

UNIVERSITY BRINGS SAS® TO STUDENTS, EMPLOYERS

Stephanie Thompson
Associate Director
Office of Institutional
Research (OIR)



The University of Memphis offers an undergraduate certificate in SAS programming to give its students an edge in the local job market, where at least two dozen major employers rely on SAS. The university also hosts a SAS training center that serves area professionals, and administrators use the software to improve the admission process and retain faculty members.

Business Issue

The University of Memphis wanted to better prepare its graduates to win jobs with Memphis' largest and most prestigious firms and help its corporate partners with their training needs. The school also needed accurate and timely information to improve institutional effectiveness.

Solution

The university inaugurated a three-course undergraduate certificate program in data analysis using SAS® and opened a professional SAS training center. The university also uses SAS to analyze its own administrative data to address key management objectives.

Benefits

University of Memphis students with SAS® skills gain an edge in the job market, and corporate partners save money by sending staffers to SAS training that's closer to home. The university is looking at revisions to admission standards to reduce failure/dropout rates, and it uses SAS to help deans choose the most deserving recipients for salary adjustments.

With more than 20,000 students – nearly a quarter enrolled in graduate programs – the University of Memphis is on course to become a leading urban research institution. One way the university is reaching this goal is by using SAS analytics in both administrative and academic areas, and two innovative programs that serve the diverse local business community and students have come together to do just that.

To help understand the student body and administrative issues such as faculty salaries better, Stephanie Thompson and her staff at the university's Office of Institutional Research (OIR) gather and analyze data using SAS. Their analyses assist decision makers by providing them the information they need to identify areas that need attention as well as areas where programs are successful. SAS leverages the large amount of data into useful information.

Thompson's own experience using SAS in the corporate sector helped convince her of the need to reach out to area businesses by offering SAS training through the university. With more than 24 major local employers using SAS – and no local option to receive training – Thompson realized that local training would serve the university's mission of helping local business.

In planning the corporate training program, Thompson identified another need where the university could be of value to both its students and area

businesses: offering undergraduate students SAS training. Local businesses often looked out of state to fill jobs requiring SAS skills.

"SAS is such an important solution," Thompson says. "It is something our undergraduates need to learn to get jobs. Our businesses need people trained in SAS, and they need a local option for updating their staff members. And just like our businesses use SAS to be more competitive, we use it at the university to do a better job with enrollment management and salary planning."

Meeting needs of local businesses

"When I worked at AutoZone, I saw there was a big hole in the center of the country when it came to SAS training," Thompson says. Companies had to send staff members to Atlanta or beyond for training. Thompson encouraged the university to become only the second in the United States to start a SAS training center for area professionals. "This location fills a need for our community corporate partners, as well as the larger mid-South market," Thompson says.

"SAS is an important tool at our company, and being able to train our staff without needing to send them out of town is very important," says Mark Columbo, Vice President of Electronic Channels and Strategic Marketing for FedEx Corporate Services in Memphis. "It saves us time and money. We're thrilled Stephanie started this program."

Bringing SAS® to Memphis undergraduates

The genesis of the second initiative, an undergraduate certificate program, came during lunch with a FedEx executive to talk about the professional training center. He casually mentioned that he wished he could hire more U of M students. "I asked, 'Why can't you?' and he said, 'They don't have SAS skills,'" Thompson recalls.

It was an "a-ha!" moment for Thompson, who was convinced her school needed to add SAS to its undergraduate curriculum. "When I worked at AutoZone, we always had to hire SAS programmers from outside the area. That's a huge expense for area companies. It also means our graduates are at a disadvantage."

While SAS coursework is common at universities across the country, it is often taught at the graduate level or as part of an undergraduate course for computer science or statistics majors. Thompson felt it was important to teach SAS to undergraduates from many majors because analytical skills are increasingly required across different types of jobs. The three-course certificate's only prerequisite is introductory statistics.

The class series, Data Analysis and Programming Using SAS Software, is housed at the university's Fogelman College of Business and Economics and is sponsored by the economics department. The series includes an introductory course on data structures and cleaning, a programming course, and an applications/case study course. The courses include the programming skills necessary to sit for the Base SAS certification exam.

While the students learn the SAS programming language, they also use SAS Enterprise Guide, the point-and-click interface that provides quick and easy access to the analytical power of SAS. Thompson wanted a basic series, as opposed to one focused on higher-level skills like data mining, because of her own experience as an analyst trying to glean business intelligence from reams of data. "These students will be able to explain why a trend is occurring, not just present a number on a graph," Thompson says.

Alicia Robinson, a student enrolled in the class, works as a technical analyst on an AutoZone help desk in Memphis while completing her undergraduate degree. She's found so many job openings that require SAS, both at her company and at others, that it was logical to sign up for the three-course program. "With SAS, job opportunities are endless," she says.

The coursework is having an impact beyond what Thompson hoped for. Initially, she just wanted to improve the students' chances of landing great jobs with local employers. But at a recent job fair on campus, the US Census Bureau was lured by the possibility of landing SAS-trained students for its Washington jobs.

Using SAS® to help the U of M

Thompson hasn't just advocated teaching SAS; she uses it in her job in the OIR to increase institutional efficiency. By analyzing the high school grade-point averages (GPAs) and test scores of admitted students, for instance, Thompson was able to tell admissions staff that students who post high test scores but received low GPAs (or vice versa) were less likely to succeed.

Recruiting and retention are critical concerns for universities. Increasing retention is a win for students as well as for the university. Thompson also helped department deans determine faculty members who may deserve salary adjustments. The administration was aware that longtime faculty members were often caught in salary compression. This happens to faculty who have been with the university for a long time and started at much lower pay levels. They end up barely making more than a new faculty member with fewer years of experience. Thompson showed deans which professors were stuck in this situation, so the professors could receive discretionary adjustments if warranted.

Her paper on salary compression won an award from the Tennessee Association for Institutional Research.

Thompson's work and that of the OIR staff have gained the attention of the university's administration. "Our local business partners and our students benefit from the university's SAS course offerings," says Dr. Shirley C. Raines, President of the University of Memphis. "And the university benefits by using SAS to analyze data to provide insight to decision makers in support of our goals. Everyone wins when such cutting-edge software gives us these benefits."



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