An Examination of Purdue’s First-Year Retention Rates

Between the benefit of entering cohorts with progressively increasing academic profiles and the university’s investment in student success programs, from fall 2007 through fall 2015, Purdue saw a nine year trend of increasing first-year retention rates. However, in fall 2016 the cohort of students that entered Purdue the previous fall saw a one percentage point drop in their one-year retention rates (figure 1). This report is a collaboration between OIRAE and EMAR to examine some of the potential areas that accounted for the decline.

Figure 1. First-Year Retention Rates for First-Time Full-Time New Students Entering Campus the Previous Fall

[Graph showing first-year retention rates from 2002 to 2016]

Change in Academic Probation Policy

Effective in fall of 2015 Purdue changed its academic probation and academic dismissal policy. Students are now placed on academic probation if their semester GPA or cumulative GPA falls below a 2.0, and they are academically dropped from the university if they are already on probation and their semester and cumulative GPA are below a 2.0. The policy change was made after careful study of student success patterns at Purdue, and the university was aware that this would lead to an increase in students on probation and a possible increase in academic dismissals. This held true with the first-time full-time cohort of students who entered Purdue in fall 2015. One year later their academic dropped rate was 0.9 percentage points higher than the previous year’s cohort (figure 2).

Figure 2. First-Year Retention, Withdrawal, and Dropped Rates for First-Time Full-Time New Students Entering Campus the Previous Fall

[Bar chart showing retention, withdrawal, and dropped rates for fall 2012 to fall 2016]

While this certainly contributed to the overall decrease in the first-year retention rate, ultimately it is highly unlikely that this will lead to a greater number of students not completing at Purdue. As can be seen in figure 3 the percentage of the incoming class that earns a 2.0 or lower first-year GPA has been on the decline. Even with a larger entry cohort in 2015 than the University has had in several years, Purdue had the lowest number of first-year students earn less than a 2.0 first-year GPA in the last five years. As can be seen in figure 4, traditionally students who earned below a 2.0 in their first-year were eventually dropped by the University.

Figure 3. Percentage of the First-Time Full-Time Cohort earning a 2.0 or Lower First-Year GPA

Figure 4. Average First-Year GPA by Retention Category
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It appears, based on first and second year retention rates, that indeed, rather than losing more students the new probation policy is simply accelerating the attrition of students who struggled in their first year, rather than delaying it to the second year or beyond (figure 5). With the earlier dismissal, students won’t accumulate debt over years for a degree program they do not complete. If a student can demonstrate academic recovery at another accredited institution and decides they want to recommit to a Purdue degree, they can apply for reentry through the readmissions process.

Retention of Subgroups

The university has been enrolling an increasing number of underrepresented minority students (URM) in the incoming class, and historically URM students have been retained at a lower rate. However, the most recent first-year retention rates for URM students increased, narrowing the gap from the overall population (figure 6). Additionally, in fall 2016 for the first time in Purdue’s history the first-year retention rate of African American students is higher than the overall population rate.

Figure 6. First-Year Retention Rates by Minority Status for First-Time Full-Time New Students Entering Campus the Previous Fall

Due to both funding and eligibility restrictions in the two primary student success programs targeted at these populations (Purdue Promise and Horizons), there was a larger percentage of these at-risk populations without assistance programs. As one might suspect there were larger drops in the retention rate of both of these sub groups than the overall population (figure 8). Those students who were both Pell eligible and first generation were far more likely to be enrolled in either Promise or Horizons which is likely linked to the lack of drop in the retention of this subgroup. While pell eligible students did not increase in the dropped population first-generation students did. As Purdue continues to increase its access with larger and more diverse new entry classes, the University will need to continue to work to assist those students who are most at risk to struggle in the campus environment.

Two other groups of students that are at-risk to not be retained are first generation and Pell eligible students. Purdue has been on a general trend of declining enrollment of first generation and Pell eligible students in the new entry cohort. However, there was a dramatic downturn in first generation students in the fall 2014 cohort with some recovery in fall 2015 (figure 7). This coupled with the larger entry class in fall 2015 led to an increase of 515 more first generation or Pell eligible students in the fall 2015 entry cohort.

References

1. Academic Probation and Deficiency web site
2. Office of Enrollment Management Fall 2016 Enrollment, Admissions, Retention & Graduation Rates, Degree and Student Borrowing Five Year Trends
3. Readministration after Academic Dismissal web site
4. University Innovation Alliance and Purdue