Matriculation Services and Student Success: A Comparison of Student Outcomes for Students Receiving and Not Receiving Matriculation Services

Introduction

The goal of this study was to compare the educational outcomes of students who receive matriculation services with the outcomes of students who do not receive matriculation services. The results show that students who receive matriculation services are more successful—by a variety of measures including GPA, units completed, course success, and completion of transfer-level English and Math—than students who do not receive matriculation services.

The design of the study is based on Design 1 of the Matriculation Local Research Options Project from 1989. It is a retrospective study comparing outcomes for students who chose whether or not to receive matriculation services. The study is subject to the self-selection problem in that it is possible that students who choose to receive matriculation services are more conscientious students than those who choose not to receive services. Therefore, because of its design, the study cannot demonstrate that matriculation services cause improved student outcomes. However, it does show that matriculation services are associated with more positive student outcomes.

Method

Three matriculation-related services were studied: assessment, orientation, and student educational plan (SEP). For each service, three levels of participation were identified. The levels of participation generally correspond to *no service received*, *partial service received*, and *full service received*. Thus, three student groups were defined for each of the matriculation-related services: those who did not receive that particular service, those that received partial service, and those that received full service. During the time of the study, matriculation services were not mandatory, but all students were encouraged to take advantage of the services available.

Students entering Glendale Community College in Fall 1997, Fall 1998, or Fall 1999 were tracked from their entering semester through Fall 2001. Only students entering with a goal of transfer or AA completion were tracked.

The following outcome measures were compared for students in each of the service level groups:

- Cumulative GPA: student Grade Point Average in all graded classes from entering semester through Fall 2001
- **Cumulative units completed:** the total number of units completed in all credit classes from entering semester through Fall 2001

- Overall course success rate: the percentage of all credit classes taken from entering semester through Fall 2001 resulting in a grade of A, B, C, or Credit
- Overall course retention rate: the percentage of all credit classes taken from entering semester through Fall 2001 resulting in a grade other than W
- Average terms enrolled: the total number of terms (including summer sessions) in which the student was enrolled, from entering semester through Fall 2001
- Fall-to-Spring persistence: the percentage of students persisting from entering Fall semester to the next Spring semester
- Fall-to-Fall persistence: the percentage of students persisting from entering Fall semester to the next Fall semester
- Completion of transfer English: the percentage of students successfully completing any transfer-level English course
- Completion of transfer Math: the percentage of students successfully completing any transfer-level Math course

Results

Orientation

Students were classified into three groups defined by orientation services received. The *no service provided* group did not attend an orientation and received no orientation services. The *partial service provided* group attended an orientation session, either online or at a workshop. The *full service provided* group enrolled in Student Development 100, a variable unit college orientation course. The following table shows student outcomes for the three groups. The last row, labeled "Statistically Significant," indicates whether there was a statistically significant difference among the three groups for each outcome measure.

Table 1. Student outcomes for orientation services

			Student	
	No		Development	Statistically
	Orientation	Orientation	100	Significant?
Cumulative GPA	1.85	2.18	2.22	Yes
Cumulative units completed	22.5	38.1	45.8	Yes
Overall course success rate	49%	63%	70%	Yes
Overall course retention rate	81%	87%	90%	Yes
Average terms enrolled	3.6	4.7	5.7	Yes
Fall-to-Spring persistence	63%	77%	89%	Yes
Fall-to-Fall persistence	44%	61%	78%	Yes
Completion of transfer English	26%	43%	35%	Yes
Completion of transfer Math	15%	28%	23%	Yes

For each measure, students with some form of orientation were more successful than students who did not complete any orientation services.

Assessment

Students were classified into three groups defined by assessment services received. The *no service provided* group did not take any of the English/ESL or the Math placement tests. The *partial service provided* group consisted of students who were placed in either English/ESL or Math, but not both subjects. The *full service provided* group consisted of students who were placed into both English/ESL and Math. The following table shows student outcomes for the three groups. The last row, labeled "Statistically Significant," indicates whether there was a statistically significant difference among the three groups for each outcome measure.

Table 2. Student outcomes for assessment services

	No	One	Two	Statistically
	Assessment	Assessment	Assessments	Significant?
Cumulative GPA	2.07	2.00	2.04	Yes
Cumulative units completed	10.0	23.5	37.1	Yes
Overall course success rate	51%	56%	59%	No
Overall course retention rate	77%	85%	85%	Yes
Average terms enrolled	2.3	3.5	4.9	Yes
Fall-to-Spring persistence	44%	64%	78%	Yes
Fall-to-Fall persistence	18%	45%	64%	Yes
Completion of transfer English	7%	16%	40%	Yes
Completion of transfer Math	4%	7%	26%	Yes

For most measures, students who did not take assessment tests were less successful than students who took one or two assessment tests. The first measure, cumulative GPA, is an exception: students who did not have an English/ESL or Math placement had an average GPA that was slightly higher than those students who did have an English/ESL and/or Math placement. The difference in GPA is relatively small and probably reflects the types of courses in which students enrolled. Because of

prerequisites and advisories on recommended preparation, it is likely that students who did not take the English/ESL assessment test enrolled in courses with less academic rigor and higher overall success rates than students who did take the assessment test.

The other outcome measures show significantly better outcomes for students who took the assessment tests. It is particularly interesting to note that students who took both assessment tests were more than twice as likely to complete transfer-level English and transfer-level Math than those who took only one assessment test.

Student Educational Plan (SEP)

Students were classified into two groups defined by whether or not they had created a student educational plan with a counselor. Outcomes are shown in the following table.

Table 3. Student outcomes for SEP services

	No SEP	SEP	Statistically
	Completed	Completed	Significant?
Cumulative GPA	1.87	2.41	Yes
Cumulative units completed	24.4	52.2	Yes
Overall course success rate	52%	72%	Yes
Overall course retention rate	82%	90%	Yes
Average terms enrolled	3.8	6.0	Yes
Fall-to-Spring persistence	66%	90%	Yes
Fall-to-Fall persistence	47%	80%	Yes
Completion of transfer English	24%	54%	Yes
Completion of transfer Math	14%	38%	Yes

Students who completed an SEP were more successful by all of these measures than students who did not complete an SEP. The largest differences were for completion of transfer-level English and Math, units completed, and Fall-to-Fall persistence.

Conclusion

The results show that, for these measures and levels of service participation, students who receive matriculation services tend to be more successful than students who do not receive matriculation services. The intention of this study is that it can be replicated easily at multiple colleges to provide evidence, based on different colleges with different student populations, that matriculation services are associated with positive student outcomes.