

## Declaring a Major and Student Success Measures for the Undecided Students

Undecided students are those “who are unwilling, unable, or unready to make educational and/or vocational choices, who enter college with a tentative decision that changes, who were rejected from a selective or oversubscribed program, or who are the future major changers in transition.”<sup>1</sup> Advising an undecided student is challenging as undecided major has been an important indicator for many student success research studies.<sup>2</sup> In this research brief, first, we examine the CLA (College of Liberal Arts) and CSM (College of Science and Mathematics) students who entered as undecided in Fall 2011 cohort<sup>3</sup> and declared a major by their second or third year compared to those who also entered as undecided but did not declare a major by their second or third year. Then, we investigate some of the student success measures<sup>4</sup> of the students who entered as undecided compared to their peers who entered with a major.

### Declaring a Major

More than 60 percent of the undecided students declared a major by their third year.

Nearly one-fourth (24%) of the undecided CLA and 29 percent of the undecided CSM students declared a major by their second year. By their third year, 60 percent of the undecided CLA and 63 percent of the undecided CSM students declared a major. Percent of undecided CLA and CSM transfer students declaring a major by both their second and third year are statistically significantly higher than the first-time students (Figure 1).

Figure 1: Percent of Undecided Students Declaring a Major in Their Second and Third Year

Undecided CLA	% Declared by 2nd Year*	% Declared by 3rd Year**
First-year (n=294)	18	55
Transfer (n=156)	36	69
All (n=450)	24	60

Undecided CSM	% Declared by 2nd Year*	% Declared by 3rd Year**
First-year (n=100)	23	60
Transfer (n=39)	48	71
All (n=139)	29	63

Note: \*CIP changed from Fall 2011 to Fall 2012; \*\*CIP changed from Fall 2011 to Fall 2013

Top five majors for undecided CLA students were: 1) Management (BS), 2) Biology (BS), 3) English (BA), 4) Political Science (BA), and 5) Psychology (BA). Top five majors for undecided CSM students were 1) Biology (BS), 2) Exercise & Health Science (BS), 3) Management (BS), 4) Chemistry (BS), 5) Environmental Science (BA), and Information Technology (BS).

Students are more successful if they declared a major in their second or third year.

We found that the 4-year and 6-year graduation rates and the 1-year and 2-year retention rates were statistically significantly higher among those who entered as an undecided student in Fall 2011 but declared a major by their second (Fall 2012) or third year (Fall 2013) compared to those who were still undecided. This is true for both the CLA and CSM students.

Among the CLA first-time freshmen, those who entered as undecided but declared a major by the second or third year had a statistically significantly higher 4-year and 6-year graduation rates and 1-year retention rate than those who were still undecided. For CSM Students, 4-year and 6-year graduation rates, as well as the 1-year and 2-year retention rates, were statistically significantly higher for those who declared a major by second or third year compared to those who did not.

### Student Success

#### Graduation Rates

- Declared entering CLA students have statistically significantly higher 4-year and 6-year graduation rates than the undecided students (Figure 2).
- Similarly, declared entering CSM students have statistically significantly higher 4-year and 6-year graduation rates than the undecided students (Figure 3).

#### Retention Rates

- Declared entering CLA students have statistically significantly higher 1-year and 2-year retention rates than the undecided students (Figure 2).
- Declared entering CSM students have statistically significantly higher 1-year retention rate and 2-year retention rates than the undecided students. (Figure 3).

Figure 2: Graduation and Retention Rates of College of Liberal Arts Students

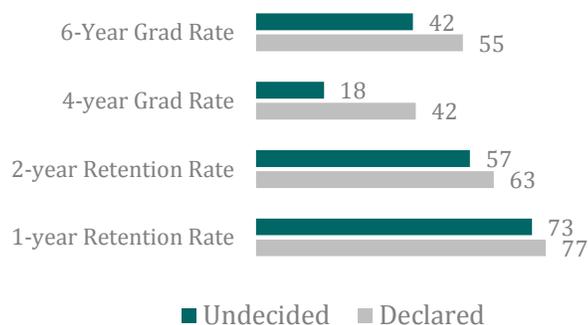
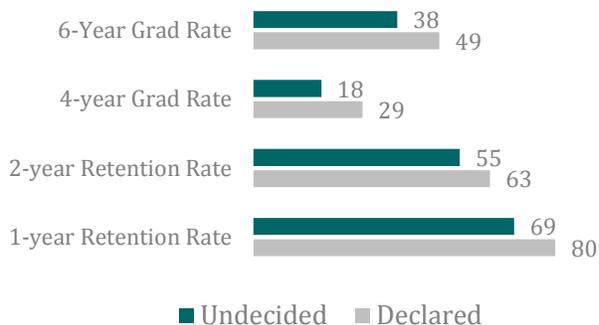


Figure 3: Graduation and Retention Rates of College of Science and Math Students



Cumulative GPA and the Total Number of credits taken

- The mean of the cumulative GPA is higher for the declared entering CLA and CSM students than their undecided peers, but not statistically significant (Table 1).

- Declared entering CLA students take statistically significantly lower number of credits to complete the degree than the undecided students (Table 1).
- Declared entering CSM students take a higher number of credits to complete the degree than the undecided students, but this is not statistically significant. (Table 1).

Table 1: Differences in Success between the Declared and Undecided Students

College of Liberal Arts							
	<i>n</i>	1-year Retention Rate*	2-year Retention Rate*	4-year Grad Rate*	6-Year Grad Rate*	Average credits*	Average Cumulative GPA
Declared	884	76.8	63.0	42.3	54.8	124	3.27
Undecided	450	73.1	56.7	18.0	41.6	126	3.14
College of Science and Math							
	<i>n</i>	1-year Retention Rate*	2-year Retention Rate*	4-year Grad Rate*	6-Year Grad Rate*	Average credits	Average Cumulative GPA
Declared	501	80.2	62.7	28.9	49.3	130	3.16
Undecided	139	69.1	54.7	18.0	38.1	126	3.13

Note: \**p*<.01

The results indicate that there are statistically significant differences between the students who declared a major in their entering year and the undecided students. Students with a declared major have a higher chance of success, i.e., they are more likely to continue, graduate, and get a better GPA. This brief recommends the leadership team to consider these findings when making policies to increase student success at UMass Boston.

This research brief is written by the OIRAP Research Analyst Fatema Binte Ahad.

1 Steele, G. E. (2016). Advising Undecided College Students.

2 Leppel, K. (2001). The impact of major on college persistence among freshmen. Higher Education, 41(3), 327-342.

3 Fall 2011 Cohort:

College	Undecided	Declared	% Full-time	% Part-time	% Freshman	% Transfer
Liberal Arts	450	884	93.1	6.9	80.0	34.7
Science and Math	139	501	93.5	6.5	89.2	28.1

4 How should the student success be defined is one of the commonly asked questions in higher education. For the purpose of this brief we considered three most frequently used indicators of student success described by Cuseo (2014)\*—1) student retention (1-year and 2-year retention rates), 2) educational attainment (4-year and 6-year graduation rates), and 3) academic achievements (cumulative GPA). We also examined the total number of credits taken by a student. \*Cuseo, J. (2014). Student success: Definition, outcomes, principles and practices, Esource for college transitions. University of South Carolina: National Resource Center for the First-Year Experience & Students in Transition.