Cal Success and Academic Improvement

Rick Fillman
Institutional Research Analyst
Planning and Research Office
December 2010
Introduction

In late summer of 2010, the Cal Success office at Cabrillo College requested a study that would examine the academic records of individuals served by the program, seeking evidence that academic success improves along with the delivery of their program services.

The Cal Success program provides financial support for students who may otherwise have difficulty remaining in school due to financial pressures. It is reasonable to expect that students served by the program are able to devote more time to school because of Cal Success’ financial assistance.

A list of program participants was received from the Cal Success staff, which included a student ID and the date when students began receiving Cal Success services. Among the Cal Success students, there were two whose start date was not provided, and another thirteen students whose start date was too recent to allow for assessment. After removing these fifteen students, 124 students remained in the study.

Enrollments before joining the Cal Success program

Most of the 124 Cal Success students had attended Cabrillo prior to entering the Cal Success program. Of the 106 students with prior Cabrillo enrollments, there was a wide variety of attendance patterns.

Methodology

Academic records of the 106 students who have a prior academic record at the college were examined in order to test the hypothesis that participation in the program resulted in an increase in academic success for these students. Enrollment records that were more than three years prior to the date of joining the Cal Success program were excluded. The date students joined the Cal Success program is used to categorize enrollment records as occurring before or after joining the program.

Data regarding several student performance measures were examined before and after: the students’ unit load, the proportion of transfer courses, the proportion of withdrawals to total enrollments, and the
students’ term-GPA\(^1\). The unit load (per term) represents a “volume” measure - an increase means students attempted more hours of schooling each term. The proportion of transfer-level courses might represent a shift in the direction of more challenging courses. The proportion of withdrawals represents the ability to complete or follow-through on courses that were attempted. Finally term-GPA might represent quality of scholarship. At the same time, it is also possible that as students take more rigorous courses, GPA may be negatively affected.

**Measures, before and after**

There is good evidence that students took on more units after their acceptance into the Cal Success program than before - students are more likely to be in school full-time. On average, students moved from taking around 10 units to around 11 units per term. This measure is statistically significant\(^2\).

After joining the program, there is additional evidence of students enrolling in more transfer-level courses. Before joining Cal Success, about 43.5% of enrollments were in transfer-level courses, increasing to 45.5% after joining the program. This measure, however, achieves only marginal statistical significance. The other two measures failed to achieve statistical significance. In other words, there is no statistical evidence that membership in Cal Success was associated with a reliable change in GPA or course withdrawals. The chart shown below summarizes the significant changes observed.

<table>
<thead>
<tr>
<th>Enrollments within 3 years of joining the CAL Success Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before joining the program</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Units attempted per term</td>
</tr>
<tr>
<td>Proportion of transfer sections</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Term GPA is a grade point average calculated using grades from the current term only, as opposed to a student’s cumulative GPA, which represents their entire academic record at the college.

\(^2\) Statistical significance (.05) represents less than one chance in twenty that the observed variation is due to random chance.
Conclusions

There is evidence that students took on more units after their acceptance into the Cal Success program. There is marginal evidence that students enrolled in more transfer-level courses after joining the Cal Success Program. A replication of this study with a larger population of Cal Success participants is recommended.