EAB | Student Success Collaborative™

How Late Is Too Late?

Myths and Facts About the Consequences
of Switching College Majors

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An EAB **Data Insight** Briefing

Declaring a major is one of the most important decisions a college student will make. It can also be an important indicator of a student's commitment to completing a college degree. Most advising professionals consider undeclared students, especially those in their second year or later, to be at elevated risk of leaving school before they graduate. For this reason, many institutions have invested in practices and implemented policies encouraging students to declare as soon as they are ready.

Despite these efforts, a student's initial major declaration is rarely final. In fact, it is estimated that 75–85% of students will switch majors before they graduate. If it is considered risky to delay the start of a major, should we be equally concerned that so many students are changing course?

Students and parents think so. Surveys show that both groups believe major switching is one of the top culprits extending the time it takes to complete a bachelor's degree.

This thinking would seem to make sense. Students are encouraged to declare majors as early as possible as a demonstration of their commitment to college and to ensure that they are making good progress against early degree requirements. From a credit accumulation standpoint, switching could require students to backtrack on their progress to degree. It is reasonable to assume that the later a switch occurs, the worse the consequences could be.

Most schools have deadlines for when a student must declare a major (typically before the end of sophomore year). However, few schools have deadlines after which a student can no longer switch to a new major.

This led us to wonder: Should schools have a deadline by which students need to settle on a final major? Should we believe the conventional wisdom about the consequences of changing majors? If there is a tipping point, how late is too late? In this analysis, we explore whether the conventional wisdom about major switching is myth or fact.

To do so, we turned to the data. EAB data scientists analyzed major declaration patterns and graduation outcomes using data provided by members of EAB's Student Success Collaborative™. Our goal was to test prevalent assumptions about when students need to decide on a final program of study by comparing the timing of major switches with associated graduation outcomes. Through our brief, we hope to provide insights that foster data-driven policies and best practices that help guide students in making one of the most important decisions of their college career.

Our ten study institutions included public and private colleges and universities, ranging in enrollment from 5,800 to over 42,000. Most schools were able to provide at least six years of data for a total research sample of over 78,000 students. These schools were selected specifically to provide a representative snapshot of national major declaration trends. All of these schools are on a semester system, so the word "term" is synonymous with "semester" in this paper.

Our large, cross-institutional data set afforded us a significant advantage over previous research. Most prior studies of major declaration patterns were conducted by institutional researchers or academics studying data gathered from their individual home institutions. The lack of a cross-institutional scope makes it difficult to draw the same kind of national-level conclusions presented here.

We looked primarily at the impact of the timing of a last major declaration on two key student educational outcomes: graduation and time to degree. We focused exclusively on the timing of the final major switch made by a student and ignored any prior switches.

Our analysis is limited to students who had completed at least 60 credits, the number of credits after which students are traditionally considered juniors. This was done to remove bias caused by high rates of attrition in the first and second year. Students who leave college early do not have as much time to make a switch and thus we would expect dropouts to be disproportionately

represented among the groups of students making their "final" choices in years one and two. Since we were especially interested in the potential consequences of later switches, we chose to control for this bias by excluding any students who had not earned at least 60 credits.

## MYTH 1: Major switches hurt likelihood of graduation

▶ **FACT:** Students can switch majors through senior year with no impact on graduation rate

We first tested the conventional wisdom that students who switch majors are less likely to graduate than students who never change. The common thinking here is that students who switch majors are indecisive and lack the goal-orientation needed to complete a college degree.

In reality, we found that switching has little impact on graduation rates. Students who switch to their

final major in their junior or senior year graduate at nearly the same rate (a little more than 82%) as students who make their final declarations earlier. The differences between these percentages are not statistically significant. Graduation rates only begin to fall when students exceed normal time to degree and make switches in their fifth year or later, but declining rates could also be a function of other factors impacting the success of students who go beyond four years.

If anything, it's unusual just how remarkably stable these rates are from year to year. Only the fifth term (a little more than 84%) deviates from this trend, and it is actually higher than those of other years. This difference is not statistically significant.

Why might this be? It could be that the act of switching is not indicative of indecision but is actually an affirmation of a commitment to earn a degree. By going through the trouble to change their official major, students are making a statement that they intend to continue their education.

Graduation Rate for Students Who Switch Majors[1]

X-axis: Term of Final Major Declaration[2]
Y-axis: Graduation Rate

| Term | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Rate | 82% | 83% | 83% | 84% | 83% | 82% | 83% | 80% | 80% | 74% | 70% |

Average graduation rate for students who do not change majors (78.45%)
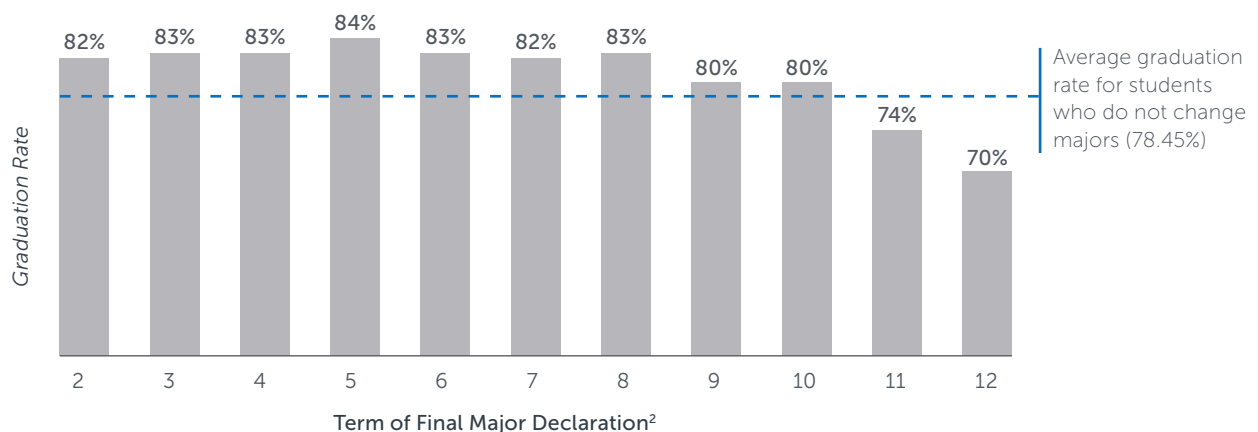
1) Timing of major change calculated based on the student's last major declaration. Analysis based on students who had completed 60 or more college credits.

2) Our data set shows only the major a student has declared at the end of a term; therefore, we cannot see switches that happen within the first term. The second term is the earliest time when we can see a switch.

MYTH 2: Switching majors increases time (and cost) to degree

▶ **FACT:** Median time to degree holds steady for students who switch through the first semester of junior year

Students are encouraged to start completing major requirements as early as possible to avoid adding extra time to their degree. So it would be reasonable to assume that students who switch majors put themselves at risk for backtracking as they start over with a new set of requirements. Students who switch during their first few terms have plenty of time to catch up, but what about students who switch later?

We show our results here as a box-and-whiskers chart centered on median terms enrolled, broken down by the term in which a student's final switch occurred. The outside edges of the boxes represent the 25th and 75th percentiles; the ends of the whisker lines represent the full range of time to degree for that time segment. Only graduates are included in this analysis, and we excluded summer and winter sessions in our count of enrolled terms.

The data shows that major switching prior to the sixth term has a negligible impact on time to degree. Students who switch to their final majors in their second, third, fourth, or fifth terms have a median time to degree of eight terms. The median begins to move only when students switch in their sixth term or later.

Surprisingly, we see that at least 25% of students who switch in terms six and seven still graduate in four years. This means that many students who make switches as late as their junior or early senior years are still graduating on time.

Why might this be? Two explanations immediately present themselves. First, many of our late-switching students may be changing to "adjacent" majors with overlapping course requirements (e.g., from biology to biochemistry). In these cases, the student should not suffer from much backtracking and thus remain on course for timely graduation. Further analysis with a more granular data set could provide additional insight into this hypothesis.

Second, major switches, even those to distant majors, may not generate unproductive credits that extend time to degree. In most cases, courses that no longer fulfill major requirements after a switch are simply converted to fulfill general electives. These credits will not become unproductive unless the student has already fulfilled all elective requirements. It is possible that this threshold begins to manifest in the sixth term for some students.

Time to Graduation for Students Who Switch Majors

Number of Enrolled Terms (y-axis)

Term of Final Major Declaration (x-axis)

—— Median time to degree
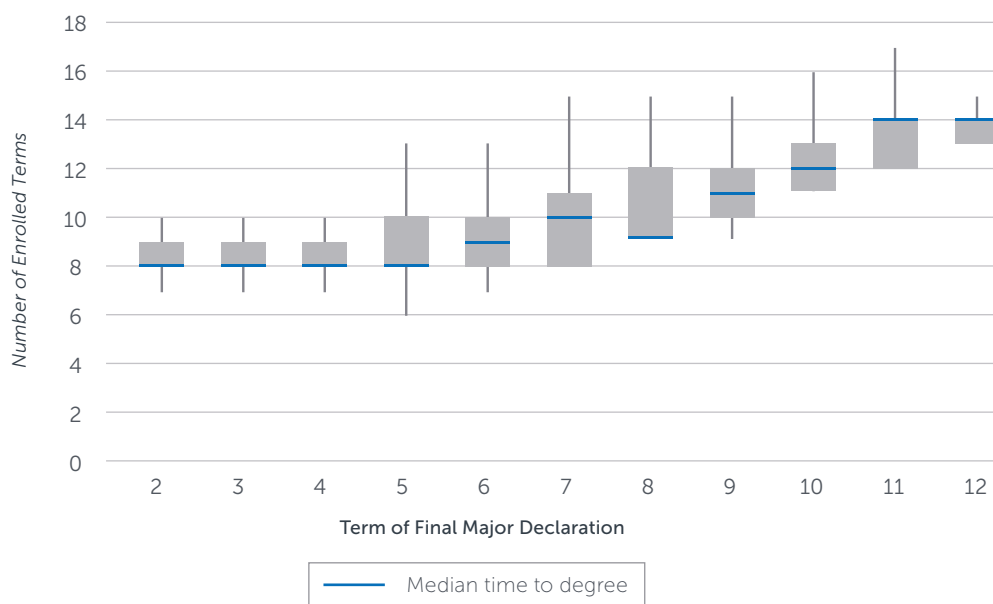
MYTH 3: Students who settle on a major early are better off

▶ **FACT:** Students who make their first (and only) decision in their first term graduate at lower rates than their peers

Students who switch majors do not hurt their odds for graduating, and most will not extend their time to degree. But is there a benefit to knowing what you want right from the start and sticking with it?

We saw something unexpected when we looked at the timing of a student's last declaration. "Last declaration" in this context includes students who declare an initial major and never change, as well as students who end up changing their major. Surprisingly, we found that students who declare their major first semester freshman year and never switch graduate at a rate up to four percentage points lower (79% vs. 83%) than students who make a final decision in their second term or later. This difference is statistically significant.

Some readers may assume that this is the result of bias introduced by early attrition, but we think that is unlikely. As with the prior two analyses, this analysis includes only students who had completed at least 60 credits. Furthermore, if

bias were in play, we would expect to see it in the second, third, and fourth terms as well. This is not the case.

Why might this be? Students' interests grow and change during college, as evidenced by the large numbers who will switch majors. Those who declare early but do not switch may become dissatisfied with their choice over time yet lack the motivation or wherewithal to make a change. Students, like everyone else, tend to default to the easiest options. Those who declare a major very early in their careers may be inclined to remain in that major even if their interests shift or the major turns out to be something different than they thought it was.

Psychologists have understood for years that people who pursue careers that are closely aligned with their personal interests tend to be more satisfied and generally enjoy better professional outcomes. A study published by Jeff Allen and Steve Robbins in the *Journal of Counseling Psychology* in 2010 found a similar relationship exists between student affinity for majors and academic outcomes. Students with interests closely aligned with their field of study performed better academically and were more likely to graduate on time.

Graduation Rates by Last Major Declaration[1]
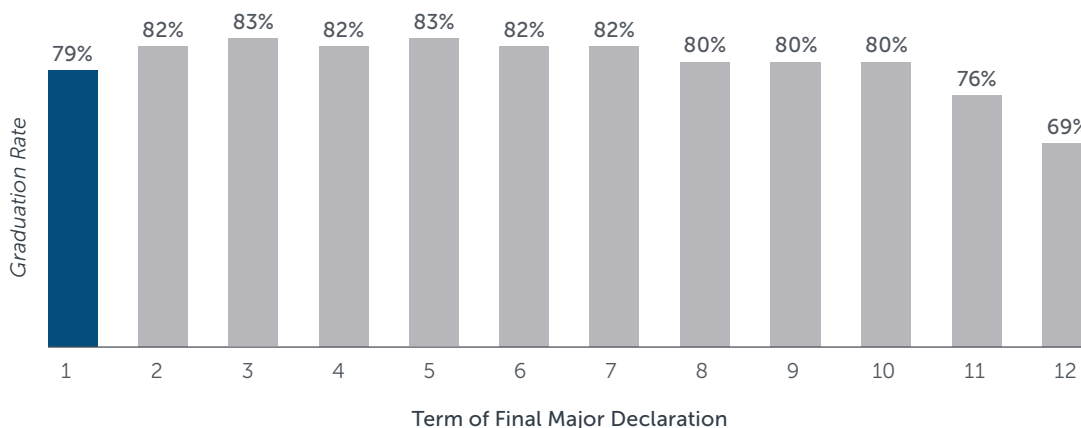
1) Analysis based on students who had completed 60 or more college credits.

CONCLUSION

Students have far more flexibility to change their majors without hurting graduation outcomes than many have previously assumed. We see little evidence that late switches impact graduation rates. Late switches can impact time to degree, but only if they occur in the sixth term or later. Surprisingly, we found students who declare in their first term and never switch have decreased odds for graduation.

Taken together, these results suggest that schools can feel comfortable with their current policies and structures that allow for and encourage exploration and switching. Policies that encourage or force students to make choices early on in their careers may not be doing much to help students. In some cases, those policies may be detrimental.

Likewise, parents and students can be confident that changing majors is not likely to result in negative consequences until the second semester of junior year. In some cases, a late major change could help students decrease their time to degree or improve their chances of graduating.

Do these results mean that we should actually be forcing students to switch majors? Of course not. But perhaps instead of mandating early major choice, we should be investing in structures, such as meta majors, that encourage exploration while still ensuring that common early requirements are satisfied and the student is making progress. In doing so, we may be able to help more students find majors that they love enough to stick with all the way through to graduation.

To learn more about the Student Success Collaborative or to hear how progressive institutions are leveraging these principles to improve student success, visit **eab.com/studentsuccess.**

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1.2B+
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