



COSUMNES RIVER COLLEGE

OFFICE OF RESEARCH & EQUITY

Fall 2020 Opt-Out Scheduling Evaluation

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Executive Summary

Purpose

In an effort to continue monitoring the Opt Out program, particularly under the circumstances of COVID-19, the Research Office conducted another evaluation of the Opt Out schedule, using fall 2020 cohort data.

Background

In fall 2019, Cosumnes River College (CRC) implemented the first iteration of the new student Opt Out schedule. Entering students were provided with a 15-unit schedule for their first term, including in math and English. Following implementation, the Research Office evaluated the impact of the Opt Out schedule and found an association with increased 15-unit enrollment and increased 15 transfer unit completion¹. The evaluation also found that students with higher high school GPAs were more likely to participate in the Opt Out schedule. Additionally, the 2019 evaluation showed low persistence to a full-time schedule in the spring following participation in the Opt Out schedule.

Key Findings

1. Opt Out participation in fall 2020 is correlated with high school GPA range, high school district (EGUSD v. other), age, and race. Students with no recorded high school GPA, Non-EGUSD students, Black/African American students, students of an Unknown/Other race, White students, and students age 25 and older are less likely to receive an Opt Out schedule. Asian/Pacific Islander students and EGUSD students are more likely to receive an Opt Out schedule. This might be explained by the context in which students receive an Opt Out schedule (for example, if they need to register for an appointment or workshop, or if EGUSD students are saturated with information regarding Opt Out).
2. Students in fall 2020 enrolled in 15 units at slightly lower rates than students in fall 2019, but at higher rates than fall 2018 (15.84%, 16.44%, and 10.49%, respectively). Factors outside of the Opt Out program, including high school GPA, student age, high school district, student disability status, and first generation status were correlated with 15-unit enrollment. Similarly to fall 2019, student race was marginally correlated with 15-unit enrollment. Assuming the same GPA range, age, high school district, DSPS status, first generation status, and race, students having received an Opt Out schedule in fall 2020 were three times more likely to enroll in 15 units ($\Delta\chi^2(1) = 147.1, p < .001$). Opt Out, across two evaluations, appears to increase 15 unit enrollment rates when holding other factors constant.
3. Fall 2020 students completed 15 transfer units at slightly lower rates than in fall 2019, but at higher rates than in fall 2018 (9.68%, 10.61%, and 6.22%, respectively). Opt Out participation (students who received an Opt Out schedule) was found to be correlated with completion of 15 transfer units in the first term ($\Delta\chi^2(1) = 48.636, p < .001$). This might indicate that, despite the circumstances surrounding COVID-19, Opt Out still increased 15 transfer unit completion rates. That being said,

¹ <https://employees.crc.losrios.edu/crc/employee/doc/equity-ie/research/2018-2020/opt-out-evaluation-fall19.pdf>



Opt Out participation does not appear to close equity gaps in transfer unit completion for students with a GPA lower than 3.0 or Black/African American students.

4. The fall 2020 evaluation found a correlation between Opt Out participation (students who received an Opt Out schedule) and persistence to the second term ($\Delta\chi^2(1) = 149.63, p < .001$), such that when controlling for race, high school district, and GPA, students participating in Opt Out were twice as likely to return in the spring, and 2.4 times as likely to enroll in 15 units in the spring. That being said, Opt Out participation does not appear to close equity gaps in persistence for students with a high school GPA less than 3.0 or Black/African American students.
5. Students who participated in Opt Out did not have significantly lower first-term GPAs than those who did not participate in Opt Out (2.45 v. 2.43) or withdraw from a significantly higher number of units than students who did not participate in Opt Out (2.00 v. 1.65). This supports the assertion that Opt Out is not a detriment to course success, despite increasing unit load. That being said, participation in Opt Out is correlated with other variables, such as high school GPA, race, age, and high school district, which also correlate with fifteen-unit enrollment, first-term GPA, and units withdrawn. While the fall 2020 evaluation did not find any significant effect of the Opt Out program on first-term GPAs or average units withdrawn when controlling for these variables, the effect of increased access to Opt Out across these variables is unknown.

Caveats and Limitations

Data for this evaluation were pulled in January 2021, when spring 2021 enrollments were not yet finalized; this is not likely to affect the findings. Additionally, while this analysis points to possible effects of the COVID-19 pandemic on Opt Out, we cannot know the true effect of COVID-19 on enrollment and completion, and how that intersects with Opt Out, through these evaluation methods. Finally, the evaluation focuses on students who participated in Opt Out (those who received an Opt Out schedule), and that participation is correlated with high school GPA, high school district, race, and age, as described in finding one. As described in finding five, the effects of increased access to Opt Out across these correlated variables, such as high school GPA, on student achievement outcomes is unknown.



Analysis

Defining the Opt Out Cohort

For the purposes of this evaluation, “Opt Out participation” is defined as students who received an Opt Out schedule in fall 2020. All statistical analyses use only fall 2019 data, which is compared in this report to the previous evaluation from fall 2019.

The evaluation found that Opt Out participation is correlated with high school GPA range, high school district (EGUSD v. other), age, and race. Students with no recorded high school GPA, non-EGUSD students, Black/African American students, students of an Unknown/Other race, White students, and students age 25 and older are less likely to receive an Opt Out schedule. Asian/Pacific Islander students and EGUSD students are more likely to receive an Opt Out schedule:

- High school GPA ($\Delta\chi^2(4) = 118.12, p < .001$)
- Age ($\Delta\chi^2(1) = 137.27, p < .001$)
- High school district ($\Delta\chi^2(1) = 290.5, p < .001$)
- Race ($\Delta\chi^2(4) = 48.884, p < .001$)

These access inequities were not observed in fall 2019, which indicates that they *could* be a result of external factors, such as the COVID-19 pandemic, or a newly present inequity in the Opt Out program.

Table 1. 2020-2021 Opt Out Cohort (Students Who Received an Opt Out Schedule)

	Opt Out Cohort		Non Opt Out Cohort	
	Headcount	% of Headcount	Headcount	% of Headcount
High School GPA Band				
0-.99	4	66.67%	2	33.33%
1-1.99	48	48.00%	52	52.00%
2-2.99	410	43.25%	538	56.75%
3.0+	731	48.03%	791	51.97%
No GPA	47	15.88%	249	84.12%
Age				
24 & younger	1205	46.51%	1386	53.49%
25 & older	35	12.46%	246	87.54%
High School District				
EGUSD	836	59.00%	581	41.00%
Not EGUSD	404	27.77%	1051	72.23%
DSPS Status				
DSPS	46	46.94%	52	53.06%
Not DSPS	1194	43.04%	1580	56.96%
First Generation Status				
First Generation	336	43.30%	440	56.70%
Not First Generation	904	43.13%	1192	56.87%
Race				
African American	78	34.21%	150	65.79%



	<i>Opt Out Cohort</i>		<i>Non Opt Out Cohort</i>	
	Headcount	% of Headcount	Headcount	% of Headcount
Asian/Pacific Islander	441	52.13%	405	47.87%
Hispanic/Latinx	395	43.08%	522	56.92%
Native American	2	18.18%	9	81.82%
Unknown/Other	98	38.28%	158	61.72%
White	226	36.81%	388	63.19%
Gender				
Female	661	43.12%	872	56.88%
Male	567	42.99%	752	57.01%
Non-Binary / Not Reported	12	60.00%	8	40.00%
Total	1240	43.18%	1632	56.82%

15-Unit Enrollment

The fall 2020 evaluation found a correlation between Opt Out participation and 15-unit enrollment ($\Delta\chi^2(1) = 147.1, p < .001$). Various other demographic variables were also correlated with 15 unit enrollment rates:

- High school GPA ($\Delta\chi^2(4) = 73.904, p < .001$)
- Age ($\Delta\chi^2(1) = 63.135, p < .001$)
- High school district (Elk Grove Unified v. Other, $\Delta\chi^2(1) = 57.188, p < .001$)
- Disability status ($\Delta\chi^2(1) = 5.26, p < .05$)
- First generation status ($\Delta\chi^2(1) = 4.3785, p < .05$)
- Unlike in 2019, race was marginally correlated with 15-unit enrollment ($\Delta\chi^2(4) = 8.6747, p < .1$)

The above correlated demographic variables could act as potential confounding variables. For example, if Hispanic/Latinx students had a tendency to enroll in more units, and they were over-represented in the fall 2020 Opt Out cohort, then any increases in 15-unit enrollment in fall 2020 could be attributed to over-representation of this group, and not the Opt Out program. With this in mind, the correlated demographic variables were controlled for in the analysis. After controlling for these factors, there was a statistically significant difference in 15-unit enrollment such that students who received an Opt Out schedule were more likely to enroll in 15 units ($\Delta\chi^2(1) = 89.436, p < .001$). **Assuming the same GPA range, age, high school district, DSPS status, first generation status, and race, students having received an Opt Out schedule were three times more likely to enroll in 15 units.** This provides additional support for the assertion that the Opt Out program improves 15 unit enrollment rates.



Table 2. 2020-2021 15-Unit Enrollment Rates for Opt Out and Non Opt Out Students (completion)

	Opt Out Cohort			Non Opt Out Cohort		
	Headcount	Enrolled in 15 units	% enrolled in 15 units	Headcount	Enrolled in 15 units	% enrolled in 15 units
HS GPA Band						
0-.99	4	0	0.00%	2	0	0.00%
1-1.99	48	9	18.75%	52	4	7.69%
2-2.99	410	71	17.32%	538	46	8.55%
3.0+	731	231	31.60%	791	81	10.24%
No GPA	47	3	6.38%	249	10	4.02%
Age						
24 & younger	1205	312	25.89%	1386	137	9.88%
25 & older	35	2	5.71%	246	4	1.63%
High School District						
EGUSD	836	217	25.96%	581	81	13.94%
Not EGUSD	404	97	24.01%	1051	60	5.71%
DSPS Status						
DSPS	46	6	13.04%	52	2	3.85%
Not DSPS	1194	308	25.80%	1580	139	8.80%
First Generation Status						
First Generation	336	73	21.73%	440	32	7.27%
Not First Generation	904	241	26.66%	1192	109	9.14%
Race						
African American	78	14	17.95%	150	14	9.33%
Asian/Pacific Islander	441	111	25.17%	405	41	10.12%
Hispanic/Latinx	395	101	25.57%	522	45	8.62%
Native American	2	0	0.00%	9	0	0.00%
Unknown/Other	98	28	28.57%	158	19	12.03%
White	226	60	26.55%	388	22	5.67%
Gender						
Female	661	166	25.11%	872	77	8.83%
Male	567	143	25.22%	752	64	8.51%
Non-Binary / Not Reported	12	5	41.67%	8	0	0.00%
Total	1240	314	25.32%	1632	141	8.64%

Completion of 15 Transfer-Level Units

The fall 2020 evaluation found a correlation between Opt Out participation and completion of 15 transfer-level units in the first term ($\Delta\chi^2(1) = 48.636, p < .001$). Various other demographic variables were also correlated with 15 unit completion rates:



- High school GPA ($\Delta\chi^2(4) = 144.41, p < .001$)
- High school district (Elk Grove Unified v. Other, $\Delta\chi^2(1) = 71.345, p < .001$)
- Age ($\Delta\chi^2(1) = 45.106, p < .001$)
- Race ($\Delta\chi^2(4) = 19.005, p < .001$)
- First generation status ($\Delta\chi^2(1) = 18.749, p < .001$)
- Gender ($\Delta\chi^2(2) = 11.628, p < .001$)
- Disability status ($\Delta\chi^2(1) = 6.7012, p < .001$)

When controlling for these variables, students enrolling in Opt Out schedules are 1.7 times as likely to complete 15 transfer units in their first term ($\Delta\chi^2(1) = 13.917, p < .001$). That being said, Opt Out participation does not appear to close equity gaps in transfer unit completion for students with a GPA lower than 3.0 or Black/African American students.

Table 3. Fall 2021 Completion of 15 Transfer-Level Units for Opt Out and Non Opt Out Students

	Opt Out Cohort			Non Opt Out Cohort		
	Headcount	Completed 15 Transfer Units	% Completed 15 Transfer Units	Headcount	Completed 15 Transfer Units	% Completed 15 Transfer Units
HS GPA Band						
0-.99	4	0	0.00%	2	0	0.00%
1-1.99	48	0	0.00%	52	0	0.00%
2-2.99	410	15	3.66%	538	21	3.90%
3.0+	731	157	21.48%	791	78	9.86%
No GPA	47	3	6.38%	249	4	1.60%
Age						
24 & younger	1205	174	14.44%	1386	102	7.36%
25 & older	35	1	2.86%	246	1	0.41%
High School District						
EGUSD	836	137	16.39%	581	66	11.36%
Not EGUSD	404	38	9.41%	1051	37	3.52%
DSPS Status						
DSPS	46	0	0.00%	52	3	5.77%
Not DSPS	1194	175	14.66%	1580	100	6.33%
First Generation Status						
First Generation	336	30	8.93%	440	16	3.64%
Not First Generation	904	145	16.04%	1192	87	7.30%
Race						
African American	78	5	6.41%	150	8	5.33%
Asian/Pacific Islander	441	79	17.91%	405	29	7.16%
Hispanic/Latinx	395	42	10.63%	522	32	6.13%



	Opt Out Cohort			Non Opt Out Cohort		
	Headcount	Completed 15 Transfer Units	% Completed 15 Transfer Units	Headcount	Completed 15 Transfer Units	% Completed 15 Transfer Units
Native American	2	0	0.00%	9	0	0.00%
Unknown/Other	98	17	17.35%	158	15	9.49%
White	226	32	14.16%	388	19	4.90%
Gender						
Female	661	106	16.04%	872	65	7.45%
Male	567	69	12.17%	752	38	5.05%
Non-Binary/Not Reported	12	0	0.00%	8	0	0.00%
Total	1240	175	14.11%	1632	103	6.31%

First Term GPA

A linear regression was used to compare the first-term GPAs of students enrolled in 15 units who received an Opt Out schedule with those who did not. Opt Out participation (receiving an Opt Out schedule) was not found to have any significant effect on first term GPA. However, linear regressions showed that several demographic variables were correlated with first-term GPA:

- High school GPA ($F(3, 434) = 16.897, p < .001$)
- First generation status ($F(1, 436) = 25.893, p < .001$)
- Gender ($F(2, 435) = 3.2006, p < .05$)
- Race ($F(4, 433) = 3.8994, p < .001$)

After controlling for these variables, for the second year in a row, Opt Out did not have a significant effect on average first term GPA ($F(1, 426) = .0424, ns$). This supports the assertion that unit load can be increased by the Opt Out program without detriment to course success.

Average Units Withdrawn

A linear regression was used to compare the units withdrawn of students enrolled in 15 units in the first term who received an Opt Out schedule with those who did not. The effect of Opt Out participation on units withdrawn in the first term was trending towards significant ($F(1, 453) = 3.1172, p < .1$). Several demographic variables were also correlated with units withdrawn:

- High school GPA ($F(3, 451) = 6.5895, p < .001$)
- First generation status ($F(1, 453) = 7.1654, p < .05$)
- High school district ($F(1, 453) = 7.0477, p < .05$)

When controlling for these variables, Opt Out participation did not have any significant effect on units withdrawn in the first term ($F(1, 448) = 1.0964, ns$).



Table 4. Fall 2021 Average GPA and Withdrawn Units for Opt Out and Non Opt Out Students

	Opt Out Cohort			Non Opt Out Cohort		
	Headcount	Ave. 1 st Term GPA	Ave. 1 st Term W Units	Headcount	Ave. 1 st Term GPA	Ave. 1 st Term W Units
HS GPA Band						
0-.99	4	1.38	3.25	2	2.33	1.50
1-1.99	48	1.69	2.54	52	1.37	2.38
2-2.99	410	1.88	2.65	538	1.89	2.34
3.0+	731	2.80	1.65	791	2.73	1.35
No GPA	47	2.36	1.14	249	2.77	1.00
Age						
24 & younger	1205	2.45	2.04	1386	2.38	1.76
25 & older	35	2.73	0.90	246	2.73	1.04
High School District						
EGUSD	836	2.49	1.88	581	2.36	1.82
Not EGUSD	404	2.38	2.25	1051	2.47	1.56
Disability Status						
DSPS	46	2.60	1.82	52	2.35	1.81
Not DSPS	1194	2.45	2.01	1580	2.43	1.65
First Generation Status						
First Generation	336	2.22	2.22	440	2.27	1.90
Not First Generation	904	2.54	1.92	1192	2.49	1.56
Race						
African American	78	1.95	2.08	150	1.76	2.36
Asian/Pacific Islander	441	2.69	1.67	405	2.78	1.37
Hispanic/Latinx	395	2.25	2.31	522	2.17	1.77
Native American	2	0.00	1.50	9	2.03	1.78
Unknown/Other	98	2.40	1.73	158	2.61	1.38
White	226	2.53	1.97	388	2.58	1.64
Gender						
Female	661	2.57	1.95	872	2.62	1.51
Male	567	2.32	2.06	752	2.21	1.83
Non-Binary/Not Reported	12	2.34	2.17	8	3.63	0.75
Total	1240	2.45	2.00	1632	2.43	1.65



Persistence

The fall 2020 evaluation found a correlation between Opt Out participation and persistence to the second term ($\Delta\chi^2(1) = 149.63, p < .001$). Various other demographic variables were also correlated with persistence:

- High school district (Elk Grove Unified v. Other, $\Delta\chi^2(1) = 152.35, p < .001$)
- High school GPA ($\Delta\chi^2(4) = 72.419, p < .001$)
- Race ($\Delta\chi^2(4) = 60.527, p < .001$)
- Age ($\Delta\chi^2(1) = 44.49, p < .001$)
- Gender ($\Delta\chi^2(2) = 14.645, p < .001$)

When controlling for these variables, students enrolling in Opt Out schedules are twice as likely to enroll in courses for a second term ($\Delta\chi^2(1) = 65.746, p < .001$).

Table 5. 2020-2021 Persistence to Second Term for Opt Out and Non Opt Out Students

	Opt Out Cohort			Non Opt Out Cohort		
	Headcount	Persisted to 2 nd term	% Persisted	Headcount	Persisted to 2 nd term	% Persisted
HS GPA Band						
0-.99	4	1	25.00%	2	1	50.00%
1-1.99	48	31	65.58%	52	23	44.23%
2-2.99	410	298	72.68%	538	300	55.76%
3.0+	731	616	84.27%	791	494	62.45%
No GPA	47	32	68.09%	249	120	48.19%
Age						
24 & younger	1205	954	79.17%	1386	826	59.60%
25 & older	35	24	68.57%	246	112	45.53%
High School District						
EGUSD	836	684	81.82%	581	414	71.26%
Not EGUSD	404	294	72.77%	1051	524	49.86%
DSPS Status						
DSPS	46	41	89.13%	52	39	75.00%
Not DSPS	1194	937	78.48%	1580	899	56.90%
First Generation Status						
First Generation	336	259	77.08%	440	239	54.32%
Not First Generation	904	719	79.54%	1192	699	58.64%
Race						
African American	78	58	74.36%	150	88	58.67%
Asian/Pacific Islander	441	372	84.35%	405	279	68.89%
Hispanic/Latinx	395	294	74.43%	522	287	54.98%



	Opt Out Cohort			Non Opt Out Cohort		
	Headcount	Persisted to 2 nd term	% Persisted	Headcount	Persisted to 2 nd term	% Persisted
Native American	2	2	100.00%	9	3	33.33%
Unknown/Other	98	74	75.10%	158	88	55.70%
White	226	178	78.76%	388	193	49.74%
Gender						
Female	661	547	82.75%	872	523	59.98%
Male	567	422	74.43%	752	413	54.92%
Non-Binary/Not Reported	12	9	75.00%	8	2	25.00%
Total	1240	978	78.87%	1632	938	57.48%

The fall 2020 evaluation also found a correlation between Opt Out participation and persistence to enrolling in 15 units in the second term ($\Delta\chi^2(1) = 81.598, p < .001$). Various other demographic variables were also correlated with persistence to 15 units:

- High school GPA ($\Delta\chi^2(4) = 34.161, p < .001$)
- Age ($\Delta\chi^2(1) = 26.848, p < .001$)
- High school district ($\Delta\chi^2(1) = 26.479, p < .001$)
- Race ($\Delta\chi^2(4) = 19.861, p < .001$)

When controlling for these variables, students enrolling in Opt Out schedules are 2.4 times as likely to enroll in 15 transfer-level units during their second term ($\Delta\chi^2(1) = 49.018, p < .001$). That being said, Opt Out participation does not appear to close equity gaps for students with a high school GPA less than 3.0 or Black/African American students.

Table 6. 2020-2021 Persistence to 15 Units in Second Term for Opt Out and Non Opt Out Students

	Opt Out Cohort			Non Opt Out Cohort		
	Headcount	Persisted to 15 Units	% Persisted to 15 Units	Headcount	Persisted to 15 Units	% Persisted to 15 Units
HS GPA Band						
0-.99	4	0	0.00%	2	1	50.00%
1-1.99	48	7	14.58%	52	2	3.85%
2-2.99	410	57	13.90%	538	40	7.43%
3.0+	731	167	22.85%	791	68	8.60%
No GPA	47	3	6.38%	249	13	5.22%
Age						
24 & younger	1205	230	19.09%	1386	117	8.44%
25 & older	35	4	11.43%	246	7	2.85%



	<i>Opt Out Cohort</i>			<i>Non Opt Out Cohort</i>		
	Headcount	Persisted to 15 Units	% Persisted to 15 Units	Headcount	Persisted to 15 Units	% Persisted to 15 Units
High School District						
EGUSD	836	163	19.50%	581	61	10.50%
Not EGUSD	404	71	17.57%	1051	63	5.99%
DSPS Status						
DSPS	46	5	10.87%	52	3	5.77%
Not DSPS	1194	229	19.18%	1580	121	7.66%
First Generation Status						
First Generation	336	56	16.67%	440	30	6.82%
Not First Generation	904	178	19.69%	1192	94	7.89%
Race						
African American	78	9	11.54%	150	9	6.00%
Asian/Pacific Islander	441	91	20.63%	405	47	11.60%
Hispanic/Latinx	395	68	17.22%	522	37	7.09%
Native American	2	0	0.00%	9	0	0.00%
Unknown/Other	98	20	20.41%	158	15	9.49%
White	226	46	20.35%	388	16	4.12%
Gender						
Female	661	126	19.06%	872	63	7.22%
Male	567	107	18.87%	752	61	8.11%
Non-Binary/Not Reported	12	1	8.33%	8	0	0.00%
Total	1240	234	18.87%	1632	124	7.60%