How a Culture of Success and Analytics Transformed the Student Experience

INSTITUTIONAL CONTEXT

In 2010, the Student Success Task Force at the University of South Florida (USF) presented a comprehensive plan to improve student success at the institution, based on the concept that student success is everyone's responsibility. The university appointed a Vice Provost for Student Success and created its Student Success Council, focused on three fundamental reforms: 1) institutionalizing student success as a permanent priority for everyone, 2) integrating student success into the university culture, and 3) developing student-level data and predictive analytics.

When USF's first-year retention rate plateaued at 89 percent from 2012 to 2014, campus leadership challenged the community to increase the retention rate to above 90 percent and the six-year graduation rate to above 70 percent.

USING DATA TO IMPROVE STUDENT OUTCOMES

In 2012, USF's Predicting Attrition Risk (PAR) model was first used to analyze factors correlated with student persistence, such as high school GPA, intended major, residential proximity to campus, and enrollment in the first-year seminar. On average, PAR identified 15 to 20 percent of incoming first-time USF students as potentially at risk of not completing a degree. Recognizing the analytical limitations of its in-house model, however, the university contracted with Civitas Learning Community in 2014 to deploy two predictive analytics platforms: Illume and Inspire.

The platforms analyzed over 300 variables from the university's student information system (Banner) and learning management system (Canvas)—such as course attendance, grades, and engagement—to explain student behavior and performance. USF used an intervention model of "warm" contacts (individuals with whom students were familiar and from whom they were more likely to take advice), including academic advisors, resident assistants, and other trained support personnel, who approached at-risk students and offered counsel and support. These individuals were tasked with intervening early in a student's academic career and providing appropriate and timely support. Additionally, putting both student- and aggregate-level data into the hands of administrators allowed for timelier curriculum changes that improved outcomes for larger numbers of students.

RESULTS

Figure 1. USF Six-Year Graduation Rates for First-Time-In-College Students

FTIC 6-Year Graduation Rates

Source: IPEDS
*Data reported follows IPEDS methodology but are based on internal preliminary data

| | 52 | 57 | 63 | 67 | 69* |

| 2010 -2011 (2005 Cohort) | 2011-2012 (2006 Cohort) | 2012-2013 (2007 Cohort) | 2013-2014 (2008 Cohort) | 2014-2015 (2009 Cohort) |

Although USF does not have final data on retention rates for students who entered in 2015, early results suggest that they will hit the 90 percent first-year retention goal. The lists of at-risk students generated by Civitas regularly detect students not previously identified as at risk, which further demonstrates that USF is helping more students stay on track to graduation (see Figure 1 above). More importantly, gains in persistence and completion have been accompanied by the elimination of significant achievement gaps between students from different racial, ethnic, and socioeconomic backgrounds (see Figure 2).

Figure 2. USF Six-Year Graduation Rates for First-Time-In-College Students by Race & Ethnicity
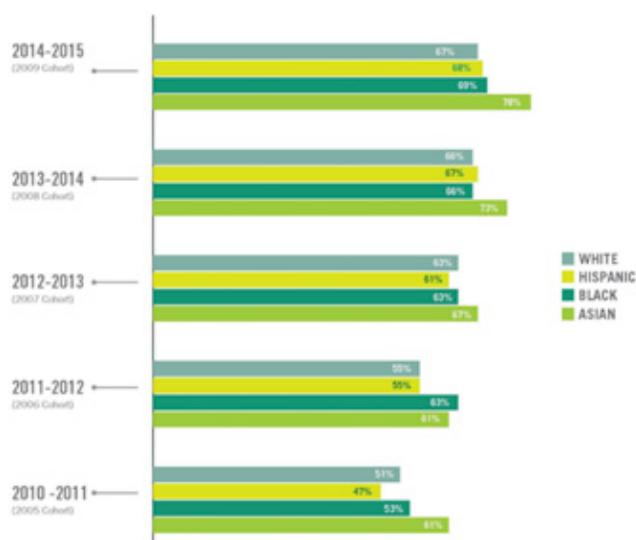
Predictive analytics also made it possible for USF to improve an individual student's experience by being able to case manage each at-risk student and redirect them onto a successful college and career path. Additionally, analyses of aggregate and student-level data prompted the university to invest in enhanced admissions practices, tutoring services, advising, course redesigns, and other high-impact practices strengthening all students' experience. Some key initiatives included 1) doubling the number of tutors in the Academic Success Center since 2008, which led to over 26 percent of served students improving by two letter grades;

2) expanding the Office of Undergraduate Research's workshop offerings from 4 to 92 over a five-year span, increasing student participation in faculty-led research; and 3) offering innovative pedagogies through the Science, Math, and Research Technology Lab, which increased passing rates and decreased withdrawals in algebra and pre-calculus.

LESSONS LEARNED

Throughout their five-year journey, USF collected the following lessons and insights:

▶ **Early interventions can redirect students from pursuing a degree that may not match their strengths or interests, saving precious time and money.** Using student-level data, support staff can triage a student's academic problems and offer real-time assistance, equipping the student with the resources needed to address their challenges, create an action plan, and achieve their goals.

▶ **Expanding access to student-level data means greater opportunity for a broader impact and more successful students.** The aggregated student data on which most institutions have traditionally depended can explain what happened to groups of students in the past, but it cannot predict what individual students are likely to do in the future.

▶ **Deliberate cultural shifts result in student success gains.** The achievements realized at USF are not the result of one department or a select set of programs or policies, but a change, in part, in the way the institution uses and values data.

▶ **Access to national data with definitions and methodologies that are clearly defined, agreed upon, and shared at the state and federal level would expand the reach and impact of student success initiatives.** USF has relied primarily on internal data for analysis and planning student success initiatives, which can limit what the institution is able to understand and do about students' progress.