SKIN
How you implement Six-Sigma, Baldrige and LEAN methods to cut the fat in your campus operations
BY PAUL BYLASKA
Shortly after receiving an MBA, my higher education career was interrupted by a stint as a production manager for Goodyear Tire & Rubber. I decided I was not well-suited for managing a 20-man crew six nights a week, so Goodyear and I parted ways amicably. Among the things I learned during my brief time there was Statistical Process Control, which was based on the continuous improvement strategies adopted in Japanese manufacturing from W. Edwards Deming and Joseph Juran. Statistical Process Control or SPC reduced waste and production delays by reducing variation among production techniques. Think of SPC as sighting a rifle first by grouping the shots into a tight pattern, then moving the grouping closer to the bulls-eye.

I didn’t come across Statistical Process Control much after I returned to higher education. But its offspring Six-Sigma and LEAN University have both become increasingly visible lately. One of our Clarion University trustees, Larry Pickett, is a certified Six-Sigma black belt in his work as project director at Highmark.

Six-Sigma was created by Motorola to reduce defects in manufacturing and business processes using statistical analysis. (Sound familiar?) Sending employees for training and certification in Six-Sigma can produce significant savings for companies and enhanced marketability/employability for the employees involved.

As Larry told me, “With Six-Sigma you work to identify a customer-critical problem and the cost of variation, i.e. poor quality, over a lifetime.” Like SPC, you’re trying to narrow the variation of the process and ultimately close the gap between your current performance and your goal. They simplify the process with the acronym DMAIC—define-measure-analyze-improve-control.

Real-life cost control example
Pickett cites a real-life experience at Highmark. Travel spending had increased by almost two million dollars. While analyzing the spending data provided by accounts payable, the tested possible hypotheses to pinpoint the causes. As a result, Highmark instituted an automated expense report. The report and follow-up measures eventually saved the company $493,000.

Implementing Six-Sigma requires a certain amount of internal marketing. When management starts watching more closely, employees may worry about their jobs being eliminated. Showing them you can make their jobs easier will usually win them over. When people are informed in a graphical way, they also understand the problem better. As Larry shared, “Use statistics and you can quantify the success. The eye cannot see narrow improvements, but statistical analysis can. Sometimes it’s like using the 10-yard chain during a football game.”

How does all this translate to higher education? A budget-cut economy gives extra incentive for using something like Six-Sigma. Six-Sigma also enables universities to quantify their successes and demonstrate them to their stakeholders. A process map approach also takes us from where we are to where we want to be, replacing anecdotes with solid information.

LEAN University
Karen Kusler is LEAN University director at the University of Central Oklahoma. LEAN shares some methods with Six-Sigma, but not all the metrics used for LEAN incorporate dollar values. As LEAN University Director, Karen implements process improvements to make more efficient use of the institution’s resources, and to produce better outcomes with the resources they have.

Two of her projects have involved merging prospective student and advising operations, and streamlining the payment process. Executive Vice President Steve Kreider arrived in 2001 with LEAN manufacturing experience. After conducting focus groups across campus, he taught LEAN to administrative managers in student services.

LEAN often results in better communication and improved morale. Once LEAN was implemented among facilities staff, work orders started moving to employees immediately, and employees could request any additional information they needed themselves. Customers got a system they understood, and UCO Facilities ended up with the best morale in the university. Communications have improved even in those
departments who don’t have a LEAN team.

The state regents have been extremely supportive, requesting LEAN training for their own offices. Legislators also perceive the University of Central Oklahoma as a well-run organization because of success stories from LEAN. This year’s budget cuts for higher education not only have generated more support for LEAN techniques, but have motivated other institutions to send their staff to Central Oklahoma for LEAN training.

As Kusler tells it, “We all want an avenue to be successful. In this case, we’ve taken continuous improvement principles and successfully adapted them to higher education. We can train you at Central Oklahoma or we will come to your university, and you’re ready to hit the ground running.”

**LEAN and Six-Sigma comparisons**

The epicenter for Six-Sigma/LEAN strategies may be the National Conference for Continuous Improvement (NCCI). I talked to Ron Coley, one of its founding members, and Associate Vice Chancellor at University of California, Berkeley. Coley had used Six-Sigma but got the opportunity to compare it with LEAN at NCCI conferences. Comparing the two, he concluded employees adapt more easily to LEAN rather than the rigor of Six-Sigma. Six-Sigma has a significant effect on those immediately involved in the process, but LEAN motivates a cultural transformation. “Employees even went home and told their spouses about it,” Coley shared.

Success with LEAN didn’t end with process improvement either. At Berkeley’s bi-weekly leadership meetings, a selected employee would report on a LEAN project in his or her area. The employee’s story of the department’s success in applying LEAN would often result in spontaneous applause.

“LEAN is a gift that keeps on giving. It is so easy to understand,” Coley told me. “I can give you fifteen examples of how this has transformed the organization.”

When he arrived at Berkeley, some questioned why Coley was promoting this. After all Berkeley was already one of the best public institutions in the world. He responded that achieving the same excellence on the administrative side as on the academic side would free up resources. Especially in California, “We can no longer afford to do what we’ve done in the past,” Coley explains.

**Opportunities in New Jersey**

Dr. Brent Ruben is executive director of the Center for Organizational Development and Leadership at Rutgers, was and he brings with him a background in healthcare. He was familiar with patient evaluations of their health care based on consumer standards, rather than by the clinical criteria used by health-care providers. Ruben was struck by the disconnect between hospitals and patients. He was also struck by a similar situation between campuses and students. Ruben stressed the quality movement and customer focus, and Rutgers supported his efforts to address them.

With cooperation from Johnson & Johnson and AT&T, Ruben surfaced problems that seemed to thwart total quality management (TQM) concepts within higher education. The academy has its own culture, and faculty involvement extends to the administration of the campus. Ruben explained, “What looked to us like customer service could look to faculty like we were putting students in charge. So Johnson & Johnson personnel advised it would be important to take the culture into account.”

To be effective as change agents Ruben and his associates needed to translate business concepts into terms faculty would accept. So they developed their own version of Baldrige quality awards, which they called Excellence in Higher Education. “Rather than argue over terms like Six-Sigma and change management, we would rather argue over concepts. This was very important in order to have buy-in from faculty for our efforts,” Ruben recounts.

In tight times, some may consider these initiatives expendable. But when you have to make tough choices, they help considerably to clarify goals and find efficiencies.