Colleges can better predict graduation rates by looking more closely at the types of students they enroll, report finds

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Current methods used by colleges and universities for predicting graduation rates fall short on accuracy because they leave out key information about the types of students the institutions enroll, according to a new report from the Higher Education Research Institute (HERI) at UCLA.

By taking into account a broader array of social, economic and psychological characteristics of incoming students, as well as an institution's mission, colleges and universities could more precisely assess how effective they are at moving students toward completion of their degrees over four, five and six years, the report's authors say.

The report, "Completing College: Assessing Graduation Rates at Four-Year Institutions," combines data from the CIRP (Cooperative Institutional Research Program) Freshman Survey, which gathers information on students as they enter college, and links that information with student graduation data from the National Student Clearinghouse.

Expanding upon previous HERI graduation-rate studies, the report introduces a new method for predicting an institution's graduation rate. Many colleges and universities currently use basic information about students, such as race and ethnicity, gender, high school grade-point average, and SAT or ACT scores, to project an expected graduation rate.

But by considering other, more personal characteristics — how students rate their emotional health, how they select their institution, whether they are the first in their family to attend to college and whether they anticipate having to work full time, along with various other factors — an institution can increase the precision of its graduation-rate prediction by 66 percent for four years, 54 percent for five years and 53 percent at the end of six years, according to the report.
"Comparing the actual to the expected graduation rate is very important, especially to those institutions wanting to improve their graduation rates," said Sylvia Hurtado, director of HERI and a co-author of the report.

For example, the report found that when predictions were made that took into account the broader characteristics of students who enroll in public four-year colleges, it would be expected that only 19.3 percent would graduate in four years. In fact, the four-year graduation rate is 23.5 percent, a difference of 22 percent, indicating that public institutions as a whole are doing a better job of graduating students than expected.

Private universities, by contrast, graduate more students in four years than public institutions, with a rate of 64 percent, but given their students' traits, the expected graduate rate is actually slightly higher, at 67.7 percent.

"We expect to graduate all students, but the probabilities differ for the students we enroll," Hurtado said. "We need to be fair to students' needs and to the institution when assessing completion rates."

The overall graduation rate is up from a decade ago, with nearly four out of 10 students (38.9 percent) graduating today, compared with 36.3 percent for students who started college in 1994. The report also found that many students (56.4 percent) are taking five years to graduate, with a steep increase (17.5 percentage points) in degree completion between four and five years. Between five and six years, the number of students that graduate increases only slightly (4.8 percentage points), to 61.2 percent.

Student characteristics, the authors say, can have a marked effect on graduation rates. For instance, the report found that first-generation students, in particular, have the most difficulty earning a degree. Only 27.4 percent of these students earn a degree after four years, compared with 42.1 percent of students whose parents have college experience, a gap of 14.7 percentage points.

"The gap between first-generation students and students whose parents attended college does not shrink after five or six years," said Linda DeAngelo, assistant director for research at CIRP and lead author of the report.

The report also found that certain behaviors better predict graduation rates. For example, students who had high school experiences that more adequately prepared them for college were more likely to graduate. The amount of time spent studying as a high school senior and coming to class on time also influenced graduation rates.

The following factors are also positively associated with completing college in four, five and six years:
• expecting to participate in student clubs and groups during college
• self-ratings on emotional health and drive to achieve
• choosing a college based on the overall cost of attending

Some negative predictors include anticipating the need to work full time while in college and intending to transfer to another institution. The report recommends that institutions find ways to better accommodate these students, by assisting with aid and providing counseling.

In addition to the report, HERI is providing institutions that participate in the CIRP Freshman Survey with a new way to calculate their expected graduation rate, using their own CIRP data.

"This tool can be used to help external stakeholders understand how institutional mission influences institutional persistence rates," said Don Hossler, a professor of educational leadership and policy studies at Indiana University Bloomington and executive director of the National Student Clearinghouse's Research Center. "It can also help shape more realistic expectations of measures of institutional success."


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