



Steps to Improve College Graduation Rates

College Preparation and Student Success

The Office of the Utah State Auditor (Office) has completed an analysis to identify metrics and practices that can help the State of Utah make the most of its extensive investment in public and higher education.

As part of this analysis, the Office analyzed 50 million higher education records related to student performance from 1999 through 2014 to look for metrics that might predict which students would complete undergraduate degrees in Utah's System of Higher Education. As the State searches for meaningful performance monitoring systems to align institutional incentives with the goal of preparing college bound students to successfully earn college degrees, this report points to practical measures that could be adopted to increase student success and performance within Utah's systems of education.

The analysis also reviewed reports from ACT, a test which most juniors in Utah public education take. This detailed look at the preparation of students in public education for college success provides opportunity for improvement in both public and higher education. Finally, the analysis includes a look at STEM degree achievement in the Utah System of Higher Education and offers insights on how to increase the attainment of these high value degrees.

The complete report includes three sections:

Section 1: Preparation for College Readiness

Section 2: Performance Measures Related to College Graduation

Section 3: Earning STEM Degrees Requires High Preparation

Prepare College Bound Students for College

Most of Utah's high school graduates who are interested in earning college degrees are not adequately prepared for the rigors of earning that college degree. Specifically, over 80% of high school students indicate their interest in attending college, but only 25%, according to ACT statistics, score high enough in all 4 major preparatory areas to be ready for college work. All college bound students should take the recommended high school courses to prepare for college. However, too many of these high school students either fail to take the necessary classes or do take the recommended courses and are still unprepared. Recommended courses should be rigorous enough to properly prepare a larger share of college bound students for initial success in college. Students, parents, and educators should focus on elevating student preparedness to meet expectations for college bound students.

Accurately Communicate College Readiness and Progress

High school graduates have expectations surrounding success in college that are unrealistic compared to historical college degree attainment. A large share of students believe they are prepared to earn college degrees who are not actually prepared. More effort should be made by those within the systems of public and higher education to clearly communicate to students the

standards for college readiness. Also, degree seeking students enrolled in college should be told of the behaviors and conditions under which most students succeed in earning degrees. These students should be accurately apprised of how their individual progress compares to the benchmarks that lead to successful completion of college degrees.

Utilize New and Better Performance Measures to Increase College Graduation Rates

The analysis in this report has identified several timely measures of student performance that correlate with success in earning college degrees. Students with high average enrolled credit hours per semester are more likely to earn a degree, all other factors being equal. Students who earn credit for most of the courses in which they enroll are also more likely to earn degrees, all else being equal. Students with higher attainment in these performance measures are also more likely to earn a Bachelor degree. The states which have adopted and deployed appropriate performance systems in college institutions have realized better student performance. For example, Arizona State University has moved the share of students that graduate on-time from under a third to half since 2002, with a goal to increase on-time graduation rates to two-thirds of students by the end of 2015. This performance is better than Utah's inadequate graduation rate of roughly a third of students within 8 semesters. Only a quarter of those earning a Bachelor degree receive their degree within 8 semesters of attendance.

Increasing Success: Students Need to Prepare and Perform in Order to Graduate

Students make decisions that impact their preparation before and performance during college. While students don't always make decisions that help them earn college degrees, ensuring institutions have incentive to focus on student success by providing them with accurate information and clear expectations will increase the number of students who complete degrees. During secondary school (grades 7-12), students should be advised of how to prepare for the rigors of college. Before enrolling in college, students should be informed that:

- Full-time students (greater than 12 credit hours per semester) are much more likely to earn degrees, especially Bachelor degrees.
- Students who consistently pass their classes (over 85% of average course-hours completed) more often earn degrees; they are also more likely to earn a Bachelor degree.
- Students who focus on these efforts reduce the time it takes to graduate. This can save significant time and money.

Expanding the STEM Talent Pool

Those who desire to increase the number and quality of STEM graduates should know that high school graduates who are well prepared, as indicated by ACTs scores above approximately 27, are much more likely to earn such degrees. Business leaders should work to build interest early in a student's life, in both elementary and secondary school. There should also be a concerted effort to remove bias against Math and Science subjects within public education. The Utah System of Higher Education, in addition to each college and university, should identify opportunities to help prepared and interested college students to persist in STEM subjects and not abandon the pursuit of these high value degrees due to avoidable barriers.

Summary of Report Recommendations

Section 1: Preparation for College Readiness

Recommendations

While 84% of 2013 high school graduates wanted college degrees, only 25% appear well prepared for success in college. Recently, the trend has been that less than 50% of students who attended more than 4 semesters of college have actually attained an Associate or Bachelor degree. We recommend:

- More accurate communication of the actual requirements for college readiness.
- Guiding more college bound high school students into rigorous college preparation courses.
- Active monitoring by Public Education to improve the readiness of college bound students.
- More realistic assessment and communication by Higher Education to students of their preparedness for college.

Section 2: Performance Measures Related to College Graduation

Recommendations

Based on this analysis and the policy interest surrounding performance management. We recommend:

- Integrating and using timely performance metrics, such as average course-hour completion rates and average credit hours enrolled per semester, that correlate with improved graduation rates.
- Clearly communicating to students the factors that lead to increased college graduation, specifically fulltime class loads (more than 12 hours) and high (at least 85%) course-hour completion rates.
- Redesigning the system of remediation by improving entering student preparedness, establishing limited, targeted, and focused remediation courses that improve graduation rates, Setting clear entry level requirements, directing students to cost effective resources to improve college readiness, including online offerings, tutorials, and other tools and continuing to collect and analyze relevant data to develop best practices that improve student education and increase graduation rates.

Section 3: Earning STEM Degrees Requires High Preparation

Recommendations

STEM graduates had a different range and concentration of performance metrics. We recommend:

- Informing students that earning a STEM degree depends on a rigorous high school education.
- The business community should focus on increasing interest in STEM careers for elementary students as well as prepared high school students (e.g., ACT scores above 27) and provide encouragement throughout college.
- The State Board of Education and public schools statewide should work to eliminate bias against Science and Math courses.
- The Utah System of Higher Education should work to eliminate barriers to successfully complete STEM degrees for high performing students.