

**Los Rios Community College District
Office of Institutional Research**

**WHO'S ONLINE AND HOW ARE THEY DOING?
A Comparison of Online and Face-to-Face Classes in Writing, Math and Business**

District-wide Report

August 2011

This is the third report prepared by the District Office of Institutional Research in looking at how well students enrolled at Los Rios colleges are faring in online courses. The first report, released in November 2009, provided information on students who were enrolled exclusively in online courses. The second report, released in February 2010, examined all students enrolled in online courses and compared course success of students enrolled in online with those enrolled in face-to-face courses in the same TOP code. It did reveal differences in course success across various discipline areas but the report did not look at specific courses and their online versions. This third report provides such a comparison by examining enrollments and course success of students taking online and those taking face-to-face sections of the same course in three subject areas.

The courses examined in this report are: (1) English Writing 300 and 302 - Composition; (2) Mathematics 100 and 120 - Algebra; and (3) Business 300 – Introduction to Business. These courses were offered in both online and in face-to-face format each fall semester, 2006 through 2010, in at least three of the four colleges in the district. English Writing 300 and Math 120 were chosen as they fulfill graduation competency requirements and also have available online classes at another level in the sequence. The Introductory Business course was selected as it provided a third academic area. All the courses had sufficient online enrollments for comparisons.

The report consists of four sections: district-wide enrollment and course success; student demographics; course success across demographic groups for the most recent fall semester; and withdrawal rates from online and face-to-face classes. The report ends with some general recommendations.

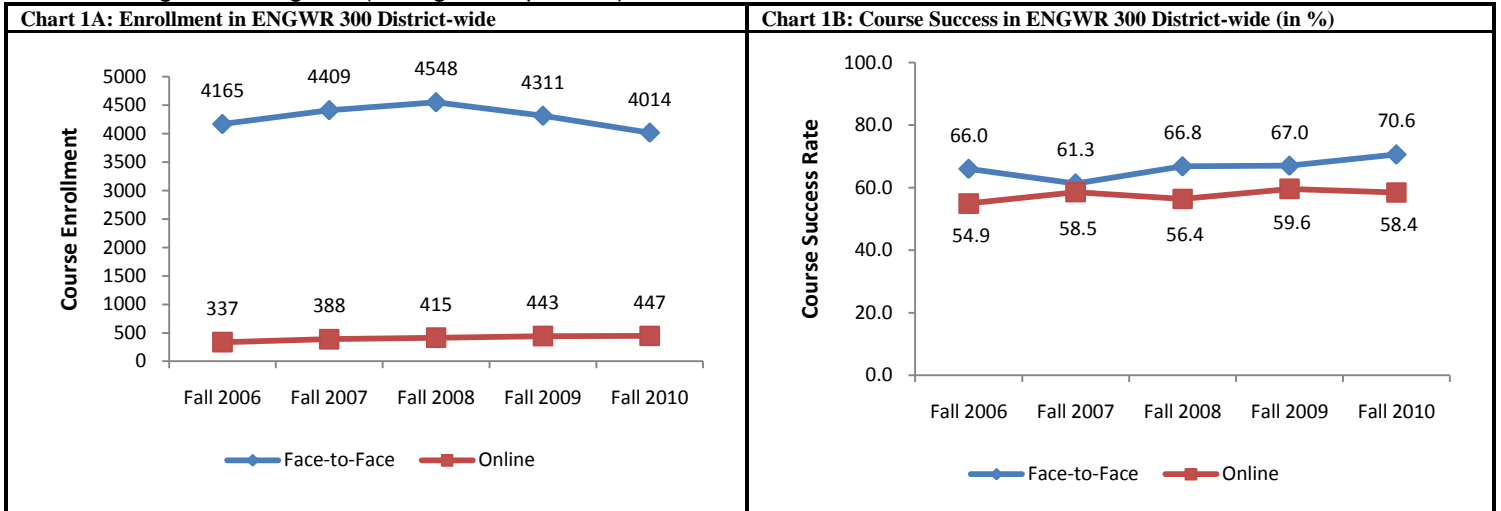
Major findings:

- Online enrollments in English Writing and Math have grown over the years, however, they still represent a small portion of overall enrollments in these courses
- Course success in online classes appears to vary by discipline areas, with students in the online versions of English Writing and Math not doing as well as those in face-to-face classes while students in online sections of Introductory Business fare as well as those enrolled in face-to-face classes
- All racial/ethnic groups participate in online learning but there are some differences across racial/ethnic subgroups
- Higher proportions of older students enroll in online classes than in face-to-face classes; in contrast, younger students predominantly enroll in face-to-face classes
- Across demographic groups, students who enrolled in face-to-face classes did better in English Writing and Math than those enrolled in online versions of those classes while course success in Introductory Business varied by demographic subgroups.

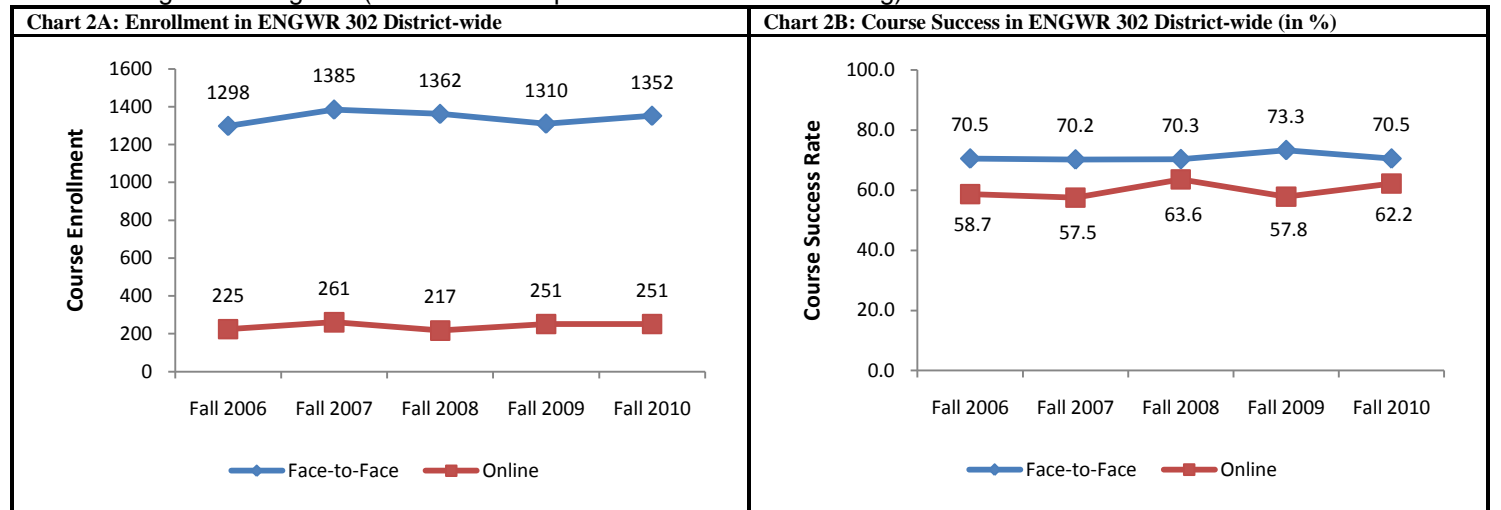
A. District-wide Enrollment and Course Success in Online and Face-to-Face Classes

The charts below provide a view of district-wide enrollment and course success in the three subject areas examined in this report.

English Writing 300 (College Composition)



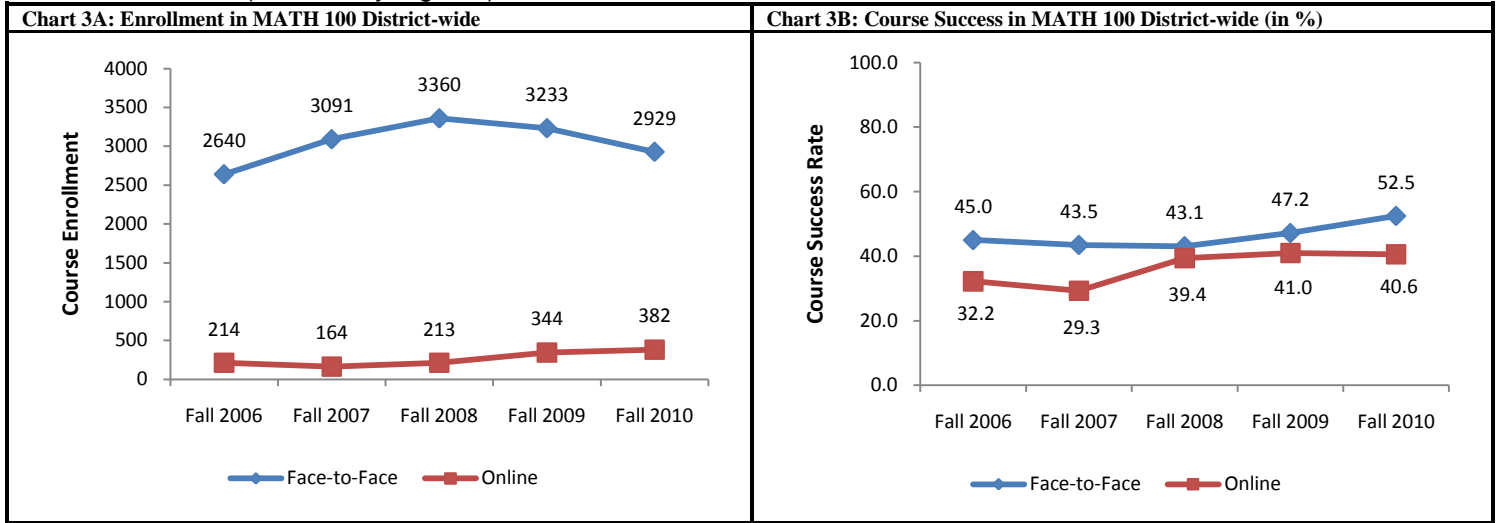
English Writing 302 (Advanced Composition and Critical Thinking)



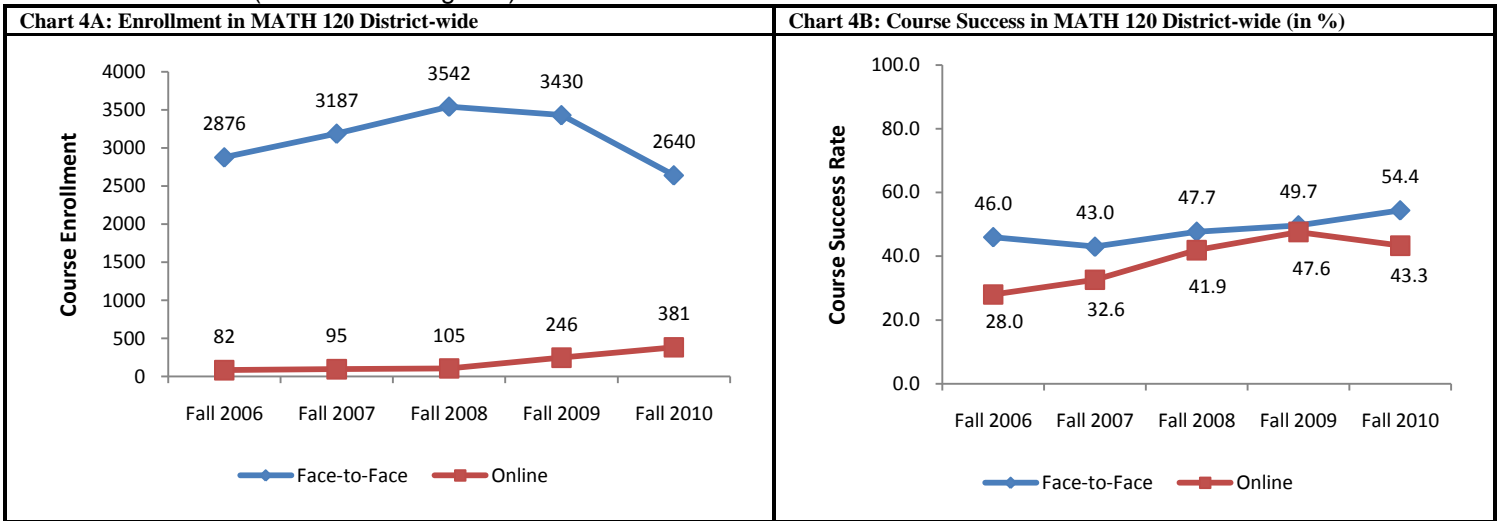
Online enrollments for English Writing 300 have grown over the past fall semesters while online enrollments for English Writing 302 increased slowly but with a dip in fall 2008. In contrast, face-to-face enrollments district-wide in English Writing 300 have declined substantially since fall 2008, which is surprising as this course usually has a long waiting list. In comparison, face-to-face enrollments in English Writing 302 have stayed about the same (Chart 1A and Chart 2A).

Course success rates have been higher overall for students in face-to-face classes in both English Writing 300 and 302 compared with those in online classes. Improvements can be seen, however, in online course success over the past five fall semesters (Chart 1B and Chart 2B).

Math 100 (Elementary Algebra)



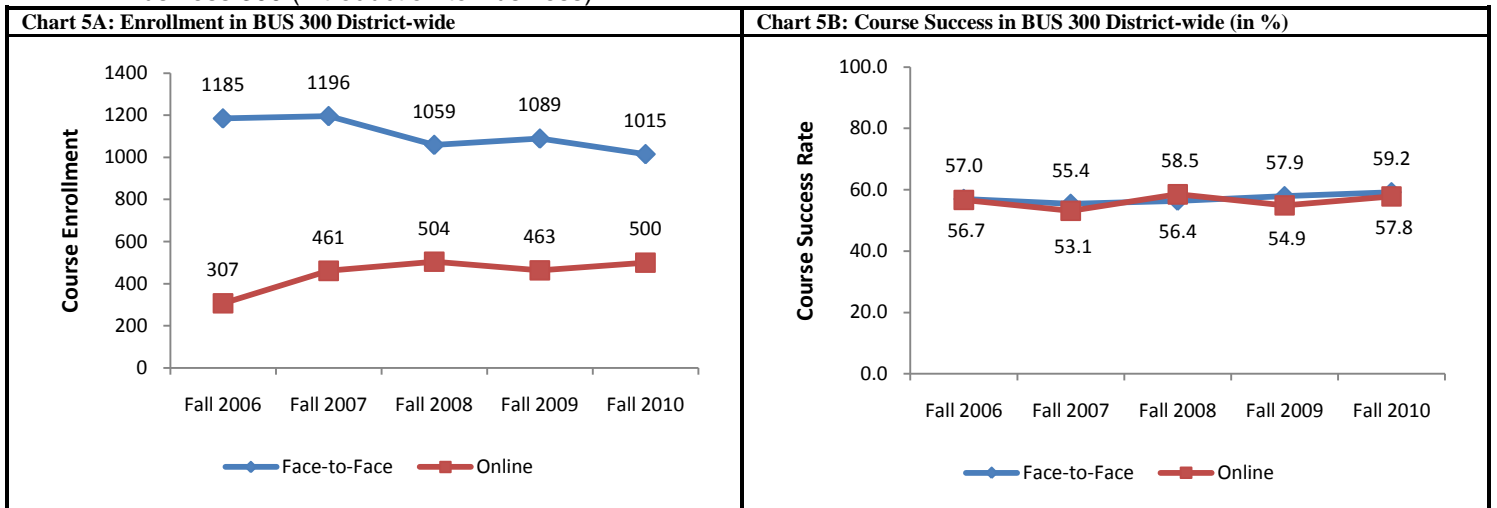
Math 120 (Intermediate Algebra)



Online enrollments for Math 100 and Math 120 have grown over the past five fall semesters but their numbers are still small compared with enrollments in face-to-face classes. Again, one can see declines in face-to-face enrollments in recent fall semesters for both Math 100 and Math 120 (Charts 3A and 4A) despite a high demand for these courses as shown through long waiting lists.

Similar to the results reported for the English Writing classes, students in the online versions of Math 100 and Math 120 appear to be less successful than those enrolled in face-to-face sections of those courses (Charts 3B and 4B). Nevertheless, there are improvements in the online success rates from fall to fall. One should point out though the differences in course success rates between Math and English Writing. Even for face-to-face classes, the success rates of students in the English Writing classes were much higher than those of students in the Math classes. During fall 2010, seventy percent of students in face-to-face English Writing classes passed the course while only fifty percent of students in face-to-face Math classes did so.

Business 300 (Introduction to Business)



Online enrollments in Business 300 have been growing steadily while enrollments in face-to-face classes suffered some declines. In fall 2010, the online enrollments in Business 300 were almost half of the enrollments in face-to-face classes (Chart 5A).

As can be seen in Chart 5B, students enrolled in online classes in Business 300 appear to do as well as those enrolled in the traditional face-to-face classes. In fact, the success rate was slightly better among online students during fall 2008 (58.5% for online versus 56.4% for face-to-face classes).

B. Demography of Students Enrolled in Online vs. Face-to-Face Classes

Gender: A higher percentage of female students enroll in online versus face-to-face classes in all three subject areas and this pattern has been consistent since fall 2006. Please see tables in Appendices 1 through 5.

Racial/Ethnic Groups: Due to major changes in reporting categories since fall 2009, it is difficult to compare enrollment patterns historically. In general though, all racial/ethnic groups participate in online classes as they do in face-to-face classes. For fall 2010, one can see some subgroup differences. Smaller percentages of Hispanic/Latino students were enrolled in online versus face-to-face classes in all subject areas, while for white students, it was the opposite. For African American students, slightly higher proportions were enrolled in online over face-to-face classes, with the exception of Math 100. In Math 100, online enrollment was much lower than in face-to-face classes. For Asian students, the difference in enrollment was in English Writing 302. For detailed information, please refer to tables in Appendices 1 through 5.

Age Groups: Higher proportions of older students (ages 25 and over) were enrolled in online versus face-to-face classes perhaps because of fulltime employment. On the other hand, students who were ages 20 and below were more likely to enroll in face-to-face classes. This pattern is consistent across the three subject areas and over time. Please see tables in Appendices 1 through 5 for more details.

First Generation Status: Enrollment among first generation students in both online and face-to-face classes has been increasing over the past five fall semesters in English Writing and Math. In fall 2010, the proportion of first generation students enrolled in online courses exceeded that of face-to-face classes in the three subject areas. Please see tables in Appendices 1 through 5 for more details.

Income: Over time, there has been an increase in the proportion of students enrolled in online classes who reported themselves to be “below poverty” while the proportion of students from “middle and above” income levels has shrunk. Please see tables in Appendices 1 through 5 for more details.

Employment: As expected, a higher proportion of students who were employed full time tended to enroll in online versus face-to-face classes. What is striking, however, is the increase in the proportion of unemployed students in recent fall semesters, both in online and in face-to-face classes. Among the unemployed, a higher proportion enrolled during fall 2010 in face-to-face over online classes.

C. Course Success Among Demographic Groups

Table 1 summarizes course success rates among demographic groups in English Writing 300 and 302 for fall 2010.

Table 1: Fall 2010 Course Success Rate in ENGWR 300 and ENGWR 302

	ENGWR 300 (in %)		ENGWR 302 (in %)	
	Online	Face-to-Face	Online	Face-to-Face
Gender				
Female	61.3	73.0	59.8	71.5
Male	52.9	67.6	67.6	68.8
Unknown	*	66.7	*	*
Race/Ethnicity				
African American	41.5	62.0	50.0	55.7
Asian	56.3	72.7	50.0	67.9
Filipino	*	74.7	*	77.8
Hispanic/Latino	50.0	65.8	69.2	67.0
Native American	*	71.4	*	*
Pacific Islander	*	56.8	*	75.0
White	64.9	72.9	71.3	75.8
Multi-race	58.6	73.5	*	67.1
Other Non-White	*	60.4	*	68.0
Unknown	63.4	73.9	*	73.4
Age Group				
Under 18	*	88.7	*	*
18 - 20	55.8	73.6	59.3	75.7
21 - 24	53.4	61.0	63.6	62.5
25 - 29	54.2	65.1	45.7	67.5
30 - 39	65.2	74.1	69.4	77.5
40 and Over	69.2	73.7	*	68.5
First Generation				
Yes	59.4	68.0	60.2	68.4
No	57.6	72.1	63.3	71.6
Income				
Below Poverty	51.3	64.7	63.0	64.3
Low	60.2	70.6	58.7	73.7
Middle and Above	67.6	75.3	66.7	75.9
Unknown	52.1	72.1	70.4	67.4
Employment				
Less than Halftime	63.0	74.1	65.2	73.2
Half Time or More	52.1	65.8	55.1	67.4
Full Time	66.2	75.4	65.4	57.8
Unemployed	52.2	68.6	55.8	70.5
Not Seeking	66.2	76.4	78.1	79.1

The asterisk denotes cases where the group size numbered twenty students or less. Percentages based on small group size may swing widely from semester to semester and be misleading so they are omitted.

Results for English Writing 300 and 302 indicate that in general across demographic subgroups, students who enrolled in face-to-face classes tend to be more successful than those who took online classes. There were a few exceptions but the only instance where the discrepancy was large was in English Writing 302 where students in online classes who were employed full time did better than their face-to-face peers.

Table 2 provides a summary of how well students are doing in Math 100 and Math 120 for the fall 2010 semester.

Table 2: Fall 2010 Course Success Rate in MATH 100 and MATH 120

	MATH 100 (in %)		MATH 120 (in %)	
	Online	Face-to-Face	Online	Face-to-Face
Gender				
Female	41.0	54.1	45.5	54.8
Male	39.8	49.7	39.4	53.8
Unknown	*	67.6	*	56.0
Race/Ethnicity				
African American	*	32.0	31.3	31.2
Asian	38.7	54.1	40.0	55.3
Filipino	*	52.2	*	59.1
Hispanic/Latino	37.7	45.9	28.1	43.6
Native American	*	*	*	37.5
Pacific Islander	*	52.6	*	42.1
White	47.8	62.7	49.7	64.2
Multi-race	33.3	50.0	*	52.8
Other Non-White	*	52.4	*	56.0
Unknown	45.0	54.9	44.7	56.1
Age Group				
Under 18	*	52.4	*	71.4
18 - 20	32.7	49.7	33.9	56.7
21 - 24	27.8	47.7	36.1	46.2
25 - 29	43.2	60.2	53.8	52.4
30 - 39	52.2	62.2	59.4	59.8
40 and Over	56.1	55.1	55.6	61.8
First Generation				
Yes	41.2	50.7	44.8	52.6
No	40.0	53.9	42.1	55.6
Income				
Below Poverty	33.6	46.6	43.4	49.7
Low	36.0	55.0	38.8	49.5
Middle and Above	51.3	59.8	45.4	61.9
Unknown	42.4	51.9	46.0	57.6
Employment				
Less than Halftime	40.7	56.7	38.9	58.0
Half Time or More	47.6	51.7	38.4	48.9
Full Time	41.8	64.0	47.4	53.0
Unemployed	31.1	48.3	50.9	52.6
Not Seeking	43.9	53.4	37.1	64.9

Although success rates in the above two Math courses were much lower than those in the English Writing courses, again the results showed that proportionally more students enrolled in face-to-face classes were successful compared with those in the online format.

Turning now to Business 300 (see Table 3), where it was earlier noted that the success rates of online and face-to-face students seemed to be more in alignment than those in English Writing or in Math, some variations can be seen within each of the demographic subgroups. For example, among African American and Hispanic/Latino students, the success rate of the online learners was somewhat higher than those in the face-to-face classrooms but it was the opposite for Asian students. Other examples of students in online classes doing better than their peers in face-to-face classrooms were among students with middle and above income, unknown income, and those not seeking employment.

Table 3: Fall 2010 Course Success Rate in BUS 300

	BUS 300 (in %)	
	Online	Face-to-Face
Gender		
Female	60.5	61.9
Male	54.0	57.0
Unknown	*	*
Ethnicity		
African American	39.3	36.9
Asian	66.7	73.0
Filipino	*	53.8
Hispanic/Latino	62.2	57.6
Native American	*	*
Pacific Islander	*	*
White	63.4	63.7
Multi-race	44.4	57.1
Other Non-White	*	*
Unknown	59.6	65.2
Age Group		
Under 18	*	*
18 - 20	58.4	58.0
21 - 24	55.0	55.0
25 - 29	51.9	55.1
30 - 39	60.2	64.7
40 and Over	66.1	70.5
First Generation		
Yes	58.4	57.1
No	57.3	60.6
Income		
Below Poverty	48.3	53.9
Low	55.6	61.0
Middle and Above	69.7	67.3
Unknown	62.3	57.9
Employment		
Less than Halftime	64.0	64.3
Half Time or More	54.6	60.8
Full Time	57.1	67.6
Unemployed	53.0	54.5
Not Seeking	68.6	58.0

D. Withdrawal Rates

In a review of studies comparing online classes versus face-to-face instruction, Jaggars and Bailey (2010) indicated that underprepared students tend to have higher withdrawal rates from online classes than their peers enrolled in face-to-face classes. Table 4 provides a summary of the withdrawal rates of students enrolled in online and in face-to-face classes for the three subject areas that are the focus of this report.

Table 4: Withdrawals in Online and Face-to-Face Classes

	ONLINE ENROLLMENT					FACE-TO-FACE ENROLLMENT				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010
ENGWR 300										
# of Withdrawals	109	107	94	103	106	760	912	741	685	599
# of Grades Given	337	388	415	443	447	4165	4409	4548	4311	4014
% Withdrawals	32.3%	27.6%	22.7%	23.3%	23.7%	18.2%	20.7%	16.3%	15.9%	14.9%
ENGWR 302										
# of Withdrawals	63	81	56	67	61	220	271	254	208	246
# of Grades Given	225	261	217	251	251	1298	1385	1362	1310	1352
% Withdrawals	28.0%	31.0%	25.8%	26.7%	24.3%	16.9%	19.6%	18.6%	15.9%	18.2%
MATH 100										
# of Withdrawals	75	66	78	96	125	765	885	948	851	658
# of Grades Given	214	164	213	344	382	2640	3091	3360	3233	2929
% Withdrawals	35.0%	40.2%	36.6%	27.9%	32.7%	29.0%	28.6%	28.2%	26.3%	22.5%
MATH 120										
# of Withdrawals	37	35	37	78	118	821	950	923	852	585
# of Grades Given	82	95	105	246	381	2876	3187	3542	3430	2640
% Withdrawals	45.1%	36.8%	35.2%	31.7%	31.0%	28.5%	29.8%	26.1%	24.8%	22.2%
BUS 300										
# of Withdrawals	83	125	101	102	116	245	223	170	175	202
# of Grades Given	307	461	504	463	500	1185	1196	1059	1089	1015
% Withdrawals	27.0%	27.1%	20.0%	22.0%	23.2%	20.7%	18.6%	16.1%	16.1%	19.9%

Across the three subject areas, one can see that the percentages of students withdrawing from online classes were higher compared with those withdrawing from face-to-face classes. In general though, the proportion of students withdrawing from both online and face-to-face classes has been declining from fall to fall. At a time, however, when class sections are dwindling due to budget cuts and there are many more students wishing to enroll than could be accommodated, having high rates of student withdrawals from courses is a concern.

Discussion

At Los Rios colleges, enrollments in online learning have increased at a faster pace than overall enrollments. On the other hand, there have been dramatic enrollment declines in recent fall semesters in face-to-face classes in English Writing 300, Math 100, Math 120, and to a lesser extent in Business 300. It is perplexing that there are these enrollment declines in the face of long waiting lists for the English Writing and Math courses. Further, English Writing 300 and Math 120 fulfill competency requirements for graduation. We do not know if fewer face-to-face sections are being offered in recent fall semesters or whether there may be some other explanation.

Compared with enrollments in face-to-face classes, online enrollments still represent a small portion of overall enrollments in the district but it does vary by subject area (see Table 5 below) and depends on the number of online sections being offered in each subject area at the four Los Rios colleges.

Table 5: Fall 2010 Online and Face-to-Face Enrollments in ENGWR, MATH, and BUS

Enrollments	Online	Face-to-Face	Online as % of Face-to-Face
ENGWR 300	447	4014	11%
ENGWR 302	251	1352	19%
MATH 100	382	2929	13%
MATH 120	381	2640	14%
BUS 300	500	1015	49%

It is useful to note that online enrollment in Business 300 during fall 2010 was about half of the enrollment of face-to-face classes and that the online students fared as well as students in the face-to-face format. On the other hand, students taking the online formats of English Writing and Math did not do as well as the students enrolled in the face-to-face classes. A possible reason for the discrepancy in course success is that some discipline areas, as in Business, may lend themselves better to an online format due to subject content as well as less dependence on the student's prior learning of the subject matter. In contrast, English Writing and Math may require a higher level of prior knowledge and especially for students who have been unsuccessful before in these subjects, the online format may not have provided sufficient structure, interaction, and feedback, for them to learn successfully. The higher rates of withdrawal among students in online over face-to-face classes provide another indication of the difficulty that some students encounter in online classes.

One unexpected finding of this study involves different enrollment patterns and course success among younger versus older students. As younger students have grown up in an era of technological advances, one would expect them to gravitate toward online classes. Instead, we find that a large majority of students in face-to-face classes in English Writing, Math, and Business were students ages 24 and below. Moreover, it appears that for students between the ages of 18 to 20, those enrolled in the traditional face-to-face classes in English Writing and Math did significantly better overall than those enrolled in the online format of those classes. Perhaps students in this younger age group would be best served by being placed in on-campus English and math classes over their online format. In terms of success in online courses, it appears that students over age 40 and above have higher course success rates in English Writing 300, Math 100, and Business 300 than their younger classmates.

As noted in our earlier report on "Student Success in Online Classes" released last year, online course offerings play an increasingly important role in the district and across the country. Before further expansion in the district is planned, however, the structure and instructional strategies currently being used in the online courses in English Writing and Math should be examined more closely and changes made in order to improve student learning.

REFERENCES

Jaggars, S. S. & Bailey, T. (2010). *Effectiveness of fully online courses for college students: response to a Department of Education meta-analysis*. New York, NY: Columbia University, Teachers College, Community College Research Center.

Office of Institutional Research. (2009, November). *Exclusively online students*. Sacramento, CA: Los Rios Community College District.

Office of Institutional Research. (2010, February). *Student success in online classes (District-wide report)*. Sacramento, CA: Los Rios Community College District.

This report is written by Flora Yen, Director, LRCCD Office of Institutional Research (IR), and is based on data generated from the LRCCD Research Database, developed and managed by Minh La, IT Analyst for Research. Special thanks go to Susie Williams, Associate Vice Chancellor, Communications & Research, and Betty Glycer-Culver, Research Analyst, for their review of drafts of this report and their helpful comments.

For further information, please call: 916-568-3131 or email: irweb@losrios.edu, LRCCD Office of Institutional Research (IR). All district reports are available on the IR Web Site at <http://irweb.losrios.edu>.

Appendix 1: FALL ENROLLMENT: ENGWR 300 (College Composition) - Demography

	ONLINE ENROLLMENT (in %)					FACE-TO-FACE ENROLLMENT (in %)				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010
Gender										
Female	63.5	62.4	64.8	67.5	65.3	53.6	55.3	54.9	53.4	54.9
Male	35.9	37.4	33.5	31.4	34.2	45.8	43.8	44.3	45.6	44.2
Unknown	0.6	0.3	1.7	1.1	0.4	0.6	0.9	0.8	1.0	0.9
*Race/Ethnicity										
African American	7.7	8.0	11.6	8.8	9.2	8.2	8.7	9.1	7.4	7.4
Asian	18.1	12.1	16.4	12.6	10.7	14.1	13.7	13.3	11.7	11.3
Filipino	3.9	4.1	3.1	2.3	2.2	3.3	3.5	3.7	2.4	2.4
Hispanic/Latino	10.4	12.6	10.8	15.8	16.1	14.8	15.1	15.6	18.5	19.2
Native American	2.1	2.1	0.5	0.2	0.4	1.0	1.4	1.2	0.7	0.5
Pacific Islander	1.2	1.0	0.7	0.9	1.8	1.6	1.8	1.2	1.1	0.9
White	45.7	50.0	45.8	44.5	42.1	48.0	46.1	48.2	42.7	40.3
Multi-race				6.3	6.5				5.5	5.6
Other Non-White	11.0	10.1	11.1	2.3	1.8	9.1	9.7	7.7	1.3	1.2
Unknown				6.3	9.2				8.7	11.2
Age Group										
Under 18	0.9	0.5	2.9	2.5	0.7	2.8	2.6	2.5	2.2	1.8
18 - 20	32.6	32.2	28.9	27.3	25.3	63.8	62.5	61.7	60.9	57.1
21 - 24	30.6	27.6	24.3	22.8	26.4	18.0	17.9	18.2	17.3	20.1
25 - 29	17.5	14.2	19.0	20.8	16.1	6.7	8.3	8.0	9.7	9.7
30 - 39	13.1	17.0	18.3	17.8	19.9	5.5	5.3	5.6	5.8	6.8
40 and Over	5.3	8.5	6.5	8.8	11.6	3.3	3.4	3.9	4.1	4.5
First Generation	39.2	37.9	35.2	37.7	43.0	33.8	35.3	36.4	37.9	36.7
Income										
Below Poverty	19.9	20.4	28.2	32.1	35.8	23.2	21.8	25.3	29.7	30.9
Low	29.1	26.3	21.2	22.6	23.0	21.0	21.5	18.2	19.5	21.8
Middle and Above	38.6	36.9	32.5	33.2	30.4	42.5	38.8	39.1	35.7	33.7
Unknown	12.5	16.5	18.1	12.2	10.7	13.2	17.9	17.5	15.1	13.7
Employment										
Less than Halftime	12.5	12.1	14.5	15.8	16.4	20.3	19.1	19.9	21.4	20.5
Half Time or More	36.8	34.8	31.9	28.5	26.2	38.6	38.3	35.5	29.8	23.3
Full Time	25.8	26.8	26.0	20.8	15.9	9.5	10.5	8.6	6.4	5.7
Unemployed	11.6	16.2	15.2	20.5	25.7	19.1	19.4	23.9	31.4	36.7
Not Seeking	13.4	10.1	12.5	14.4	15.9	12.6	12.6	12.0	11.0	13.7
Number of Students	337	388	415	443	447	4165	4409	4548	4311	4014

*Racial/ethnic classifications underwent a major change starting fall 2009 so caution is needed when making comparisons over time.

Appendix 2: FALL ENROLLMENT: ENGWR 302 (Advanced Composition and Critical Thinking) - Demography

	ONLINE ENROLLMENT (in %)					FACE-TO-FACE ENROLLMENT (in %)				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010
Gender										
Female	63.6	73.6	65.9	68.5	71.3	57.1	52.8	52.8	54.1	52.7
Male	35.6	24.9	34.1	31.5	28.3	42.3	46.4	46.6	45.0	46.2
Unknown	0.9	1.5	0.0	0.0	0.4	0.6	0.8	0.6	0.8	1.0
*Race/Ethnicity										
African American	13.8	11.1	10.6	8.4	8.8	8.2	7.8	10.9	8.3	7.8
Asian	18.2	19.9	15.2	18.7	12.7	20.0	21.2	19.1	16.0	15.7
Filipino	2.7	5.0	1.4	1.2	2.4	4.4	4.2	2.8	3.2	2.0
Hispanic/Latino	12.0	11.1	11.5	16.3	15.5	13.7	15.5	16.4	20.7	20.0
Native American	1.3	0.8	1.8	1.6	0.8	0.7	1.3	1.0	1.3	0.7
Pacific Islander	0.9	1.5	2.8	1.6	0.8	1.4	1.3	1.5	1.3	1.8
White	40.4	40.6	42.9	39.8	43.0	40.1	39.9	39.5	35.5	37.6
Multi-race				5.2	6.8				5.0	5.6
Other Non-White	10.7	10.0	13.8	1.2	2.8	11.5	8.8	8.8	2.2	1.8
Unknown				6.0	6.4				6.6	7.0
Age Group										
Under 18	0.4	0.0	0.5	0.4	0.0	1.0	0.5	0.8	0.7	0.5
18 - 20	25.8	26.1	21.7	23.1	23.5	45.2	45.1	46.8	47.3	45.7
21 - 24	35.1	36.4	34.1	29.1	30.7	32.6	33.7	31.5	31.2	31.4
25 - 29	19.6	19.5	20.3	19.1	18.3	9.9	10.3	10.9	9.7	11.8
30 - 39	13.8	10.3	18.0	19.5	19.5	6.4	5.7	6.3	6.6	6.6
40 and Over	5.3	7.7	5.5	8.8	8.0	4.9	4.7	3.7	4.6	4.0
First Generation	28.0	31.4	35.9	39.0	37.1	31.7	30.6	31.3	33.4	34.2
Income										
Below Poverty	26.2	14.6	28.6	32.7	29.5	25.3	23.2	25.3	30.1	32.3
Low	23.1	29.9	22.6	25.5	25.1	21.6	23.1	20.3	19.5	21.7
Middle and Above	36.0	37.5	32.7	29.9	34.7	38.8	32.4	35.2	34.4	32.2
Unknown	14.7	18.0	16.1	12.0	10.8	14.3	21.3	19.2	16.0	13.8
Employment										
Less than Halftime	18.7	12.3	18.9	19.9	18.3	21.3	19.5	23.3	25.1	24.5
Half Time or More	43.6	42.2	37.8	31.4	31.1	41.8	45.0	40.8	35.6	29.2
Full Time	20.4	23.0	21.7	18.7	20.7	10.8	11.2	10.0	7.1	6.1
Unemployed	6.7	10.0	8.8	21.1	17.1	12.6	13.2	15.5	21.1	28.3
Not Seeking	10.7	12.6	12.9	8.4	12.7	13.6	11.2	10.4	11.1	11.7
Unknown				0.4						
Number of Students	225	261	217	251	251	1298	1385	1362	1310	1352

*Racial/ethnic classifications underwent a major change starting fall 2009 so caution is needed when making comparisons over time.

Appendix 3: FALL ENROLLMENT: MATH 100 (Elementary Algebra) - Demography

	ONLINE ENROLLMENT (in %)					FACE-TO-FACE ENROLLMENT in (%)				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010
Gender										
Female	71.5	73.2	68.5	68.9	69.6	58.4	59.5	60.1	58.5	58.1
Male	28.0	26.8	31.0	31.1	29.6	40.5	39.8	38.8	40.5	40.7
Unknown	0.5	0.0	0.5	0.0	0.8	1.0	0.7	1.1	1.0	1.2
*Race/Ethnicity										
African American	11.2	12.2	9.4	4.9	6.5	12.6	12.4	14.8	11.8	12.5
Asian	8.9	7.3	8.9	4.7	8.1	8.1	9.6	9.7	7.8	7.8
Filipino	2.3	1.2	2.3	2.0	1.6	2.3	3.0	2.4	2.2	1.6
Hispanic/Latino	13.6	15.9	13.1	11.3	16.0	16.0	16.0	17.2	22.2	22.4
Native American	1.9	2.4	1.9	0.3	1.3	1.6	1.8	1.6	0.7	0.7
Pacific Islander	1.9	0.0	1.4	0.9	0.8	1.8	1.3	1.5	1.3	1.3
White	45.3	53.0	52.1	57.3	47.6	49.1	47.0	44.2	38.9	37.1
Multi-race				4.7	6.3				4.5	5.1
Other Non-White	15.0	7.9	10.8	2.9	1.3	8.3	8.9	8.6	1.6	1.4
Unknown				11.0	10.5				8.9	10.1
Age Group										
Under 18	0.5	0.6	1.4	0.9	0.3	1.7	1.3	1.5	1.2	0.7
18 - 20	31.3	29.3	34.7	32.3	27.2	49.8	47.6	47.3	49.0	46.6
21 - 24	24.3	26.8	20.7	17.2	20.7	20.0	20.8	20.4	20.8	20.8
25 - 29	15.0	12.8	18.8	18.0	19.4	10.6	11.9	11.4	12.2	12.7
30 - 39	18.2	22.6	16.9	20.1	17.5	9.7	10.1	11.4	9.6	11.5
40 and Over	10.7	7.9	7.5	11.6	14.9	8.2	8.2	8.0	7.2	7.8
First Generation	30.8	39.0	34.7	44.5	46.3	40.2	40.3	44.1	43.4	44.4
Income										
Below Poverty	23.4	21.3	21.6	26.7	30.4	28.8	28.0	31.0	36.7	40.9
Low	24.8	23.8	22.1	23.8	29.8	23.9	23.7	23.7	22.1	22.8
Middle and Above	39.7	41.5	37.6	35.5	31.2	34.2	31.5	31.5	28.3	25.8
Unknown	12.1	13.4	18.8	14.0	8.6	13.0	16.8	13.8	12.9	10.5
Employment										
Less than Halftime	12.6	11.5	16.4	15.7	14.1	18.2	17.6	16.0	18.8	18.7
Half Time or More	34.6	34.8	39.0	31.1	27.5	39.5	38.7	36.2	28.5	23.3
Full Time	29.0	32.3	25.8	23.3	20.7	13.5	15.0	13.5	10.1	7.7
Unemployed	11.7	11.6	12.2	16.9	27.0	16.9	17.8	21.7	31.1	38.3
Not Seeking	12.1	9.8	6.6	13.1	10.7	12.0	10.9	12.6	11.6	12.0
Number of Students	214	164	213	344	382	2640	3091	3360	3233	2929

*Racial/ethnic classifications underwent a major change starting fall 2009 so caution is needed when making comparisons over time.

Appendix 4: FALL ENROLLMENT: MATH 120 (Intermediate Algebra) - Demography

	ONLINE ENROLLMENT (in %)					FACE-TO-FACE ENROLLMENT (in %)				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010
Gender										
Female	69.5	67.4	72.4	69.5	63.5	53.2	53.0	54.2	54.5	56.4
Male	29.3	31.6	25.7	28.9	36.0	46.0	46.3	45.1	44.3	42.6
Unknown	1.2	1.1	1.9	1.6	0.5	0.8	0.7	0.7	1.2	0.9
*Race/Ethnicity										
African American	11.0	6.3	15.2	8.5	8.4	9.3	10.1	8.6	8.0	6.6
Asian	7.3	17.9	17.1	8.5	15.7	15.3	15.7	14.8	12.2	15.2
Filipino	4.9	4.2	5.7	4.5	1.0	3.1	3.3	3.4	2.5	2.5
Hispanic/Latino	15.9	15.8	7.6	16.7	16.8	16.4	16.9	17.0	21.1	19.2
Native American	2.4	2.1	0.0	0.8	0.8	1.2	0.9	1.3	0.9	0.3
Pacific Islander	0.0	0.0	1.0	1.2	0.8	2.2	1.7	1.9	1.1	1.4
White	51.2	38.9	45.7	47.2	40.2	44.1	43.6	45.1	39.3	36.8
Multi-race				5.3	4.7				5.5	5.4
Other Non-White	7.3	14.7	7.6	1.2	1.6	8.5	7.9	7.9	1.6	0.9
Unknown				6.1	10.0				7.8	10.2
Age Group										
Under 18	3.7	1.1	2.9	0.8	1.0	1.9	1.7	1.8	1.5	1.3
18 - 20	39.0	26.3	31.4	35.8	30.2	58.6	59.2	57.4	57.9	55.3
21 - 24	26.8	23.2	26.7	26.8	31.2	21.6	21.3	20.6	20.5	23.1
25 - 29	15.9	18.9	15.2	13.4	13.6	8.5	9.1	10.2	10.0	10.4
30 - 39	7.3	20.0	16.2	17.9	16.8	5.3	5.3	6.2	6.2	6.4
40 and Over	7.3	10.5	7.6	5.3	7.1	4.1	3.4	3.8	3.9	3.4
First Generation	28.0	37.9	39.0	40.7	45.1	36.7	36.1	37.2	35.5	40.7
Income										
Below Poverty	20.7	20.0	22.9	36.6	37.5	25.5	23.8	27.2	28.1	35.5
Low	24.4	24.2	25.7	22.8	21.0	22.0	22.2	20.3	22.3	21.7
Middle and Above	40.2	35.8	37.1	29.7	28.3	39.0	34.5	35.8	33.2	31.1
Unknown	14.6	20.0	14.3	11.0	13.1	13.5	19.6	16.7	16.3	11.8
Employment										
Less than Halftime	15.9	15.8	20.0	15.9	14.1	19.9	18.8	19.9	21.1	19.4
Half Time or More	37.8	36.8	40.0	33.7	32.8	39.5	39.5	38.1	30.7	25.8
Full Time	29.3	25.3	19.0	22.0	15.0	11.5	10.7	9.9	8.0	5.6
Unemployed	8.5	7.4	9.5	23.2	28.9	17.6	20.3	20.9	28.9	35.7
Not Seeking	8.5	14.7	11.4	5.3	9.2	11.6	10.7	11.2	11.3	13.4
Number of Students	82	95	105	246	381	2876	3187	3542	3430	2640

*Racial/ethnic classifications underwent a major change starting fall 2009 so caution is needed when making comparisons over time.

Appendix 5: FALL ENROLLMENT: BUS 300 (Introduction to Business) - Demography

	ONLINE ENROLLMENT (in %)					FACE-TO-FACE ENROLLMENT (in %)				
	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010
Gender										
Female	65.8	64.0	59.3	62.0	58.8	46.7	45.8	44.0	42.4	44.7
Male	33.2	35.1	39.5	37.8	40.4	52.4	53.5	54.9	56.3	54.3
Unknown	1.0	0.9	1.2	0.2	0.8	0.9	0.7	1.1	1.3	1.0
*Race/Ethnicity										
African American	10.4	13.7	13.5	15.1	16.8	15.7	18.0	17.8	16.1	14.7
Asian	8.5	12.6	15.9	11.7	11.4	17.2	16.9	13.8	11.3	11.3
Filipino	3.9	3.3	3.2	2.4	2.0	3.4	2.5	3.7	2.5	1.3
Hispanic/Latino	11.1	10.0	11.3	16.6	14.8	15.4	14.0	16.3	17.5	20.0
Native American	0.3	1.1	0.2	1.1	0.4	1.4	1.2	1.2	0.7	1.0
Pacific Islander	1.6	2.0	1.8	1.7	1.0	1.6	0.7	1.6	1.0	1.5
White	56.7	48.8	44.4	35.4	37.2	38.0	39.0	38.6	36.4	31.2
Multi-race				4.5	5.4				5.2	4.1
Other Non-White	7.5	8.7	9.7	1.5	0.6	7.3	7.8	7.0	0.6	1.0
Unknown				9.9	10.4				8.7	13.9
Age Group										
Under 18	0.0	1.5	1.6	1.5	1.2	1.1	2.3	2.1	2.4	1.3
18 - 20	27.4	25.6	21.6	20.1	27.4	51.8	49.7	49.8	44.2	43.6
21 - 24	29.6	29.1	30.8	29.2	26.2	23.7	23.9	24.3	23.2	24.7
25 - 29	15.0	18.0	18.1	17.1	15.4	10.5	11.5	11.0	12.7	11.6
30 - 39	15.6	16.9	20.0	17.7	18.6	6.9	6.9	6.1	9.9	10.0
40 and Over	12.4	8.9	7.9	14.5	11.2	6.0	5.7	6.7	7.6	8.7
First Generation	46.6	37.5	38.5	43.8	45.2	38.3	39.0	39.5	38.9	39.3
Income										
Below Poverty	21.5	21.9	25.2	34.8	35.2	32.5	31.2	31.9	39.5	43.0
Low	27.4	24.9	23.4	24.4	25.2	19.9	20.8	21.1	20.2	18.4
Middle and Above	36.5	35.8	37.9	30.2	29.0	34.3	31.9	32.2	26.4	26.2
Unknown	14.7	17.4	13.5	10.6	10.6	13.2	16.1	14.8	14.0	12.4
Employment										
Less than Halftime	9.8	10.9	11.3	10.2	17.8	15.7	15.1	16.9	17.3	18.2
Half Time or More	34.8	34.7	35.1	31.5	26.0	40.6	36.7	33.2	29.4	25.6
Full Time	32.6	33.8	28.8	23.3	19.6	14.3	14.0	12.1	8.6	7.0
Unemployed	12.4	8.9	15.3	24.4	26.4	19.6	23.6	26.3	32.0	37.4
Not Seeking	10.4	11.7	9.5	10.6	10.2	9.9	10.6	11.5	12.8	11.7
Number of Students	307	461	504	463	500	1185	1196	1059	1089	1015

*Racial/ethnic classifications underwent a major change starting fall 2009 so caution is needed when making comparisons over time.