

**1** *The Malcolm Baldrige Quality guideposts provide a comprehensive model for systematic quality improvement and innovation in colleges and universities.*

## Application of the Baldrige Model for Innovation in Higher Education

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Technological advances, heightened student expectations, shifting student demographics, stakeholder demands for accountability, and new vehicles for educational delivery are all current challenges driving the need for innovation in higher education (Jurow, 2006). It is extremely difficult to meet these challenges given the environment of limited financial resources, and it is clear that institutions must reexamine traditional methods of operation and innovate in order to remain viable now and in the future (Sorensen, Furst-Bowe, and Moen, 2005). *Innovation* is defined as making meaningful change to improve an organization's processes and services and creating new value for the organization's stakeholders. It should focus on leading the organization to new dimensions of performance (Baldrige National Quality Program, 2006).

No longer strictly the purview of research and development departments, innovation is critical in higher education institutions for providing increasing educational value to students and improving the effectiveness of all learning-centered processes and the efficiency with which support processes assist these learning-centered processes. Colleges and universities should be led and managed in such a way that innovation becomes a natural part of the culture and daily operations as innovation builds on the accumulated knowledge of all faculty and staff members. The ability to rapidly disseminate and capitalize on this knowledge is critical to driving institutional improvement (Baldrige National Quality Program, 2006).



Driving innovation and implementing sustained improvements are often extremely difficult for colleges and universities. To some degree, each institution in its own way may consider itself to be somewhat innovative. Every college and university can produce an array of press releases describing new programs and activities that are different from the academic norm and break new ground (at least for that institution) and that talented people have designed for good purposes. However, for the most part, these new activities and other changes are random, not systematic. Few institutions have gained much control over the outcomes produced as a result of innovation, and many institutions that invest considerable time and effort in attempts to improve performance often fall back into long-established patterns (Tagg, 2005). It is clear that most institutions lack a systematic framework that allows them to effectively manage change, encourage innovation, and obtain increasingly positive results from their efforts.

There is a process and systematic method by which change and innovative new concepts occur. New concepts appear because of fortunate circumstances: once-disparate technologies combine to create new value, the environment contains essential elements, and people are prepared to recognize new possibilities. This situation, coupled with a cultural or economic crisis or a compelling vision of the future, provides a catalyst for change and innovation (Bauer, Collar, and Tang, 1992). Clearly, higher education contains all the essential elements for change and innovation. What is needed is a tool or model to provide a systematic process to drive and manage change. The Malcolm Baldrige Criteria for Performance Excellence provide an effective model for this purpose.

### **The Baldrige Criteria for Performance Excellence**

Managing for innovation is one of the core values of the Malcolm Baldrige criteria. The criteria provide a comprehensive structure for educational institutions to align their mission, vision, values, goals, and strategic challenges with the resources essential for long-term improvement. First developed to increase the competitiveness of U.S. manufacturing companies in the late 1980s, the criteria have evolved and have become the de facto definition of performance excellence worldwide (Hoisington and Vaneswaran, 2005).

The criteria were extensively reviewed and modified for educational and health care organizations in the mid-1990s. The core values and concepts of the education criteria are embodied in seven categories: Leadership; Strategic Planning; Student, Stakeholder, and Market Focus; Measurement, Analysis, and Knowledge Management; Faculty and Staff Focus; Process Management; and Organizational Performance Results. Education institutions may use the criteria for internal improvement or address them in a written application and submit the application for review, scoring, and national award consideration. Schools, colleges, and universities could apply for the Malcolm Baldrige National Quality Award beginning in 1999. Over

the past seven years, numerous postsecondary institutions have used the Baldrige values and criteria as a management framework to drive innovation and change in key criteria areas. When an institution can clarify the roles of leadership and planning and clearly articulate the outcomes it seeks, it is more likely to succeed in embedding innovation into the culture (Jurow, 2006).

### **Baldrige Influence on Academic Accreditation**

The Baldrige framework has begun to have a significant influence on the approaches that regional accrediting associations use (Ruben, 2004). For example, the concept of quality improvement is at the heart of the Southern Association of Colleges and Schools Commission on Colleges' philosophy of accreditation. Each institution applying for accreditation or renewal of accreditation is required to develop a quality enhancement plan. Engaging the wider academic community and addressing one or more key institutional issues, the plan must be focused and succinct. It describes a carefully designed and focused course of action that addresses a well-defined topic or key issue and brings about needed changes related to enhancing student learning and performance.

The Higher Learning Commission of the North Central Association of Colleges and Schools has developed and implemented an alternative accreditation process supporting institutions using continuous improvement systems (Spanghel, 2004). This process, named the Academic Quality Improvement Program (AQIP), shifts the focus of accreditation from inputs, such as SAT scores, faculty credentials, or number of library volumes, to performance, or how well an institution meets the long-term needs of its students and stakeholders (Spanghel, 2004). Currently more than one hundred postsecondary institutions have selected this method of accreditation, and the number continues to increase each year as institutions recognize the value of this framework to assist them in making the changes needed to remain viable in the current higher education environment.

To restructure accreditation, AQIP did not simply substitute a set of output indexes for the traditional input requirements. Instead, it followed the Baldrige approach of delineating core values and criteria and asking institutions to identify their own performance measures within each of these criteria areas (Spanghel, 2004). Like Baldrige, AQIP is a nonprescriptive approach, keeping the institution focused on managing change and improving performance. It enables institutions that have embraced continuous quality improvement to incorporate accreditation into their everyday operations and activities so accreditation does not become a single event but a systematic and ongoing process.

In addition to the regional accrediting organizations, many program-specific accrediting bodies such as the Accreditation Board for Engineering and Technology and the National Council for Accreditation of Teacher

Education are moving in the direction of an outcomes-based, continuous review process rather than the traditional periodic assessment to ensure a university's or college's ability to achieve its mission. Over the past decade, the Baldrige criteria have influenced accreditation standards and criteria in a number of disciplines.

Currently, three postsecondary institutions have successfully implemented the Baldrige criteria, submitted formal applications to the Baldrige program, and received the Malcolm Baldrige National Quality Award: the University of Wisconsin-Stout (also an AQIP institution), the Monfort College of Business at the University of Northern Colorado, and Richland College, a large community college in Dallas, Texas. Although each of these institutions has a distinct mission and serves a very different student population, each was able to use the criteria and process to introduce new approaches to improve student learning and organizational performance. These approaches were sustained, and over time they produced high-level results in areas such as student learning and performance, stakeholder satisfaction, faculty and staff well-being, and overall organizational effectiveness.

### **Innovation at the University of Wisconsin-Stout**

The University of Wisconsin-Stout (UW-Stout), a comprehensive university with eight thousand students located in northwestern Wisconsin, was one of the first universities to adopt the Baldrige criteria and in 2001 became the first postsecondary institution to receive the Baldrige award. Part of the University of Wisconsin System, UW-Stout is a special-mission institution focused on career-oriented academic programs. With more than a decade of experience in systematic quality improvement, it has been able to drive innovation in several areas of the campus, including academic, administrative, and student support services, and create new systems for shared leadership, strategic planning, student performance, and determining stakeholder satisfaction.

The typical leadership structure in higher education is bureaucratic in nature and more prone to conflict than innovation or collaboration (Srikanthan and Dalrymple, 2002). Few college or university leaders have clearly defined their institution's goals and ways to achieve them (Massey, 2003). However, one of the Baldrige core values is visionary leadership, in which senior leaders set directions and create a student-focused, learning-oriented campus climate. The Baldrige criteria ask how senior leaders communicate with faculty and staff through open two-way communication and how senior leaders create a focus on action to accomplish the organization's objectives. UW-Stout developed an innovative approach to leadership that addresses the Baldrige model. The university leadership system removes organizational complications and inhibitors, encourages responsive multidirectional communication, and flattens the organizational structure through broad involvement of all governance bodies and stakeholder groups.

The Chancellor's Advisory Council is the core of the leadership system. The group meets biweekly and has twenty members, including administrators, faculty, staff, and student governance leaders. These members of the senior leadership team provide the communication conduit to and from their respective organizations, resulting in strong communication linkages, participatory decision making, and enhanced opportunity for meaningful roles in shared governance issues (Sorensen, Furst-Bowe, and Moen, 2005). No major decision or allocation of resources is made on campus without first being discussed by the council. For example, when UW-Stout decided to become a laptop campus (beginning with the Fall 2002 semester, each incoming freshman was required to have a laptop computer), this initiative was discussed extensively by the council, with the faculty voicing concerns regarding mediated classrooms and training opportunities and the students voicing concerns related to hardware, software, and program costs. As a result, the campus was able to address all concerns prior to implementation of this major change initiative. Other Baldrige-winning institutions have also established collaborative leadership systems that include significant roles for faculty, students and other stakeholders.

Effective planning is essential in making fundamental changes in an institution (Jurow, 2006). However, in most postsecondary institutions, planning is limited to enrollment management and academic program development. Many important areas, such as educational and support process management, receive little attention (Massey, 2003). In the area of strategic planning, the Baldrige criteria call for a systematic strategy development process that includes a SWOT (strengths, weaknesses, opportunities, and threats) analysis of the institution and addresses key factors including changes in student and community demographics, technology, and markets, as well as peer and competitor institutions. Strategy development might use various types of forecasts, projections, scenarios, or other approaches to envisioning the future for purposes of identifying strategic objectives, making decisions, and allocating resources. The process for converting strategic objectives into action plans, establishing goals relative to leadership benchmarks, and measuring the success of action plans through key performance indicators are also important aspects of the criteria (Baldrige National Quality Program, 2006). Over the past decade, UW-Stout has implemented a robust strategic planning process responding to multiple aspects of the Baldrige criteria. The process is framed by the development of mission, vision, and values statements and incorporates situational analysis, including stakeholder visioning. Strategic objectives require the deployment of action plans and six-month reviews to monitor and alter implementation to ensure success. The unique strengths of the process are its demonstrated ability to integrate long-term plans, short-term plans, and resource allocation. It is also characterized by broad participation by both internal and external stakeholders (Sorensen, Furst-Bowe, and Moen, 2005).

Three primary groups provide support to the UW-Stout strategic planning system. The Chancellor's Advisory Council is the key leadership group, aligning planning with resource allocation and deploying agreed-on action plans. The Strategic Planning Group, which consists of the Chancellor's Advisory Council plus additional faculty, staff, and student representatives, is responsible for maintaining viable mission, vision, and values statements and long-term goals. The group also develops strategic objectives under each goal area, known as key performance indicators, and monitors the implementation of action plans. The Office of Budget, Planning and Analysis includes the functions of institutional research, fiscal analysis, annual operating budget, and capital budget development. This combination of functions has strengthened the use of data in planning and decision making, aligned resources with strategic objectives and their accompanying action plans, and supported the process to measure university performance against key performance indicators.

Action plans are used to ensure that the appropriate steps are taken to complete each strategic objective. Each action plan includes the proposed initiative; its linkage to the strategic plan; the high-level actions that need to be completed; the positions, individuals, or groups that will be responsible for each step; the time line; the resources required; and the key performance indicators associated with the strategic objective. All action plans are monitored every six months by the Strategic Planning Group. Since UW-Stout began developing action plans in the late 1990s, more than fifty strategic objectives have been achieved in areas related to technology integration, campus climate, gender equity, globalization, and graduate education. A recent strategic objective related to academic program development resulted in the establishment of the Curriculum Innovation Center, where faculty members from various disciplines receive release time or summer session salary to collaborate on new program and course development in areas such as nanotechnology, neuroscience, and interactive digital environments—program improvements supporting UW-Stout's focused mission.

In the area of student learning and performance, the Baldrige criteria require that institutions provide current levels and trends in key areas or indicators of student learning and improvements in student learning. To address these criteria, UW-Stout measures student learning and progress beginning when students enroll at the institution and continuing well after graduation. Incoming freshmen complete placement tests in key subject areas, such as math, English, and a foreign language.

Each academic program has developed a set of established objectives and identified appropriate methods to assess student achievement of those objectives, including course-embedded assessments, standardized exams, electronic portfolios, and evaluations from experiential learning supervisors. General education abilities are measured by the ACT CAAP (Collegiate Assessment of Academic Proficiency) exam, which is administered annually to a large sample of upperclassmen. Instructors of general education also administer

course-embedded assessments, and seniors complete an assessment of their general education skills. Results of assessments are reviewed by instructors and program directors on an annual basis, and written plans for improving teaching and learning are developed and shared with faculty members and administrators.

Most colleges and universities have few data about how well they are serving current and future stakeholders (Massey, 2003). Collecting these data and analyzing trends to determine changing needs of key stakeholders, including alumni and employers, provide UW-Stout with valuable information for refining and improving programs and services. Many times, these data surface needed changes and areas where innovation is required to better serve these key constituent groups. Alumni are surveyed one and five years following graduation using the ACT Alumni Outcomes Survey and program-specific evaluations developed by the institution. Employer feedback on graduate skills is also considered critical as UW-Stout's mission emphasizes career preparation. For the past decade, more than 95 percent of graduates have been placed in career positions, and the university has more employers recruiting students on campus and participating in career fairs, advisory committees, and other related activities than other universities in its peer group. Employers are also formally surveyed to determine their satisfaction level with graduate knowledge, skills, and abilities and identify innovative areas of curricular revision, new program development, or improved services, including expansion of video and virtual interviewing services.

The development and implementation of appropriate measurement systems and performance indicators was essential to UW-Stout's successful application of the Baldrige criteria. The quantity of measures evaluated is not important; the key is measuring performance of entire systems end to end. Historically UW-Stout had a reputation for being a data-driven, fact-based institution. But until the institution began systematic application of the Baldrige criteria, senior leaders did not understand how all the data and measures should be viewed, organized, and reviewed to develop a comprehensive, fact-based assessment of the effectiveness of the organization's key processes, mission, and goals.

Prior to adopting the Baldrige criteria, UW-Stout had too many metrics in some areas and inadequate metrics in other areas, and the institution could not identify what the core set of metrics was that defined overall system performance. Furthermore, while UW-Stout had comparative data related to the other University of Wisconsin System campuses, there were few comparative data to assess performance or set goals relative to key competitors or leaders in the field. Therefore, no one knew if the goals set by the institution would enable the university to establish clear leadership in important strategic areas. With Baldrige as the model, the university was able to align the entire data and measurement system to support the overall mission and programs of the university more adequately and, using trends

and comparative data, ascertain and drive continuous and systematic performance improvement.

### **Keys to Successful Change Management**

Historically, colleges and universities that have made innovative changes in the areas suggested here have done so when the very existence of the institution was threatened by forces that disrupted the existing equilibrium (Tagg, 2005). UW-Stout, for example, began transforming its systems and processes following a no-confidence vote against the current chancellor more than a decade ago. The greatest challenge for advocates of innovation in higher education has been to break through the defenses of institutions that are well established and not threatened with imminent destruction. An institution that is structured in the conventional manner is largely designed to stay the way it is—to maintain the status quo.

This is true with any organization in any sector. Every organization implements structures, business controls, and other disciplines to be able to manage consistently and support its mission and purpose. Organizations that have stood intact the longest or have a history of long-term success become the most ingrained in their culture and methods of carrying out their mission. Structures evolve to the point where their existence depends on maintaining the status quo. This bureaucracy tends to stifle new ideas and concepts, and it takes strong leadership and a systematic approach to change and neutralize the bureaucratic forces standing in the way.

Institutions that have been successful in driving innovation and managing change generally share four common elements: commitment and continued support from top leadership, systematic planning methods, inclusive and participatory processes, and effective, multidirectional communication (Sorensen, 2003). There is one other important element for driving innovation and change: it must be driven by individuals with line authority (presidents, vice presidents, deans, or department chairs) and not delegated to a committee, special task force, quality improvement office, or other staff function. In order to engage faculty and staff in innovative efforts, there must be a sense of priority from people in senior positions. Although many people believe that initiatives are best supported and most likely to be successful when they emerge from and are owned by the faculty and staff, many initiatives fail or are not sustained if there is not a continued sense of their importance by senior administrators (Kezar, 2005).

One way to model innovation is in the way the president works with the cabinet, as well as other senior administrative teams and governance groups. Presidents, provosts, and deans on innovative campuses do not make unilateral decisions but work with other members of their leadership teams, as well as faculty and staff members, to plan, make decisions, and allocate resources. As people on campus witness these shared processes and decisions, they realize that collaboration is part of the fabric of the institution (Kezar, 2005).



Application of the Baldrige model, applied with commitment and over time, results in a leadership environment that fosters empowerment, innovation, and a shared vision among faculty, staff, and administration.

### **Lessons Learned**

Even with these four elements in place, the path to innovation is not without risk and is not always smooth as an organization assimilates new processes (Sorensen, Furst-Bowe, and Moen, 2005). Especially in higher education, there is a strong need to discuss, debate, and deliberate on the merits of even the smallest proposed change. Many within the academy question the relevance of the Baldrige model. Faculty members claim that the true worth of a degree cannot be measured, that faculty expertise is the only important factor in determining quality, and that universities exist to create and preserve knowledge rather than to serve stakeholders (Massey, 2003). Even among Baldrige-winning institutions, the criteria and awards process were questioned, the reputation and performance of recipients were analyzed, and the rights of the faculty were emphasized. Not all administrators, faculty, and staff bought in to the process at the same rate or with the same levels of commitment and enthusiasm.

In any successful change process, it is necessary to begin with a few senior leaders and other key individuals who are prepared to recognize possibilities, look for solutions to a problem, or capitalize on an opportunity. These core groups of individuals become the catalysts that initiate the actions for initial completion of small successes. Small successes begin to lend credibility to the actions and generate positive momentum for change and greater buy-in from faculty and staff members. Strong leadership support to stay the course is required to support the change agents and keep negative individuals from disrupting the actions (Bauer, Collar, and Tang, 1992). At UW-Stout, it took approximately three years for faculty and staff to realize the benefits of the new leadership system, planning process, and other innovations.

In addition, many institutions believe that they would have to reinvent themselves and overhaul all of their systems and processes before they could begin to apply the Baldrige framework. However, the criteria are nonprescriptive and can be adapted to all types of higher education institutions. Each institution can determine the extent and depth to initially infuse the Baldrige criteria and can build on the existing inventory of institutional strengths (Sorensen, Furst-Bowe, and Moen, 2005). It takes a number of years to fully implement the criteria, but institutions that take the first steps and focus on one or two of the criteria areas may begin to realize positive results in a matter of months.

It is clear from all indicators that both public and private colleges and universities will continue to face severe fiscal issues, more demands from governing boards and state legislatures on efficiencies and accountability

measures, and greater pressure to hold down the rising cost of education. Senior leaders will be forced to find answers or at least explore measures to ensure students and stakeholders that they understand and are addressing the issues (Sorensen, Furst-Bowe, and Moen, 2005). Although no quality improvement model is without its limitations, college and university leaders will find the Baldrige model useful because it provides a tested framework for institutions to begin the process of systematic assessment and improvement through change initiatives. Ideas and approaches that have not been tried and tested, or that have been tried before and failed, have a better chance of implementation success using the Baldrige model because the model helps to align and integrate processes and synthesize the important performance indicators across the organization.

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