

## **CASE STUDY**

# **Malcolm Baldrige National Quality Award Self Assessment**



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# **MALCOLM BALDRIGE NATIONAL QUALITY AWARD SELF ASSESSMENT**

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## **BALDRIGE NATIONAL QUALITY PROGRAM**

More than 30 years ago, noted American quality leader Joseph M. Juran predicted that a focus on quality would help turn Japan into an economic powerhouse. His warning went unheeded by many industrialized nations, including the United States. But his prediction proved true. By the 1980s, many industry and government leaders in the United States saw the handwriting on the wall : “Get quality or lose the race.”

In 1987, jumpstarting a small, slowly growing U.S. quality movement, Congress established the Malcolm Baldrige National Quality Award and the Baldrige National Quality Program to promote quality awareness, to recognize quality achievements of U.S. companies, and to publicize successful strategies.

Now considered America’s highest honor for business excellence, the Baldrige award is presented annually to U.S. companies by the President of the United States. Awards may be given in each of three categories: manufacturing, service, and small business. The Commerce Department’s National Institute of Standards and Technology (NIST) was selected by Congress to design and manage the Baldrige award and program because of its long-standing role in helping U.S. companies compete, its world-renowned expertise in quality control and assurance, and its reputation as an impartial third party.

While the award is the centerpiece, the broader Baldrige National Quality Program is helping not only award applicants but many other American business and organizations become more competitive and higher performers. “The Malcolm Baldrige National Quality Award is playing a vital role in helping the United States gain the edge in a fiercely competitive global marketplace,” said Secretary of Commerce William Daley.

Now, other countries, including Japan, are emulating this American program. In a recent letter to Secretary Daley, the chairman of the newly established Japan Quality Award committee said, “As the Malcolm Baldrige National Quality Award celebrates its first decade, the major contribution that it is making to United States business practices and to the continued vitality and growth of the economy is becoming increasingly clear. The 31 companies recognized with awards provide models of leadership ... both in the United States and overseas.”

But, the competitive race is never ending. More companies worldwide are beginning to understand that quality and performance excellence in all they do is a powerful competitive advantage. To attain and retain market leadership in the next century, U.S. companies will have to even more flexible and creative, with a long-range view of the future and improvement always in their sights.

The Baldrige program at NIST is well-positioned to act as a focal point and education resource to help American businesses and other organizations respond quickly and effectively to the challenges of the 21<sup>st</sup> century.

## **MORE THAN A CONTEST – MORE THAN “TQM”**

The Baldrige program is not the latest management “flavor of the month”; nor is it a fad. Celebrating its 10<sup>th</sup> year, the Baldrige National Quality Program and the award’s performance excellence criteria are recognized worldwide as a powerful way to help any organization improve performance across the board.

In particular, the Baldrige criteria for performance excellence have played a valuable role in helping U.S. organizations improve. Gardon Black, chairman and chief executive officer of Harris/Black International Ltd., recently said the publication containing the Baldrige criteria is “probably the single most influential document in the modern history of American business.”

Seven broad categories make up the criteria: leadership, strategic planning, customer and market focus, information and analysis, human resource focus, process management, and business results. Now accepted both in the United States and abroad as the standard for improving performance, the Baldrige criteria provide a clearly marked path toward excellence that any organization can follow. “The criteria are designed to help companies improve their performance and enhance their competitiveness by focusing on two goals: delivering ever improving value to customers and improving overall organizational performance, “ said Harry Hertz, director of the Baldrige National Quality Program at NIST.

They are used by thousands of organizations of all kinds for self-assessment and training and as a tool to develop performance and business processes. More than 1.7 million copies have been distributed since the first edition in 1988, and wide-scale reproduction by companies and electronic access add to that number significantly. A report, *Building on Baldrige: American Quality for the 21st Century*, by the private-sector Council on Competitiveness, said, “More than any other program, the Baldrige Quality Award is responsible for making quality a national priority and disseminating best practices across the United States.”

Whether they intend to apply or not, many companies assessing their performance against the Baldrige criteria are improving their competitive advantage, productivity, and customer and employee satisfaction and are achieving stronger financial performance and overall business results.

Since a team of outside experts reviews all applications for the award, going through this process brings even greater benefits than self-assessment using the award criteria. To apply, companies must submit details of company processes, business results, achievements, and improvements in answer to questions in the criteria. (Since many applications contain proprietary information, applications are kept confidential.) While there is a fee for large firms and for small companies (under 500 employees), many businesses think the price of applying is well worth the money. All applicants receive 300 to 1,000 hours of review and a detailed feedback report on the company's strengths and opportunities for improvement from business and quality experts on the award's mostly private-sector Board of Examiners.

"The application and review process for the award is the best, most cost-effective, and comprehensive business health audit you can get," said Arnold Weimerskirch, former chair, Baldrige award Panel of Judges, and vice president of quality, Honeywell, Inc.

Just as the Baldrige program urges organizations constantly to improve, the criteria and the program are reviewed annually with that same goal in mind. A wide range of stakeholders - the private-sector award examiners: the business community, including business school leaders: companies that have applied for the award: and members of leading trade and professional associations - provide advice on improvements. As a result, NIST has revised and streamlined the criteria to focus more sharply on overall performance excellence and a full composite of business results as integral parts of today's management practice.

## **ACHIEVING THE GOAL**

"The Baldrige public/private partnership has accomplished more than any other program in revitalizing the American economy," said Barry Rogstad, president of the American Business Conference and chairman of the Board of Overseers for the Baldrige program, at a congressional hearing in March 1998.

The annual federal investment of about \$3 million to help NIST manage the program is leveraged by over \$100 million of private-sector contributions, including more than \$10 million raised by private industry to help launch and maintain the program and the time and effort volunteered by thousands, largely from the private sector. The 1999 appropriation for the Baldrige National Quality Program is \$4.9 million, which includes \$1.8 million for new award categories for education and health care.

The cooperative nature of this joint private-sector/government effort is perhaps best captured by the Baldrige program's Board of Examiners. Each year, approximately 300 experts from industry, non-profit organizations, and governments at all levels, volunteer thousands of hours reviewing applications for the award, conducting site visits, and providing each applicant with an extensive feedback report citing strengths and opportunities to improve. In addition, board members give thousands of presentations on quality improvement, performance excellence, and the Baldrige program. "There is prestige and pride associated with being a Baldrige examiner. You

gain external recognition and validation while contributing to a national program that seeks to improve U.S. competitiveness in all sectors,” said Roberto Saco, regional quality officer, American Express TRS Company, and a Baldrige award senior examiner.

The 31 award-winning companies (including one that has won twice) also have taken seriously their charge to be performance improvement advocates, sharing their strategies and serving as role models to thousands of companies and organizations throughout the country and around the world. Their efforts to educate and inform other companies and organizations on the benefits of using the Baldrige performance excellence framework and criteria have far exceeded expectations. To date, the award recipients have given approximately 30,000 presentations, reaching thousand of organizations.

Other private-sector groups that are instrumental to the success of the Baldrige program include the Foundation for the Malcolm Baldrige National Quality Award, a non-profit organization of U.S. companies that raised \$10.4 million to endow the award permanently, and the Board of Overseers, a private-sector board that reviews the progress of the program and reports its findings and recommendations to the Secretary of Commerce and the director of NIST. Also, the American Society for Quality, a professional, non-profit association, assists NIST with administering the application review process, preparation of publications, and information transfer.

The award recipients have proven that any U.S. business, large or small, service or manufacturing, in any sector of the economy, can use the performance excellence principles embodied in the Baldrige criteria to improve the way it does business. While the Baldrige improvement process cannot guarantee success, it can lead to outstanding returns, both for individual companies and the country.

Studies by NIST, universities, and government and business organizations have found that incorporating the Baldrige performance excellence concepts pays off in increased productivity, satisfied employees and customers, and improved profitability – both for the companies and investors. “We didn’t apply the [Baldrige] concepts ... to win an award. We did it to win customers. We did it to grow. We did it to prosper,” says Earnest Deavenport, chairman and CEO, Eastman Chemical Company (1993 Baldrige award recipient).

For the fourth year in a row, the hypothetical “Baldrige Index” has outperformed the Standard & Poor’s 500 by almost 2.5-to-1. The “Baldrige Index” is made up of publicly traded U.S. companies that have received the Baldrige award.

In a recent study of 600 quality award-winning firms (Baldrige winners, state award winners, and others) and a control group, professors Vinod Singhal of the Georgia Institute of Technology and Kevin Hendricks of the College of William and Mary found that the award-winning companies significantly outperformed the control group in many aspects of their businesses, including the value of their common stock, operating income, sales, return on sales, and asset growth.

## **BALDRIGE AROUND THE COUNTRY AND AROUND THE WORLD**

Working with state and local governments and business groups, NIST has helped build the nodes of a network to spread the Baldrige award philosophy throughout the United States. In 1991, fewer than 10 state and local quality awards existed. Now, 44 states have award programs, and most are modeled closely after the Baldrige award. For many companies, especially small firms, these award programs provide education and encouragement, helping them to better understand the concepts of performance excellence before they consider applying for the national Baldrige award. In 1991, state programs collectively received about 110 applications. In 1997, that number climbed 1,000. In the past two years, seven of eight recipients of the Baldrige award have won at the state level.

In becoming a model for programs in the United States and around the world, the Baldrige program has helped put this country at the forefront of global leadership in quality and is helping U.S. companies gain and sustain a competitive edge internationally. More than 40 international quality award programs have been established, most within the past several years. Most resemble the Baldrige program, including one launched by Japan in 1996. Several U.S. companies with overseas operations have won quality awards in Europe, Singapore, Australia, and elsewhere around the world.

## **BALDRIGE BEYOND BUSINESS**

Leaders in other sectors vital to the U.S. economy, especially education and health care, increasingly are realizing that they too must adopt the same tough performance excellence standards as business. "The Malcolm Baldrige National Quality Award has stimulated continuous improvement and breakthrough performance in many organizations. The award criteria provide a well-tested approach to help achieve higher levels of excellence. Health care organizations could benefit from applying its rigorous criteria in their efforts to improve quality, lower costs, and better serve patients," says Robert R. Waller, president and CEO, Mayo Foundation, and a member of the Board of Directors of the Malcolm Baldrige National Quality Award Foundation.

Many organizations, including the Presidential Advisory Commission on Consumer Protection and Quality in the Health Care Industry and the National Commission on the Cost of Higher Education, have recommended that Baldrige award categories be established to include all educational and health care organizations. The state of New Jersey in 1998 passed a law allowing the Baldrige criteria to be used as an alternative to the state's compliance-oriented monitoring requirements.

With the October 1998 passage of Legislation, NIST will establish and manage Baldrige awards for performance excellence for education organizations and health care providers. These organizations will be eligible to apply for the Baldrige award in 1999.

"I am delighted that education and health care organizations now will be full partners in the Baldrige National Quality Program, including applying to receive the Baldrige award

and sharing best practices with schools and health care providers around the country,” said Commerce Secretary Daley in announcing the new award categories.

In May 1997, the foundation began a \$15 million fund drive to raise an endowment to help NIST establish and manage an award program for these two sectors.

## **BETTER LINKS TO SMALL BUSINESS**

While the Baldrige program has proven that any U.S. company can improve its business performance by investing in the Baldrige performance excellence approach, NIST is putting a special emphasis on strengthening awareness of the Baldrige program and criteria among smaller businesses. As demonstrated by Baldrige award small business winners, these companies can reap great benefits by implementing the Baldrige framework. In recent years, the program has made progress in reaching these smaller companies, but the sheer number demands a greater effort.

One promising way to tap into the nation’s small and mid-sized companies is through the Manufacturing Extension Partnership, another NIST-managed program. NIST’s MEP is a nationwide network of centers providing services to smaller manufacturers in all 50 states and Puerto Rico. Through MEP, manufacturers have access to more than 2,000 manufacturing and business “coaches” whose job is to help firms make changes that lead to greater productivity, increased profits, and enhanced global competitiveness. In surveys of MEP clients, quality management and improvement are among the most requested areas for assistance.

A variety of steps are being taken to reach these smaller firms. A Baldrige expert is working with directors of the locally managed MEP centers to inform and educate them about the benefits for smaller manufacturers. Also, MEP centers are using a Baldrige-based system to evaluate their operations, and several MEP field engineers are members of the award’s Board of Examiners. NIST also is partnering with groups such as the Association of Small Business Development Centers to reach the nation’s smaller businesses.

## **THE FUTURE**

In large part because of the Baldrige National Quality Program, a common language for performance improvement and a basis for sharing successes and techniques now exist. New networks are being created, many at the state and local levels, to help stimulate interest, and new links are being formed among numerous and diverse organizations.

Yet much remains to be done. During the next decade, NIST and its private-sector Baldrige partners will be working to transform this proven program into a broader effort, spreading its performance excellence tools and discipline throughout many sectors of the economy. The Baldrige program may well be the best leveraged effort in the entire federal government. Extending its capabilities would have enormous positive results for the nation’s economy, competitiveness, and quality of life.

## **1988 – 1997 Baldrige Award Recipients**

3M Dental Products Division – 1997

ADAC Laboratories – 1996

Ames Rubber Corporation – 1993

Armstrong World Industries, Inc.,  
Building Products Operations – 1995

AT&T Consumer  
Communications Services – 1994

AT&T Network Systems Group  
Transmission Systems  
Business Unit – 1992

AT&T Universal Card Services – 1992

Cadillac Motor Car Company – 1990

Corning Incorporated  
Telecommunications  
Products Division – 1995

Custom Research, Inc., - 1996

Dana Commercial Credit  
Corporation – 1996

Eastman Chemical Company – 1993

Federal Express Corporation – 1990

Globe Metallurgical, Inc. – 1988

Granite Rock Company – 1992

GTE Directories Corporation – 1994

IBM Rochester – 1990

Marlow Industries, Inc. – 1991  
Merrill Lynch Credit Corporation – 1997

Milliken & Company – 1989

Motorola, Inc., - 1988

Solectron Corporation – 1997 & 1991

Texas Instruments Incorporated  
Defense Systems & Electronics  
Group – 1992

The Ritz-Carlton Hotel Company – 1992

Trident Precision Manufacturing,  
Inc.- 1996

Wainwright Industries, Inc. – 1994

Wallace Company, Inc. – 1990

Westinghouse Electric Corporation  
Commercial Nuclear Fuel Division-1988

Xerox Business Services – 1997

Xerox Corporation  
Business Products & Systems – 1989

Zytec Corporation – 1991

## 1999 Criteria For Performance Excellence –Item Listing

1999 Categories/Items	Point	Values
<b>1. Leadership</b>		<b>125</b>
1.1 Organizational Leadership	85	
1.2 Public Responsibility and Citizenship	40	
<b>2. Strategic Planning</b>		<b>85</b>
2.1 Strategy Development	40	
2.2 Strategy Deployment	45	
<b>3. Customer and Market Focus</b>		<b>85</b>
3.1 Customer and Market Knowledge	40	
3.2 Customer Satisfaction & Relationship	45	
<b>4. Information and Analysis</b>		<b>85</b>
4.1 Measurement of Organizational Performance	40	
4.2 Analysis of Organizational Performance	45	
<b>5. Human Resource Focus</b>		<b>85</b>
5.1 Work Systems	35	
5.2 Employee Education, Training and Development	25	
5.3 Employee well-being and Satisfaction	25	
<b>6. Process management</b>		<b>85</b>
6.1 Product and Service Processes	55	
6.2 Support Processes	15	
6.3 Supplier and Partnering Processes	15	
<b>7. Business Results</b>		<b>450</b>
7.1 Customer Focused Results	115	
7.2 Financial and Market Results	115	
7.3 Human Resource Results	80	
7.4 Supplier and Partner Results	25	
7.5 Organizational Effectiveness Results	115	
<b>TOTAL POINTS</b>		<b>1000</b>

**NOTE: The Scoring System used with the Criteria items in a Baldrige assessment can be found in the Scoring System and Scoring Guidielines sections.**

## SCORING SYSTEM

The scoring of responses to Criteria Items (Items) and Award applicant feedback are based on three evaluation dimensions: (1) Approach; (2) Deployment; and (3) Results. Criteria users need to furnish information relating to these dimensions. Specific factors for these dimensions are described below. Scoring Guidelines are given in the Scoring Guidelines section.

### Approach

“Approach” refers to how you address the Item requirements – the *method(s)* used. The factors used to evaluate approaches include:

- Appropriateness of the methods to the requirements
- Effectiveness of use of the methods. Degree to which the approach:
  - is systematic, integrated, and consistently applied
  - embodies evaluation/improvement/learning cycles
  - is based on reliable information and data
- alignment with organizational needs
- evidence of innovation

### Deployment

“Deployment” refers to the *extent* to which your approach is applied to all requirements of the Item. The factors used to evaluate deployment include:

- use of the approach in addressing Item requirements relevant to your organization
- use of the approach by all appropriate work units

### Results

“Results” refer to *outcomes* in achieving the purposes given in the Item. The factors used to evaluate results include:

- current performance
- performance relative to appropriate comparisons and/or benchmarks
- rate, breadth, and importance of performance improvements
- linkage of results measures to key customer, market, process, and action plan performance requirements identified in the Business Overview and in Approach/Deployment Items.

## Item Classification and Scoring Dimensions

Items are classified according to the kinds of information and/or data you are expected to furnish relative to the three evaluation dimensions.

The two types of Items and their designations are:

1. Approach/Deployment
2. Results

Approach and Deployment are linked to emphasize that descriptions of Approach should always indicate the Deployment – consistent with the *specific requirements* of the Item. Although Approach and Deployment dimensions are linked, feedback to Award applicants reflects strengths and/or opportunities for improvement in either or both dimensions.

Results Items call for data showing performance levels and trends on key measures and/or indicators of organizational performance. However, the evaluation factor, “breadth” of performance improvements, is concerned with how widespread your improvement results are. This is directly related to the Deployment dimension. That is, if improvement processes are widely deployed, there should be corresponding results. A score for a Results Item is thus a weighted composite based upon overall performance, taking into account the breadth of improvements and their importance. (See next section.)

### “Importance” as a Scoring Factor

The three evaluation dimensions described previously are critical to evaluation and feedback. However, evaluation and feedback also must consider the importance of your reported Approach, Deployment, and Results to your key business factors. The areas of greatest importance should be identified in the Business Overview and in Items such as 2.1, 2.2, 3.1, 6.1 and 7.5. Your key customer requirements and key strategic objectives and action plans are particularly important.

### Assignment of Scores to your Responses

Baldrige Award Examiners observe the following guidelines in assigning scores to applicants’ responses:

- All Areas to Address should be included in the Item response. Also, responses should reflect what is important to the organization:
- In assigning a score to an Item, an Examiner first decides which scoring range (e.g. 50% to 60%) best fits the overall Item response. Overall “best fit” does not require

total agreement with each of the statements for that scoring range. Actual score *within* the range depends upon an Examiner's judgement of the closeness of the Item response in relation to the statements in the next higher and next lower scoring ranges.

- An Approach/Deployment Item score of 50% represents an approach that meets the *basic* objectives of the Item and that is deployed to the principal activities and work units covered in the Item. Higher scores reflect maturity (cycles of improvement), integration, and broader deployment: and
- A Results Item score of 50% represents a clear indication of improvement trends and/or good levels of performance in the principal results areas covered in the Item. Higher scores reflect better improvement rates and/or levels of performance, and better comparative performance as well as broader coverage.

## SCORING GUIDELINES

SCORE	APPROACH / DEPLOYMENT
0%	<ul style="list-style-type: none"> <li>• no systematic approach evident, anecdotal information</li> </ul>
10% TO 20%	<ul style="list-style-type: none"> <li>• beginning of a systematic approach to the basic purposes of the Item</li> <li>• early stages of a transition from reacting to problems to a general improvement orientation</li> </ul>
30% TO 40%	<ul style="list-style-type: none"> <li>• a sound, systematic approach, responsive to the basic purposes of the Item</li> <li>• approach is deployed, although some areas or work units are in early stages of deployment</li> <li>• beginning of a systematic approach to evaluation and improvement of basic Item processes</li> </ul>
50% TO 60%	<ul style="list-style-type: none"> <li>• a sound, systematic approach, responsive to the overall purposes of the Item</li> <li>• approach is well-deployed, although deployment may vary in some areas or work units</li> <li>• a fact-based, systematic evaluation and improvement process is in place for basic Item processes</li> <li>• approach is aligned with basic organizational needs identified in the other Criteria Categories</li> </ul>
70% TO 80%	<ul style="list-style-type: none"> <li>• a sound, systematic approach, responsive to the multiple requirements of the Item</li> <li>• approach is well-deployed, with no significant gaps</li> <li>• a fact-based, systematic evaluation and improvement process and organizational learning/sharing are key management tools; clear evidence of refinement and improved integration as a result of organizational-level analysis and sharing</li> <li>• approach is well-integrated with organizational needs identified in the other Criteria Categories</li> </ul>
90% TO 100%	<ul style="list-style-type: none"> <li>• a sound, systematic approach, fully responsive to all the requirements of the Item</li> <li>• approach is fully deployed without significant weaknesses or gaps in any areas or work units.</li> <li>• a very strong, fact-based, systematic evaluation and improvement process and extensive organizational learning/sharing are key management tools; strong refinement and integration, backed by excellent organizational-level analysis and sharing</li> <li>• approach is fully integrated with organizational needs identified in the other Criteria Categories.</li> </ul>

<b>SCORE</b>	<b>RESULTS</b>
0%	<ul style="list-style-type: none"> <li>• no results or poor results in areas reported</li> </ul>
10% TO 20%	<ul style="list-style-type: none"> <li>• some improvements <i>and/or</i> early good performance levels in a few areas</li> <li>• results not reported for many to most areas of importance to the organization's key business requirements</li> </ul>
30% TO 40%	<ul style="list-style-type: none"> <li>• improvements <i>and/or</i> good performance levels in many areas of importance to the Organization's key business requirements</li> <li>• early stages of developing trends and obtaining comparative information</li> <li>• results reported for many to most areas of importance to the organization's key business requirements</li> </ul>
50% TO 60%	<ul style="list-style-type: none"> <li>• improvement trends <i>and/or</i> good performance levels reported for most areas of importance to the organization's key business requirements</li> <li>• no pattern of adverse trends and no poor performance levels in areas of importance to the organization's key business requirements</li> <li>• some trends <i>and/or</i> current performance levels – evaluated against relevant comparisons <i>and/or</i> benchmarks – show areas of strength <i>and/or</i> good to very good relative performance levels</li> <li>• business results address most key customer, market, and process requirements</li> </ul>
70% TO 80%	<ul style="list-style-type: none"> <li>• current performance is good to excellent in areas of importance to the organization's key business requirements</li> <li>• most improvement trends <i>and/or</i> current performance levels are sustained</li> <li>• many to most trends <i>and/or</i> current performance levels – evaluated against relevant comparisons <i>and/or</i> benchmarks – show areas of leadership and very good relative performance levels</li> <li>• business results address most key customer, market, process, and action plan requirements</li> </ul>
90% TO 100%	<ul style="list-style-type: none"> <li>• current performance is excellent in most areas of importance to the organization's key business requirements</li> <li>• excellent improvement trends <i>and/or</i> sustained excellent performance levels in most areas</li> <li>• evidence of industry and benchmark leadership demonstrated in many areas</li> <li>• business results fully address key customer, market, process, and action plan requirements</li> </ul>