Evaluation of Student Educational Planning at Cosumnes River College

CRC Research Office

Fall, 2016

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Background

Cosumnes River College (CRC) is currently investigating ways to improve educational planning through new online tools and/or new course registration systems. This effort is part of a broader initiative by the College and District to provide guided pathways for student completion. In order to support the College's effort, the Research Office conducted a two part investigation of educational planning at CRC. The first part of this investigation evaluated the impact of educational planning on success and enrollment. The second part of this investigation used a survey of counselors to evaluate how educational planning could be improved – potentially strengthening the overall impact of educational plans.

Summary of Findings

Findings from the first part of this investigation suggest that student educational plans have an impact on enrollment. In fall 2015, students who had educational plans enrolled in more units on average (M = 8.11) than students who did not have educational plans (M = 6.26). On the other hand, findings were mixed regarding the impact of educational plans on student success. Students who had educational plans (M = 2.52) had slightly higher GPA's than those who did not (M = 2.50). However, this difference was only statistically significant after controlling for several demographic variables: student age, gender, ethnicity, income level, and enrollment status. In non-statistical terms, this means that a student with an educational plan had a slightly higher GPA on average than a student of the same age, gender, ethnicity, income level, and enrollment status without an educational plan. Taken together, these findings suggest that educational plans might impact student enrollment but may have mixed or minimal effects on overall student success.

Despite their potential impact, there are numerous ways that educational plans and educational planning could be improved at CRC. Counselors described some challenges with educational planning at the College. Specifically, many counselors expressed frustration with developing educational plans for students who did not know their career/academic goals. Some felt that students were being forced into deciding on a goal, and therefore, may not adhere to an educational plan. A substantial portion of surveyed counselors also described issues with the software used to develop educational plans. Most thought the software did not do a good job of integrating current course offerings with educational planning. Moreover, many counselors suggested the software could be improved by auto-populating courses for a major, incorporating degree audit, and by providing information on the current course schedule. A complete summary of survey findings can be found on page 4 of this report.

Limitations

As with all correlational research, the link between educational plans and student success/enrollment *should not* be interpreted as causal. There are numerous reasons why students with educational plans might enroll in more units – beyond the educational plan itself. For example, students who get educational plans might be more motivated than other students. This heightened motivation could result in a student enrolling in more units. Also note that the issues identified by counselors suggest *possible* improvements of educational planning at CRC. We will only know if changes made to educational planning are effective after the aforementioned changes have been made.

Student Educational Plans, Success, and Retention

Method

This investigation focused on students enrolled in fall 2015. Demographic information, educational plan completion status, and unofficial term GPA were gathered from the Los Rios Peoplesoft Database. There were 14637 distinct students enrolled at CRC in fall 2015. A total of 12767 had term GPAs (e.g., they took a class for a letter grade). Therefore, analyses that used GPA had a sample size of 12767 students, and within analyses of total unit enrollment, the sample size was 14637 students.

Educational plan proportions for each demographic group can be found in Table 1. The "Equity Index" was calculated by dividing the percentage of educational plans within a demographic by the overall rate. Of the 14637 students at CRC in fall 2015, approximately 10511 (71.8%) had educational plans. There were no notable differences observed for ethnicity, gender, and income level. However, transfer students created educational plans in lower proportions.

Table 2 provides average GPA/average units enrolled by educational plan and demographic. In almost all circumstances, students with educational plans enrolled in more units than students without educational plans. On the other hand, the GPA data is mixed. Students with educational plans had only slightly higher GPAs on average, but within many demographic groups, students without educational plans had higher GPAs. For example, female students without educational plans had higher GPAs than those who did.

Table 1. *Percent Educational Plans by Demographic, Fall 2015*

Demographic	# with Ed Plans	% with Ed Plans	Total	Equity Index
Ethnicity				
African American	1346	73.5%	1831	1.02
Asian	2471	71.8%	3443	1.00
Filipino	476	68.6%	694	0.96
Hispanic/Latino	2746	75.2%	3653	1.05
Multi-Race	680	73.2%	929	1.02
Native American	41	75.9%	54	1.06
Other Non-White	52	74.3%	70	1.03
Pacific Islander	203	72.2%	281	1.01
Unknown	96	67.1%	143	0.93
White	2400	67.8%	3539	0.94
Gender				
Female	5885	73.3%	8024	1.02
Male	4461	70.1%	6366	0.98
Unknown	165	66.8%	247	0.93
Enrollment Status				
Continuing Student	5498	75.9%	7242	1.06
First Time Student (New)	2474	81.9%	3020	1.14
First Time Transfer Student	887	50.6%	1752	0.71

Returning Student	1645	65.4%	2516	0.91
Income Level				
Low Income	2532	71.3%	3553	0.99
Middle Income+	2740	66.5%	4121	0.93
Poverty Level	4150	76.5%	5424	1.07
Unknown	1089	70.8%	1539	0.99
Total	**10511**	**71.8%**	**14637**	

Table 2. *GPA/Enrollment by Ed Plan Status, Fall 2015*

	Units Enrolled			GPA		
Demographics	**No Ed Plan**	**Ed Plan**	**Overall Avg.**	**No Ed Plan**	**Ed Plan**	**Overall Avg.**
Ethnicity						
African American	5.84	7.51	7.07	1.97	2.06	2.04
Asian	6.45	8.73	8.09	2.68	2.81	2.77
Filipino	6.85	8.37	7.89	2.52	2.68	2.63
Hispanic/Latino	6.48	8.12	7.71	2.28	2.32	2.31
Multi-Race	6.37	8.33	7.80	2.21	2.40	2.35
Native American	5.15	7.69	7.08	2.47	2.62	2.58
Other Non-White	6.19	5.88	5.96	2.44	2.39	2.40
Pacific Islander	5.90	6.94	6.65	2.12	2.40	2.32
Unknown	5.57	7.43	6.82	2.94	2.43	2.60
White	6.03	7.86	7.27	2.80	2.72	2.74
Gender						
Female	5.96	7.88	7.37	2.63	2.58	2.59
Male	6.59	8.41	7.87	2.36	2.45	2.42
Unknown	6.20	8.14	7.50	2.59	2.48	2.52
Enrollment Status						
Continuing Student	7.07	8.70	8.31	2.58	2.59	2.59
First Time Student (New)	7.12	9.03	8.69	1.74	2.32	2.23
First Time Transfer Student	5.54	6.24	5.89	2.61	2.60	2.60
Returning Student	5.06	5.78	5.53	2.65	2.57	2.60
Income Level						
Low Income	6.23	7.77	7.33	2.39	2.53	2.49
Middle Income+	5.80	8.11	7.34	2.76	2.67	2.70
Poverty Level	6.67	8.22	7.86	2.26	2.41	2.38
Unknown	6.59	8.46	7.92	2.61	2.54	2.56
Overall	**6.26**	**8.11**	**7.59**	**2.50**	**2.52**	**2.52**

Results (Technical Specifications)

Two regression analyses – one for average unit enrollment and the other for GPA – confirmed the observations above. Students who had an educational plan in fall 2015 enrolled in significantly more units than students who did not, $t(1) = 24.64$, $p < .001$. However, student demographic representation could potentially explain this difference. Students groups who typically enroll in more units might also be more likely to earn an educational plan. The effect of educational plan could therefore be explained by demographic variables and not educational planning in of itself. To account for this, a second analysis controlled for age, gender, ethnicity, income level, and enrollment status. Within this analysis, the difference between students with and without educational plans was still significant, $t(1) = 15.28$, $p < .001$, suggesting that the controlled demographic variables do not account for the effect of educational planning.

On the other hand, students with educational plans did not have significantly higher GPAs than students who did not, $t(1) = 0.89$, *ns.* This difference was only significant after controlling for the demographic variables age, gender, ethnicity, income level, and enrollment status, $t(1) = 6.92$, $p < .001$. This finding suggests that the effect of educational planning on GPA is minimal.

Counselor Survey

Method

A survey on educational planning was administered to all counselors within the Counseling Department at CRC. This survey asked counselors how much time it takes to make an abbreviated or comprehensive educational plan; what strategies they use when creating an educational plan; what challenges they face when creating an educational plan; and how well current software supports educational planning. A total of 14 counselors responded to the survey. Their responses are summarized next.

Results

The average time for creating an educational plan clearly depends on the type of plan. An abbreviated educational plan takes an average of 17 minutes (with a range of 5 to 30 minutes) and a comprehensive plan takes an average of 34 minutes (with a range of 15 to 45 minutes). Regardless of plan type, counselors at CRC use a common strategy when working with students to create an educational plan. This strategy has three steps:

1) Learning the career interests and major of a student. If the student doesn't have an educational goal, the counselor helps them decide on a career major.
2) Reviewing relevant data. Many of the counselors ask the student about personal circumstances, financial aid, timeline, and placement level. They also review transcripts from other colleges to assess the student's progress towards achieving their academic goal.
3) Create an educational plan based on the student's major requirements, their previous experience, and personal factors specific to the student.

Even though the strategy is somewhat clearly defined. Counselors also reported several challenges to educational planning at CRC. Six out of the 13 (46.2%) counselors who listed challenges said that it was difficult to develop an educational plan for a student who did not have an academic/career goal. Some counselors reported that students might feel pressured to come up with a goal on the spot, and this

spontaneous decision might reduce adherence to an educational plan. Four out of 13 (30.8%) said that the software for creating educational plans was not easy to use. Additionally, four counselors (30.8%) thought that reviewing transcripts and previous college experience slowed down the process. Some counselors also thought that creating educational plans for ESL students was difficult due to issues with communication.

Counselors rated various aspects of the software currently used to create educational plans. Although most generally agreed that the software was easy to use/efficient, a total of 50% thought that the software *did not* make it easy to align educational plans with the current course schedule (Table 3). Additionally, when asked to provide suggestions for improving the educational planning system, counselors gave various suggestions. Nearly 50% of the counselors who provided a suggestion said that the system could be improved by auto-populating required courses based off the student's major. Many also said that the system could be improved by incorporating degree audit and by providing information on current course offerings.

Table 3. *Summary of Counselor Ratings*

Statement	Agree	Disagree	Neutral
The electronic system for creating educational plans is easy to use.	64.29%	14.28%	21.43%
The electronic system for creating educational plans is efficient.	69.23%	23.07%	7.69%
The electronic system makes it easy to align educational plans with current course offerings.	28.57%	50.00%	21.53%
Overall I am satisfied with the current electronic system for creating educational plans.	53.84%	23.07%	23.08%