Reducing DFW Rates: A Look at Course Completion

Academic Affairs Forum and Academic Performance Solutions Explore Course Completion Rates

## Course Completion Rates Are an Important Indicator for Student Outcomes

While many institutions have made significant progress through non-instructional approaches to improve student progress, a growing body of research has looked at how changes to the classroom experience can measurably improve student learning, retention, and graduation rates. This "evidence-based pedagogy" is now solidly grounded in both science and practice, but its use has been slow to spread.

One effective way to identify opportunities for improvement in student outcomes is to analyze course completion rates. The completion rate is simply the percentage of students enrolled in a course at the census date who receive credit for it. The inverse is often referred to as the unproductive credit rate (DFW), or the percentage of students who receive a failing grade (D/F) or withdraw from the course (W). Courses with very high unproductive credits or large numbers of students who do not complete then become priorities for increased investment, support, and redesign.

15-30%

Typical institution unproductive credit rates[1]

With institutional unproductive credit rates typically ranging from 15-30%, hundreds or thousands of students are currently sitting in (and paying for) a class for which they will not receive credit. Dropping out of or failing a course leads to a number of negative student outcomes, including longer time to degree, reduced retention rate, and potential loss of scholarship or financial aid.

An analysis of data from 10,000 first-time college students at the University of Wisconsin at Madison, for example, found that six unproductive credits led, on average, to an extra four months of time to completion.

Real Costs of Failing or Withdrawing From a Course[2]

6
Unproductive Credits

→

4
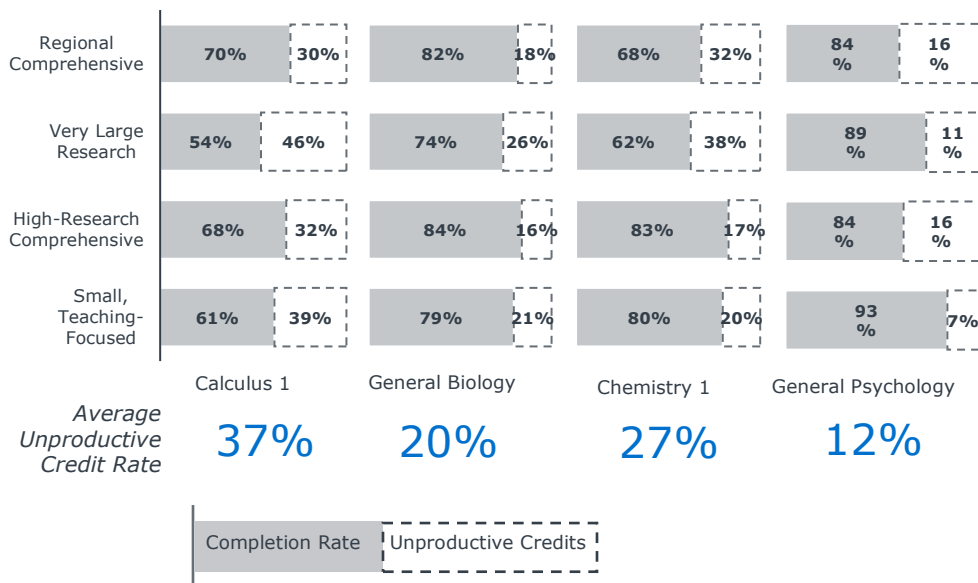Extra Months of Time to Completion

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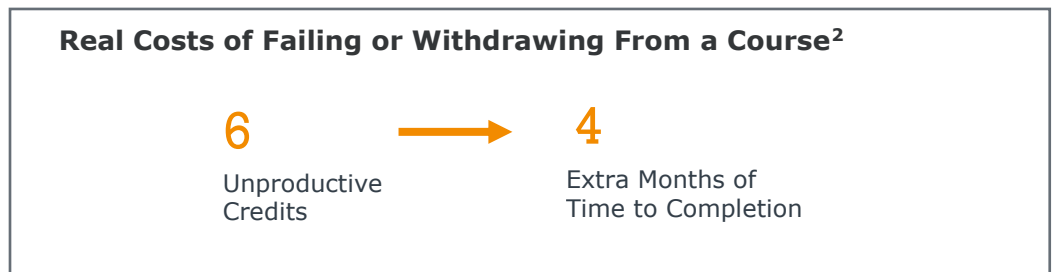
1) Academic Performance Solutions data and analysis.
2) Source: University of Wisconsin-Madison, Predictors of Time-to-Degree for Recent UW-Madison Undergraduates, December 2014: https://apir.wisc.edu/timetodegree/Predictors_TimetoDegree_2014.pdf.

Unproductive credits also increase institutional costs and reduce instructional capacity as students are forced to repeat courses or take additional courses to meet degree requirements, making the impact of completion rate in gateway courses particularly acute. Data from Academic Performance Solutions shows universities with unproductive credit rate as high as 46% in key gateway courses.

Course Completion Ratios in Gateway Courses at Four Universities[3]

	Calculus 1		General Biology		Chemistry 1		General Psychology	
Regional Comprehensive	70%	30%	82%	18%	68%	32%	84%	16%
Very Large Research	54%	46%	74%	26%	62%	38%	89%	11%
High-Research Comprehensive	68%	32%	84%	16%	83%	17%	84%	16%
Small, Teaching-Focused	61%	39%	79%	21%	80%	20%	93%	7%
Average Unproductive Credit Rate	**37%**		**20%**		**27%**		**12%**	

Completion Rate ┆ Unproductive Credits

Strategies to Address Low Course Completion Rates

Despite potential faculty skepticism, there are a number of effective ways to increase course completion rates without reducing rigor. NCAT, SCALE-UP, Gateways to Completion, and other course redesign initiatives have demonstrated through hundreds of implementations that changes in pedagogy can measurably improve completion rates and student learning outcomes even at larger class sizes. In many cases, institutions have also succeeded in reducing instructional costs while improving outcomes. Central to all of these approaches is a shift in teaching philosophy from "screening out" underqualified students to identifying the barriers that students face and supporting them to reach high academic standards.
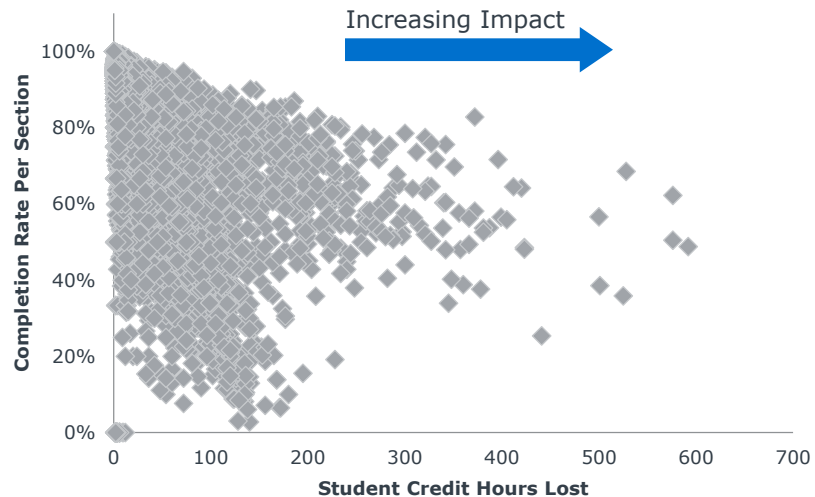
1 **Size the Opportunity**

Quantifying course completion rates at the institutional, college, department, and course level can help administrators and faculty understand just how many credits are being lost and how many students are being negatively impacted.

It is important to look at both course completion rates and the absolute number of credits lost due to unproductive credits. Sharing this data widely across campus can stimulate productive conversations about how to understand the completion rate challenge and how to respond to it.

3) Academic Performance Solution data and analysis.

Finding Greatest Opportunity for Impact[4]
Data from One University

Increasing Impact →

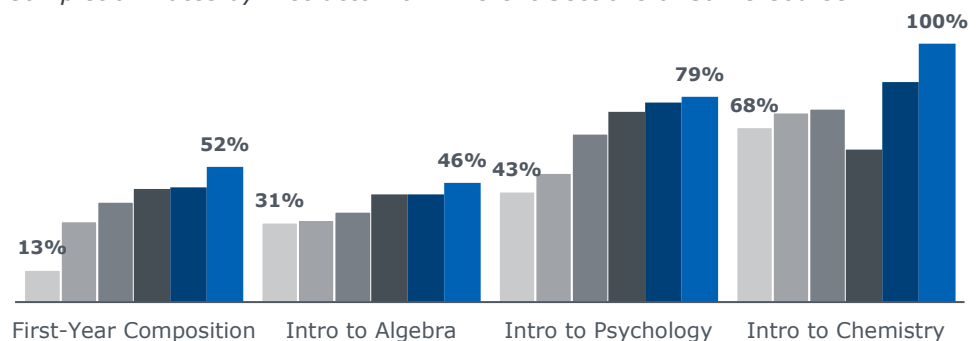(y-axis: Completion Rate Per Section — 0% to 100%; x-axis: Student Credit Hours Lost — 0 to 700)

② Identify Root Causes

While counting incomplete credits is relatively straightforward, determining why students are not passing courses is often significantly more difficult. Common findings include

- While lack of academic preparation certainly contributes to the issue, high school GPA and standardized test scores are often poor predictors of first semester course performance. (IUPUI). Even highly selective institutions face low completion rates in certain programs and courses.

- Students often struggle in their first year for non-academic reasons (financial, personal, emotional, etc.).

- Institutional data typically shows that instructor variation (i.e., large variations in completion rates ranges among different instructors teaching sections of the same course) is often a major driver of unproductive credit rates. Variability in instructor completion rates is often due not to differences in student preparation but rather differences in grading philosophy or a lack of standardization of assessments across multiple sections of a single course.

Instructors Often a Major Source of Variability[5]
Completion Rates by Instructor for Different Sections of Same Course

First-Year Composition: 13% ... 52%
Intro to Algebra: 31% ... 46%
Intro to Psychology: 43% ... 79%
Intro to Chemistry: 68% ... 100%

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3 **Prioritize Resources**

Given limited time and resources, it is critical to focus on courses that have the largest impact on student success and where pedagogical innovation has the most support.

- Look at courses with low completion rates and high absolute numbers of lost credit hours
- Consider courses with high variability in completion rates by instructor or by student group
- Focus on high-enrollment courses, especially those with capacity constraints
- Emphasize gateway courses that are major requirements or critical prerequisites

4 **Engage Faculty**

Faculty are responsible for what happens in the classroom, and no changes to pedagogy can or should be made without their leadership. Faculty require time and resources to engage in the challenging but productive work of course improvement. While all institutions have a handful of passionate faculty innovators, relying on the intense devotion of a handful of instructors will not be sufficient to make a measurable impact across multiple sections, multiple courses, and multiple departments. A coordinated effort to provide actionable data, internal and external benchmarks, resources, support, time, and incentives is essential.

About Academic Performance Solutions

Academic Performance Solutions (APS) enables institutions to actively use data to set strategic goals, garner census around change initiatives, and make tough decisions in allocating limited academic and financial resources. APS is a solution designed to empower academic and financial leaders with the department-specific performance and cost data – as well as reliable peer benchmarks – they need to shape conversations and inform decision-making around academic planning. APS' new web platform provides high level KPIs as well as drill downs and instant analyses of program performance and cost across colleges, departments, instructors, and courses.

About Academic Affairs Forum

The Academic Affairs Forum is EAB's dedicated membership for academic leaders, focused on providing proven, peer-tested strategies and implementation support to improve student success, academic resource allocation, faculty affairs, enrollment growth strategy, and more.

Our team offers a variety of resources including custom research, webconferences, National Member meetings, and onsite visits to support and advance your unique institutional goals.