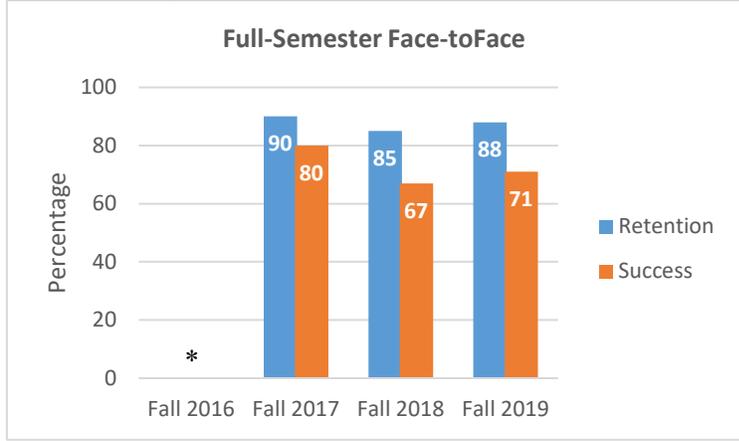
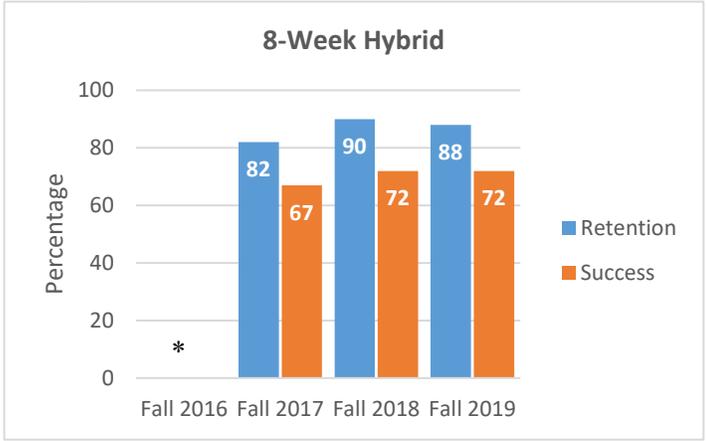


Eight-Week Hybrid: Between Fall 2017 and Fall 2018, retention rates increased eight percentage points (82% – Fall 2017 and 90% – Fall 2018; see Figure 3) for eight-week hybrid courses. Success rates increased five percentage points between Fall 2017 and Fall 2018 (67% – Fall 2017 and 72% – Fall 2018) and remained the same in the Fall 2019 (72%).

Across all three terms for which eight-week hybrid courses were offered, the **average retention rate** for eight-week online classes is 87%, while it was 89% for the **same** face-to-face full-semester courses. The **average success rate** across all three terms for eight-week hybrid courses is 70%, while it is 75% for the **same** face-to-face courses. Overall, the **average** difference in **retention rates** for eight-week hybrid courses is slightly lower (2%) than the **same** face-to-face courses and the **average** difference for **success rates** in eight-week hybrid courses is lower (5%) than the **same** face-to-face full semester courses.

Figure 3. Retention and Success Rates for 8-Week Hybrid Courses Taught in Same Face-to-Face Semester Courses: Fall 2017-2019

Figure 4. Retention and Success Rates for Full-Semester Face-to-Face Courses Also Taught as Face-to-Face Semester Courses: Fall 2017-2019



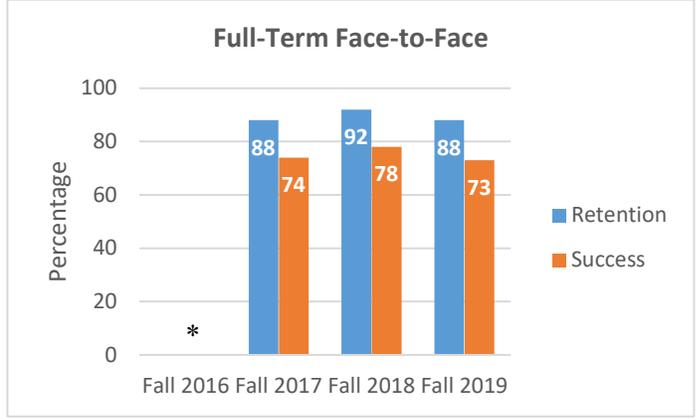
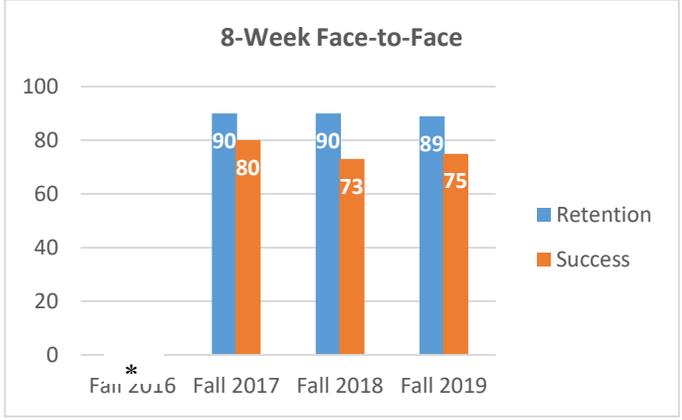
Note: “*” indicates 8-week hybrid was not offered in that semester

Eight-Week Face-to-Face: Between Fall 2017 and Fall 2019, retention rates remained relatively flat (90% – Fall 2017 and 2018, each and 89% – Fall 2019; See Figure 5) for eight-week face-to-face courses. Success rates decreased seven percentage points between Fall 2017 and Fall 2018 (80% – Fall 2017 and 73% – Fall 2018) and then increased two percentage points in Fall 2019 (75%).

Across all three terms for which eight-week face-to-face courses were offered, the **average retention rate** is 90%, while it was 85% for the **same** face-to-face full semester courses. The **average success rate** across all three terms for eight-week face-to-face courses is 76%, while it is 67% for the same face-to-face courses. Overall, the **average retention and success rates** are higher (5% and 9%, respectively) than the **same** face-to-face full semester courses.

Figure 5. Retention and Success Rates for 8 Week Face-to-Face Courses Taught in the Same Face-to-Face Full Semester Course: Fall 2016-2019

Figure 6. Retention and Success Rates for Full Semester Face-to-Face Courses Also Taught as 8-Week Face-to-Face Courses: Fall 2016-2019

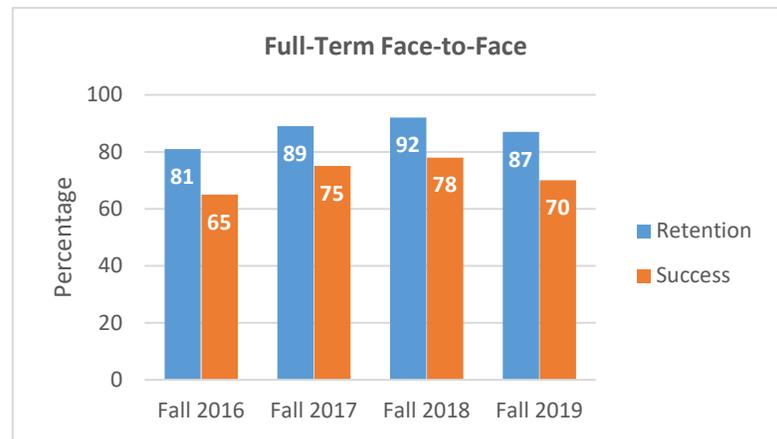
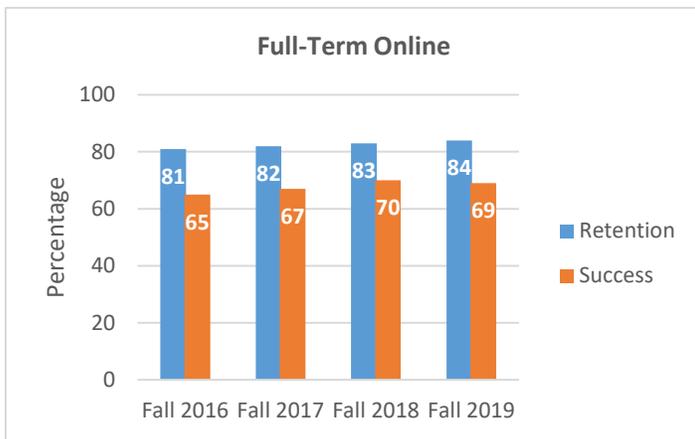


Note: “*” indicates 8-week face-face was not offered in that semester

Full-Term Online: Between Fall 2016 and Fall 2019, retention rates slightly increased three percentage points (81% – Fall 2016 and 84% - Fall 2019; see Figure 7) for full-term online courses. Success rates increased five percentage points between Fall 2016 and Fall 2018 (65% and 70%, respectively), but decreased by one percentage point in Fall 2019 (69%). Across all four terms, the **average retention rate** for full-term online classes is 83%, while it is 88% for the **same** face-to-face full semester courses. The **average success rate** across all four terms for full-term online courses is 68%, while it is 72% for the **same** face-to-face courses. Overall, face-to-face courses have a higher **average** difference of five percentage points for **retention** rates and four percentage points for **success** rates when examining the **same** full-term online and face-to-face full term courses.

Figure 7. Retention and Success Rates for 8 Week Face-to-Face Courses Taught in the Same Face-to-Face Full Semester Course: Fall 2016-2019

Figure 8. Retention and Success Rates for Full-Semester Face-to-Face Courses Also Taught as Full-Term Online Course: Fall 2016-2019



Full-Term Hybrid: Between Fall 2016 and Fall 2019, retention rates increased six percentage points (80% – Fall 2016 and 86% – Fall 2019; see Figure 9) for full-term hybrid courses. Success rates increased six percentage points between Fall 2016 and Fall 2019 (64% – Fall 2016 and 70% – Fall 2019). Across all four terms, the average retention rate for full-term hybrid classes is 83%, which is also the average retention rate for the **same** face-to-face full semester courses (86%). The **average success rate** across all four terms for full-term hybrid courses is 68%, while it is 69% for the **same** face-to-face courses. Overall, there is no **average** difference in retention and success rates for the **same** full-term hybrid and face-to-face courses.

Figure 9. Retention and Success Rates for Full-Term Hybrid Courses Taught in the Same Face-to-Face Full Semester Course: Fall 2016-2019

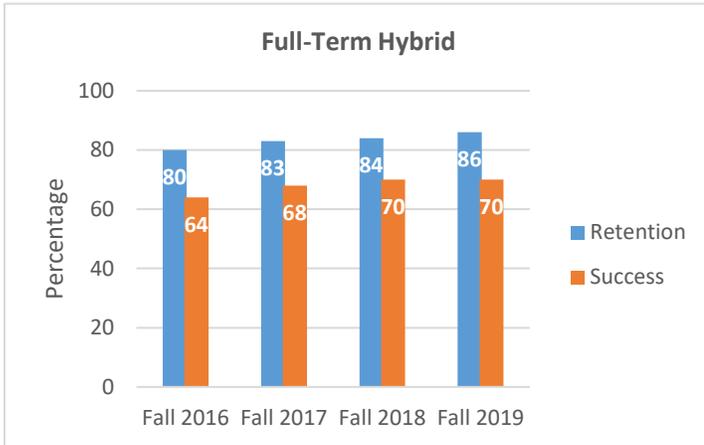
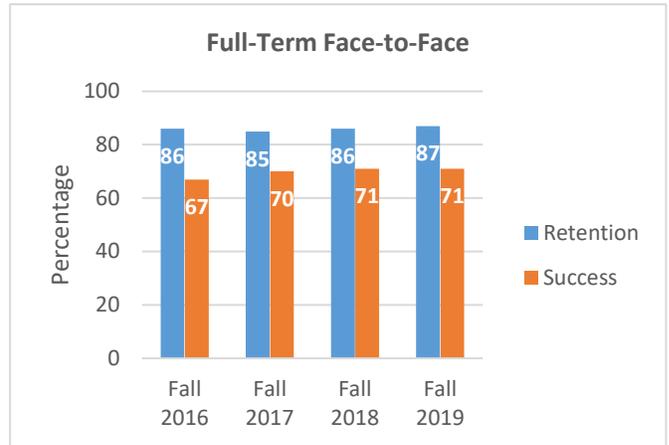


Figure 10. Retention and Success Rates for Full-Term Face-to-Face Courses Also Taught as Full-Term Hybrid Courses: Fall 2016-2019



PAL: Retention rates in PAL courses decreased by two percentage points between Fall 2016 and Fall 2018 (95% – Fall 2016 and 93% – Fall 2018; see Figure 11). Success rates decreased by nine percentage points between Fall 2016 and Fall 2018 (83% and 74%), then slightly increased by four percentage points by Fall 2018 (78%).

Across all three terms that PAL was offered in within the time frame of this analysis, the **average retention rate** for PAL classes is 93%, while the **average retention rate** for the **same** face-to-face full semester courses is 83%. The **average success rate** for PAL courses is 78%, while it’s 64% for the **same** face-to-face courses. Overall, PAL had substantially higher average retention and success rates (10% and 14%, respectively) than the **same** face-to-face full semester courses.

Figure 11. Retention and Success Rates for PAL Courses Taught in the Same Face-to-Face Full Semester Course: Fall 2016-2018

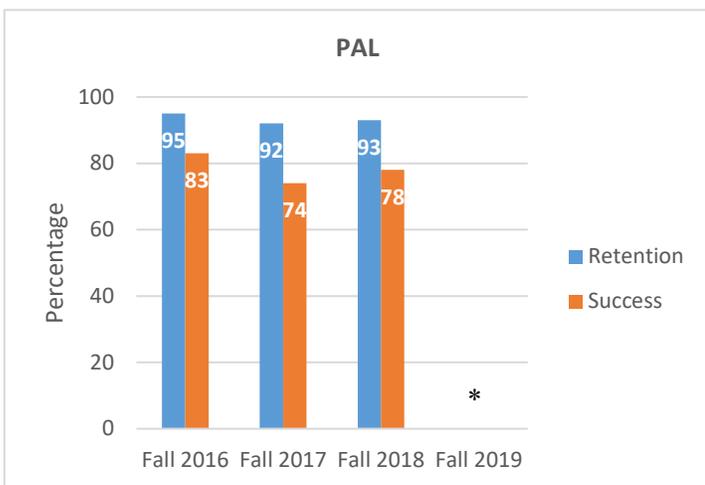
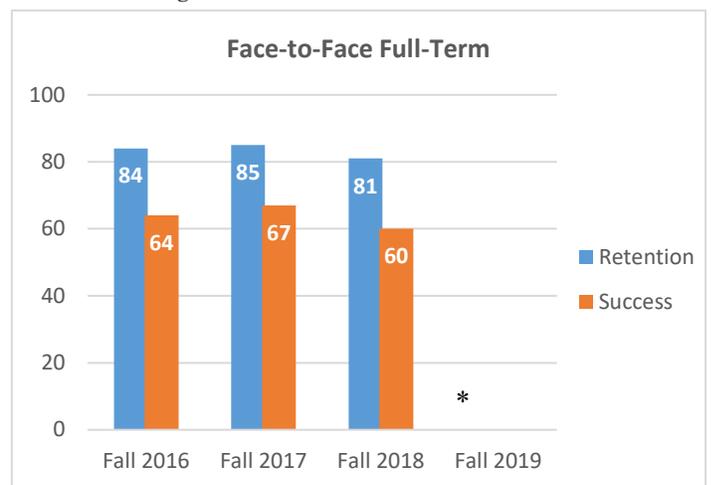


Figure 12. Retention and Success Rates for Face-to-Face Full-Semester Courses Also Taught as PAL Courses: Fall 2016-2018



Note: “*” indicates PAL was not offered in that semester

Research Question 3: What are the retention and success rates for all online and hybrid courses (accelerated and full semester) compared to the same courses offered in a face-to-face format (accelerated and full semester)?

Overall, face-face courses had higher retention and success rates compared to the same courses offered in an online or hybrid format; however, in Fall 2019 the retention and success rates were the same for each of these formats. See Figures 14-16 for details.

Figure 13. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2016 (Percentage)

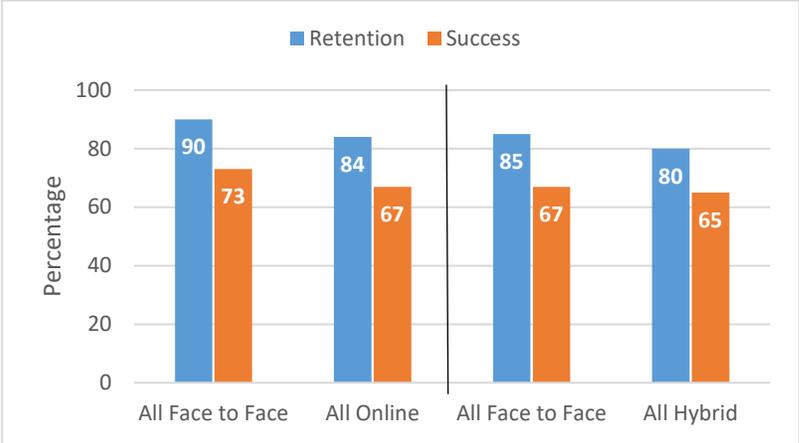


Figure 14. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2017 (Percentage)



Figure 15. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2018 (Percentage)

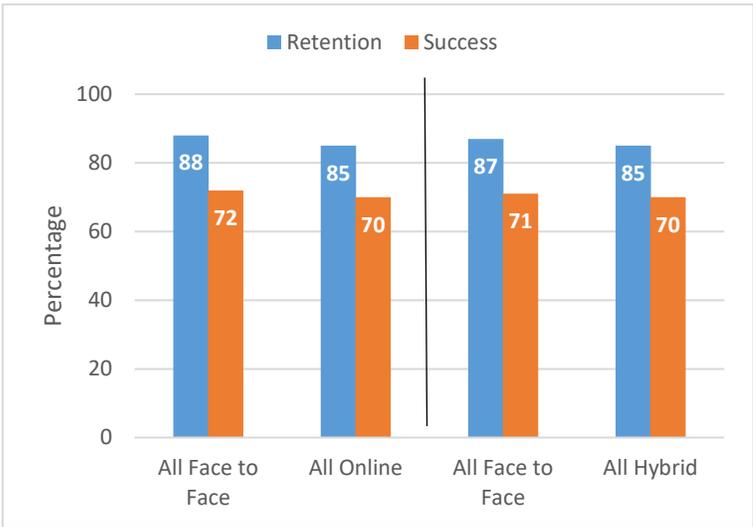
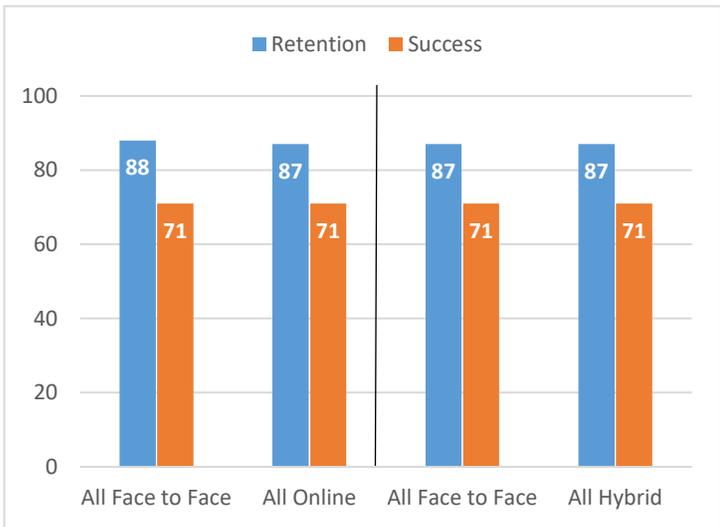


Figure 16. Retention and Success Rate Comparisons for Face-to-Face, Online, and Hybrid: Fall 2019 (Percentage)



Research Question 4: What are the median class sizes for Fall 2016– Fall 2019 by instructional delivery method?

In the Fall 2016 and 2017 semesters, eight week face-to-face classes had the lowest median class sizes (M=10, each), while eight week hybrid classes had the lowest in Fall 2018 (M=23). Lowest median class size in Fall 2019 was with DUENR courses (M=18.5) See Table 3 for details.

Table 3. Median Class Size: Fall 2016-Fall 2019

Instructional Delivery Method	Median Class Sizes			
	Fall 2016	Fall 2017	Fall 2018	Fall 2019
GO	28	15	28	--
5 Weeks Online	--	--	31.5	27.5
5 Weeks Hybrid	--	--	--	--
8 Weeks Online	30	27	28	28
8 Weeks Hybrid	22	25	23	21.5
8 Weeks F2F	10	10	25	20.5
Full Online	30	30	29	30
Full Hybrid	26	24	25	23
Full F2F	30	27	25	25
PAL	31.5	27	29	33
DUENR	--	--	--	18.5
CNOW	--	--	--	17

Research Question 5: What are the median class sizes for Fall 2016 – Fall 2019 for each alternative instructional delivery mode compared to the same courses taught in a traditional format?

For the most part, face-to-face full semester courses have slightly *higher* median class sizes compared to each alternative instructional delivery mode. CNOW and DUENR courses had the lowest median class size in Fall 2019 (M=17 and 10, respectively). See Table 4 for details.

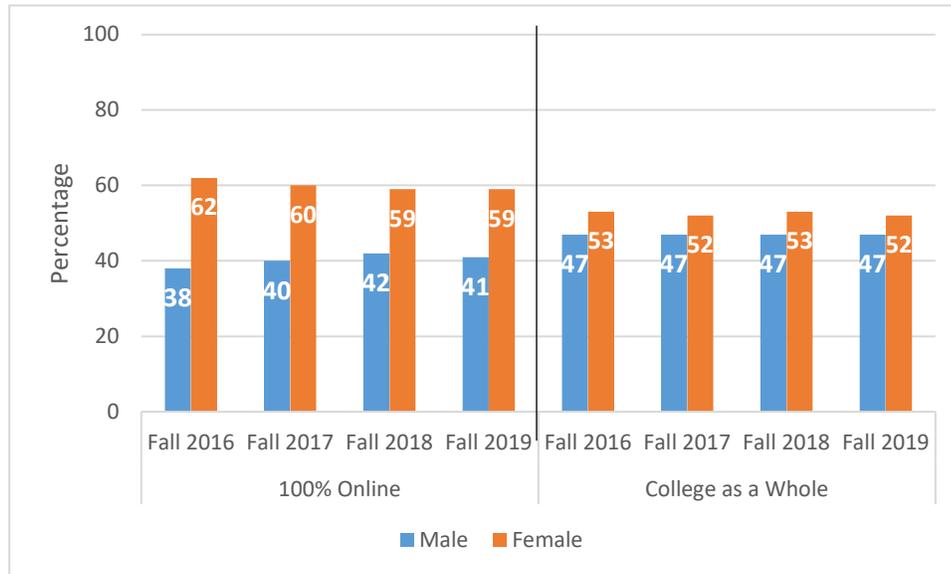
Table 4. Median Class Sizes for Same Courses Taught in Each Delivery Mode: Fall 2016-2019

Instructional Delivery Method	Median Class Sizes			
	Fall 2016	Fall 2017	Fall 2018	Fall 2019
F2F Full	--	--	30	26
5 Weeks Online	--	--	29	26
F2F Full	33	31	29	31
8 Week Online	31	28	24	29
F2F Full	--	30	29	29
8 Week Hybrid	--	25	24	26
F2F Full	--	--	32	30
8 Week F2F	--	--	27.5	26.5
F2F Full	32.5	31	30	29
Full Term Online	31	30	30	31
F2F Full	31	28	28	27
Full Term Hybrid	27	25	25	24
F2F Full	34	27	32	--
PAL	31.5	22	29	--
F2F Full	--	--	--	24
DUENR	--	--	--	10
F2F Full	--	--	--	29
CNOW	--	--	--	17

Research Question 6: Compared to the college population as a whole, what is the gender distribution for students taking 100% online courses for Fall 2016 – Fall 2019?

Similar to the college as a whole, a higher percentage of female students enroll in 100% online courses. Note: Excludes “Unknown”. See Figure 17 for details.

Figure 17. Gender Distribution for 100% Online Courses Compared to the College as a Whole (Fall 2016-2019)



Research Question 7: Compared to the college population as a whole, what is the racial and ethnic distribution for students taking 100% online courses compared to the college population as a whole for Fall 2016 - Fall 2019?

The ethnic distribution for students taking 100% online courses is similar to the ethnic distribution of the college as a whole. See Table 5 for detailed percentages.

Table 5. Ethnic Distribution for 100% Online Courses Compared to the College as a Whole (Fall 2016-2019)

Ethnicity	100% Online				College as a Whole			
	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2016	Fall 2017	Fall 2018	Fall 2019
Asian/Pacific Islander	9%	11%	11%	12%	10%	11%	12%	12%
Black	7%	6%	6%	5%	5%	5%	5%	5%
Latinx/a	45%	46%	47%	49%	48%	49%	50%	50%
American Indian	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
Two or more races	4%	3%	3%	2%	3%	3%	2%	2%
White	34%	32%	31%	29%	32%	31%	29%	28%
Unknown	1%	1%	1%	3%	1%	1%	1%	3%

Research Question 8: Compared to the college population as a whole, what is the age distribution for students taking 100% online courses for Fall 2016 - Fall 2019?

Enrollment in 100% online courses is largely made up of traditional students (students age 24 or younger), accounting for just over 70% of enrollments. The distribution of the age of students taking 100% online classes is similar to age distribution of the college as a whole.

Table 6. Age Distribution for 100% Online Courses Compared to the College as a Whole (Fall 2016-2019)

Age	100% Online				College as a Whole			
	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2016	Fall 2017	Fall 2018	Fall 2019
19 or Less	31%	33%	37%	42%	27%	37%	39%	42%
20-24	41%	41%	37%	34%	39%	39%	36%	34%
25-29	13%	12%	12%	11%	11%	12%	11%	11%
30-34	6%	6%	5%	5%	5%	5%	5%	5%
35-39	3%	3%	4%	3%	2%	3%	3%	3%
40-49	4%	3%	3%	3%	3%	3%	3%	3%
50+	2%	2%	2%	2%	2%	3%	2%	3%

Research Question 9: Are students who take classes at the Canyon Country Campus more or less likely to enroll in hybrid classes? Are students taking classes at the Valencia Campus more or less likely to enroll in hybrid?

For students who take classes at the Canyon Country campus, the rate at which they enroll in hybrid classes has increased between Fall 2016 and Fall 2019, while it has remained steady for students enrolled in courses at the Valencia campus. By Fall 2019, the rate at which Canyon Country campus students enrolled in hybrid classes was six percentage points higher. See Table 7.

Table 7. Percentage of Students taking at Least one Hybrid Class by Campus: Fall 2016-2019 (Percentage)

Campus	Fall 2016	Fall 2017	Fall 2018	Fall 2019
CCC Students	2%	6%	5%	12%
VAL Students	4%	5%	6%	6%

Research Question 10: Are there differences in prior achievement of students enrolling in 100% online classes?

Between the Fall 2016 and Fall 2019 semesters, there was no difference in prior achievement of students enrolled in 100% online courses compared to the college as a whole. See Table 8.

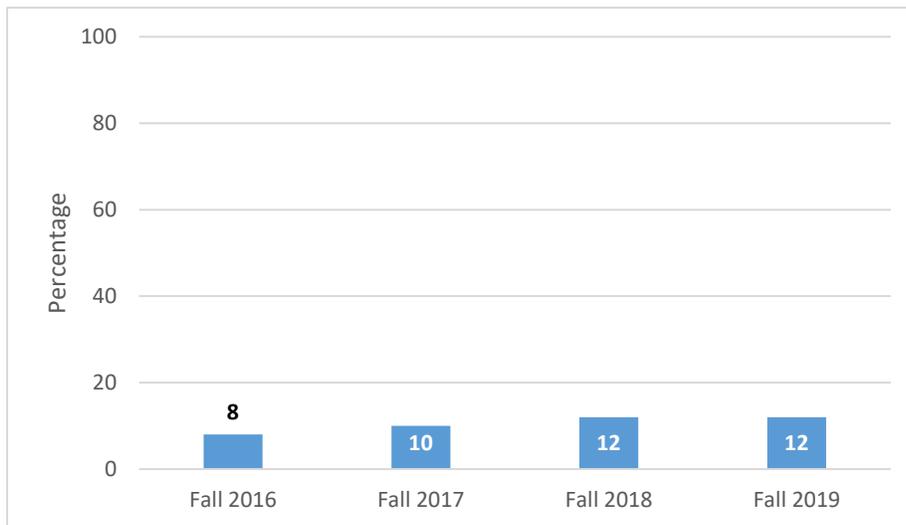
Table 8. Cumulative GPA: Fall 2016-2019

Instructional Delivery Mode	Fall 2016	Fall 2017	Fall 2018	Fall 2019
100% Online	2.8	2.8	2.8	2.8
College as a Whole	2.8	2.8	2.8	2.7

Research Question 11: Of the students taking 100% online classes, what is the percentage of students enrolling exclusively in 100% online classes for Fall 2016-Fall 2019?

Between Fall 2016 and Fall 2019, the rate at which students were enrolled exclusively in 100% online classes has increased steadily from 8% to 12% (see Figure 18).

Figure 18. Percentage of Exclusive Enrollment in 100% Online Courses Fall 2016-2019

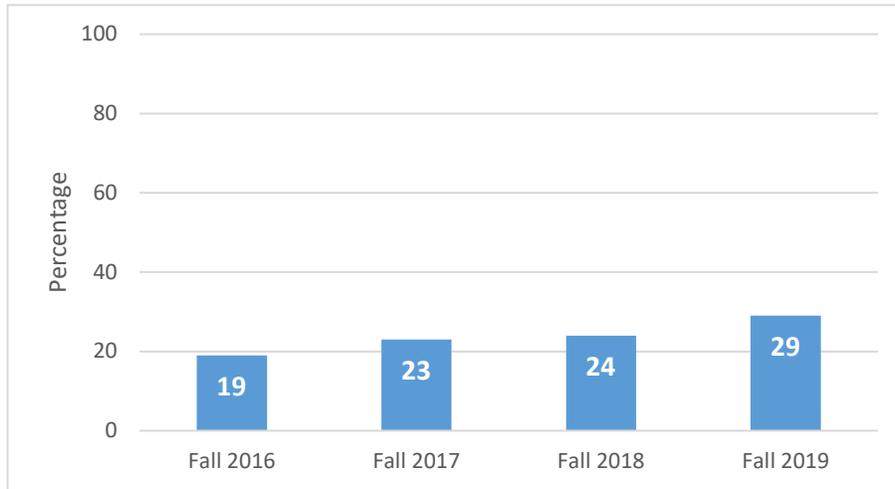


Research Question 12: Of the students enrolled in 100% online classes, what percentage also enrolled in face-to-face and/or hybrid classes during the same semester for Fall 2016-Fall 2019?

The percentage of students enrolled in 100% online classes who were also enrolled in face-to-face and/or hybrid has steadily increased from Fall 2016 to Fall 2019. The percentage of students enrolled in 100% online classes

who were also enrolled in face-to-face and/or hybrid increased five percentage points between Fall 2018 and Fall 2019 (24% – Fall 2018 and 29% – Fall 2019; see Figure 19).

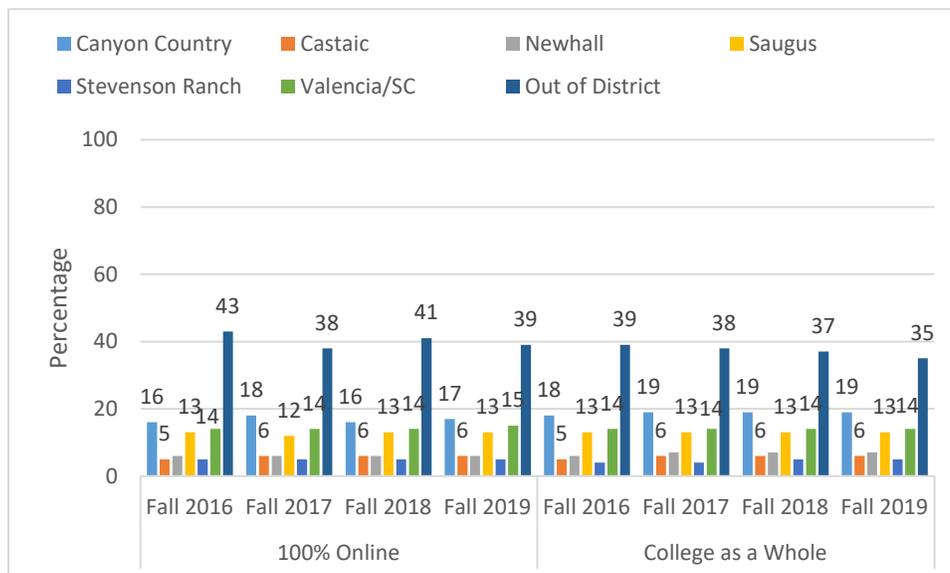
Figure 19. Percentage of Students Enrolled in 100% Also Enrolled in Face-Face and/or Hybrid Courses Fall 2016-2019



Research Question 13: What percentage of students taking at least one 100% online class reside outside versus inside the District?

Overall, the majority of students taking at least one 100% online class reside within the District and rates remained relatively similar for each area. Examining rates within the District, students residing in Canyon Country had the highest rate enrolling in at least one 100% online class between Fall 2016 and Fall 2019. Examining rates outside the District, the percentage of students who enrolled in at least one 100% online class peaked in the Fall 2017 semester (58%) and then began to decrease in the Fall 2018 and 2019 semesters (41% and 39%, respectively).

Figure 20. Community of Residence Distribution for 100% Online Courses Compared to the College as a Whole (Fall 2016-2019)



Research Question 14: What is the distribution of retention and success rates for part-time and full-time students enrolled in face-to-face, 100% online, and hybrid courses for Fall 2016-Fall 2019?

Overall, full-time students had higher retention and success rates for the Fall 2016, 2017, 2018, and 2019 semesters.

Figure 21. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students: Fall 2016

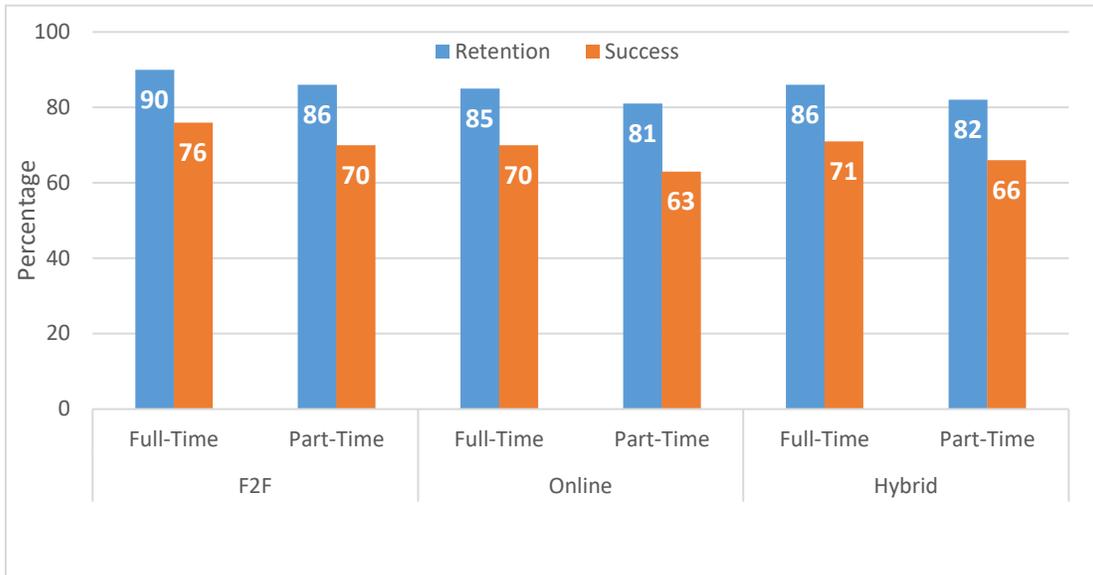


Figure 22. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students: Fall 2017 (Percentage)

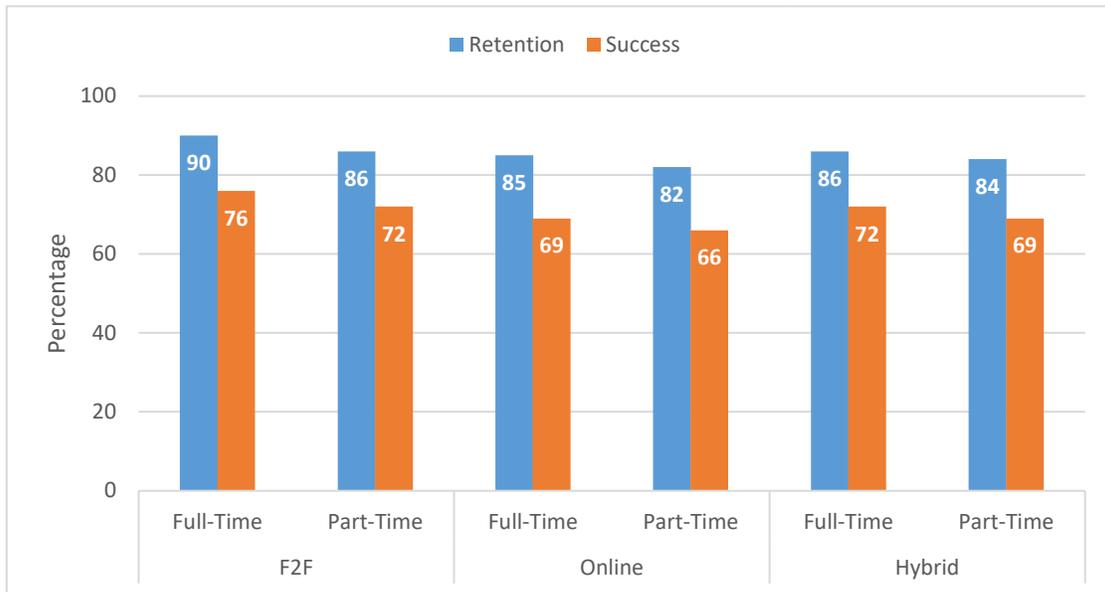


Figure 23. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students: Fall 2018 (Percentage)

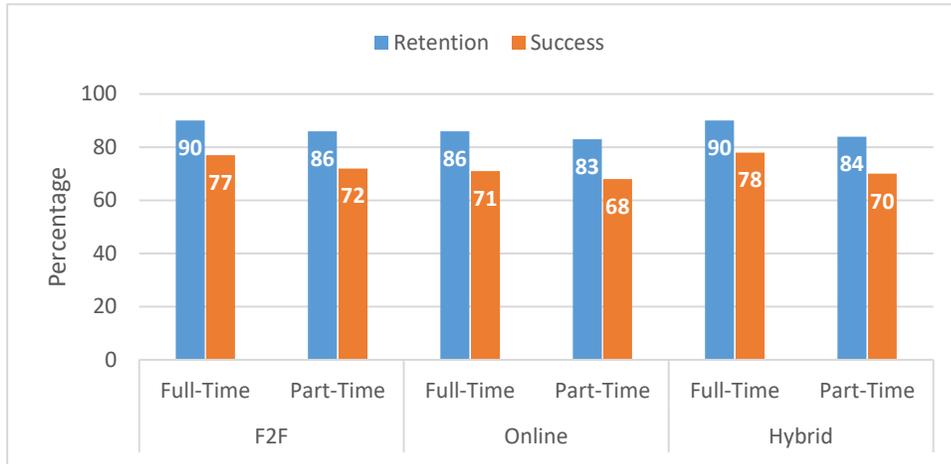
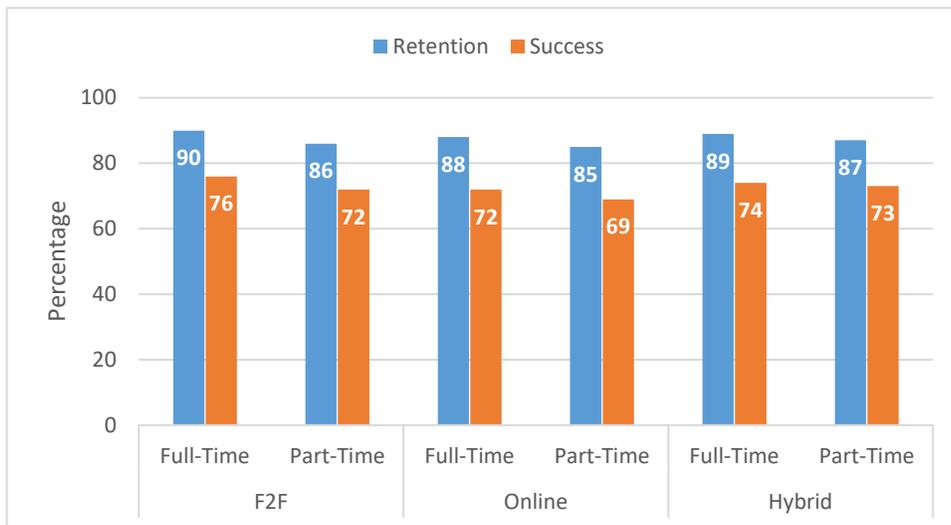


Figure 24. Retention and Success Rates in Face-to Face, Online, and Hybrid Courses for Full- and Part-Time Students: Fall 2019 (Percentage)



Recommendations

Upon review of the results, the following recommendations may be taken into consideration:

- Identify strategies for increasing success rates in online and hybrid courses (full semester and accelerated).
- Explore ways to expand the number and types of eight week and/or PAL courses that are offered during the semester.
- Explore ways to increase the number of students enrolled in DUENR and CNOW courses.