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TCRP Report 8

The Quality Journey: A TQM Roadmap for Public Transportation

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Report 8

The Quality Journey: A TQM Roadmap for Public Transportation

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TRANSIT COOPERATIVE RESEARCH PROGRAM

The nation's growth and the need to meet mobility, environmental, and energy objectives place demands on public transit systems. Current systems, some of which are old and in need of upgrading, must expand service area, increase service frequency, and improve efficiency to serve these demands. Research is necessary to solve operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the transit industry. The Transit Cooperative Research Program (TCRP) serves as one of the principal means by which the transit industry can develop innovative near-term solutions to meet demands placed on it.

The need for TCRP was originally identified in *TRB Special Report 213—Research for Public Transit: New Directions*, published in 1987 and based on a study sponsored by the Urban Mass Transportation Administration—now the Federal Transit Administration (FTA). A report by the American Public Transit Association (APTA), *Transportation 2000*, also recognized the need for local, problem-solving research. TCRP, modeled after the longstanding and successful National Cooperative Highway Research Program, undertakes research and other technical activities in response to the needs of transit service providers. The scope of TCRP includes a variety of transit research fields including planning, service configuration, equipment, facilities, operations, human resources, maintenance, policy, and administrative practices.

TCRP was established under FTA sponsorship in July 1992. Proposed by the U.S. Department of Transportation, TCRP was authorized as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). On May 13, 1992, a memorandum agreement outlining TCRP operating procedures was executed by the three cooperating organizations: FTA, the National Academy of Sciences, acting through the Transportation Research Board (TRB), and the Transit Development Corporation, Inc. (TDC), a nonprofit educational and research organization established by APTA. TDC is responsible for forming the independent governing board, designated as the TCRP Oversight and Project Selection (TOPS) Committee.

Research problem statements for TCRP are solicited periodically but may be submitted to TRB by anyone at any time. It is the responsibility of the TOPS Committee to formulate the research program by identifying the highest priority projects. As part of the evaluation, the TOPS Committee defines funding levels and expected products.

Once selected, each project is assigned to an expert panel, appointed by the Transportation Research Board. The panels prepare project statements (requests for proposals), select contractors, and provide technical guidance and counsel throughout the life of the project. The process for developing research problem statements and selecting research agencies has been used by TRB in managing cooperative research programs since 1962. As in other TRB activities, TCRP project panels serve voluntarily without compensation.

Because research cannot have the desired impact if products fail to reach the intended audience, special emphasis is placed on disseminating TCRP results to the intended endusers of the research: transit agencies, service providers, and suppliers. TRB provides a series of research reports, syntheses of transit practice, and other supporting material developed by TCRP research. APTA will arrange for workshops, training aids, field visits, and other activities to ensure that results are implemented by urban and rural transit industry practitioners.

The TCRP provides a forum where transit agencies can cooperatively address common operational problems. The TCRP results support and complement other ongoing transit research and training programs.

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The members of the technical advisory panel selected to monitor this project and to review this report were chosen for recognized scholarly competence and with due consideration for the balance of disciplines appropriate to the project. The opinions and conclusions expressed or implied are those of the research agency that performed the research, and while they have been accepted as appropriate by the technical panel, they are not necessarily those of the Transportation Research Board, the Transit Development Corporation, the National Research Council, or the Federal Transit Administration of the U.S. Department of Transportation.

Each report is reviewed and accepted for publication by the technical panel according to procedures established and monitored by the Transportation Research Board Executive Committee and the Governing Board of the National Research Council.

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FOREWORD

By Staff Transportation Research Board The Quality Journey: A TQM Roadmap for Public Transportation is a guidebook that describes how to implement Total Quality Management (TQM) in a transit agency. The guidebook highlights significant aspects of TQM, relates TQM to public transit, and provides suggested references and a glossary on the subject. This guidebook distills the findings of the research project into "how to" tips and examples that focus on the three phases of TQM implementation: the foundation phase, the momentum phase, and the commitment phase. This guidebook will be of interest to managers, labor leaders, and members of governing boards who have an interest in applying the principles of TQM to public transportation.

The intent of this research was to identify, evaluate, and recommend applications of potentially successful methods of implementing TQM in public transportation to increase ridership through improved customer satisfaction, to increase productivity, and to reduce cost. The research was undertaken because there was no significant and systematic effort within the transit industry to evaluate applications of TQM, to disseminate information regarding successful strategies, and to develop a body of practical resources specifically designed for transit.

Under TCRP Project F-3, MacDorman & Associates, Inc. thoroughly researched the TQM literature, and provided summaries of the essential principles of TQM, including the basic tenets of TQM as developed by proponents such as W. Edwards Deming, Joseph Juran, Kaoru Ishikawa, Armand Feigenbaum, and Philip Crosby. It contains details of four pilot TQM initiatives that were supported and observed during the project, the findings of a survey of transportation industry chief executive officers, and the findings of a survey of transit agencies that have undertaken quality initiatives and efforts. Case studies of Baldrige Award winners outside of the public transit field are provided, as well as case studies of TQM efforts in the transit industry: Madison, Wisconsin, METRO; Montgomery County, Maryland, Ride-On; and Port Authority of Allegheny County, Pennsylvania.

Over the course of a year, the research team worked with four transit agencies that had begun TQM initiatives of some type and expressed an interest in participating in this TCRP project: Chicago Transit Authority, Pee Dee Regional Transportation Authority, Southwest Ohio Regional Transit Authority, and Spokane Transit Authority. The four agencies were selected by the project panel from 30 transit agencies that expressed interest and satisfied the selection criteria. These sites represent transit agencies of various sizes in different regions of the United States. The research team provided technical assistance and guidance in how to avoid pitfalls that had sidetracked earlier TQM efforts elsewhere, and then conducted before and after employee surveys and management interviews to determine if TQM was having a positive effect. Although one year is not enough time to dramatically change an organization, there is no question that positive changes occurred at the pilot transit agencies, particularly in improved labormanagement communication.

and the feeling that employees can have an effect on their work environment and on the quality of transit service that their agency delivers.

The TQM guidebook is supplemented by an unpublished agency report prepared under the project entitled, *Total Quality Management in Public Transportation*. A video entitled, *Four Views from the Road: Public Transportation's Quality Journey*, was also prepared. The video features drivers, mechanics, managers, and labor representatives describing the positive changes in their transit organizations as a result of applying TQM principles. A pocket-sized brochure is available entitled, *The Quality Journey: An Overview of TQM in Public Transportation*. The brochure features quotations from some of the same people featured in the video. A limited number of final reports and brochures are available on a loan basis from TCRP. The video is available from the American Public Transit Association. Inquiries regarding the video should be addressed to:

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PREFACE

As we near the end of the 20th century, many of our traditional business practices seem increasingly less effective. They haven't kept pace with changing demographic patterns and employee expectations, shifting societal demands, increasing competition coupled with increasing fiscal constraints, and the need to adopt new technologies. To meet these broad challenges, growing numbers of American businesses have adopted the principles of Total Quality Management (TQM) to improve the responsiveness of their products and services. For many, following these principles resulted in changes to the core of the business that, in turn, increased customer and employee satisfaction, reduced costs, and improved productivity.

The transit industry faces many of the same challenges as other 20th-century businesses. The principles of TQM appear to hold promise as a way to improve transit service, increase ridership, and fulfill the transit industry's broad social mission. However, only a few agencies have introduced innovative TQM-based practices. There is no significant and systematic effort within the industry to evaluate applications of TQM, to disseminate information regarding successful strategies, and to develop a body of practical resources specifically designed for transit. Transit agencies need guidance on and methods for implementing TQM in the public transportation environment.

Research Background

This document was prepared under Transit Cooperative Research Program (TCRP) Project F-3, "Total Quality Management in Public Transportation." The objectives of the project were to identify, evaluate, and recommend applications of potentially successful methods of implementing TQM in public transportation. We particularly looked for methods that held promise for increasing ridership, improving customer satisfaction, increasing productivity, and reducing costs.

To meet these objectives, the project (1) identified the essential TQM principles, concepts, and values in the context of the transit industry; (2) reviewed relevant TQM applications and practices from inside and outside the transit industry; (3) designed, implemented, and evaluated the initiation of the TQM process at four transit system's sites; (4) reported on the effectiveness of all identified practices and processes; and (5) recommended follow-up activities. All project activities are reported in the Final Research Report.

Pilot Transit Systems

Four transit systems participated in TQM as pilot sites:

- Chicago Transit Authority (CTA)—one of the largest rail and bus transit systems in the United States.
- Pee Dee Regional Transportation Authority (PDRTA)—a multicounty, mostly rural, southeastern U.S. system, which largely provides paratransit services.

- Southwest Ohio Regional Transit Authority (SORTA)—a mid- to large-sized bus service in the midwest.
- Spokane Transit Authority (STA)—a mid-sized, West Coast bus and paratransit system.

The four shared an interest in TQM but were at different stages in its implementation, ranging from no prior involvement to about 2 years of experimentation with employee participation and other TQM principles.

Sources of TQM Information

This guidebook cites numerous sources of information that will be vital in learning more about TQM. In addition to this guidebook, other products produced by this TCRP project include:

- Four Views from the Road: Public Transportation's Quality Journey a (23-minute video of TQM described by transit's people).
- "Total Quality Management in Public Transportation," Final Research Report, Project F-3, July 20, 1995 (an unpublished report of all project research findings and results).
- The Quality Journey: An Overview of TQM in Public Transportation (a pocket-sized brochure).
- "Total Quality Management in Public Transportation," TCRP Research Results Digest 3, October 1994 (an abbreviated report of Phase I research findings and results).

See Foreword for information on obtaining these products.

HOW TO USE THIS GUIDEBOOK

This guidebook can be used like a roadmap to help a transit organization plan its quality journey. It provides a high-level picture of the terrain, a few specific examples from the four pilot transit systems, a variety of tips, and additional resources keyed to stages of the journey. Remember, this view of the terrain is from 30,000 feet above the ground. It will help keep you oriented in the right direction, but you'll need more support from the suggested resources to complete various activities. We've included examples to inspire your creativity. They are not prescriptions, nor are they the only way to approach these applications. Ultimately, each organization chooses its own path to Total Quality Management (TQM).

We recommend that you first read, or at least skim, the entire guidebook to gain an overall perspective of the TQM journey. Then do a more focused reading of the phase that's most relevant to your organization. For most transit organizations, that will be the Foundation Phase. As your work progresses, review the guidebook periodically to find the most relevant examples, tips, and resources. Share it with others in your organization as they embark on various TQM activities. Each of the chapters is briefly described below.

Chapter 1—An Introduction to Total Quality Management (TQM). This chapter outlines the guiding principles that underlie the specific practices in TQM. It also provides an overview of the three progressive but overlapping phases that characterize most quality journeys.

Chapters 2, 3, and 4 are your roadmap. Each presents one of the three phases as well as its supporting activities. Each phase builds capabilities and knowledge, within your organization, that will be called on in the following phases. Skipping immediately to the Committment Phase may set your organization up for failure. We recommend that you follow these phases in their broad outlines. Feel free, however, to experiment with actions from later phases in earlier ones, if those actions seem to fit your needs.

Chapter 2—Foundation Phase. The key to this phase is bringing senior management and labor together to learn about TQM and to jointly set a course of action. This solid

base of cooperation establishes momentum for TQM. Without it, an organization will flounder

Chapter 3—Momentum Phase. Through the activities in this phase, your organization will create living, concrete, and specific examples of the generic TQM values of customer focus, employee involvement, continuous improvement, and leadership. Through these examples, the people in your organization will begin to understand TQM and believe that it can work for them. These beliefs build cultural momentum and that will help ensure the support for TQM that is a prerequisite for a successful Commitment Phase.

Chapter 4—Commitment Phase. Activities in this phase help change an organization's formal structures, systems, and accountabilities. For example, an organization might change the way it maintains vehicles by implementing self-managed teams of mechanics responsible for a particular set of vehicles. Activities in this phase will provide the greatest payoff for an organization in terms of increased ridership, improved productivity, and reduced costs. These activities will also help ensure ongoing organizational improvement. Remember, however, that these changes are potentially deep and broad in their reach. To make them successful, an organization needs a strong base of labor-management cooperation and cultural momentum built in the earlier two phases.

Chapter 5—Leadership: The TQM Driver. This chapter outlines key leadership responsibilities for each phase and discusses leadership development.

Appendix A—Quality Resources. This section provides a listing of suggested books and other resources to assist with your quality journey. Recommended books keyed to specific roadmap actions also appear at the end of each activity description.

Appendix B—Quality Glossary. This section will help you understand some of the terms used in the roadmap.

Good luck on your journey.

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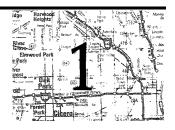
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Carol Solomon was the golden pen that made ideas in the original draft come to life as well as made this text understandable. Michael Oates documented many of the excellent quotes used in this guidebook while producing the video Four Views from the Road: Public Transportation's Quality Journey. Sharon Ayre was the creative force behind the final presentation of this document. Eileen Delaney and her staff spent many diligent hours ensuring the guidebook's final quality met their high standards.

Most of all, thanks to the many people of the Chicago Transit Authority, the Pee Dee Regional Transportation Authority, the Southwest Ohio Regional Transit Authority, and the Spokane Transit Authority for their involvement in this project, the excellent examples they contributed to this guidebook, and the leadership they demonstrated throughout their quality journey to date. Special thanks to Nancy Core-Edwards, Sallie Hilvers, William Johnson, Denise Marchioro, and Thomas Reynolds for their energy and devotion in fulfilling the critical and creative quality facilitator role at their respective transit agencies.

John MacDorman for the Contractor Team William Fleming Keyle Kuvalanka Littleton "Mac" MacDorman (Principal Investigator)



AN INTRODUCTION TO TOTAL QUALITY MANAGEMENT (TQM)

"There is no instant pudding"

— W. Edwards Deming

"It requires a lot of work along the way"

George Kettenton, President,
 ATU Local 1015 & Coach Operator, STA

WHAT IS TQM?

TQM stands for Total Quality Management, one of many approaches designed to reform American business and commerce. You may have heard or used terms like Visioning, Shared Interests, Reengineering, or Reinventing. These approaches and activities are also part of this broad reform movement. Today, change is sweeping through American business and commerce and — yes — even through the public transportation industry! What the change is called is not as important as what the change is about. The TQM change is about how organizations perform work, satisfy customers, get better at what they do, and — perhaps most important of all — how they inspire, reward, and retain the people who make them tick. As you learn about TQM through this guidebook, you'll probably find that many of its components are familiar. What's special about TQM is how it embraces and combines many existing management and organizational philosophies.

TQM is a comprehensive and long-term transformational process. As a result of this process, an organization moves from a traditional, outdated mode of operating to a newer, more progressive way of running the enterprise (see the following table). Along the way, the organization learns how to change, improve, and evolve continuously. It does this by focusing on people first — in particular, on passengers, employees, and people in the community. Systems, procedures, structure, measures, and responsibilities are transformed to support the employee's desire to serve the passenger and the community.

Organizational Characteristics

	OUTMODED CHARACTERISTICS	FUTURE-ORIENTED CHARACTERISTICS			
The Organization Senior Management Role	 Focused on the boss Follow the rules Closed Oriented to organization chart Waiting for orders Rigid Tactical focus 	 Focused on the customer Live the values Open Oriented to processes that create value Taking responsibility Evolving Strategic focus 			
Schol Management Role	 Manage conflict with unions Emphasis on tasks 	 Partner with unions on common interests Emphasis on people and culture 			
Mid-Management and Supervisor Role	 Manage your own department or group Enforce the rules Maintain performance 	 Team-manage the work of groups as processes Coach, mentor, and support Implement improvements 			
Front-Line Associate Role	■ Do what you are told	Manage own workSuggest and make improvements			

TQM PRINCIPLES

"It's an ongoing process...you need to improve and do everything you can to bring about customer satisfaction"

Dianne Todd,
 President of the Drivers' Council and Senior Driver, PDRTA

You can't implement TQM by rigidly following a recipe. Your organization and situation will have unique elements, and you must modify existing approaches or develop new ones to fit your needs. The following seven principles will help you in this:

- Put Customers First. "Putting customers first" is the basis for all quality management. An organization that practices TQM believes that service and product quality should meet, and hopefully exceed, customers' expectations. Each person and every work process in that organization has a clear role under this goal. The success of public transportation depends on attracting and retaining customers to use and support its services.
- Manage and Improve Processes. Within the quality movement, the word "process" refers to how work activities are performed. By improving processes, organizations can raise the quality of their services, products, and delivery. They can also increase productivity, improve operational efficiency, and eliminate waste. Process management involves all activities required to provide a product or service, including support activities such as maintenance, service planning, and training.

- Manage by Fact. An organization that practices TQM relies on facts and data to support its decisions and operations. For example, it may use market research to confirm ideas about customers' expectations. It may document its work processes to set a baseline for improving them. It will measure itself in areas vital to customers, for example, on-time performance. Measurements serve the dual role of 1) helping managers set the direction for operational and strategic planning and 2) providing feedback on how well and how quickly organizational goals and objectives are being achieved.
- Cultivate Organizational Learning. Continuous improvement in customer satisfaction and operational performance requires commitment to learning. Without learning, organizations and their members repeat old behaviors and practices. Solving problems, changing procedures to meet customers' changing needs, understanding the importance of satisfying customers, and designing or reengineering processes all require learning that work can be performed in different, better ways.
- Train, Empower, and Recognize Employees. Employees are a transit system's most important asset. Their value must be protected and enhanced. This means training employees to identify and solve problems that cause customer dissatisfaction, empowering employees to take actions that satisfy customers, and recognizing employees for efforts and contributions that improve performance.
- Improve Labor-Management Teamwork. A continuous and lasting TQM initiative requires the involvement of employees. In organizations with unions and represented employees, this means union officials must be involved in quality policy decision-making. Employee teams must have both represented and non-represented members in order to solve problems and increase customer satisfaction.
- Lead the Change in Organizational Culture. Leadership and organizational culture are critical to the success of TQM. Total Quality Management represents a long-term commitment. It is not a fad or a quick fix but a fundamental change in the workplace. Creating a change of this kind requires leadership at all levels and takes years of sustained effort.

Test your ideas for implementation against these principles. Good ideas will be good reflectors of one or more principles.

TQM PRACTICES: INTRODUCTION TO THE ROADMAP

"The major failing of any quality initiative is passion without system or system without passion, you must have both"

- Tom Peters

Once leaders in a traditional organization are convinced of TQM's principles and desired outcomes, the question becomes, "How do we get started?" The roadmap presented in this guidebook is designed to help organizations get started and continue with the transition to full TQM. In our view, the most successful transitions to full TQM occur in three progressive phases. Each phase builds capabilities and knowledge, within an organization, that will support the following phases. Skipping immediately to the last phase may set an organization up for failure. We recommend that you follow these three phases in their broad outline. Feel free, however, to experiment with actions from later phases in earlier ones, if those actions seem to fit your needs. Ultimately, you will choose your own path of transformation. The following table provides an overview of the phases and associated actions. Use this guidebook and recommended readings for more detail on specific actions.

Getting started with TQM may go more slowly than you might wish. That's not unusual and not a sign that your organization is not "right" for TQM. Remember, a large part of an organization is its behavior patterns or habits. Organizational habits, like personal ones, are difficult to change, especially when everyone is trying just to keep up with the ever-increasing demands of getting things done.

TQM Roadmap Summary

TQM PHASE	PURPOSE	ACTIONS
Foundation	The key to this phase is bringing senior management and labor together to learn about TQM and to jointly set a course of action. This solid base of cooperation establishes momentum for TQM. Without it, an organization will flounder.	 Prepare for TQM Form the leadership team Discuss TQM goals, build awareness, and enlist support Clarify organizational vision, mission, goals, and values Identify customer satisfaction perceptions, priorities, and problems Sponsor and launch improvement projects
Momentum	Through the activities in this phase, your organization will create living examples of the generic TQM values of customer focus, employee involvement, continuous improvement, and leadership. Through these examples, the people in your organization will begin to understand TQM and believe that it can work for them. This creates a cultural momentum.	 Clarify leadership expectations Renew an emphasis on employee training and development Recognize, reward, and celebrate contribution Identify and initiate high-priority improvements Revitalize the "suggestion system" Evaluate and revise policies and practices to eliminate bureaucracy and empower employees Evaluate and improve the quality process
Commitment	Activities in this phase help change the organization's formal structures, systems, and accountabilities. This phase provides the greatest payoff in increased ridership, improved productivity, and reduced costs and also helps ensure ongoing organizational improvement.	 Establish process management Reengineer work processes and job responsibilities Implement supplier management and partnerships Evaluate and improve the measurement system Evaluate and improve the management performance appraisal system Institute a system of "organized abandonment"

As you move into the Foundation Phase, attend to the following do's and don'ts for a good start.

Do's

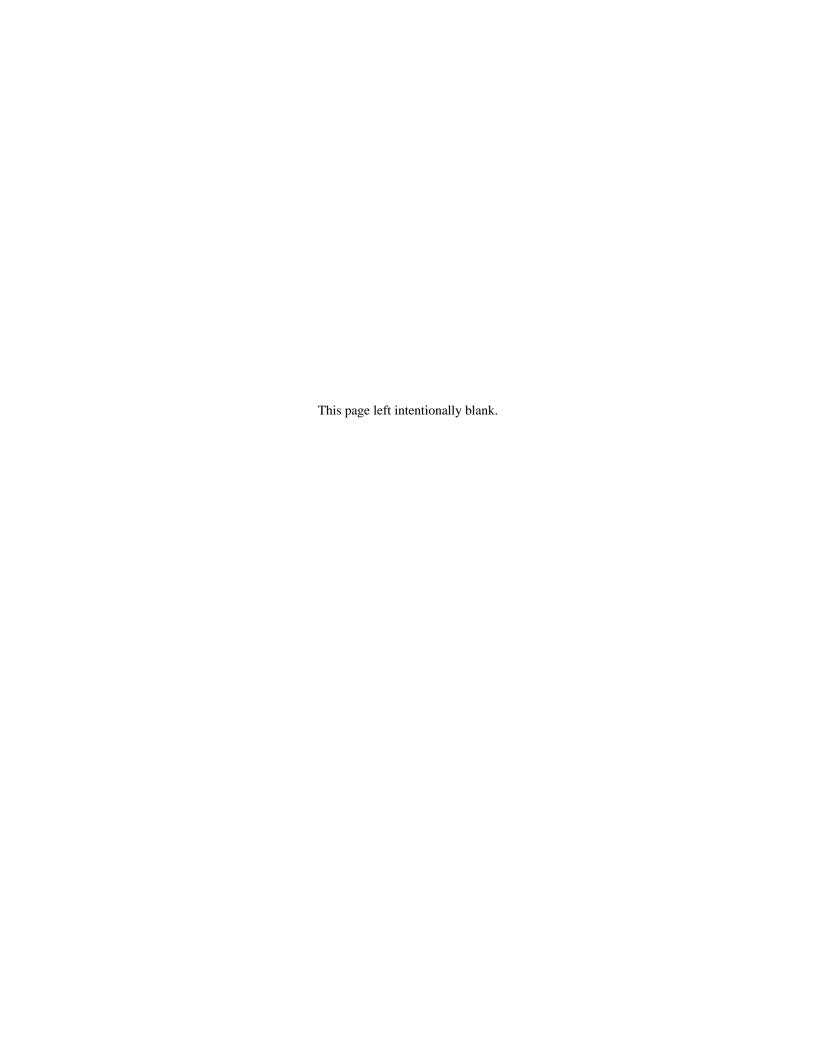
- ✓ Involve union leadership from the beginning.
- ✓ Form a leadership team to provide direction and formulate a TQM action plan.
- Create and staff a quality manager position to ensure the expertise and support you'll need.
- ✓ Enlist support from middle management early.
- ✓ Work with those who want to lead the change.
- ✓ Create examples of success.
- ✓ Be patient as well as persistent.

Don'ts

- * Abdicate leadership responsibility.
- Discuss wages, work hours, or working conditions in quality initiative meetings or deliberations these issues are reserved, by law, for unions and collective bargaining.
- Dwell on internal problems like improving morale or reducing absenteeism instead, DO focus on the customer.
- Promise what TQM can ultimately deliver as if you'll have it next week the TQM process must be capable of delivering on your enthusiasm.
- * Handpick members of Quality Improvement Teams (QITs) DO support open, voluntary employee involvement with public criteria for team participation.
- Get discouraged some quality initiatives will fail DO create an environment of experimentation.

To return to the quote from Tom Peters that opened this chapter, it's up to the leadership to supply the "passion" for quality. The TQM journey will demand your enthusiasm, resolve, and sense of urgency to make progress — in short, your "passion." The TQM process, the roadmap outlined in this guidebook, and your TQM action plan will provide the "system" that channels this energy for positive change.

The following chapters outline the TQM phases and their suggested actions in more detail and include examples provided by TQM pilot studies at the Chicago Transit Authority (CTA), the Southwest Ohio Regional Transit Authority (SORTA), the Pee Dee Regional Transportation Authority (PDRTA), and the Spokane Transit Authority (STA). Use the examples to inspire your creativity. They are not prescriptions, nor are they the only way to approach these applications. When you need more detail on how to do an activity, consult the recommended resources.





FOUNDATION PHASE

"A journey of one thousand miles begins with a single step"

— Lao Tsu

The key to this phase is bringing senior management and labor together to learn about TQM and to set jointly a course of action. This solid base of cooperation establishes momentum for TQM. Without it, an organization will flounder. Each of the activities below, which help build the foundation for TQM, is discussed in more detail in this section:

- Preparing for TQM
- Forming the leadership team
- Discussing TQM goals, building awareness, and enlisting support
- Clarifying organizational vision, mission, goals, and values
- Identifying customer satisfaction perceptions, priorities, and problems
- Sponsoring and launching improvement projects

The first two activities, preparing for TQM and forming the leadership team, should be done before the others. The remaining activities can be done simultaneously or in any order that suits your organization.

PREPARE FOR TQM

Before convening the leadership team, senior leaders (both union and management) need a basic grounding in and knowledge of TQM. To prepare themselves to lead the TQM initiative, senior leaders should:

- Learn about quality Review the *Four Views From the Road* video, this guidebook, suggested references, and this project's final report, "Total Quality Management in Public Transportation" (see the Preface for ordering information).
- Promote quality awareness with their colleagues in management, labor, and the governing board.
- Enlist quality expertise and support Create and staff a quality manager position that reports directly to the Chief Executive Officer (CEO). Ideally, this individual will provide both quality expertise and staff support for the TQM initiative. You'll need expertise to stay clear of pitfalls early in your journey as well as to facilitate your TQM knowledge and leadership. You'll need staff support to help manage the details of the TQM process, provide behind-the-scenes glue, and be a resource to teams embarking on various quality initiatives. If, however, the person you hire does not have at least three years of TQM experience, enlist the services of an experienced TQM consultant to provide quality expertise.



The Quality Manager is typically a middle manager who has the following characteristics:

- A broad knowledge of the transit business
- A lot of energy and initiative
- Excellent skills in dealing with people and facilitating meetings
- Either TQM expertise OR is a quick study and willing to learn from others

In addition, a Quality Manager should be well respected by senior managers and front-line employees and known for thinking and acting in alignment with the seven TQM principles.

RESOURCES

- Deming, W.E., *Out of the Crisis*, 1982.
- Imai, M., Kaizen: *The Key to Japan's Competitive Success*, 1986.
- Juran, J.M., Juran on Leadership for Quality: An Executive Handbook, 1989.
- Peters, T.J., Thriving on Chaos: Handbook for a Management Revolution, 1987.
- Four Views From the Road: Public Transportation's Quality Journey (a 23-minute video of TQM described by transit's people)
- The Quality Journey: An Overview of TQM in Public Transportation (a pocket-sized brochure)
- "Total Quality Management in Public Transportation," Final Research Report, Project F-3,
 July 20, 1995 (a full report of all project research findings and results)
- "Total Quality Management in Public Transportation," TCRP Research Results Digest 3, October 1994 (an abbreviated report of Phase I research findings and results).

FORM THE LEADERSHIP TEAM

"Labor and management are both participants and that makes a big, big difference"

Jerry Williams, President, ATU Local 308

Without direction and leadership, TQM will go nowhere fast. Don't make one of these two common, and costly, mistakes!

- * When union employees are present, don't exclude union leadership from the leadership team.
- Don't delegate leadership of the TQM effort to anyone else, not even to the Quality Manager.

Form a leadership team that includes senior management and union leadership and make sure that the team knows its charter. In a non-union environment, include front-line employees with leadership qualities. This leadership team must provide direction, leadership, and continuity for the TQM process. At the outset, the team members will need to learn more about TQM, both as individuals and as a team. Then, as a team, they'll establish goals for TQM in their organization, create a TQM action plan to accomplish the goals, and enlist support for the overall TQM process.

Although the team may think its work is done after it's created an action plan, in fact, its work is only beginning. To put the plan into action, each of the TQM initiatives needs a sponsor, and the sponsor should be a member of the leadership team. The role of the sponsor is that of a



mentor — ensuring that employees who carry out the initiative can succeed and feel ownership for what they did and its outcome.

As architects of the quality journey, the leadership team will have to adapt and refine the TQM action plan as time goes on. The leadership team must also ensure that employees are involved in developing the details of the action plan. Involvement normally begins with middle managers, who review the initial plan and provide input. After that, to get the input and involvement of supervisors, front-line employees, and others, the leadership team can use focus groups, staff meetings, briefing sessions, and other means of two-way communication. The key here is "two-way communication." The best action plans reflect the insights and ideas of many employees from all parts of the organization.

The first meeting of the leadership team typically marks the official beginning of an organization's quality journey. In this meeting, senior management and senior labor convene for one to two days to create a common language and develop the initial TQM action plan. Although the organization's senior leadership may not be a true team going into the first meeting, it should be a team coming out of it — willing to give TQM a go — willing to learn more about TQM as a group, and what it means to be a leadership team.

Objectives for a leadership teams launch meeting typically include:

- Learning more about quality principles and practices
- Developing TQM goals
- Developing a TQM action plan of the steps that will begin to achieve these goals (using this roadmap)
- Scheduling regular leadership team meetings



The biggest pitfall early in the TQM journey is for management to go it alone without involving senior labor officials. In some cases, a session on shared interests (as described for CTA in the third example below) may be needed to pave the way for TQM.

EXAMPLE Agenda for a leadership team launch meeting (1-2 days)

- Discuss expectations, today's objectives, agenda, ground rules
- Do a warm-up activity
- View and discuss the Four Views From the Road video
- Team Discussion: "What Does Quality Mean to You?"
- Hear about TQM principles
- Hear from guest speakers relating their experiences with TQM
- Review highlights of TQM roadmap using this guidebook
- Team Activity: "Create Our Quality Vision TQM Goals"
- Team Activity: "Create Our High-Level Action Plan"
- Hear about roles of leadership and the leadership team
- Discuss next steps, leadership team meeting schedule
- Evaluate the meeting

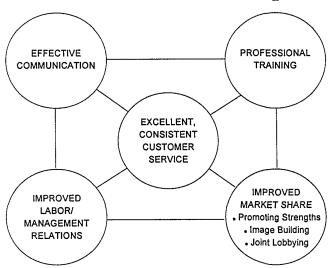
EXAMPLE Action plan for TQM from PDRTA

- Create a Quality Council Responsibilities will include selecting, supporting, and overseeing QITs and task forces, which implement TQM initiatives. The Council will hold regular meetings and collect and report findings to the entire organization.
- Communicate Senior Management's Commitment Commitment should be reinforced at every possible occasion, including through actions and written memos.
- Develop Mission, Vision, and Values Statements The Quality Council will lead this effort, but employee involvement is also essential for ownership.
- Conduct Customer Satisfaction Research Use customer focus groups, on-board interviews and surveys, and front-line employee knowledge of customers.
- Solicit Improvement Suggestions From Employees Use focus groups and suggestion systems to gain information from employees regarding customer satisfaction, performance improvements, and ideas about the mission, vision, and values statements.
- Develop a List of High-Priority Projects and Select QITs The Quality Council will rank improvement proposals on the basis of importance to customer and organizational priorities. QITs will be established to carry out improvements. The teams will be afforded time and supported by the Quality Council.
- Have QITs Conduct Quality Improvement Projects QITs will receive training on the
 quality process and tools, will clarify their problems/issues with the Quality Council, analyze
 root causes of the problems, and recommend solutions to the Quality Council.
- Develop and Conduct a Series of TQM Orientation Sessions A TQM orientation, which
 includes TQM principles, mission, vision, values, goals, and this quality action plan, will be
 given to all employees.
- Develop Ongoing Customer Complaint and Employee Suggestion System Data can be obtained through a complaint form or card, suggestion box, or other mechanisms. Complaints and suggestions will be discussed regularly at improvement meetings.
- Integrate Discussion of Survey, Suggestion, and Complaint Data into Regular Performance Meetings.

EXAMPLE

Session on shared interests in conjunction with the CTA leadership team launch: Goal was to recognize shared interests between union leadership and senior management.

Shared Interests of Union and Management



CTA held a union-management retreat attended by 14 union leaders (representing the Amalgamated Transit Union [ATU] Locals 241 and 308 and the Metal Trades) and 12 senior managers. The retreat included sessions on customer problems, separate and shared interests, and developing a vision statement. One output was the preceding diagram, which represents the key shared interests of union and management. This meeting spawned four subcommittees whose membership included leadership and representatives from a larger population of employee leaders at CTA. These subcommittees provided follow-through in detailing how the shared interests converge to support delivery of excellent, consistent customer service.



Managing Meetings – As a leadership team, strive to create a model of meeting effectiveness and efficiency by example. If you succeed in improving your own meetings, eventually, the entire organization will learn how to hold effective meetings. A little discipline will go a long way. Establish meeting ground rules and use other meeting management tools. Examples of ground rules for meetings:

- Ensure that all meetings have objectives, an agenda, and an ending time.
- Ensure that all meetings and breaks start and end on time.
- Participate, don't dominate.
- Hear from each person.
- Don't pull rank.
- Don't rehash old issues without new facts.
- Don't allow personal attacks.
- Clarify action items, due dates, and ownership.
- Agree to thumbs-up or thumbs-sideways consensus on decisions Thumbs-up means "I agree"; thumbs-down means "I disagree," i.e., "You have not got my vote"; and thumbs-sideways means "I can support the decision but have the following reservations for improvement," i.e., this is not a show-stopper.

Additional Meeting Management Tips:

- Enforce ground rules by having violators pay a small penalty.
- Have the group responsible for calling a violation as soon as one occurs, and make sure the violator pays the penalty immediately.
- Avoid taking off on a tangent by using a "parking lot" for issues of concern that are not central to the day's work. Write those issues down and post them, then revisit them before the meeting concludes.
- Establish roles for a facilitator and a scribe. Designate these responsibilities at the outset of the meeting. The facilitator attends to team dynamics, time, and anything else about the way the group works. The scribe ensures important issues and action items are recorded and validated by the group.
- Get more done by having subgroups complete tasks outside the full team meeting.
- Get rid of the chairs! When you're all standing, you'll be surprised at how efficient your meeting can become.

RESOURCES

- AT&T Quality Library, Leading the Quality Initiative, Select Code 500-441, 1990.
- Brassard, M. and Ritter, D., *The Memory Jogger II*, GOAL/QPC, 1994.
- Cohen-Rosenthal, E., and Burton, C.E., *Mutual Gains: A Guide to Union-Management Cooperation*, 1993.



DISCUSS TQM GOALS, BUILD AWARENESS, & ENLIST SUPPORT

"It takes everyone in the company to make the company run. It can't be just management, it can't be just worker, it can't be just union. It's got to be everyone"

Lettie Robinson,
 Executive Board Member, ATU Local 241

To enlist support for the TQM goals and action plan, the leadership team must communicate them and build awareness. This is an opportunity to set a new standard for effective internal communications. Don't blow it with a business-as-usual memo. The most effective communication is through frank, open, face-to-face discussions. Just get out there and listen.

It's also important to use a wide variety of means to communicate. Try focus groups, for example. Involve managers, supervisors, and union officials in getting the dialogue going — and keep cycling back for updates and continued dialogue. If you also use this opportunity to encourage employee suggestions and put them into action, you'll lead by doing. Actions like these will eventually be every supervisor's responsibility. As the TQM journey proceeds, continue to communicate with a wide variety of means. Try team storyboards, scoreboards, one page TQM updates, etc., to let people know what is happening and to generate dialogue.



Reach out widely to enlist a broad base of support early in the TQM process. Involve as many key managers, supervisors, and union leaders as you can in shaping the TQM goals and action plan. Encourage them to participate in early initiatives and projects, and recognize their leadership when they come through for you.

EXAMPLE Enlisting support at STA

Leadership Team Quality Vision: "A commitment to exceed customer expectations by empowering employees and continuous improvement"

The leadership team used their draft of a quality vision to communicate their intent and to solicit feedback from employees. They presented their vision informally at staff meetings and included it as part of more formal briefing sessions to first-line supervisors, middle managers, and union stewards. During each of the briefing sessions, in addition to the quality vision, participants learned about the principles of TQM as well as the leadership team's initial action plan. Participants' ideas for possible quality improvements were solicited via "brainstorming," a creative thinking technique for groups.

At each briefing session, volunteers were solicited to work with members of the leadership team on one of three subcommittees. One subcommittee selected improvement projects to be addressed by QITs. Another subcommittee explored the best ways to receive customer input and learn about what customers expect, how they perceive the organization, and how important various aspects of the service were to them. The third committee was responsible for addressing the best ways to receive employee input concerning quality issues and initiatives.

CLARIFY ORGANIZATIONAL VISION, MISSION, GOALS, & VALUES

"You have to be very careful if you don't know where you are going because you might not get there"

- Yogi Berra

Clarifying organizational vision, mission, goals, and values is an early priority of the leadership team. All too easily this can degenerate into a meaningless exercise. It should be a visceral, dynamic, ongoing conversation with the organization and its stakeholders.

If you did a thorough job in creating TQM goals, you should be on your way to answering the following questions:

- "What will be our role in the future?" This is your vision.
- "What is our purpose now?" This is your mission.
- "What will we accomplish?" These are your goals.
- "What do we believe and how will we act?" These are your values.

This is one of your first opportunities to integrate the quality process into the fabric of the organization. Your TQM goals will likely encompass performance as well as culture in a general and inspiring way. Use these as your springboard to clarify organizational direction and desired values.

The organizational vision has to do with aspirations for the future. Will our mission be the same, i.e., Will we have the same purpose? Will we serve the same types of customers, in the same way? Will our relationship with the community be the same? Will we be in the business of running this system or providing for the mobility of people? Developing common answers to questions of this kind requires broad, ongoing dialogue.

Many transit agencies have a documented mission statement and accompanying goals. At a minimum, these are published with the annual report or in a planning document. Ideally, everyone should be able to describe how he or she contributes to key organizational goals and to the mission of the agency. Test this by asking employees what the mission and goals mean to them. If you get vague answers, you know you have lots of work ahead of you.

Goals should be measurable, so that an organization beginning TQM can put a results-oriented "stake in the ground" and measure progress from there. The exercise of stating goals will help clarify the mission and vision. Generally speaking, long-term goals are at least three years out. Link them to shorter-term, one-year targets. An organization working toward TQM should set goals around customer satisfaction, employee satisfaction, and financial performance.

Clarifying values is one of the most difficult areas for traditional organizations, yet it is one of the most important when moving forward with TQM. Start by defining a set of common values. The values should be consistent with quality principles and may include items such as customer focus, respect for the individual, integrity, teamwork, and innovation.

Many organizations post a list of their values, but reinforcing and living the values distinguishes organizations that are truly on the TQM journey. It's up to the leaders to make this real. They can do that, first, by discussing routinely how their own behavior reflects the values or falls short. Then, these discussions must bear fruit — leaders must improve their behavior, so that it

does become a better reflection of the desired values. Once leaders truly live the values in their own behavior, they will find they want to change policies, rules, and practices that are barriers to employees' living the values as well.

When leaders are ready to move beyond their personal behavior in living the values, they must plan for reinforcing the values in the organization. It's best to view this, too, as a long-term learning process and to start informally. Have work groups "check in" periodically to evaluate what actions and behaviors have been consistent and inconsistent with the common values. For example, include this as a standing agenda item at leadership team meetings. Then move to more formal methods.

Many organizations have implemented a formal feedback system for managers, in which each manager's subordinates, colleagues, and superiors periodically provide anonymous feedback on how well his or her behaviors and management style conform to the common values. Often called "360-degree feedback," this system can be a powerful tool for helping an organization learn to live the values. After extensive experience with a system like this, an organization can move on to including an evaluation of "living the values" as part of the formal performance appraisal. Throughout the entire learning process, be sure to use positive reinforcement, both informal and formal, to thank employees for "walking the talk."

EXAMPLE Vision, mission, and values at PDRTA

Vision Statement — "PDRTA will be the nation's best rural paratransit provider, offering efficient on-demand and scheduled services to Pee Dee citizens. We will increase our ridership and public responsibility by experiencing cost-efficiency gains due to understanding, focusing on, and delivering the specific services that our customers and passengers expect; partnering with our suppliers and customers; improving technical capabilities; and training our employees. PDRTA's service will be viewed as a public necessity by the community that we serve."

Mission Statement — "PDRTA is a nonprofit paratransit authority that provides safe and quality services to the citizens of the Pee Dee Region. Our mission is to meet the transportation and special access needs of our passengers and to provide cost-efficient, on-time services to the agencies, companies, and governments who fund or purchase our services. In the near term, we will improve our level of performance to increase customer and passenger satisfaction with our existing services. Our employees and their satisfaction are key to the success of our mission. They must be trained to provide these services and to focus on customers."

Values —

- Committed to the community
- Focused on passengers' individual needs
- Striving for organization and cultural improvements

EXAMPLE Process for clarifying a vision at SORTA

SORTA, locally known as Metro, has been changing its organizational culture during the past three years through an initiative called Vision at Work. One-day seminars have been held with numerous work groups throughout Metro. The seminar engages the group in creating its own vision statement that articulates the group's priorities and underscores its values. Over time, the vision statements of all groups were combined and synthesized into an overall Metro vision organized according to four organizational pillars.

METRO VISION

- We make Cincinnati a great place to live Metro improves the overall quality of life in Greater Cincinnati. Our actions assure that there is an ongoing, vital role for transit in our community. We are transportation pioneers, making decisions based on the community's long-range transportation needs. We are widely recognized for our work and have strong community support and secure regional funding.
- Customers are why we're here We are totally dedicated to exceeding our customers' expectations. We know who our customers are and take them where they want to go. All of our customers are completely satisfied. Ridership increases steadily as we actively seek new customers. Metro is everyone's first choice in transportation.
- Outstanding service is our commitment Metro is the world's leader in providing transit services. We consistently exceed all standards of excellence and continuously improve. Our customers always receive safe, clean, dependable, friendly, convenient, accessible service. Our communications are outstanding; Metro information is readily available and easy to understand. Riding Metro is a pleasure.
- Employees are Metro; we are a team We are "One Metro," an organization without barriers, working as a team to achieve our vision of excellence. All employees and departments share a unity of purpose and clear direction. We support each other through mutual trust and respect. We celebrate and reward each other's successes and foster innovation and risk-taking. We each take responsibility for making things better and accept accountability. Employees are the foundation of Metro and our most valuable asset. We recruit and hire only the highest quality people. All employees receive ongoing training and have state-of-the-art equipment and support systems. We have fair, consistent policies and procedures, administered with flexibility and common sense. We communicate openly, honestly, and positively with each other. Information is shared freely. We engage in group decision-making and problem-solving. Each of us is a leader in making Metro the perfect place to work. All managers are consistent, committed, and concerned. Positive leadership inspires everyone's best work efforts and great relationships. We are happy, healthy, and highly motivated. We love our jobs and have fun.

As one result of this unusually widespread vision process, a number of grassroots initiatives were suggested by employees and are being supported by Metro management. By starting with work groups as multiple sources for the synthesized, overall vision, Metro leaders capitalized on employee enthusiasm for positive change and encouraged a culture of employee involvement.

Use 360-degree feedback to help reinforce living the values. This is a formal feedback system designed to help the person receiving the feedback develop his or her abilities to live the common values. Periodically, each manager's subordinates, colleagues, and superiors (sometimes even customers and suppliers) provide anonymous feedback on how well his or her behaviors and management style conform to the common values. This system typically uses a structured set of survey questions created around organizational values or other leadership behaviors. Results are tabulated and fed back to managers through a neutral third-party. Managers are then asked to use this feedback to plan how they will develop and improve personal leadership. This system is normally deployed first with top-level managers, then moved down through the management ranks. Many organizations eventually include front-line employees who interact with customers.

RESOURCES



- AT&T Quality Library, *Policy Deployment Handbook*, Select Code 500-453, 1992.
- King, B., Hoshin Planning The Developmental Approach, GOAL/QPC, 1989.
- Lynch, R., Lead! How Public and Nonprofit Managers Can Bring Out the Best in Themselves and Their Organizations, 1993.

IDENTIFY CUSTOMER SATISFACTION PERCEPTIONS, PRIORITIES, & PROBLEMS

"It is really common sense...putting the customer first, making sure the customer is happy"

— Jesse James, Driver, PDRTA

Establish a customer focus early in your quality journey. Without it, a TQM initiative can degenerate into a series of disconnected efforts that may initially help employees "feel good" about themselves but, in the long run, will create cynicism. Those employees who come to work every day with a customer ethic may then wonder what all this TQM stuff is about.

To establish a customer focus, you must get information about your customers. There are two primary sources of customer information:

- The customer
- The customer-facing front-line employee

A good way to create a customer focus is to have employees develop and conduct customer surveys. These surveys often take the form of "customer report cards" and can be administered through an interview process and/or using written surveys that are filled out by customers. The report cards are used to get feedback on the most important aspects of service that affect overall perceptions of customer satisfaction. Surveys provide breadth of information.

Customer focus groups will provide information that complements what you learn from surveys. Focus groups are simply focused discussions among a small group of people, in this case, customers. You'll get much more detailed and richer information, i.e., depth, from a focus group than from a report card. Many experts recommend using focus groups to refine a draft report card and to get feedback on a variety of specific issues. Key customer focus group questions include:

- What are the most important aspects of our service?
- How satisfied are you with these aspects of service?
- What do you like most about our service?
- What do you like least about our service?
- Do you have any suggestions on how we can serve you better?

Post the results of customer satisfaction surveys and focus groups throughout the workplace. Quantitative ratings gained through report card surveys can be posted in the form of customer scoreboards. Qualitative results, in the form of quotes from customers can be categorized by key aspects of your service and/or by service route. Some follow-up actions may be the responsibility of every employee in the course of a normal work day. Other actions may be delegated to QITs.

Front-line employees who have lots of contact with customers are an invaluable source of customer information and ideas for improvements. Too many organizations put little or no emphasis on listening to front-line employees. To take advantage of this valuable resource, make supervisors responsible for using employee input to improve customer service. Of course, you'll need to support supervisors by providing needed training and reinforcement throughout.

Not all departments and work groups have routine contact with external customers but every department and work group has a "customer," someone who needs and uses their work. Maintenance employees are serving the driver in addition to providing the passenger with a quality vehicle. The parts department serves the mechanics who rely on the availability of parts to succeed at their job. By creating an understanding of "internal" customers, everyone knows how they contribute to the larger team effort in a personal way – yet never losing sight of who the overall team serves – the passengers and the community.

When developing a customer focus, start by thinking of the passenger as customer but don't stop there. As you become more adept at TQM, you'll broaden your definition of customers to include many others in addition to your current passengers. For example, consider the communities you serve, that is, the taxpayers. They are also your customers.



Conducting Focus Groups:

- What A focus group is a meeting, typically with 5 to 10 participants, who have a focused discussion on specific topics. It's used primarily to gather qualitative data.
- How long One group typically lasts between one and two hours. There is no formal break.
- Size Seven participants is the ideal number.
- Number of groups The typical advice is to conduct groups until the information gets repetitive. In most cases, this happens after four to six focus groups.
- Facilitator Use a skilled, objective facilitator who has a prepared set of discussion questions. This person should encourage everyone to build off of other's ideas and should manage group dynamics.
- Collecting data A notetaker/scribe normally accompanies the facilitator. Ensure participant
 quotes are collected along with any quantitative ratings.
- Anonymity Assure participants full anonymity.

EXAMPLE

A Customer Report Card (and development process) from STA

After reviewing and discussing market research reports, the team responsible for getting customer input divided itself into three sub-teams, each addressing one of these areas: 1) design of the Customer Report Card, 2) methods of collecting data, and 3) validation of customer responses.

The Report Card itself was pilot-tested and revised with real customer input. On-street customers in 30 service areas reviewed and commented on the sample report card. Then, 300 surveys were pilot-tested on both fixed-route and paratransit services. The customer input team recruited 90 front-line employee volunteers to distribute customer report card surveys to transit passengers. Each volunteer received a TQM tote bag in appreciation of his or her efforts. More than 3,600 completed survey forms were returned – a 65 percent rate of return! The customer survey results were compiled by an outside market research firm, and a report was presented to the leadership team and department managers. Poster-sized Customer Report Cards now hang in eight locations and are updated as new customer satisfaction data are collected.

Spokane Transit Authority's Customer Report Card

YOUR BUS OR VAN	,	Outstanding Pleased	Satisfactory	Falls Short
Cleanliness Inside) Q		
Cleanliness Inside Cleanliness Outside		*************		
Availability of Seats		3 0	THE STREET STREET	
Dependable Equipment				
5. Heating/Cooling				0 0
6. Comfort		*****		
7. Destination Sign Information		<u> </u>		0 0
YOUR DRIVER				
8. Courteous	[3 D		O 0
9. Appearance				
10. Attitude] [
11. Helpfulness		ם נ		
12. Driving Skills) ()		0 0
On Time Performance Time Between Buses/Vans Hours/Days of Service Length/Directness of Ride	C	3 🖸		
14. Time Between Buses/Vans 15. Hours/Days of Service	C C			
Time Between Buses/Vans Hours/Days of Service Length/Directness of Ride	C C			
 Time Between Buses/Vans Hours/Days of Service Length/Directness of Ride Feeling of Safety While Riding]]]]			
 Time Between Buses/Vans Hours/Days of Service Length/Directness of Ride Feeling of Safety While Riding Ease of Fare Payment]]]]			
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RESOURCES



- AT&T Quality Library, *Great Performances! The Best in Customer Satisfaction and Customer Service*, Select Code 500-450, 1991.
- Davidow, W.H. and Uttal, B., *Total Customer Service: The Ultimate Weapon: A Six-Point Plan for Giving Your Business the Competetive Edge in the 1990s*, 1989.
- Zeithaml, V.A., Parasuraman, A., and Barry, L.L., *Delivering Quality Service: Balancing Customer Perceptions and Expectations*, 1990.

SPONSOR AND LAUNCH IMPROVEMENT PROJECTS

"I have to admit I was pretty skeptical whether or not they'd give us a free hand on how we did things, but they basically turned us loose"

- Kevin Eaton, Coach Operator, STA

Successful improvement projects are great momentum-builders! Try to ensure that your projects have a good chance for success by carefully focusing them on specific problems or opportunities. Examples of meaningful, customer-focused, concrete projects include reducing the number of vehicle breakdowns because of engine overheats or designing more user-friendly public schedules/timetables. Avoid broad and unfocused projects, for example, improving morale or reducing absenteeism. These are typically symptoms of much larger problems, and the symptoms will remain until the root causes of the broader problems have been attacked.

Topics for improvement projects can be identified either by management or by employees. Eventually, you'll want to have a mix of a few projects sponsored by senior leaders and a larger number of grassroots efforts supported by local supervision. Most organizations use QITs to address improvement projects. Don't handpick members of the QITs. Instead, support open, voluntary employee involvement with public criteria for team participation. Ideally, you'll arrange for the QITs to get training or other support in using a team problem-solving process. QITs have the following characteristics:

- Are best used for problems or improvement opportunities complex enough to warrant a team problem-solving approach
- Disband after the problem or opportunity has been addressed
- Have members from departments and levels that have knowledge of or are affected by the problem or opportunity
- Have a team leader who spearheads the effort, and may have a trained facilitator to guide the problem-solving process and promote healthy group dynamics
- May have a team sponsor, usually a member of senior leadership or management. (The sponsor mentors the project, ensures that the QIT has needed resources, and helps remove potential roadblocks.)

Sponsoring and launching the first QITs is an opportunity to establish early victories resulting from employee involvement. This is an important component of foundation building. You may prefer to wait for Customer Report Card results and then use those results to help select the problems that QITs will tackle. Or you may choose to launch a few QITs right at the start of your TQM effort. Just be sure to focus those on areas that clearly affect customers. In either case, it's best to start slow, with a few QITs focused on relatively simple improvement projects. To build momentum for your TQM efforts, be sure to celebrate those early successes publicly.

When the first wave of improvement projects comes to a close, be prepared to follow up with new projects. Plan to broaden the base of employee involvement in the second wave of projects and, at the same time, to take advantage of the employees who have gained experience in team problem-solving. The second wave of improvement projects will carry the organization into the second phase of TQM, the Momentum Phase. We'll say more about this later.



An effective QIT problem-solving process often has steps like the following:

- Clarify project goals and state them in measurable, concrete terms (e.g., reduce number of vehicle breakdowns due to engine overheating by 50 percent while keeping all other costs constant)
- Build and lead the QIT that will solve the problem
- Analyze the problem and identify its most basic causes, called "root causes"
- Develop potential solutions and recommend or select the best one
- Develop a plan for implementing the solution
- Implement the plan and define responsibility for ongoing improvement
- Celebrate the QIT contribution
- Disband QIT when the solution is self-sustaining



Although some QITs will have a longer-term charter, most should make recommendations for improvement within eight weeks. What ever the timeframe, all QITs should be encouraged to set deadlines, including intermediate milestones, to maintain their focus.



Most of the following useful tools and techniques for QITs are detailed in *The Memory Jogger II* (see the resources below):

- Brainstorming and brainwriting to generate ideas
- Multivoting to narrow choices to a manageable few
- Thumbs-up/thumbs-down/thumbs-sideways to facilitate group consensus
- Surveys and checksheets to facilitate data gathering
- Flowcharting to understand the current process and/or design a new process
- Cause and effect analysis to analyze causes, including potential root causes
- Gantt charts and other tools to help manage the problem-solving project

EXAMPLE

A selection process for QIT members

An employee committee created a volunteer process for QIT participation. The volunteer process was designed to ensure that a QIT would have the expertise it needed without handpicking members. The committee first communicated the availability of two improvement projects through a variety of methods and then provided application forms to interested employees. The forms specified both the project objective and the types of employees (e.g., drivers and maintenance supervisors) and their numbers whose expertise was needed to solve the problem. On the same form, volunteers indicated why they were interested and what they might bring to the effort. The employee committee (which represented a broad cross section of employees) selected each QIT member on the basis of volunteer applications.

B O O K S

RESOURCES

- Brassard, M. and Ritter, D., *The Memory Jogger II*, GOAL/QPC, 1994.
- Scholtes, P.R., *The Team Handbook*, 1988.



MOMENTUM PHASE

"I am beginning to feel like I am part of an organization that is growing and that is changing. It's a way of life"

- Marjorie Garza, Coach Operator, STA

Through the activities in this second phase of the TQM journey, the organization creates living examples of the generic TQM values of customer focus, employee involvement, continuous improvement, and leadership. Through these examples, the people in the organization will begin to understand TQM and believe that it can work for them. These beliefs build cultural momentum and that will help ensure the broad-based support for TQM needed for the third phase, Commitment. Each of the momentum-building activities listed below is described in more detail in this section. The activities can be done in any order.

- Clarifying leadership expectations
- Renewing an emphasis on employee training and development
- Recognizing, rewarding, and celebrating contribution
- Identifying and initiating high-priority improvements
- Revitalizing the "suggestion system"
- Evaluating and revising policies and practices to eliminate bureaucracy and empower employees
- Evaluating and improving the quality process

CLARIFY LEADERSHIP EXPECTATIONS

"Sooner or later everybody's going to realize that the ship is leaving the dock and you can either stay on the dock or you can go with us on this voyage...but we're going"

- Allen Schweim, Executive Director, STA

Early TQM efforts in the first phase (Foundation) generally rely on volunteers. In that first phase, leaders create opportunities for others in the organization to assert their leadership and to develop and improve in their practice of TQM. Despite these opportunities, however, many managers will remain on the sidelines. To get them off the sidelines and into the game, the senior leadership must be clear and united in its expectations, and it must communicate those expectations to all of management.

By this time, the expectations should not be a surprise. They should echo the common values and promote the envisioned future role of managers in the organization. Ideally, they would also reflect the behavior practiced by the senior leaders themselves. Typical expectations might be:

- Listening to front-line employees and working with them to implement improvements
- Participating in quality initiatives
- Improving communication and cooperation across departments and functions
- Attending to rather than ignoring "people" issues

By clarifying leadership expectations and issuing the leadership challenge, senior leaders can now push harder with momentum-building activities. They can more easily develop and encourage those that are up to the challenge and begin to ask tough questions of those who lag behind. This is a great opportunity for senior leaders to coach those who lag and to make a sincere effort to bring them on board.

EXAMPLE

Management norms at SORTA

Metro has developed management norms and principles that can act as a code of conduct for management employees. Using the principle of employee involvement, nearly 100 management employees participated in creating the management norms, thereby establishing ownership and peer pressure to adhere to the desired management behaviors. In this way, progressive management practice can be more easily reward and reinforced, and coaching can be brought to bear on management employees who are not behaving in accordance with the new environment.

RESOURCES

- Blanchard, K., Carew, D., and Parisi-Carew, E., The One-Minute Manager: Builds High Performance Teams, 1990.
- Byham, W.C., Cox, J., Zapp! The Lightning of Empowerment: How to Improve Quality, Productivity, and Employee Satisfaction, 1988.
- Schein, E.H., *Organizational Culture and Leadership*, 1992.
- Zenger, J.H., Musselwhite, E., Hurson, K., and Perrin, C., Leading Teams: Mastering the New Role, 1994.

RENEW AN EMPHASIS ON EMPLOYEE TRAINING & DEVELOPMENT

"Our investment in training is a national disgrace. That should come as no surprise. Despite lip service about people-as-our-most-important-asset, we value hardware assets over people, and have done so for the last century"

- Tom Peters

"Empowerment" is a key word in TQM. It means that every employee has the authority and ability to solve customer problems and improve operations. But "enablement" must proceed empowerment, otherwise management simply abdicates responsibility under a new banner. As an organization moves forward with TQM, all the employees will need to learn new skills to be successful. Most organizations have provided adequate new technical skills to their employees. With TQM, employees will also need skills in coaching, problem solving, communication, project management, and other areas. Without skilled employees, the TQM initiative will fail. Training budgets simply must increase to support a workplace that depends more and more on the collective brainpower and skill sets of all employees. Training employees in the following areas will support TQM:



- Quality awareness This training is probably best delivered by members of the leadership team in partnership with the immediate supervisor. Some professional facilitation may be helpful. The training can take the form of briefing sessions and less structured dialogues. Normally, these sessions introduce quality principles, the organization's TQM goals, and its action plan. In addition, sponsor employee visits to organizations known for leadership and quality, or invite knowledgeable practitioners to discuss their journey with your group. Use this vehicle for leadership team education.
- Employee orientation New employees should have quality awareness training in their first
 week on the job. Consider assigning the new employee to a mentor known for their leadership
 ability for at least their first month.
- Coaching skills training In TQM, the roles of managers and supervisors are very different from those in a traditional organization. It's important to create a training curriculum mapped to these new expectations. Role playing can help managers and supervisors learn some of the "soft" skills and the tools used for employee development, soliciting and implementing employee suggestions, and managing across departments.
- Quality Improvement Team training This equips teams and/or team leaders with basic problem-solving, group-dynamic, and meeting management tools. If you use QIT sponsors, such as senior leadership team members, this training should explain their role and functions.
- Quality facilitators Employees who demonstrate leadership capabilities can apprentice with more seasoned quality facilitators to learn new skills.
- Advanced quality training Developing personal, group, and organizational expertise in more advanced quality applications, e.g., in reengineering processes, in creating selfmanaging teams, and in revamping measurement systems. In addition to training, developing this expertise often requires consulting support.
- Professional development plans Employees who want to advance in the organization should have the opportunity to create professional development plans. These specify skill development, team assignments, and potential job rotations that will position the employee to achieve his or her professional goals. It's often helpful to use mentors to help employees develop and implement these plans. Furthermore, increase the use of planned rotational assignments.



You've probably heard of just-in-time inventory management. Apply the same concept to training, and try to ensure that employees are trained just before they need to use the skill at work. For example, provide training in problem-solving just as a QIT forms and before it begins to work.

EXAMPLE

Pilot training effort at CTA focusing on customer interaction and culture change

The CTA labor-management relations subcommittee began a pilot project to change the way managers interact with employees on customer complaints. The program offers an alternative action besides discipline for the first complaint. Employees will have the option to take an interactive compact disk video training program focusing on customer interaction.

RESOURCES — Organizations offering TQM-related training include:

- American Management Association. 135 West 50th Street, New York, NY 10020, 518-891-4048.
- American Productivity & Quality Center (APQC). 123 North Post Oak Lane, Suite 300, Houston, TX 77024, 713-681-4020.
- Association for Quality and Participation (AQP). 801-B West 8th Street, Suite 501, Cincinnati, OH 45203, 513-381-1959.
- American Society for Quality Control (ASQC). 310 West Wisconsin Avenue, Milwaukee, WI 53203, 414-272-8575.
- Quality and Productivity Management Association (QPMA). 300 Martingale Road, Suite 230, Schaumburg, IL 60173, 708-619-2909.

RECOGNIZE, REWARD, & CELEBRATE CONTRIBUTION

"I am very proud to be a part of TQM...it has changed my life and hopefully it has changed a lot of other employee lives also"

 Ruby Brockington, Safety & Training Technician and Senior Driver, PDRTA

Recognize, reward, and celebrate contributions and improvements publicly. To have the desired impact, the leadership team should be personally and visibly involved. In the early stages of this phase, you'll be recognizing the results of the earliest improvement efforts. Those first volunteers were willing to experiment, to stick their necks out, to risk ridicule from their peers. They put in effort above and beyond normal work duties — these people are the champs! The leadership team should acknowledge its special debt to these trailblazers. Go out of your way to recognize their special contributions.

As you move beyond the early improvement efforts on your quality journey, continue to use recognition, reward, and celebration to sustain and reenergize your efforts. It's up to the leadership team to sponsor the creation of recognition processes, events, and programs of many varieties. See the list below for inspiration:

- Team presentations The team tells its story as well as presenting its results.
- Sharing rallies Teams, individuals, and work groups come together to share their accomplishments and learn from each other.
- Peer recognition Supply everyone with blank "Thank You" cards. When someone is especially helpful, anyone can give him or her a "Thank You." Cards can be displayed in their vehicles, at their workspaces, or on their lockers.
- Quality Day celebrations Once a year, have a formal celebration that recognizes the great work everyone has done and provides a forum for team stories of contribution.
- Story-telling and folklore Find opportunities to tell stories of individuals and teams that went above and beyond the call of duty, took risks, delighted customers — better yet, find ways to let them tell their own stories!
- Publications in Newsletters Highlight the efforts and contributions of individuals and teams.
- Increased leadership opportunities Provide opportunities for increased leadership responsibility when individuals and teams have earned it.
- Commendation bulletin boards Create a bulletin board for customer commendations.
- Pins, totebags, coffee mugs Give tokens of appreciation for participation in the quality process.

RESOURCES

• Knouse, S., The Reward and Recognition Process in Total Quality Management, 1995.



IDENTIFY AND INITIATE HIGH-PRIORITY IMPROVEMENTS

"The recipe for action should consist of 90 percent substance and 10 percent exhortation, not the reverse"

- Joseph Juran

Once an organization reaps the benefits of basic quality improvement methods such as QITs, it will probably want to multiply the numbers of such efforts throughout the organization. This is a healthy motive but, unfortunately, increasing the number of QITs will not guarantee increased success. This is the time to establish a balance between a larger number of localized grassroots improvement efforts — and a short list of high-priority improvement initiatives selected by senior leadership. Improvement efforts with the highest priority should be those that provide the biggest bang for the buck in terms of customer satisfaction and are most clearly aligned with the organization's mission, vision, and strategic goals. See the example on page 26 of a planning matrix to link customer satisfaction and performance measures to the selection of high-priority initiatives.

Leadership teams can use a variety of methods to identify and assign priorities to improvement initiatives. One of the most formal is known as policy deployment (see the example of a policy deployment process flow on page 26). This same method is sometimes called Hoshin Planning. It begins with customer input and the vision and mission of the organization. Major improvement initiatives are defined through a process known as "catchball." Catchball describes the back-and-forth communication required between senior leadership, operational managers, and project teams – such as QITs – to manage all aspects of planning and implementation for the improvement initiatives. It's common for several QITs to be coordinated through a single policy deployment improvement initiative. QIT leaders will meet regularly with a designated senior sponsor to coordinate improvement efforts deployed through a major initiative.

Less formal approaches to selecting high-priority improvement initiatives include simply developing a short list of priorities that show a direct line of sight to key customer priorities or establishing a "Top 5 most wanted" list at the company level or by modes or major divisions. Once the objectives of an initiative have been accomplished, a new initiative takes its place on the Top 5 list.

Another quality method often used in conjunction with identifying and initiating high-priority improvement initiatives is "benchmarking." The basic concept behind benchmarking is to look at other organizations that have achieved high levels of performance in a particular area of interest, e.g., vehicle maintenance, in order to learn the practices and processes that help them succeed. You may benchmark against other transit agencies or against companies outside the transit industry that do something of interest particularly well, e.g., managing customer complaints. Benchmarking during the Momentum Phase is best applied on a project basis. Extensive across-the-board benchmarking efforts are normally reserved for mature quality efforts.

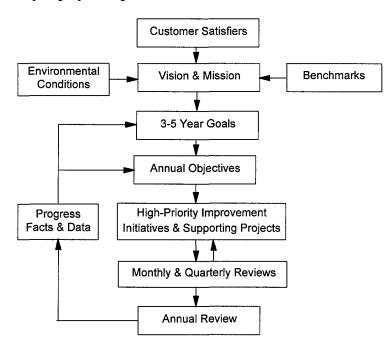
EXAMPLE

A planning matrix links customer satisfaction ratings and performance measures to the selection of high-priority initiatives

Customer Value Map			Mea	sures	Actions			
	Attributes	Subattributes	%Pleased+	Perf Objs	Project	Sponsor/Leader		
	Safe & Secure	While Riding	82	# Accidents	_			
		Facilities*	56	Crime stats	Crime stoppers	Security		
	Reliable	On-Time Perf	72	95% OTP	_			
		Depend Equip	77	9000 MBR	_			
	Convenient &	Hrs/Days	66	Service Hrs				
_	Easy to Use	Ability to Transfer	67	NA	_			
Overall Customer Satisfaction		Time Between Buses & Vans	70	Headways		Andreadon a		
		Public Schedules*	61	NA	User-friendly schedules	AS/KE		
	Clean &	Vehicles	77	NA				
	Comfortable	Facilities*	60	NA	Upgrade	Facilities Maint		
	Courteous &	Courtesy	88	NA		-		
	Responsive	Cust Service Prompt	72	NA	_			
		Complaint Handling*	61	Time to respond	Reengineer process	GK/JW		
*1995 High-Priority Improvement Initiatives								

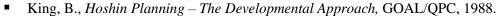
EXAMPLE

Policy deployment process flow



RESOURCES

- AT&T Quality Library, *Policy Deployment Handbook*, Select Code 500-453, 1992.
- Camp, R.C., Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance, 1989.





REVITALIZE THE "SUGGESTION SYSTEM"

The suggestion system allows anyone with an idea for improvement to contribute. Most ideas will not be home runs; however, the cumulative effect of many incremental improvements adds up to significant results and, most importantly, creates a culture that promotes continuous improvement by everyone as a way of life. In Japan, continuous improvement by all is known as "kaizen."

Successful suggestion systems provide a multitude of ways for an employee to suggest an idea or put it into action. When employee suggestions are valued, management is expected to listen and, when the suggestion is bigger than something the employee can implement him or herself, take action. Most American suggestion systems are failures primarily because they rely only on a centralized bureaucratic suggestion box that removes the responsibility for implementing improvements from local management. To revitalize your suggestion system, we recommend that senior leadership plan for the following three stages:

- Interest Implement as many suggestions as possible and respond quickly to all of them. If a suggestion cannot be implemented, say why.
- Education Educate and coach employees to improve the quality of their suggestions.
- Impact Put more emphasis on suggestions with economic impact.

You won't revitalize your suggestion system if you skip the "interest" and "education" stages and go directly to "impact." In our experience, most suggestions with high economic impact come from a team rather than an individual. The economic impact of individual suggestions is generally because of the cumulative effect of many small improvements. Of course, implementing individual suggestions also helps create the mindset and culture of continuous improvement, that is, kaizen.



Go slowly when beginning to revitalize your suggestion system. Emphasize that the entire senior leadership team expects supervisors to solicit and act on all front-line employee suggestions for improvements to service and operations. If you choose to continue with a centralized suggestion system, add visible senior leadership support.

For example, review the status of suggestions as a standing leadership team agenda item. Also, consider piloting less formal local suggestion systems. Just be sure to pilot these with supervisors who are eager to try new things and implement employee suggestions. Above all, before you introduce any suggestions system, prepare the way so that the system can deliver on its promises.

RESOURCES

■ Imai, M., *Kaizen: The Key to Japan's Competitive Success*, 1986.



EVALUATE & REVISE POLICIES & PRACTICES TO ELIMINATE BUREAUCRACY & EMPOWER EMPLOYEES

"Getting people to step up and be owners of the system has, hopefully, secured our future"

- Bill Spraul, Division Director, SORTA

TQM promotes the concept of a value-based organization in which people's work is guided by direction, values, and accountability instead of by the rule book and elaborate staff procedures. For most transit organizations — indeed, for most organizations — this is a huge and threatening change. Although many of transit's "rules" are designed to promote public safety, many more are rooted in a long history of command-and-control management practice.

We recommend that the leadership team look for opportunities to revise policies and practices to remove barriers that prevent employees from delighting their customers. A few simple rule changes can send a powerful signal that things are changing for the better. Examples include:

- Giving every operator his or her own business card, which entitles a passenger to a free ride –
 This can help the operator recover from service problems and may turn a potentially dissatisfied passenger into a loyal customer.
- Keeping first-time customer complaints off the driver's service record Give drivers the option to receive training that may help them in dealing with difficult passenger situations.
- Eliminating unnecessary approval processes.

If you can't seem to identify opportunities for revising policies and practices to eliminate bureaucracy and empower employees, get out there and discuss this with front-line employees. Facilitated employee focus groups are another effective means to get at some of these issues.



Survey employees periodically to track employee satisfaction and their perceptions of the organization's progress. Make sure the survey is anonymous, and report the results widely within the organization. An example is provided on page 31.

EVALUATE AND IMPROVE THE QUALITY PROCESS

As you do for any other aspect of your organization, you should evaluate the TQM process itself and improve it on a regular basis. Normally, the evaluation should be done once a year. Coordinate it with other significant planning functions, e.g., the annual budgeting process. Major steps to evaluate your quality process include:

- Determining the areas for the evaluation and assessment method
- Conducting the quality assessment
- Identifying quality process improvement opportunities

Early in your journey, i.e., during the Foundation Phase, it may be more appropriate to use fairly elementary areas of evaluation. After the quality process has established sufficient momentum, it may be more productive to do a more comprehensive and rigorous evaluation using, for example, the Malcolm Baldrige National Quality Award criteria.

Assessment methods range from informal self-assessments to formal third-party audits based on extensive documentation and review. Generally speaking, it's best to use an objective auditor or audit team skilled and experienced in both the use of quality assessments and the transit industry. Employee focus groups are often helpful for gaining insight into the effectiveness of various TQM initiatives and the overall cultural impact of the TQM process.

EXAMPLE Elementary evaluation areas for a quality process

- 1. Customer Focus: To what extent do we see:
 - Customer satisfaction input, measurement, and priority identification
 - Improvement efforts targeted to improve customer service and satisfaction
 - Customer satisfaction integrated into organizational objectives and accountability
- 2. Employee Participation and Development: To what extent do we have:
 - Employee involvement in improvement
 - Employee empowerment and involvement in decision-making
 - Employee development, training, and support
 - Employee recognition for quality improvement
- 3. System for Continuous Improvement: To what extent do we have:
 - Processes for improvement opportunity identification and selection
 - Processes for improvement opportunity analysis and implementation
 - Use of objectives, measurement, and evaluation
 - Process as well as project orientation
- 4. Leadership: To what extent do we see:
 - Senior-management involvement in creating and reinforcing customer focus and quality principles, including communications processes
 - Middle-management and supervisor involvement in supporting customer focus and quality principles
 - Labor-management teamwork
 - Overall culture change momentum

1995 Baldrige evaluation items

199	5 Examination Categories/Items Point Va	lues
1.0	Leadership	90
	1.1 Senior Executive Leadership	
2.0	Information and Analysis	75
	2.1 Management of Information and Data	
3.0	Strategic Planning	55
	3.1 Strategy Development	
4.0	Human Resource Development and Management	140
	4.1 Human Resource Planning and Evaluation 20 4.2 High Performance Work Systems 45 4.3 Employee Education, Training, and Development 50 4.4 Employee Well-Being and Satisfaction 25	
5.0	Process Management	140
	5.1 Design and Introduction of Products and Services	
6.0	Business Results	250
	6.1 Product and Service Quality Results 75 6.2 Company Operational and Financial Results 130 6.3 Supplier Performance Results 45	
7.0	Customer Focus and Satisfaction	25
	7.1 Customer and Market Knowledge 30 7.2 Customer Relationship Management 30 7.3 Customer Satisfaction Determination 30 7.4 Customer Satisfaction Results 100 7.5 Customer Satisfaction Comparison 60	
	TOTAL POINTS	1000

RESOURCES



- American Society for Quality Control, Malcolm Baldrige National Quality Award Criteria, 1-800-248-1946.
- Hart, C.W.L. and Bogan, C.E., *The Baldrige: What it is, How it's Won, How to Use it to Improve Quality in Your Company*, 1992.

Employee Survey

PART 2 — Your Opinions. Indicate how much you agree with the following statements by checking the appropriate box. (Note: The phrase "this organization" below, refers to all of STA)	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
Most of our passengers would say this organization provides high quality service.						
2. This organization understands what passengers want.						
3. Most employees I know are satisfied with their job.						
4. Management understands the problems front-line employees face on the job.						
5. This organization is highly regarded by the general public.						
6. This organization uses information from passengers to make improvements.						
7 I would recommend this organization to a friend as a good place to work.	0					
8. This organization's commitment to passenger satisfaction is obvious in what we do on a daily basis.						
9. This organization looks for the causes of problems rather than blaming people.						
10. Labor-management cooperation is good at this organization.						
11. This organization uses information from employees to make improvements.						
12. This organization is working hard to eliminate some of the problems faced by front-line employees.						
13. This organization supports me when a conflict arises while I'm doing my job.						
14. This organization provides adequate and appropriate training.						
15. I have the resources to do my job well.						0
16. This organization often consults with front-line employees to determine the causes and possible solutions for problems.						
17. Employees are treated with respect in this organization.						
18. This organization takes action to improve passenger satisfaction.						
There is good cooperation between my group and other groups in this organization.						
20. This organization makes good use of teamwork to solve problems.						
21. This organization recognizes employees who do a good job.						
22. This organization is constantly looking for better ways of doing things.			0			
23. I have the authority I need to do my job well.						
24. This organization is establishing a climate where employees can challenge our traditional ways of doing things.						
25. Overall, I think this organization is changing for the better.						

Thank you for taking the time to fill out this survey. Please use the attached envelope to mail your survey today.