

Applying the Balanced Scorecard to Education

DEMETRIUS KARATHANOS
PATRICIA KARATHANOS

Southeast Missouri State University
Cape Girardeau, Missouri

The concept of the balanced scorecard (BSC) was first introduced by Robert S. Kaplan and David P. Norton (1992) in their now widely cited *Harvard Business Review* article, "The Balanced Scorecard—Measures that Drive Performance." The widespread adoption and use of the BSC is well documented. For example, Kaplan and Norton (2001) reported that by 2001 about 50% of the *Fortune* 1000 companies in North America and 40% to 45% of companies in Europe were using the BSC.

The basic premise of the BSC is that financial results alone cannot capture value-creating activities (Kaplan & Norton, 2001). In other words, financial measures are lagging indicators and, as such, are not effective in identifying the drivers or activities that affect financial results. Kaplan and Norton (1992) suggested that organizations, while using financial measures, should develop a comprehensive set of additional measures to use as leading indicators, or predictors, of financial performance. They suggested that measures should be developed that address four perspectives:

1. The financial perspective. Measures in this perspective should answer the question, "How should we appear to our shareholders?"
2. The customer perspective. These measures should answer the question,

ABSTRACT. Although the application of the balanced scorecard (BSC) in the business sector is well documented, very little research has been reported regarding the adaptation or application of the BSC in the education sector. In this article, the authors (a) describe how the Baldrige Education Criteria for Performance Excellence has adapted the concept of the BSC to education and (b) discuss significant differences as well as similarities between the BSC for business and the BSC for education. The authors also present examples of the BSCs of three Baldrige Education Award recipients.

"How should we appear to our customers?"

3. Internal business processes perspective. Measures in this perspective should answer the question, "What processes must we excel at?"

4. Learning and growth perspective. These measures should answer the question, "How can we sustain our ability to change and improve?"

A critical factor for an effective BSC is the alignment of all the measures in the four perspectives with the company's vision and strategic objectives. The BSC allows managers to track short-term financial results while simultaneously monitoring their progress in building the capabilities and acquiring the intangible assets that generate growth for future

financial performance (Kaplan & Norton, 1996). Thus, the BSC enables managers to monitor and adjust the implementation of their strategies and to make fundamental changes in them.

The Baldrige National Quality Program: An Overview

The Baldrige National Quality Program is the vehicle of implementation of *The Malcolm Baldrige National Quality Improvement Act of 1987—Public Law 100-107*. This law was enacted on the basis of a set of "Findings," one of which was that

[T]he leadership of the United States in product and process quality has been challenged strongly (and sometimes successfully) by foreign competition, and our Nation's productivity growth has improved less than our competitors' over the last two decades. (Baldrige National Quality Program, 2003a, p. 61)

The primary objective of the Baldrige Program is to help American businesses improve their competitiveness in the global market. Businesses can improve their competitiveness by identifying role-model organizations, recognizing them, and disseminating their best practices throughout the United States.

The Baldrige Program is widely recognized as a very significant factor in strengthening U.S. competitiveness in the

global market. In its 1995 report *Building on Baldrige: American Quality for the 21st Century*, the Council on Competitiveness made the following statements: “The Baldrige National Quality Award and its state and local offshoots have been key to the effort to strengthen U.S. competitiveness” and “The Baldrige Award Program, having galvanized U.S. quality efforts, is now positioned to become the vehicle to stimulate and coordinate efforts to expand quality as a national priority” (Council, p. v). The Council (p. 22) also stated that it “is a nonprofit, nonpartisan organization of chief executives from business, higher education and organized labor who have joined together to pursue a single overriding goal: to improve the ability of American companies and workers to compete more effectively in world markets, while building a rising standard of living at home.” In 1995, The Council was chaired by Paul Allaire, CEO, Xerox, with Thomas E. Everhart, President, California Institute of Technology, and Jack Sheinkman, President, Amalgamated Clothing and Textile Workers Union, AFL-CIO, CLC, as vice-chairmen.

Recipients of the Baldrige Award are obligated to present their “best practices” at one national and two regional conferences. In addition to these obligatory presentations, there is a great demand for additional presentations. Through 1998, past Baldrige Award recipients made approximately 30,000 presentations.

The centerpiece of the Baldrige Program is the Criteria for Performance Excellence. These criteria define a state-of-the-art management model that integrates the following seven areas into a comprehensive system: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge management; human resource focus; process management; and business results. In Figure 1, we show the framework of the criteria in a systems perspective. The criteria maintain currency through annual revisions and improvements that incorporate emerging issues and best practices (Baldrige National Quality Program, 2003a).

The criteria place heavy emphasis on the development of a comprehensive measurement system that is aligned with the company’s strategic objectives.

The measurement system yields results in the following areas (Baldrige National Quality Program, 2003a):

1. Customer-focused results
2. Product and service results
3. Financial and market results
4. Human resource results
5. Organizational effectiveness results, including key internal operations performance measures
6. Governance and social responsibility results

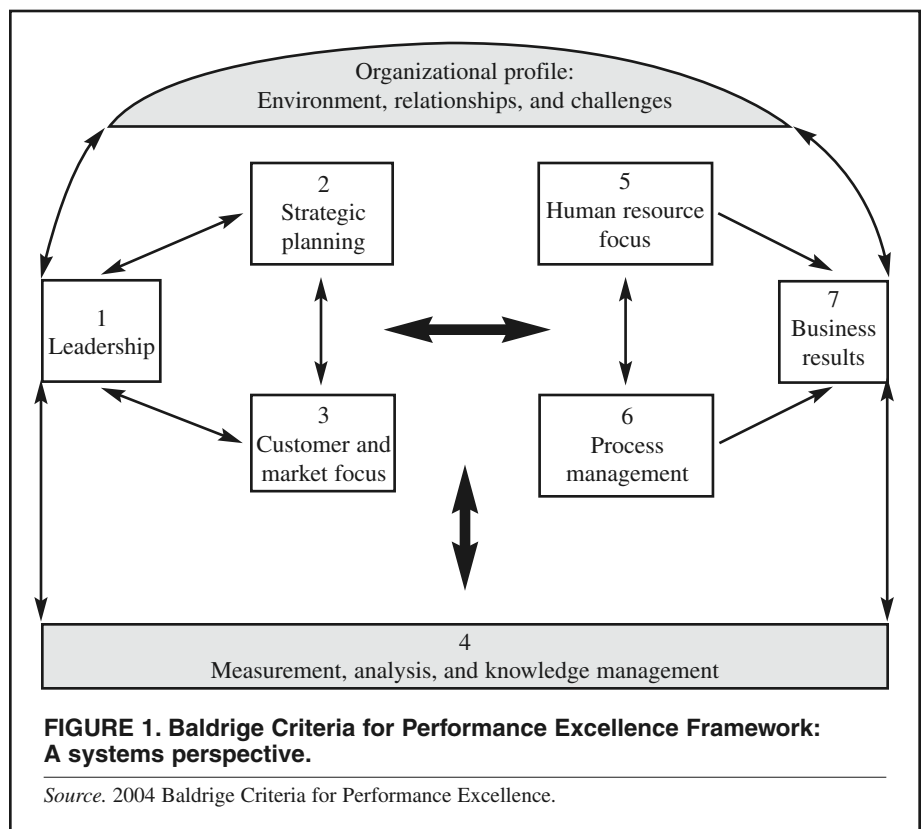
Clearly, this set of results is consistent with the basic concept of the BSC. The financial and market results are the only lagging indicator and cover the BSC’s financial perspective. The customer-focused results obviously cover the BSC’s customer perspective. The product and service results together with the organizational effectiveness results cover the BSC’s internal business perspective. The human resource results cover the BSC’s learning and growth perspective. The governance and social responsibility results were added in 2003 and represent a new perspective in view of the recent, well known collapses that giant corporations experienced owing to unethical practices.

The Baldrige Education Criteria for Performance Excellence

In 1995, the Baldrige National Quality Program began the process of converting the business criteria for use in the education sector. This process culminated in the development of the Education Criteria for Performance Excellence and with Congressional approval of the Malcolm Baldrige National Quality Award for Education in 1999. In Figure 2, we show the framework of the education criteria in a systems perspective. Clearly, this framework is very similar to that of the business criteria shown in Figure 1. In 2001, three educational institutions became the first recipients of the Baldrige Award.

The BSC in the Education Criteria for Performance Excellence

Although the concept of the BSC has been widely adopted and used in the business sector, the education sector apparently has not embraced the BSC concept widely, as indicated by the dearth of published research on this topic. A thorough review of the literature yielded few significant publications. For



example, Cullen, Joyce, Hassall, and Broadbent (2003) proposed that a balanced scorecard be used in educational institutions for reinforcement of the importance of managing rather than just monitoring performance. Sutherland (2000) reported that the Rossier School of Education at the University of Southern California adopted the balanced scorecard approach to assess its academic program and planning process. Also, Chang and Chow (1999) reported that responses in a survey of 69 accounting department heads were generally supportive of the balanced scorecard's applicability and benefits to accounting programs.

The importance of measurement permeates the Baldrige Criteria for Performance Excellence. The focus on measurement in the criteria first appears in the set of "Core Values and Concepts." These factors comprise the philosophical foundations of performance excellence and are as follows (Baldrige National Quality Program, 2003b):

1. Visionary leadership
2. Learning-centered education
3. Organizational and personal learning
4. Valuing faculty, staff, and partners

5. Agility
6. Focus on the future
7. Managing for innovation
8. Management by fact
9. Social responsibility
10. Focus on results and creating value
11. Systems perspective

In the "focus on the future" core value, the criteria state that "a major longer-term investment associated with your organization's improvement is the investment in creating and sustaining a mission-oriented assessment system focused on learning" (Baldrige National Quality Program, 2003b, p. 3). The criteria recommend that organizations use both (a) formative assessment to measure learning early in the learning process to allow for timely intervention, if needed, and (b) summative assessment to measure progress against key relevant external standards and norms regarding the knowledge and skills that students have (Baldrige National Quality Program, 2003b).

In the "management by fact" core value, the criteria make the following statement: "A major consideration in per-

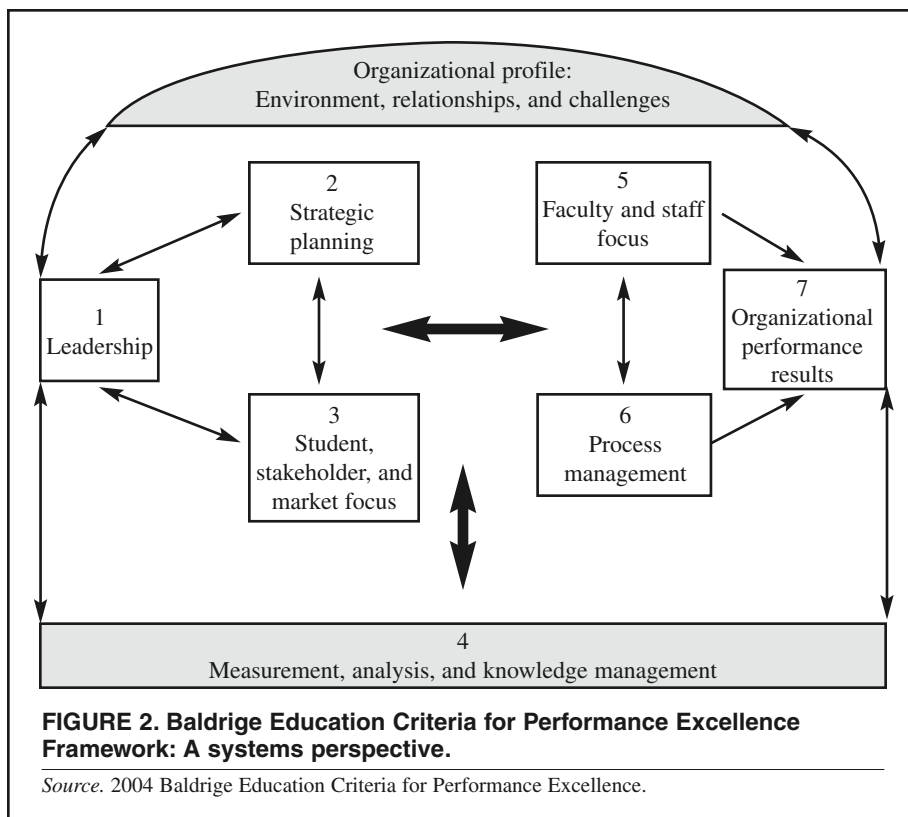
formance improvement and change management involves the selection and use of performance measures and indicators. The measures or indicators you select should best represent the factors that lead to improved student, operational, and financial performance. A comprehensive set of measures or indicators tied to student, stakeholder, and/or organizational performance requirements represents a clear basis for aligning all processes with your organization's goals" (Baldrige National Quality Program, 2003b, p. 4). The congruence of the portion in italics with the basic premise and the perspectives of the BSC is clear.

In the "focus on results and creating value" core value, the criteria state that "the use of a balanced composite of leading and lagging performance measures offers an effective means to communicate short and longer term priorities, monitor actual performance, and provide a clear basis for improving results" (Baldrige National Quality Program, 2003b, p. 4). The criteria make the following statement in the "systems perspective" core value: "Alignment means using key linkages among requirements given in the Baldrige Categories to ensure consistency of plans, processes, measures, and actions" (Baldrige National Quality Program, 2003b, p. 5).

The 11 core values and concepts are embodied in the following seven categories:

1. Leadership
2. Strategic planning
3. Student, stakeholder, and market focus
4. Measurement, analysis, and knowledge management
5. Faculty and staff focus
6. Process management
7. Organizational performance results

In Figure 2, we show the framework connecting and integrating these seven categories into a comprehensive system. In describing Figure 2, the criteria state, in part, that "Measurement, Analysis, and Knowledge Management (Category 4) are critical to the effective management of your organization and to a fact-based system for improving performance. Measurement, analysis, and knowledge serve as a foundation



for the performance management system” (Baldrige National Quality Program, 2003b, p. 6).

Each of the seven categories lists a set of “requirements” that an organization should address in its process of self-assessment. The requirements of the first six categories address the approaches, or methods, and the deployment of these approaches, which the organization uses in its efforts to achieve its overall objectives. In Category 7, the organization must specify the results yielded by the approaches.

The following results are provided in Category 7 (Baldrige National Quality Program, 2003b):

1. Student learning results
2. Student- and stakeholder-focused results
3. Budgetary, financial, and market results
4. Faculty and staff results
5. Organizational effectiveness results, including key internal operational performance measures
6. Governance and social responsibility results

These results are similar to those that the Baldrige Criteria require for the business sector and clearly represent a balanced scorecard. However, some of the perspectives in the education sector are clearly different from those in the business sector. In Table 1, we summarize the measures expected in the BSCs in business and in education.

Although the financial and market results are the “bottom line” or lagging indicator in the business sector, the bottom line or lagging indicator in the education sector is the student learning results. All other results are considered to be leading indicators or drivers of student learning.

The budgetary, financial, and market results in education differ substantially from those in the business sector. In education, the expected measures are primarily internal efficiency measures, whereas in business they are the bottom line or lagging indicators. The remaining results reflect for the most part the same perspectives in business and in education, although the specific measures may differ considerably.

Under the customer perspective, the student- and stakeholder-focused results focus primarily on satisfaction with

educational programs, whereas the customer-focused results focus primarily on satisfaction with products and ser-

TABLE 1. Baldrige Criteria for Education and Business: Comparison of Expected Measures

Education	Business
<p>1. Student learning results</p> <p>Results should be based on a variety of assessment methods, should reflect the organization’s overall mission and improvement objectives, and together should represent holistic appraisals of student learning.</p>	<p>1. Customer-focused results</p> <p>Customer satisfaction measurements about specific product and service features, delivery, relationships, and transactions that bear upon the customers’ future actions</p>
<p>2. Student-and-stakeholder-focused results</p> <p>Student and stakeholder satisfaction measurements about specific educational program and service features, delivery, interactions, and transactions that bear upon student development and learning and the students’ and stakeholders’ future actions</p>	<p>2. Product and service results</p> <p>Key measures or indicators of product and service performance that are important to the customers</p>
<p>3. Budgetary, financial, and market results</p> <p>Instructional and general administration expenditures per student, tuition and fee levels, cost per academic credit, resources redirected to education from other areas, scholarship growth</p>	<p>3. Financial and market results</p> <p>Return on investment, asset use, operating margins, profitability, liquidity, value added per employee</p>
<p>4. Faculty and staff results</p> <p>Innovation and suggestion rates; courses or educational programs completed; learning; on-the-job performance improvements; crosstraining rates; collaboration and teamwork; knowledge- and skill-sharing across work functions, units, and locations; employee well-being, satisfaction, and dissatisfaction</p>	<p>4. Human resource results</p> <p>Innovation and suggestion rates; courses completed; learning; on-the-job performance improvements; crosstraining rates; measures and indicators of work system performance and effectiveness; collaboration and teamwork; knowledge- and skill-sharing across work functions, units, and locations; employee well-being, satisfaction, and dissatisfaction</p>
<p>5. Organizational effectiveness results, including key internal operations performance measures</p> <p>Capacity to improve student performance, student development, education climate, indicators of responsiveness to student or stakeholder needs, supplier and partner performance, key measures or indicators of accomplishment of organizational strategy and action plans</p>	<p>5. Organizational effectiveness results, including key internal operations performance measures</p> <p>Productivity, cycle time, supplier and partner performance, key measures or indicators of accomplishment of organizational strategy and action plans</p>
<p>6. Governance and social responsibility results</p> <p>Fiscal accountability, both internal and external; measures or indicators of ethical behavior and of stakeholder trust in the governance of the organization; regulatory and legal compliance; organizational citizenship</p>	<p>6. Governance and social responsibility results</p> <p>Fiscal accountability, both internal and external; measures or indicators of ethical behavior and of stakeholder trust in the governance of the organization; regulatory and legal compliance; organizational citizenship</p>

vices. Under the learning and growth perspective, the human resource results in business and the faculty and staff results in education would include very similar measures. Under the internal business perspective, the organizational effectiveness results in business would use primarily internal efficiency measures, whereas in education they make use of measures of factors that affect student performance and development.

The governance and social responsibility results for both business and education represent a new perspective added to the criteria in 2003 in light of the increased importance of ethical practices after the recent ethics-related collapses of giant corporations and the continuing serious ethical violations—primarily in the athletics area—in educational institutions. Both the business and education criteria rely on similar measures.

Three Examples of BSCs in Education

The first Baldrige Education Awards were presented in 2001 to three organizations: Chugach School District, Pearl River School District, and University of Wisconsin–Stout. We present the detailed measures of the balanced scorecards of these institutions in Table 2. Although the BSCs of these three institutions cover the same perspectives, their individual measures differ considerably, reflecting the differences in their individual missions. For example, the Chugach School District is a small rural K–12 district in Alaska populated predominantly by native Alaskans. The region suffers from very high unemployment, high homelessness, teenage pregnancy, alcohol and drug abuse, and a high crime rate. Many students suffer from fetal alcohol syndrome. Ten years ago, that region had the lowest California Achievement Test (CAT) scores in the state. In 1994, school district personnel convinced the community members to become active participants, and together they developed a “shared vision” that has guided the community into becoming a role model district that now is helping many other schools improve their performance. Today the region’s CAT scores are in the top

25%. The “shared vision” includes some of the following notable aspects (Chugach School District, 2001):

- Commitment to developing and supporting partnerships with parents, community, and businesses that equally share the responsibility of preparing students to meet the challenges of the ever-changing world in which they live
- Development of performance standards in 10 areas: mathematics, reading, writing, science, technology, social sciences, service learning, career development, cultural awareness and expression, and personal and social health development
- The district does not operate with the typical Carnegie units, or credits (i.e., the typical grade levels). Instead, performance standards in the above 10 areas define graduation requirements.
- Student learning profiles (SLP), individual learning plans (ILP), student assessment binders (SAB), and student life-skills portfolios support and document individually paced progress in the 10 standards (some students achieve graduation levels at 14 years of age, whereas others reach them at age 21).
- Thirty days of staff development annually provided to teachers
- Focus on developing school-to-work skills
- Focus on character development
- Focus on “hands-on” experiential learning
- Focus on technology (through a grant from the Melinda and Bill Gates Foundation, each student receives a laptop upon reaching a specific level of computer skills)

Clearly, the measures reported by Chugach School District in Table 2 are closely aligned with the “shared vision” of the community.

Pearl River School District, in contrast with Chugach, is a large, affluent suburban New York City K–12 district. Its mission, “Every child can and will learn,” is supported by the following core values (Pearl River School District, 2001):

- Our students are our customers, and the product that we deliver is to allow them to achieve their highest potential.
- Educational opportunity is for all students.

• Learning is an active process in which students discover and create knowledge.

- Tracking academic performance is a consistent and constant practice.
- Active involvement by all stakeholders is integral to district operations.
- District employees are highly valued resources.
- The district recognizes the value that it has in the community and the people it serves.
- Our business operations are cost effective while maintaining quality and protecting our program.

Those involved in creating the mission of the Pearl River School District believe that the district’s success is attributable to the fact that everything they do is aligned with three strategic goals:

- Improve student academic achievement
- Improve public perception of the district
- Maintain fiscal stability and improve cost effectiveness

Again, the measures reported by Pearl River, provided in Table 2, clearly are aligned with the district’s mission, core values, and strategic goals.

The University of Wisconsin–Stout, designated as a “special mission institution,” provides a distinctive array of programs leading to professional careers focused on the needs of society. Some of its unique characteristics are the following (University of Wisconsin–Stout, 2001):

- More than half of its 27 undergraduate programs are not offered at any other campus in the University of Wisconsin system, and several are unique in the nation.
- The programs emphasize business relationship processes and stay current with fast-changing technology and market dynamics.
- Traditional instruction is reinforced with extensive technology laboratories and industry partnerships. This approach is referred to as “hands-on, minds-on” active learning.
- The programs have the following key student requirements and corresponding measures or indicators (in parentheses):

TABLE 2. The Balanced Scorecards of Three Baldrige Education Award Recipients in 2001

Measure	Chugach School District	Pearl River School District	University of Wisconsin–Stout
Student-learning results	<ol style="list-style-type: none"> 1. CAT (California Achievement Test) 2. WRM (Woodcock Reading Mastery Test) 3. HSGQ (High School Graduation Qualifying Exam) 4. HSGQE 5. HSGQ & BE (High School Graduation Qualifying & Benchmark Exam) 6. Self-assessment <ul style="list-style-type: none"> —Spelling —Reading —Language —Math 7. SLP (student learning profile) 	<ol style="list-style-type: none"> 1. Regents diploma rate 2. Mastery performance—reading 3. Mastery performance—math 4. Regents content exams <ul style="list-style-type: none"> —English —Math —Earth science —Biology —Chemistry —U.S. history —Global history —Foreign language 5. Final grade-point average 6. Advanced placement (AP) participation rate 7. AP course performance 8. College attendance rate 9. SAT I & II participation rate 10. SAT I achievement rate <ul style="list-style-type: none"> —Verbal —Math 11. Grade 8 ELA proficiency 12. Grade 8 math proficiency 13. Grade 4 ELA proficiency 14. Grade 4 math proficiency 	<ol style="list-style-type: none"> 1. Freshman ACT scores 2. Freshman retention 3. “At risk” freshman retention 4. Active learning 5. Computer competency 6. Skill development <ul style="list-style-type: none"> —Leadership —Problem solving —Conflict resolution —Communication 7. Diversity appreciation 8. Graduation rate 9. Student job placement 10. Employment in major field 11. Salaries of graduates 12. Annual income of alumni 13. Alumni rating of program effectiveness 14. Alumni development of active learning skills 15. Alumni appreciation of diversity 16. Skill assessment by employers <ul style="list-style-type: none"> —Basic skills —Communication —Technical —Organizational/problem solving —Leadership
Student- and stakeholder-focused results	<ol style="list-style-type: none"> 1. Stakeholder (student, community, staff) satisfaction with: <ul style="list-style-type: none"> —Leadership —Strategic planning —Stakeholder focus —Information —Staff —Processes —Results 2. Satisfaction of graduates with: <ul style="list-style-type: none"> —Basic skills —Individual needs —Character development —Transition skills —Technology 3. Average daily attendance 4. Student work-based learning hours 5. Participation of other district students in work-based learning 	<ol style="list-style-type: none"> 1. Overall student satisfaction <ul style="list-style-type: none"> —High school —Middle school 2. Key satisfaction indicators <ul style="list-style-type: none"> —Teachers —Technology —Atmosphere 3. Drug abuse 4. Dropout rate 5. Attendance rate 6. Participation in extracurricular activities 7. Parent overall satisfaction 8. Satisfaction with home schooling 9. Student transportation—complaints 10. Employer survey on student preparation for employment 11. Alumni satisfaction <ul style="list-style-type: none"> —Preparation for college —Guidance services —Writing —Math 12. Student attrition 13. Budget vote plurality 14. Prospective homeowner requests 15. New family-perceived value of district 	<ol style="list-style-type: none"> 1. Freshman ratings of educational experience 2. Number of transfers “in” 3. Numbers that would attend again 4. Student satisfaction with campus environment 5. Alumni satisfaction with instruction 6. Alumni indication they would attend again 7. Employer ratings of graduates’ preparation 8. Board of Regents satisfaction with: <ul style="list-style-type: none"> —Mission appropriateness —Student outcomes —Leadership —Accountability —Fulfilling mission 9. Community ratings of customer service

(table continues)

TABLE 2 (Continued)

Measure	Chugach School District	Pearl River School District	University of Wisconsin–Stout
Student- and stakeholder-focused results		16. Positive referrals	
Budgetary and financial results	<ol style="list-style-type: none"> 1. Revenues <ul style="list-style-type: none"> —Federal —State —Grants 2. State funds allocated to: <ul style="list-style-type: none"> —Instruction —Operations 3. Sources of funding allocated to: <ul style="list-style-type: none"> —Individual needs —Technology —Transition skills —Basic skills —Character development —Per-pupil spending —Federal funds —State funds —Grants 	<ol style="list-style-type: none"> 1. Costs per pupil 2. Expenditures for: <ul style="list-style-type: none"> —Building administration —Plant operations —Board of Cooperative Educational Services administration —Teacher salaries —Benefits 3. Market share (vs. private schools) 	<ol style="list-style-type: none"> 1. Tuition comparisons 2. On-campus room and board costs 3. Tuition revenues 4. Prioritization of funding 5. Budget allocation to instruction 6. Budget allocation to institutional support 7. Expenditures allocated to personnel 8. Year-end budget variances from budget plan 9. University reserves 10. Foundation assets 11. Dollars awarded to scholarships
Faculty and staff results	<ol style="list-style-type: none"> 1. Staff evaluation of: <ul style="list-style-type: none"> —Leadership —Strategic planning —Students/community —Information —Faculty/staff —Educational and support processes —Results 2. Staff in-service days 3. Performance-based pay 4. E-mail use 	<ol style="list-style-type: none"> 1. Workers compensation injuries 2. Environment factors: <ul style="list-style-type: none"> —Health —Safety —Ergonomics 3. Faculty satisfaction 4. Staff satisfaction 5. Staff turnover 6. Labor grievances 7. Faculty/staff development <ul style="list-style-type: none"> —Building leadership team (satisfaction) —Personal growth and development (satisfaction) —Faculty training hours 8. New employee orientation 9. Staff satisfaction with superintendent's: <ul style="list-style-type: none"> —Fall conference day —Spring conference day 10. Efficiency of staff development programs 11. Communication between grade levels 	<ol style="list-style-type: none"> 1. Key indicators of faculty and staff morale, well-being, and development 2. Employee satisfaction: <ul style="list-style-type: none"> —All employees —Classified employees —Unclassified employees 3. Voluntary faculty turnover 4. Classified staff grievances 5. Diversity: <ul style="list-style-type: none"> —Women faculty —Minority faculty 6. Discrimination and harassment 7. Faculty with doctorate 8. Professional development expenditures 9. Satisfaction with opportunities for training/professional development 10. Evaluation of Microsoft training 11. Safety training 12. Injury/accident rates 13. Workers compensation claims 14. Workers compensation experience modification factor
Organizational effectiveness results	<ol style="list-style-type: none"> 1. Performance of high school graduates in 10 curricular standard areas: <ul style="list-style-type: none"> —Reading —Writing —Mathematics —Technology —Cultural awareness and expression —Personal/social/health —Career development —Service learning 	<ol style="list-style-type: none"> 1. Efficiency of educational design and delivery (percentage meeting proficiency on ELA) 2. Faculty not meeting performance criteria 3. Student satisfaction with guidance and counseling 4. Percentage of students in general education 5. Percentage of “classified” students 	<ol style="list-style-type: none"> 1. Distinctive programs 2. Undergraduate curriculum 3. Federal grant expenditures 4. Laboratory-based instruction 5. Enrollment 6. Distance-learning opportunities 7. Audit compliance 8. Safety and security performance 9. Support services effectiveness: <ul style="list-style-type: none"> —Current students —Alumni

(table continues)

TABLE 2 (Continued)

Measure	Chugach School District	Pearl River School District	University of Wisconsin–Stout
Organizational effectiveness results	<ul style="list-style-type: none"> —Social sciences —Science 2. High school credits earned by 8th graders 3. Contextual education hours offered per student per week 4. Percentage of eligible students who participate in school-to-work program 5. Percentage of students who access the Internet for increased productivity 6. School site bandwidth 7. Percentage of staff assisting other districts 	<ul style="list-style-type: none"> 6. Number of scholar athlete teams 7. Cost of student transportation 8. Safety of student transportation 9. Purchase-order cycle time 10. Quality of copying 11. Cost of copying 12. Efficiency of technology: <ul style="list-style-type: none"> —”Up” time —Faculty satisfaction —Student satisfaction 13. Student enrollment 14. Number of teachers 15. Regulatory compliance: <ul style="list-style-type: none"> —Right to know —OSHA —NYSED —IDEA —Health/safety 16. Legal <ul style="list-style-type: none"> —Sexual harassment —Policy book —Contracts —Fire Inspections 17. Ethical <ul style="list-style-type: none"> —BOE Code of Ethics —Student Code of Ethics —Athlete Code of Ethics 18. Public complaints 19. Adult education and parent university participation 	<ul style="list-style-type: none"> 10. Employees’ assessment of budget planning process 11. Information technology usage 12. Student assessment of: <ul style="list-style-type: none"> —Computer labs —Library support services —Dining services —Student center services —Resident life 13. Purchasing transactions 14. Efficient use of electricity 15. Trends in energy use
	(Chugach School District, 2001)	(Pearl River School District, 2001)	(University of Wisconsin–Stout, 2001)

1. Cutting-edge, career-oriented programs (number of new programs, placement success)
2. High-quality, active-learning education (percentage of lab instruction and faculty contact)
3. Effective student support services (retention, academic success, student satisfaction)
4. Related employment and academic or career growth opportunity (placement in major, graduate success, employer satisfaction)

The measures presented in Table 2 clearly reflect the unique mission of the University of Wisconsin–Stout.

Summary and Conclusion

The Baldrige Criteria for Performance Excellence for both the business and the education sectors require that, as a part of

their self-assessment, organizations develop and report a comprehensive set of measures that comprise both leading and lagging indicators of performance. Such a set of measures is congruent with the concept of the balanced scorecard (BSC), which was proposed by Kaplan and Norton (1992). In this article, we presented the lagging indicator and the leading indicators for the education sector (see Table 1). A critical requirement is that these measures be aligned with the organization’s strategic objectives. This requirement would allow organizations to track student learning while simultaneously monitoring their progress in building the capabilities and acquiring the resources that would affect their capacity to improve student performance and development.

We also presented examples of the balanced scorecards of three 2001 recipients

of the Malcolm Baldrige National Quality Award in Education (see Table 2). These balanced scorecards show that although they cover the same perspectives, the individual measures differ substantially, reflecting the unique missions of the three organizations.

REFERENCES

Baldrige National Quality Program. (2003a). *Criteria for performance excellence*. Gaithersburg, MD: Author.

Baldrige National Quality Program. (2003b). *Education criteria for performance excellence*. Gaithersburg, MD: Author.

Chang, O. H., & Chow, C. W. (1999). The balanced scorecard: A potential tool for supporting change and continuous improvement in accounting education. *Issues in Accounting Education, 14*, 395–412.

Chugach School District. (2001). *Chugach School District 2001 Baldrige application summary*. Retrieved January 10, 2004, from www.quality.gov/PDF_files/Chugach_Application_Summary.pdf

Council on Competitiveness. (1995). *Building on*

- Baldrige: American quality for the 21st century*. Washington, DC: Author.
- Cullen, J., Joyce, J., Hassall, T., & Broadbent, M. (2003). Quality in higher education: From monitoring to management. *Quality Assurance in Education, 11*, 1–5.
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard—Measures that drive performance. *Harvard Business Review, 70*, 71–79.
- Kaplan, R. S., & Norton, D. P. (1996). Strategic learning and the balanced scorecard. *Strategy and Leadership, 24*, 18–25.
- Kaplan, R. S., & Norton, D. P. (2001). On balance. *CFO, 17*, 73–78.
- Pearl River School District. (2001). *Pearl River School District 2001 Baldrige application summary*. Retrieved January 10, 2004, from www.quality.nist.gov/PDF_files/Pearl_River_Application_Summary.pdf
- University of Wisconsin–Stout. (2001). *University of Wisconsin–Stout 2001 Baldrige application summary*. Retrieved January 10, 2004, from www.quality.nist.gov/PDF_files/UWStout_Application_Summary.pdf
- Sutherland, T. (2000, Summer). Designing and implementing an academic scorecard. *Accounting Education News*, 11–13.

Copyright of Journal of Education for Business is the property of Heldref Publications and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.