

RESEARCH REPORT

OFFICE OF INSTITUTIONAL EFFECTIVENESS AT FULLERTON COLLEGE



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Distance Education: Enrollments and Outcomes 2010 – 2020

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Over the last decade, the number of online enrollments has approximately doubled at Fullerton College, reaching nearly 25,000 enrollments in the most recent academic year (see Table 1). In addition, the online enrollments comprise a greater proportion of all enrollments at the College, increasing from 8.6% in academic year 2010-2011 to 18.4% in academic year 2019-2020. While the number of online enrollments increased steadily between academic year 2013-2014 and 2016-2017, the increase in recent years has accelerated dramatically. Between academic year 2016-2017 and academic year 2019-2020, the College experienced an increase of 7,418 online enrollments, representing a 43% growth. During that same timeframe, the enrollments in non-online courses declined by 15%, a stark reversal of the trends in online enrollments.

Table 1. Online Enrollments by Academic Year

Academic Year	Online Enrollments	% of Total Enrollments
AY 10/11	12,572	8.6%
AY 11/12	9,584	7.5%
AY 12/13	10,118	7.7%
AY 13/14	14,625	9.3%
AY 14/15	15,213	9.9%
AY 15/16	17,066	11.3%
AY 16/17	17,327	11.7%
AY 17/18	19,545	13.8%
AY 18/19	19,959	15.1%
AY 19/20	24,745	18.4%

Source: Fullerton College DataMart

The growth in online enrollments has occurred across all three semesters, with the growth in the spring semesters most noticeable (see Figure 1). Between the Spring 2017 semester and Spring 2020 semester, the number of online enrollments increased by 53%, from 6,712 to 10,274. In a similar way, fall and summer semesters have experienced growth in online enrollments.

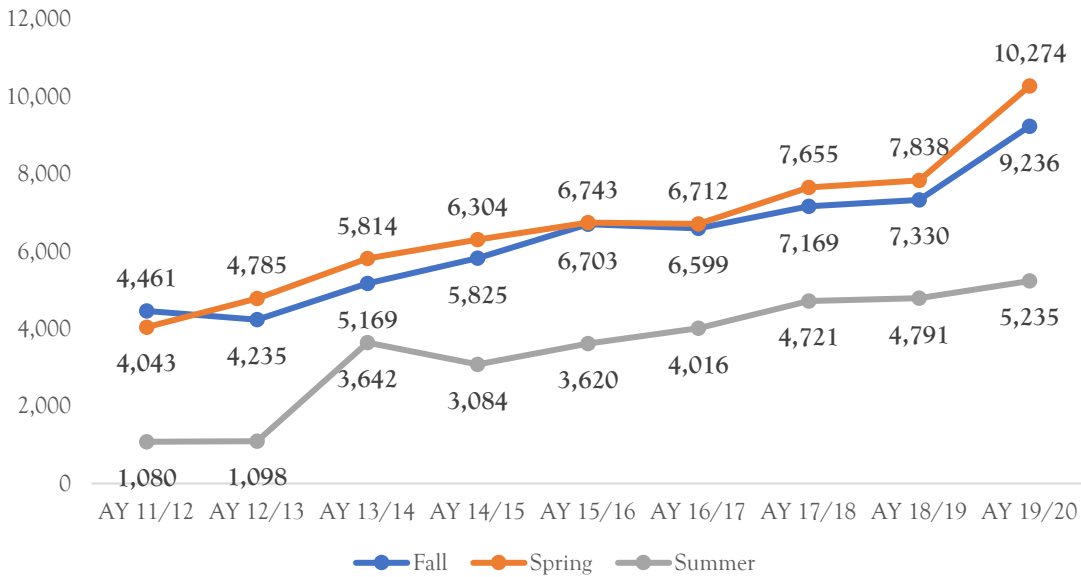


Figure 1. Online Enrollments by Semester

Source: Fullerton College DataMart

Over the course of the academic year 2019-2020, there were eight departments that enrolled more than 1,000 students each in online courses. Those eight departments accounted for 12,985 enrollments, which represented 52.4% of the online enrollments for the year.

Table 2. Online Enrollments by Subject, Academic Year 2019-2020

Subject	Enrollments	% of Total Enrollments
Business	2,198	8.9%
Physical Education	2,193	8.9%
Sociology	2,057	8.3%
Art	1,812	7.3%
Music	1,355	5.5%
Anthropology	1,224	4.9%
Political Science	1,127	4.6%
Computer Information Systems	1,019	4.1%
Top 8 Subjects	12,985	52.5%
All Other Subjects	11,760	47.5%

Source: Fullerton College DataMart

While these eight subject areas include the largest number of online enrollments, a different set of departments have been responsible for the dramatic increase in the total online enrollments at the College. As referenced above, the College increased online enrollments by 7,418 between academic years 2016-2017 and 2019-2020. The eight subject areas that added the greatest number of online enrollments during that time are listed in Table 3. While the subjects in Table 3

experienced significant growth, there were six subject areas that experienced fewer online enrollments in academic year 2019-2020 than 2016-2017. Those subjects were Chemistry, Women’s Studies, Biology, History, Earth Sciences, and Music. These six areas, when combined, reported 976 fewer online enrollments when compared to the 2016-2017 academic year.

Table 3. Largest Increases in Online Enrollment by Subject, Academic Years 2016-2017 to 2019-2020

Subject	AY 2019-2020 Enrollments	Difference from AY 2016-2017
Physical Education	2,193	1,530
Art	1,812	809
Sociology	2,057	708
Real Estate	671	509
Philosophy	507	507
English	516	422
Geography	642	308
Wellness	525	307
Top 8 Subjects		5,100
All Other Subjects		2,318

Source: Fullerton College DataMart

While online enrollments have been increasing, the number of students enrolled in online courses has also been on the rise. For example, in Fall 2010, there were 3,834 students who took at least one online course at Fullerton College, representing 16.8% of the student body (excluding special admit, K-12 students). Among those taking online courses, 1,081 students in Fall '10 exclusively enrolled in online course(s), or approximately 1 in 20 (4.7%) of the student body. Nearly ten years later, in Fall 2019, there were 6,002 students who took an online course (27.5% of the students), whereby 1,967, or 9.0% of Fullerton students, were only enrolled exclusively in online courses.

Table 4. The Number and Proportion of Students Enrolled in Online Course(s), Fall Terms.

Term	Students	Enrolled in 1+ Online Course	% Enrolled in 1+ Online Course	Enrolled Only Online Course(s)	% Enrolled Only Online Course(s)
Fall '10	22,825	3,834	16.8%	1,081	4.7%
Fall '11	20,042	3,317	16.6%	856	4.3%
Fall '12	20,860	3,146	15.1%	840	4.0%
Fall '13	24,676	3,734	15.1%	1,097	4.4%
Fall '14	25,392	4,169	16.4%	1,214	4.8%
Fall '15	25,093	4,646	18.5%	1,495	6.0%
Fall '16	24,693	4,653	18.8%	1,492	6.0%
Fall '17	23,920	4,915	20.5%	1,680	7.0%
Fall '18	22,034	5,040	22.9%	1,683	7.6%
Fall '19	21,813	6,002	27.5%	1,967	9.0%

Source: Fullerton College DataMart

The proportion of students enrolling in at least one online course has increased across semesters, with the most dramatic growth taking place across the summer terms. In fact, by the Summer 2019 term, nearly half (46%) of students at Fullerton College were enrolled in at least one online course (see Figure 2). Over the last decade, the proportion of students enrolled in at least one online course has been consistent across fall and spring terms. For example, in academic year 2016-2017, 19% of students enrolled in an online course in the fall term while 20% enrolled in an online course in the spring semester. However, by academic year 2019-2020, a gap had started to emerge whereby a slightly higher proportion of students in the spring semesters enroll in an online course compared to the preceding fall.

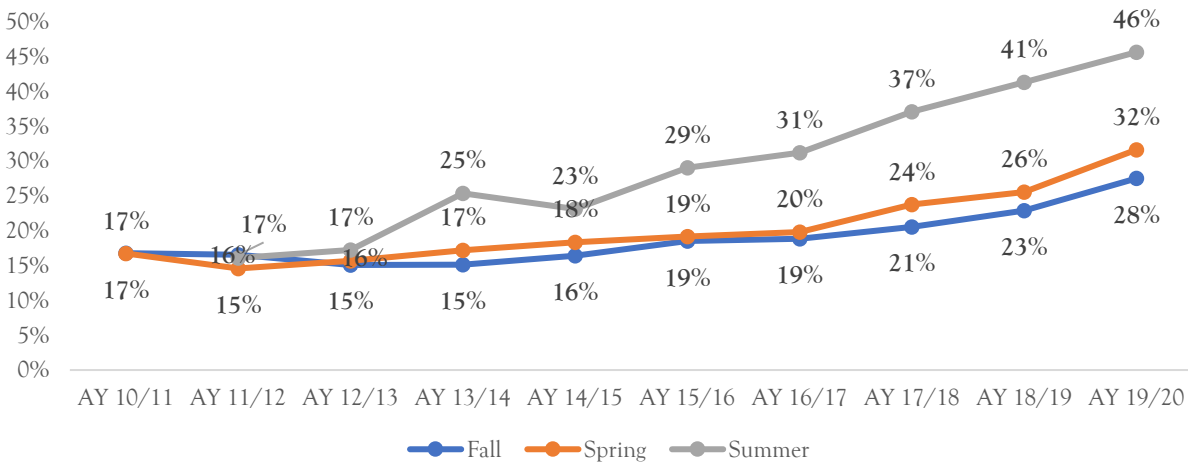


Figure 2. Proportion of Students Enrolled in 1+ Online Course by Semester

Source: Fullerton College DataMart

While the percentage of students who experience an online course at Fullerton College has increased over time, there are notable differences by students' race/ethnicity¹ and gender identities (see Table 5). For example, during the Fall '19 semester, 32% of students who identify as female enrolled in at least one online course compared to 23% of students who identified as male. When considering students' racial / ethnic identities and their experiences in online courses, 25% of students who identify Hispanic / Latinx, 28% of Asian students, and 45% of Black / African American students. With nearly half of Black / African American students enrolling in an online course, it is important to consider the implications this has on students' experiences with the curriculum and community.

Table 5 also reveals differences within students' race / ethnic identity or within gender identities. For example, 30% of students who identified as Hispanic and female enrolled in an online course in Fall '19 in contrast to 20% of students who identified as Hispanic and male. There was a similar 10 percentage point difference between students who identified as Asian and female (33%) and Asian and male (23%), whereas among Black / African American students, there was only a three percentage point difference between female (46%) and male (43%) students.

Table 5. Proportion Enrolled in 1+ Online Course by Race/Ethnicity by Gender, Fall 2019

	Female	Male	Different Identity / Unknown	Total
American Indian or Alaska Native	26%	17%		22%
Asian	33%	23%	25%	28%
Black / African American	46%	43%	71%	45%
Hispanic / Latinx	30%	20%	18%	25%
Native Hawaiian / Other Pacific Islander	50%	12%	0%	29%
Two or More	41%	28%	43%	35%
White	34%	25%	26%	29%
Unknown	34%	30%	21%	32%
Total	32%	23%	24%	28%

Source: Fullerton College DataMart

As an increasing number of students enroll in online courses at Fullerton College, there has been a similar, though less dramatic, growth in the proportion of students who only take online courses in a particular term at Fullerton College, especially when examining data from the fall and spring semesters. Summer terms, on the other hand, have seen a more significant increase in the proportion of students who are only enrolled in online courses, increasing from 16% of students in Summer 2014 to more than one-third (34%) by Summer 2019. While a much lower proportion

¹ In this study, race/ethnicity aligns with how the North Orange County Community College District reports students' identities to the United States' Department of Education's Integrated Postsecondary Educational Data System (IPEDS).

of students exclusively enrolled in online courses in a fall or spring term, the proportion of students has increased from approximately 5% of students in the fall and spring of academic year 2010-2011 to approximately 10% in academic year 2019-2020.

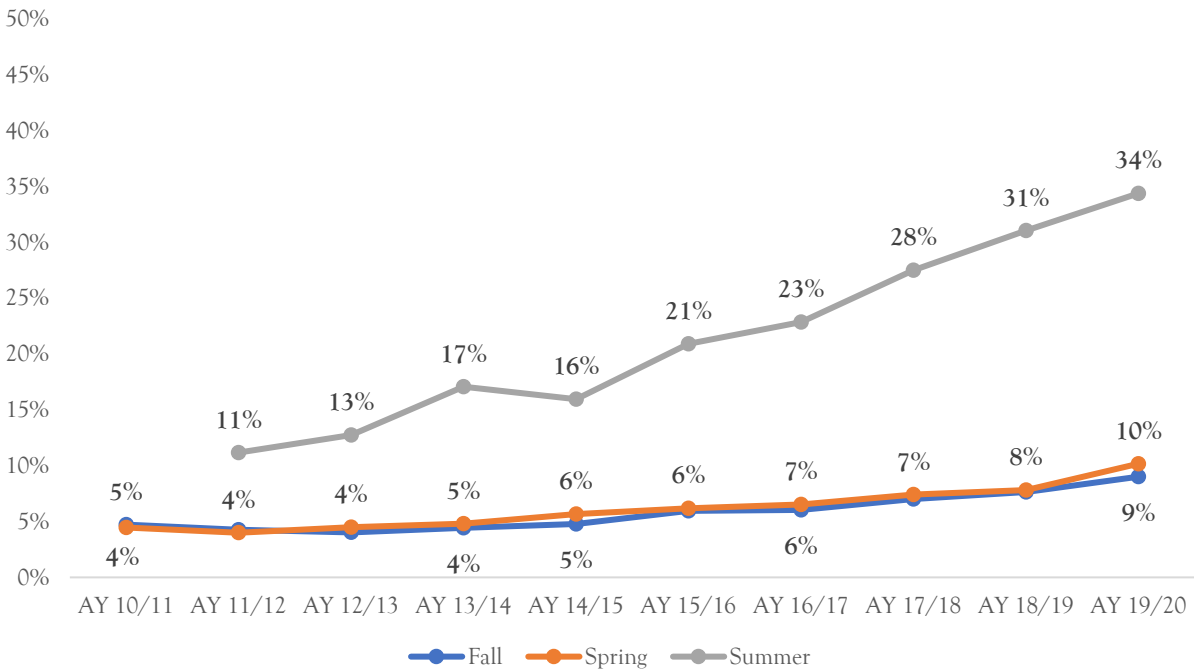


Figure 3. Proportion of Students Enrolled Exclusively in Online Courses by Semester
Source: Fullerton College DataMart

Similar to the analysis in the previous section, there are differences among students by their respective racial / ethnic and gender identities and the percentages who enroll exclusively in online courses at the College (see Table 6). In the Fall '19 semester, 5% of students who identified as Hispanic and male enrolled only in online courses, compared to 28% of students who identified as Black / African American and female. While 9% of all students at the College only enrolled in online courses in Fall '19, among Black / African American students, nearly one-quarter (23%) were enrolled only in online courses, in comparison to 7% of Hispanic / Latinx students, 9% of Asian students, and 12% of Native Hawaiian / Other Pacific Islander students.

Table 6. Proportion Enrolled in Online Only Courses by Race/Ethnicity by Gender, Fall 2019

	Female	Male	Different Identity / Unknown	Total
American Indian or Alaska Native	13%	4%		9%
Asian	11%	7%	8%	9%
Black / African American	28%	18%	36%	23%
Hispanic / Latinx	9%	5%	6%	7%
Native Hawaiian / Other Pacific Islander	25%	0%	0%	12%
Two or More	14%	8%	29%	11%
White	14%	7%	8%	10%
Unknown	17%	16%	15%	16%
Total	11%	7%	9%	9%

In addition to the increases in enrollment in online courses, there has also been a notable uptick in the rate at which students complete and succeed in the online courses. While the course success rate had hovered between 54% and 57% for several years, the last few years demonstrates an increase in students succeeding in their online course, increasing from 57.8% in academic year 2016-2017 to 64.8% in academic year 2019-2020 (see Table 7). In a similar way, the proportion of students completing the course has increased, to a high of nearly 82% (81.9%) in academic year 2018-2019. However, with the larger withdrawals in Spring 2020 due to COVID-19, the course completion rate declined in 2019-2020, even though the course success rate was able to maintain its upward trajectory. This indicates that even though more students withdrew due to the COVID-19 pandemic, a greater proportion were able to succeed in their online courses.

Table 7. Online Course Success and Completion by Academic Year.

Academic Year	Course Success	Course Completion
AY 10/11	54.1%	74.1%
AY 11/12	57.7%	77.3%
AY 12/13	56.7%	78.6%
AY 13/14	56.0%	76.7%
AY 14/15	56.4%	76.3%
AY 15/16	56.5%	75.7%
AY 16/17	57.8%	78.3%
AY 17/18	61.1%	79.2%
AY 18/19	64.1%	81.9%
AY 19/20	64.8%	79.2%

Source: Fullerton College DataMart

As a result of the increase in course success, the difference in success rates between online courses and face-to-face courses has declined over the years. In academic year 2010-2011, there was about a 15 percentage point difference between online course success (54.1%) and face-to-face course success (69.1%). By academic year 2019-2020, that difference had declined to less than 5 percentage points when comparing the 64.8% success rate in online courses to the 69.5% success rate in face-to-face courses (see Figure 4). In addition, as Figure 4 displays, the gap started to noticeably decline in academic year 2017-2018 after a number of years of hovering between 12 and 15 percentage points.

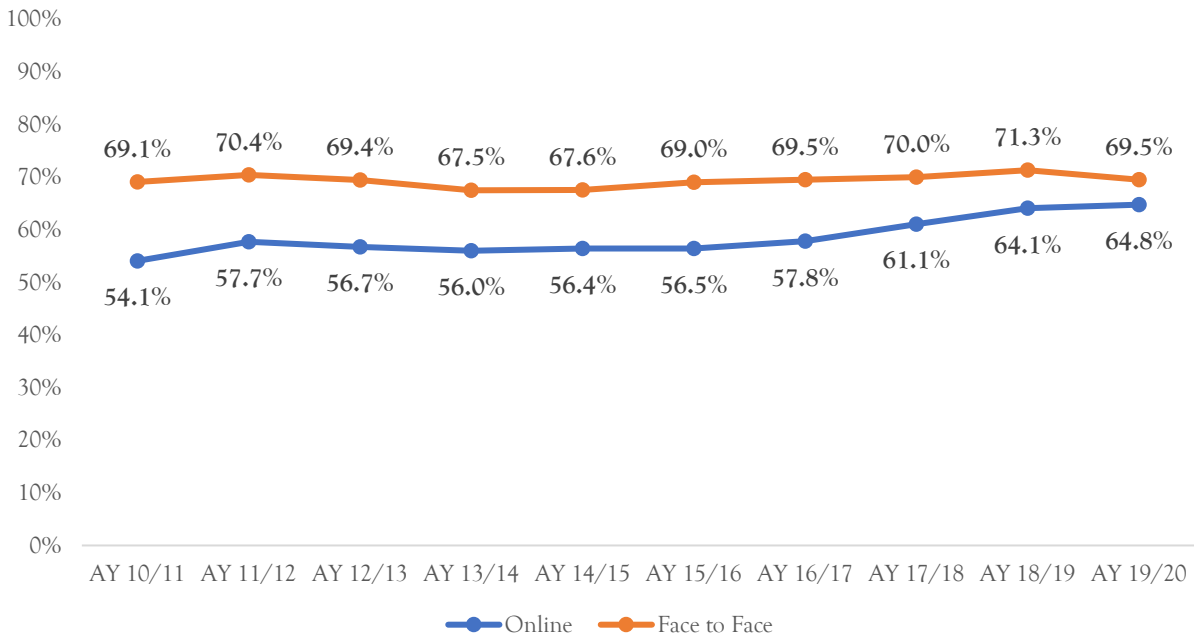


Figure 4. Course Success by Instructional Method by Academic Year
 Source: Fullerton College DataMart

When examining the course success rates by students’ racial / ethnic and gender identities. There are notable gaps that need to be acknowledged and addressed (see Table 8). Approximately one-third of students who identify as Black / African American successfully complete their online courses, a significant difference from the two-thirds of students who identify as Hispanic / Latinx (65.5%) or multi-racial (67.7%). It is not only that students who identify as Black / African American successfully complete courses at lower rates, it is combined with a greater likelihood of enrolling in online courses or taking online courses exclusively, as discussed in a previous section (see Tables 5 and 6). For the College to advance its stated goals of promoting success for every student and cultivating a culture of equity, the online environments, experiences, and outcomes for students must be part of the conversation.

Table 8. Course Success by Race / Ethnicity by Gender, Academic Year 2019-2020

	Female	Male	Different Identity / Unknown	Total
Asian	79.2%	79.4%	66.7%	79.1%
Black / African American	31.7%	33.8%	7.1%	32.1%
Hispanic / Latinx	65.8%	64.6%	77.6%	65.5%
American Indian or Alaska Native	65.7%	81.0%		71.4%
Native Hawaiian / Other Pacific Islander	52.7%	88.0%		61.6%
Two or More	68.5%	67.6%	54.6%	67.7%
White	73.3%	71.6%	72.2%	72.6%
Unknown	43.0%	25.6%	66.7%	34.5%
Total	66.0%	62.8%	64.3%	64.8%

A similar phenomenon has been observed with the course completion rate—an increase in the rate at which students in online courses complete which subsequently decreased the differences in course completion rates between online and face to face courses (see Figure 5). While the difference a decade ago was nearly nine percentage points (74.1% in online compared to 82.8% in face-to-face), the most recent academic year experienced a difference of 1.4 percentage points (79.2% versus 80.6%). While the Spring 2020 semester saw a lower course completion rate due to the COVID-19 pandemic, one of the effects was an even smaller difference in the rate at which students in online sections completed their courses compared to their peers who were in face-to-face courses that had to transition to a remote environment.

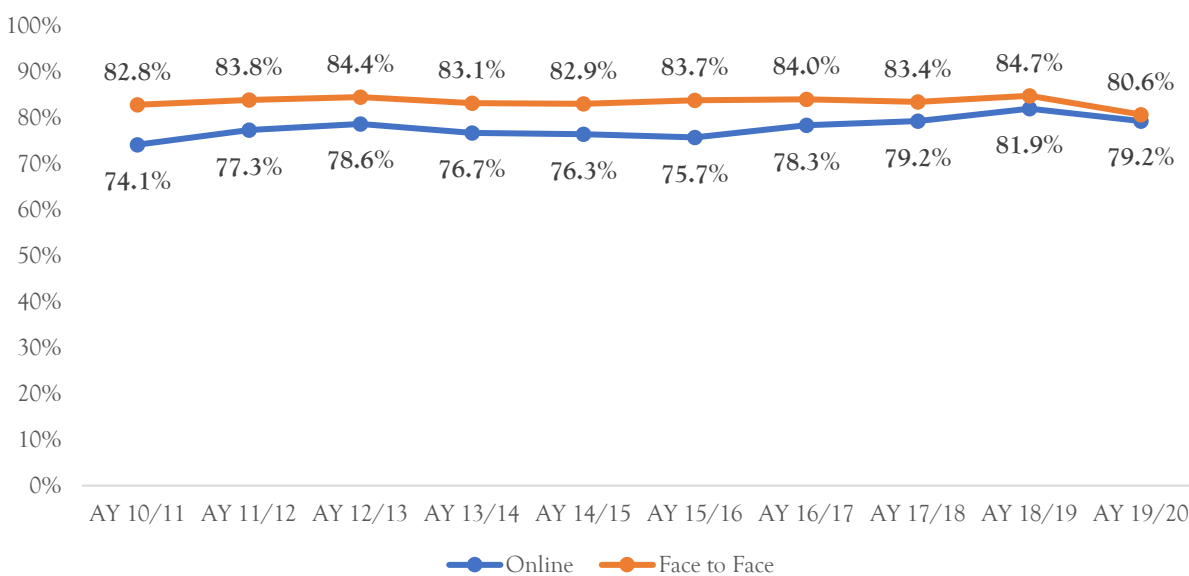


Figure 5. Course Completion by Instructional Method by Academic Year

Source: Fullerton College DataMart

Contributing to the increase in online course completion and success rates are various subject areas, which saw their course success rates increase by 20 percentage points or more over the past few years. These subject areas were key in driving the overall course success rate in online courses higher, particularly anthropology and political science, which are among the most popular subjects for online course enrollments (see Table 9). In addition, student success rates in mathematics also increased by 13.4 percentage points, and while the overall course success rate in mathematics remained below 50%, there was a noticeable increase in students in online courses succeeding.

Table 9. Change in Course Success Rate by Subject, Top 8 Subject Areas.

Subject	Success Rate AY 2016-2017	Success Rate AY 2019-2020	Difference
Earth Sciences	55.9%	77.2%	21.3%
Anthropology*	50.4%	70.9%	20.5%
Political Sciences*	57.7%	77.9%	20.3%
History	61.5%	81.7%	20.2%
Theater	57.8%	74.1%	16.3%
Paralegal Studies	58.7%	72.7%	14.0%
Math	32.5%	45.8%	13.4%
Counseling	50.4%	63.3%	12.9%

Source: Fullerton College DataMart

*Subject was one of eight with 1,000+ online enrollments in AY 2019-2020 (see Table 2).

In returning to the top eight subject areas from Table 2, the following table indicates their respective success rates, and how they compare between 2016-2017 and 2019-2020 (see Table 10). While a few of the subject areas saw increases in course success over that time period, such as physical education (+11.0%), anthropology (+20.5%), political science (+20.3%) and music (+8.3%), other areas saw slight declines. However, it is also important to consider the success rate for these subject areas which boast the most online enrollments. For example, while the success rate of sociology remained relatively flat, the course success rate of 65.5% in 2019-2020 was slightly higher than the overall course rate for all online classes.

Table 10. Change in Success Rate Among Largest 8 Subject Areas

Subject	Online Enrollments	Success Rate AY 2016-2017	Success Rate AY 2019-2020	Difference
Business	2,198	53.4%	51.1%	-2.3%
Physical Education	2,193	53.1%	64.1%	+11.0%
Sociology	2,057	65.7%	65.5%	-0.2%
Art	1,812	67.5%	64.4%	-3.1%
Music	1,355	63.4%	71.7%	+8.3%
Anthropology*	1,224	50.4%	70.9%	+20.5%
Political Science*	1,127	57.7%	77.9%	+20.3%
Computer Info. Systems	1,019	59.3%	58.2%	-1.1%

Source: Fullerton College DataMart