



Brian Haugabrook,
CIO at Valdosta
State University,
is committed to
improving the
student experience.

HIGHER EDUCATION LEADER PREDICTS HIGHER GRADUATION

Georgia's Valdosta State University uses Oracle predictive analytics to get at-risk students on track. BY DAVID A. KELLY



Georgia's Valdosta State University (VSU) is using a combination of on-premises Oracle Business Intelligence software and Oracle Business Intelligence Cloud Service to identify students at risk of failing or dropping out as part of an ongoing effort to increase student retention and help them succeed.

Like many colleges and universities nationwide, VSU—a midsize institution with strong programs in business, nursing, and the arts—is finding that students don't come in as prepared as they need to be. "We want to make sure that our students are getting the help they need, when they need it," says Brian Haugabrook, CIO at VSU. "We want to make sure that we do everything we can to retain students and give them the highest chance of success. Our top goal is graduating students."

VSU's analytics thrust began in earnest in 2011, when [Georgia Governor Nathan Deal announced plans for the Complete College Georgia Initiative](#), designed to improve college access and completion across the state. The initiative, funded in part by a US\$1 million grant, is a set of policies aimed at addressing Georgia's higher education challenges and future employment needs.

In association with that initiative, VSU created an Oracle-powered data warehouse and business intelligence system. Haugabrook's team started by analyzing variables such as student demographics, standardized test scores, and high school grade point average to identify those students more likely to have trouble, so that advisers could lay out an individualized program to get each

VALDOSTA STATE UNIVERSITY

LOCATION

Valdosta, Georgia

INDUSTRY

Education and research

STUDENTS

11,500

ORACLE SOLUTIONS

Oracle Database

Oracle Business

Intelligence Enterprise
Edition

Oracle Application Express

Oracle Endeca Information

Discovery solutions

Oracle Data Integrator

Oracle Advanced Analytics

Oracle CRM On Demand

Oracle Social Relationship

Management Cloud
Service

Oracle Business

Intelligence Cloud
Service

student on track. The university also analyzed classroom metrics such as failure rates, predicted grade distributions, and percentage of at-risk students to figure out where it needed to put supplemental instructors and when to provide additional support services to maximize their effectiveness.

“We saw a huge return on our investment,” says Haugabrook, who notes that the university retention rate rose 4 percent between 2012 and 2014, from 66 percent to 70 percent. “That’s very big for higher-education institutions like ours,” he says.

In 2014, VSU upped its efforts a notch, deploying Oracle Endeca Information Discovery solutions alongside Oracle Business Intelligence Enterprise Edition to collect and analyze student data from multiple sources, such as student surveys and ID card usage, to more quickly and effectively identify at-risk students, involve relevant faculty and staff, and develop targeted programs to improve student retention.

One previously unknown correlation: The university had a 10 percent higher retention rate with students who engaged in multiple activities such as eating breakfast on campus, attending the Student Success Center, using library printing services, or visiting the Campus Recreation Center versus those who didn’t. Using that knowledge, the university promoted campus engagement activities to specific student segments.

VSU also discovered that it had an 85 percent retention rate with freshmen who worked on campus, compared with a 55 percent



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retention rate with the general freshman population. Armed with that information, the university promoted campus jobs for students, an initiative that the university estimated would save it about US\$2 million in retention costs over the course of four years.

The university continues to refine and improve its student-oriented analytics. Initially, it would analyze its predictive models once a year or semester, Haugabrook says. “What was missing is that it wasn’t at the individual course level. So we just said in general terms, ‘We think you may have trouble in a math-based course or a reading-based course,’” he says. “But we couldn’t say, ‘In Math 1111, we predict you’re going to get a C,’ or ‘You’re going to get an A in English 1101.’”

VSU not only wanted to evolve its student analysis to apply to individual courses; it also wanted to run those analyses day to day, in an automated fashion. And so it’s bringing in data from the university’s learning-management system to factor in how much time individual students are spending in class, and how much time they’re spending on the contents loaded in the learning system, Haugabrook says. The university also analyzes data from the systems that students use to access a building or consume a campus service. “By bringing data together from different systems we can get a numerical representation of engagement so that we can see what’s working and what’s not working and who we need to reach out to,” he says. “The more engaged students are, the higher their chances of success.”

IN THE PURSUIT OF SERVICE


In addition to using Oracle Business Intelligence Enterprise Edition and Oracle Endeca Information Discovery solutions, VSU uses Oracle Database, Oracle Data Integrator, Oracle Social Relationship Management Cloud Service, and a hosted version of Oracle's PeopleSoft applications. Over the past 10 years, the university has also developed more than 100 customized applications using Oracle Application Express.

VSU also uses Oracle Cloud technology, including Oracle CRM On Demand and Oracle Business Intelligence Cloud Service. The university has moved administrative information—including enrollment; credit hour production; performance at the university, college, department, program, and major level; and student demographic information—to Oracle Business Intelligence Cloud Service. The next step in the move to Oracle Business Intelligence Cloud Service will focus on delivering academic dashboards that provide student metrics to university advisors.

From Haugabrook's perspective, however, VSU doesn't have a separate "cloud strategy." He explains, "What we focus on is how can we provide better service—how can we be more responsive and more agile, and ensure that the right services are available to the students when they need them."

As a longtime user of Oracle on-premises software, VSU found the process of moving to cloud-based services such as Oracle CRM On Demand and Oracle Business Intelligence Cloud Service

straightforward. “It wasn’t a huge transition, since we were running Oracle Business Intelligence Enterprise Edition,” Haugabrook says. “In fact, leveraging the cloud actually streamlined and simplified a lot of the process of importing data and building the tables and hierarchies.”

Eventually, VSU will move all of its predictive analytics to the cloud, Haugabrook says, as it will allow him to shift IT resources from infrastructure to areas with higher business value. “So instead of investing in hardware or storage, I can implement a new predictive model or a business intelligence system,” Haugabrook says. “Everything we do is tied back to improving the overall student experience.” 

David A. Kelly is a business, technology, and travel writer who lives in West Newton, Massachusetts.

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NEXT STEPS

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