

**The Metrology of Organizational Performance:
How Baldrige Standards Have Become the Common Language for
Organizational Excellence Around the World**

By Baldrige Performance Excellence Program

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The Baldrige Criteria for Performance Excellence are accepted around the world as the gold standard for organizational performance excellence—a body of principles and considerations that when used as a management framework lead to improved performance results in organizations, from less defects, better health care outcomes, and improved effectiveness; to more satisfied and engaged customers, patients, and students; to improved financial and market share results. But how can the same set of standards be used in a global economy in various industries, for both small and large organizations, and still have the same impact on management and sustainability? And how can these standards contribute to organizational success not only in the United States but around the world?

Utilizing a systems perspective, the Baldrige Criteria have been used as a global standard for organizational success because the leadership practices within have been validated by more than 27 years of practice, expert review, and research. The Baldrige Criteria use an approach that makes them adaptable for manufacturers; businesses; and health care, education, and nonprofit organizations around the world; this approach allows organizations to use the Criteria requirements as a common language within their organizations, a language that becomes the considerations to guide them to excellence. This paper will make clear how following the standards within the Baldrige Criteria has impacted the strength of the global economy.

The Development of the Baldrige Excellence Framework and Its Criteria

In 1987, the Deputy Director of the National Measurement Laboratory of the U.S. National Bureau of Standards (NBS) Curt Reimann was tasked by President Ronald Reagan, the U.S. Congress, and the director of NBS to create a set of criteria (i.e., standards) to help U.S. manufacturers compete in a global economy. The idea for the standards—with an associated quality award to recognize and encourage sharing by organizations who exemplify them—was said to have the support of then U.S. Secretary of Commerce Malcolm Baldrige.

Although there had been a great deal of dialogue in the United States about the need to prioritize the competitiveness of U.S. manufacturers, the country was slow to act on the creation of standards for organizational excellence—until the untimely death of Secretary Baldrige. Three days after his death, the Senate Committee on Commerce, Science, and Transportation passed legislation for a national quality award and standards for that award in his honor. On August 20, 1987, President Reagan signed the Malcolm Baldrige National Quality Improvement Act of 1987 into law.¹

The law required “guidelines and criteria that can be used by business, industrial, governmental, and other organizations in evaluating their own quality improvement efforts; and . . . specific guidance for other American organizations that wish to learn how to manage for high quality by making available detailed information on how winning organizations were able to change their cultures and achieve eminence.”² Reimann began developing those “guidelines and criteria,” starting with a framework, now called the Baldrige Criteria for Performance Excellence. Reimann said that the Baldrige Criteria were expected to be in a “state of evolution. . . . We aggressively pursued improvement of the Criteria from the start.”³

The development of the Baldrige Criteria has always been a collaborative one. Prior to annual or biannual publication, the standards or requirements within the Criteria are shared widely with quality experts, business executives, academics, health care experts, government experts, and many others to ensure that they always reflect the “leading edge of validated management practice”⁴—a term first coined by Arnold Weimerskirch, vice president of quality for Honeywell. In addition to an expert review, the Criteria are reviewed by Baldrige overseers, who provide advisory guidance to the Baldrige Performance Excellence Program that now develops the Criteria. The Criteria are also reviewed by Baldrige judges and examiners, who serve as volunteer



Figure 1 Malcolm Baldrige National Quality Improvement Act of 1987

assessors and use the Criteria standards to recommend role-model companies to the U.S. Secretary of Commerce to receive the Malcolm Baldrige National Quality Award (Baldrige Award), the United States' only Presidential honor for organizational performance excellence. Baldrige overseers, judges, and examiners have included distinguished experts such as Joseph Juran and Elmer Staats, the former Comptroller General of the United States who is known for his work at the U.S. Government Accountability Office.

In November 1991, David Garvin wrote in the *Harvard Business Review*,

The Malcolm Baldrige National Quality Award has become *the* most important catalyst for transforming American business. More than any other initiative, public or private, it has reshaped managers' thinking and behavior. The Baldrige Award not only codifies the principles of quality management in clear and accessible language. It also goes further: it provides companies with a comprehensive framework for assessing their progress toward the new paradigm of management and such commonly acknowledged goals as customer satisfaction and increased employee involvement.

Over time, to ensure excellence within their companies, many U.S. organizations have developed internal quality awards and recognition based on the Baldrige Criteria; these included Johnson & Johnson's Chairman's Award, IBM's Thomas J. Watson Award, and McDonald's Sweeney Quality Award. Many other organizations, including Cargill, Eaton, and the Ritz-Carlton, have embedded or internalized the Baldrige Criteria, sometimes creating an entire evaluation process for their global operations.

In 1993, based on growing interest from the business community and several national organizations, including the American Hospital Association, health care and education experts came to NBS, now called the National Institute of Standards and Technology (NIST), to implement the Baldrige Criteria concepts in the health care and education sectors.⁵ The Baldrige Criteria were distributed to health care and education organizations to review, and pilots were conducted in 1995.

"We had two challenges in implementing the health care and education categories," said Baldrige Director emeritus Harry Hertz. "The simpler one was writing the Criteria that were specific to these sectors. Much more difficult was writing case studies that would reflect leading-edge strategies responsive to the Criteria but still believable in these sectors. The Criteria were proposing concepts that were still far beyond the current state of

practice in those sectors. Fortunately, we had help and guidance from outstanding education and health care experts who volunteered their talents to the Baldrige Program and stretching current practice.”

The Baldrige Program has much evidence of the return on investment for organizations that use the requirements or standards in the Criteria as a management framework. For example, analysis of data from two-time Baldrige Award winners shows that their median growth in number of sites was 67%, median growth in revenue was 94%, and median growth in jobs was 63%; the median growth in jobs was nearly 20 times greater than matched industries and time periods, according to the U.S. Bureau of Economic Analysis and the Bureau of Labor Statistics, which indicated a comparative average job growth of 3.2%⁶. Hospitals that have won the Baldrige Award have lower rates of mortality and complications, higher profit margins, and higher improvement levels than the 100 Top Hospitals (top 3% nationwide) according to a Thomson Reuters study⁷. And, in 2011, economists reported that for every public \$1 spent on the Baldrige Program, the benefit to the U.S. economy was \$820⁸.

Additional return on investment data are available on the Baldrige Web site⁹ and in the book *Baldrige 20/20: An Executive's Guide to the Criteria for Performance Excellence*¹⁰, in which Rosabeth Moss Kanter, director of the Harvard University Advanced Leadership Initiative, wrote,

Use of the Baldrige Criteria can help organizations assess and improve their performance, becoming more sophisticated about how to align all of their processes to achieve desired results. That is important not only to the success of manufacturing and service enterprises but also sectors such as health care and education which are vital to the future of the economy and the well-being of society. The Baldrige Award is given to only a few of the applicants because they meet the highest standards. But in a sense, every organization that uses the Baldrige Criteria for self-study and change can turn out to be a winner due to their increased ability to learn, adapt, innovate, and achieve excellence.

In the same book, Gregory Page, former chairman of the board and CEO of Cargill, Inc., writes that Baldrige Award recipients “are successfully navigating the storms of change, achieving operational effectiveness and efficiency, improving financial results, enhancing customer service, and winning new markets through application of the Baldrige Criteria.”

The Baldrige Criteria remain a powerful standard for manufacturers. According to Woodbury University President Luis Calingo, “For manufacturers, Baldrige sends customers the message that you have achieved external

recognition that is even more powerful than ISO 9000 certification, or ISO 9000 registration or even ISO 14000 registration. Baldrige confirms that you have a good management system in place, but it also signals that your processes compare with those of world-class organizations. . . . The Baldrige Award provides the discipline and the scorecard companies today need to be accountable to their customers, employees, and shareholders.”¹¹ In addition, an analysis of Baldrige Award winners found that each of five manufacturing companies studied experienced remarkable financial growth in the few years leading up to the award and in the years after winning the award; “Clearly, these five companies have provided a roadmap or a blueprint for other companies to follow,” wrote the study’s authors.¹²

The Baldrige Criteria have proven to be the standard for global excellence, too. For Cargill, Inc., a global producer of food, agriculture, and financial and industrial products, the Baldrige Criteria have proven to be “a huge return on investment.”¹³ Cargill uses the Baldrige Criteria for internal measurement of performance excellence across its business units; units with a high degree of deployment of the Baldrige Criteria have achieved 30% cumulative earnings after taxes vs. budget vs. 13% for Cargill businesses with partial Baldrige deployment and -12% for Cargill businesses just beginning use of Baldrige. The Tata Group—today a large Indian conglomerate whose many well-known

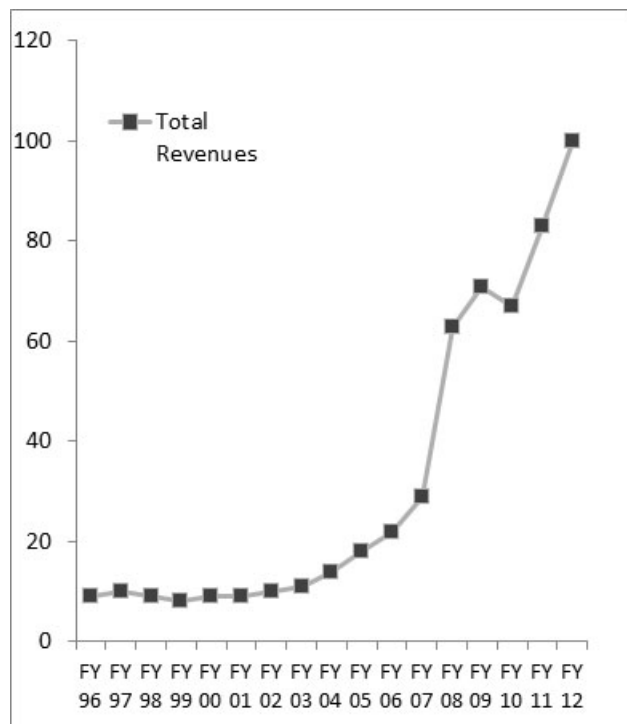


Figure 2 Increased Revenues for Tata Group After Implementing the Baldrige Criteria

brands include Jaguar Land Rover, Taj Hotels, Tetley, and Eight O’Clock Coffee—transformed itself from a \$4 billion domestic company in 1991 to a \$103 billion global enterprise by 2014 through adapting the Baldrige Criteria.¹⁴ In another example, Turner Broadcasting System, Inc., has seen millions of dollars of cost savings; “the secret is [its] systems approach found in the Baldrige Criteria for Performance Excellence.”¹⁵ In fact, to develop a common language for performance excellence, the global broadcaster “Turnerizes” the Criteria language for internal use by changing the language to match “Turner’s language.”

In health care, one author wrote in an online Six Sigma community, “One of the most highly prized awards is the Malcolm Baldrige National Quality Award . . . envisioned as a standard of excellence that would help U.S. organizations achieve world-class quality. The award not only recognizes organizations for their achievements, but raises awareness that quality and performance excellence are important as a competitive edge. The Baldrige Criteria are now the standard for performance excellence—a framework of seven categories that any organization can use to improve overall performance.”¹⁶ In the city of Detroit, which has been hit especially hard by the recession, “The Baldrige quality standards, along with transparency about how the hospital performed, helped Henry Ford Health System [a Baldrige Award recipient] improve, using feedback to improve metrics and boost performance. . . . The health system saved about \$10 million between 2008 and 2011 through its ‘No Harm Campaign,’ which reduced harmful patient events by more than 30 percent, preventable infections by 45 percent and cut the average length of stay by nearly two days.”¹⁷ In an article in the *Journal of Healthcare Management*, John R. Griffith analyzed the outcomes of Baldrige Award recipients in the health care sector and whether, through application of the Baldrige Criteria, they have become high-reliability organizations—those that seek zero defects in outcomes quality.¹⁸ “The data show that the Baldrige approach is an effective method of generating above-average performance. Award recipients have made substantial strides in safety, reductions of infections, immunizations, and patient satisfaction,” writes Griffith; “The Baldrige model has documented successes in quality improvement and should be the standard of excellence in managing all [health care organizations]. . . . The Baldrige approaches to corporate culture, incentive payment, and strategy now have a substantial, positive body of documentation of success. They should be the standard of excellence.”

Education organizations, too, have found a common language in the Baldrige Criteria. For example, at Baldrige Award-winning Pewaukee Schools, “Applying the Malcolm Baldrige Education Criteria for Performance Excellence for seven years prior to winning the award helped Pewaukee focus its energies on what continuous improvement means at all levels. . . . The long buildup to the Baldrige recognition provided a common language to those in Pewaukee. . . . The shared vocabulary helps Pewaukee focus on applying data within carefully structured systems to keep improving.”¹⁹ At a 2013 state forum, Missouri Governor Jay Nixon, said, “For Missouri to compete in today’s global economy, our students need to graduate from high school ready to succeed in college and careers. . . . With a proven record of improving performance and outcomes, the Baldrige Program is an important tool to help . . . deliver real results for our students and our economy.”²⁰

The Standards, Core Values and Concepts, and Scoring Rubric of the Baldrige Criteria

In the latest revision of the Baldrige Criteria for Performance Excellence, the standards were published under the umbrella name *Baldrige Excellence Framework*²¹ and include (1) the Core Values and Concepts that represent the embedded beliefs and behaviors found in high-performing organizations and (2) a scoring rubric that organizations can use to assess their performance.

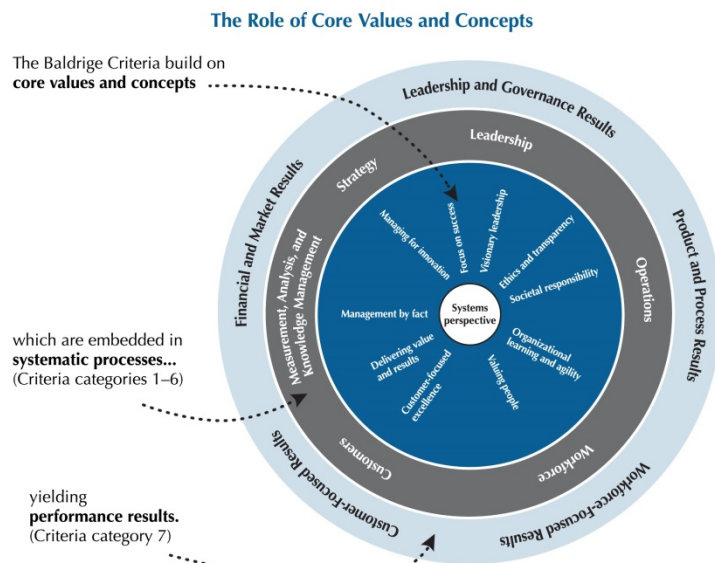
In the simplest terms, the Criteria have been defined as an “integrated management framework”—a tool for understanding and managing organizational performance. They are a set of questions that guide how to run any organization, no matter its sector or size.

The Criteria are divided into process and results categories that represent all of the components of a performance management system: leadership; strategy; customers (or, in education and health care, students and patients, respectively); measurement, analysis, and knowledge management; workforce; operations; and results. They provide a systems perspective, meaning they look at alignment and integration across an organization.



From Baldrige Performance Excellence Program. 2015. *2015–2016 Baldrige Excellence Framework: A Systems Approach to Improving Your Organization's Performance*. Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology. <http://www.nist.gov/baldrige>.

Figure 3 Baldrige Excellence Framework for Measuring and Improving Organizational Performance



From Baldrige Performance Excellence Program. 2015. *2015–2016 Baldrige Excellence Framework: A Systems Approach to Improving Your Organization's Performance*. Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology. <http://www.nist.gov/baldrige>.

Figure 4 The Core Values and Concepts Found Within the Baldrige Framework

The Criteria are used to assess an organization's performance, helping the organization identify its strengths, opportunities for improvement, and gaps/blind spots. An assessment against the Baldrige Criteria has three elements. (1) In the Organizational Profile, the organization describes what is important to it (its operating environment, key relationships, competitive environment, and strategic context). (2) In responses to categories 1–7, the organization tells how it is accomplishing what is important to it. (3) The scoring guidelines allow the organization to assess how well it is accomplishing what is important to it: the maturity of processes and their deployment, and the breadth and significance of the organization's results. Responses to the Criteria questions serve as an application for the Baldrige Award and are used internally by organizations to self-assess their own performance. Individual categories or items of the Criteria can be used as focused study for personal or organizational learning, and many organizations seek leadership development training in the Criteria.

Through the Baldrige Program, the Criteria facilitate the communication and sharing of best practices among organizations. Many accreditation systems (e.g., the Accreditation Council for Business Schools and Programs) and standards are based on the Criteria or being revised to better align with them (including ISO).

Many associations model their performance excellence programs on Baldrige (e.g., the National Housing Quality Award and the American Health Care Association/National Center for Assisted Living), and many small business development centers, including the U.S. Small Business Administration, train businesses and their executives on Baldrige principles.

The Criteria are used not only as an application for the Baldrige Award but as *the* way to run an organization—even being called “A Road Map for the Future” by *Quality* magazine.²² They offer something different than Lean Six Sigma, ISO, Magnet, and other methodologies and strategies; the Baldrige Criteria offer an organization-wide perspective that optimizes an entire system rather than just focuses on pockets of excellence.

Using the Criteria as a Standard for Organizational Sustainability

As a set of organizational standards, the Criteria spell out through a systematic approach how an organization can attain sustainability. The approach that Baldrige examiners and others use²³ begins with identifying an organization's key factors: attributes of an organization or its environment that influence the way the organization operates and the key challenges it faces. Because each organization will have unique key factors, an assessment using the seven Criteria categories will be unique to that organization, no matter its size, sector, or country of origin. The categories of the Criteria include all of the requirements that an organization must consider to excel in that area. An assessment using the Baldrige approach will help the organization identify its strengths and opportunities for improvement, as well as prioritize its areas where improvement is needed to attain sustainability.

After an organization answers the Criteria requirements, the Baldrige approach²⁴ is used to assess the organization's operations using the evaluation factors approach, deployment, learning, and integration for process categories, and levels, trends, comparisons, and integration for results categories. A Baldrige examiner assessing an organization for the Baldrige Award looks for approaches that are systematic; systematic approaches are repeatable and use data and information to enable learning. In other words, approaches are systematic if they build in the opportunity for evaluation, improvement, innovation, and knowledge sharing, thereby enabling a gain in maturity. Approaches should also show deployment: how approaches are implemented in different parts of an organization. Evidence of evaluation and improvement cycles for processes, as well as the potential for innovation, is also part of the assessment. Finally, an organization needs to show that process improvements are shared with other appropriate units of an organization to enable organizational learning. The final evaluation factor for process items is integration: alignment and harmonization among processes, plans, measures, actions, and results. Such harmonization generates organizational effectiveness and efficiencies.

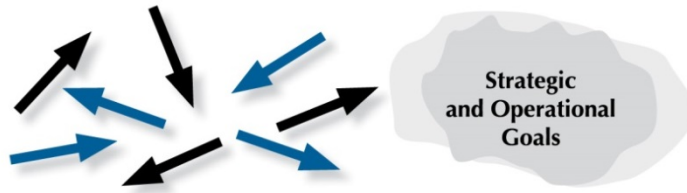
P	Organizational Profile
P.1	Organizational Description
P.2	Organizational Situation
Categories and Items	
1	Leadership
1.1	Senior Leadership
1.2	Governance and Societal Responsibilities
2	Strategy
2.1	Strategy Development
2.2	Strategy Implementation
3	Customers
3.1	Voice of the Customer
3.2	Customer Engagement
4	Measurement, Analysis, and Knowledge Management
4.1	Measurement, Analysis, and Improvement of Organizational Performance
4.2	Knowledge Management, Information, and Information Technology
5	Workforce
5.1	Workforce Environment
5.2	Workforce Engagement
6	Operations
6.1	Work Processes
6.2	Operational Effectiveness
7	Results
7.1	Product and Process Results
7.2	Customer-Focused Results
7.3	Workforce-Focused Results
7.4	Leadership and Governance Results
7.5	Financial and Market Results

Figure 5 Categories and Items of the Baldrige Criteria

Steps toward Mature Processes

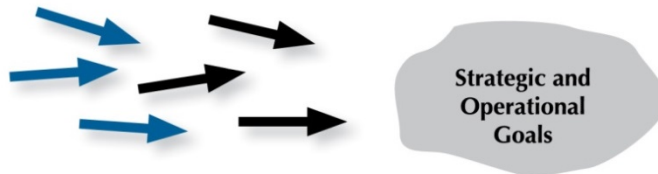
An Aid for Assessing and Scoring Process Items

Reacting to Problems (0–25%)



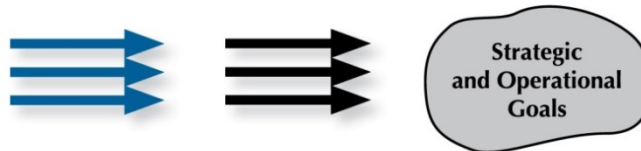
Operations are characterized by activities rather than by processes, and they are largely responsive to immediate needs or problems. Goals are poorly defined.

Early Systematic Approaches (30–45%)



The organization is beginning to carry out operations with repeatable processes, evaluation, and improvement, and there is some early coordination among organizational units. Strategy and quantitative goals are being defined.

Aligned Approaches (50–65%)



Operations are characterized by repeatable processes that are regularly evaluated for improvement. Learnings are shared, and there is coordination among organizational units. Processes address key strategies and goals.

Integrated Approaches (70–100%)



Operations are characterized by repeatable processes that are regularly evaluated for change and improvement in collaboration with other affected units. The organization seeks and achieves efficiencies across units through analysis, innovation, and the sharing of information and knowledge. Processes and measures track progress on key strategic and operational goals.

From Baldrige Performance Excellence Program. 2015. *2015–2016 Baldrige Excellence Framework: A Systems Approach to Improving Your Organization's Performance*. Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology. <http://www.nist.gov/baldrige>.

Figure 6 High-Level Example of How the Baldrige Approach Measures the Maturity of Organizational Approaches

The second part of the Baldrige approach is used to assess an organization's results. Trends show the directions of results and rates of change in areas of importance; a minimum of three historical data points is generally needed to ascertain a trend. Trends represent historic and current performance and might span five or more years or less than one year, depending on what is meaningful. Comparisons show how results compare with those of other, appropriately selected organizations. Integration is shown by including all important results and segmenting them appropriately (e.g., by important customer, workforce, process, and product-line groups).

The Wide-Ranging Impact of the Baldrige Framework on a Strong Global Economy

In the U.S., more than 35 state, regional, and sector programs that support local businesses, hospitals, and schools base themselves on Baldrige²⁵; around the world, more than 100 international programs use the Baldrige Criteria in their entirety, translated, benchmarked, or adapted as standards to measure organizational excellence. (These numbers do not include the thousands of organizations that use the Criteria as a management framework and/or to apply for the Baldrige Award.) Many of these countries also tie their performance excellence models to their governments in terms of recognition, funding, education, and certification. Examples include Singapore, Thailand²⁶, and New Zealand, where the “The Gold award is the highest accolade the foundation can bestow to a business or organisation that is benchmarked against the Baldrige criteria, the only internationally calibrated, organisation-wide measure of business excellence.”²⁷ Other countries that translate and benchmark the Baldrige Criteria include Vietnam²⁸, Sri Lanka, Iran, Australia²⁹, the Ukraine, Japan³⁰, China³¹, and South Africa,³² where the South African Excellence Foundation CEO Ed van den Heever said of the importance of the Baldrige Criteria to quality standards around the world, “The Baldrige Criteria largely dictated the selection and qualification of Criteria guidelines, key characteristics, and Criteria description. Globally, the Baldrige Performance Excellence Program led the way in this area.” And according to Bill Voravuth Chengsupanimit, lead assessor of the Thailand Quality Award,

It is our government's wish to jumpstart and pursue performance excellence to enhance sustainability in all sectors through a common excellence framework with unified values. . . . We have testimonials from leading conglomerates and industry leaders in the country praising how the Baldrige framework transformed their organizations. We see results therefore we believe in Baldrige! . . . The Baldrige Program

is simply the best, as it has a universal appeal. Tell me something that a capitalist, a socialist, and a communist can agree on. It's Baldrige! For us here in Thailand, we truly believe Baldrige can align and integrate us all!

The Baldrige Program also works closely with the Global Excellence Model (GEM) Council³³ that includes the European Foundation for Quality Management, Japan Quality Award, Australian Organisational Excellence Foundation, Confederation of Indian Industry, Fundação Nacional da Qualidade (Brazil), Fundación Iberoamericana para la Gestión de la Calidad (Latin America), Instituto para el Fomento a la Calidad Total (Mexico), Malaysia Productivity Center, and SPRING Singapore. GEM meets annually to benchmark global excellence practices, including conducting CEO roundtables and discussing the latest global management trends. Of the Baldrige Program, the administrator of the Singapore excellence award, Choy Sauw Kook, wrote, “The Baldrige Program has provided us with a benchmark in terms of the development and enhancement of our framework, rigour of assessment methodology, assessor development and recognition, as well as best practice learnings. Within the [GEM] Council, the Baldrige Program is seen as the leading excellence programme, and SPRING Singapore, like other GEM Council members, has always looked to Baldrige for the way forward.”

Standards are the world's common language, and in the realm of organizational performance excellence, and the measurement of organizational performance, there are no more impactful standards than the ones found in the Baldrige Criteria for Performance Excellence. These standards have become a common language for every type of organization, touching countries around the globe. They have contributed to the success of industries and subindustries within manufacturing, business, health care, education, and nonprofits. Through this success, they have helped hospitals save lives, educators to improve learning outcomes for children, and businesses to create jobs and be more efficient. In the celebration of the global importance of standards, the Baldrige Criteria rank as *the* gold standard for the measurement and recognition of performance excellence—in other words, the metrology of performance excellence—around the world.

¹ Baldrige Performance Excellence Program, National Institute of Standards and Technology, The Malcolm Baldrige National Quality Improvement Act of 1987, Public Law 100-107, http://www.nist.gov/baldrige/about/improvement_act.cfm.

² Ibid.

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<http://nistbaldrige.blogs.govdelivery.com/2011/09/19/the-verdict-is-in-baldrige-is-about-revenue-and-jobs-part-2/>.

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⁸ Link, Albert N. and Scott, John T., “Economic Evaluation of the Baldrige Performance Excellence Program, December 16, 2011, <http://www.nist.gov/director/planning/upload/report11-2.pdf>.

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³² Baldrige Performance Excellence Program, National Institute of Standards and Technology, “A New Model for Excellence in South Africa,” August 14, 2014, <http://nistbaldrige.blogs.govdelivery.com/2014/08/14/a-new-model-for-excellence-in-south-africa/>.

³³ Baldrige Performance Excellence Program, National Institute of Standards and Technology, “International Award Programs,” <http://www.nist.gov/baldrige/community/international.cfm>.