# THE RACE WITHOUT A FINISH LINE

AMERICA'S QUEST FOR TOTAL QUALITY

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# Preface

*Quality is a race without a finish line. A focus on quality has made Xerox a stronger company, but we know we'll never be as good as we can be, because we'll always try to be better. We are on a mission of continuous quality improvement.*
                                        — David T. Kearns, 1991

This book is about a revolution. It's a revolution in the way Americans manage and work in organizations. Deming has called it the "Third Industrial Revolution." We're still in the early stages of this revolution, so we're all at different places in our understanding and assessment of its chances for success. Some are in the advance guard, convinced that this new way of managing organizations is clearly the wave of the future. Others are hesitant, watching and waiting to see whether this is just the latest in a long list of passing management fads. Some are critical, pointing out inconsistencies, failures, and weaknesses. And a large number of managers and students of management are just beginning to sense that a new movement is afoot. One thing is certain: this revolution has grown to the point where it cannot be ignored!

## Our View of the Quality Revolution

The revolutionaries march under the banner of *quality*. In large and small companies across the country, as well as in governmental agencies and voluntary organizations, the rallying cry is "Quality!"—Total Quality. The idea of "customer first" is not foreign to Americans, but until recently it has not been the primary driver of management process, style, and behavior. For some, quality is still just a buzzword, but for others it is a call for action. For most people, it is still a puzzling array of seemingly divergent objectives, statistical jargon, and management actions that sound familiar but feel uncomfortable. Despite this confusion, some organizations have embraced the new management process, mastered its tools, and begun to reap impressive benefits. At the top of this list are the twelve winners of the Malcolm Baldrige National Quality Award and the two recipients of the President's Award for Quality and Productivity Improvement for federal agencies. They form the core of the case examples for this book.

Total Quality can best be described as the art of continuous improvement with customer satisfaction as the goal. It is a new way of doing things—a revolution in the way organizations plan, develop products, manufacture them, deliver products or services, and deal with their employees. Meeting the customer's requirements is the measurement standard, and constant improvement of work processes is the method of besting the competition. It is called Total Quality Management (TQM), or TQManagement. David Kearns, Xerox's former CEO and now Deputy Secretary of Education, called it "a race without a finish line."

For 300 years the primary measure of the economy was productivity. This is no longer true. Productivity is still a competitive necessity, but speed and flexibility have emerged as new demands—and these extensions require new standards. As Anthony Carnevale (1990) noted in *Train America's Workforce*, today's organizations must provide *variety, customization, convenience,* and *timeliness.* Each of these reflects quality—meeting the customer's requirements. Quality is not just an output, but a

mind-set and work process that ensures the speed and flexibility consumers now expect. Organizations must run faster to deliver what the customer wants, but they must also run longer, because the competition keeps moving the "finish line" farther away—"a race without a finish line."

Carnevale points out that providing variety, customization, convenience, and timeliness requires organizations to change the way they structure tasks and utilize their human resources. The new global economy demands adaptive organizations that use the flexibility of teams, task forces, partnerships, and informal structures rather than inflexible pyramids of bureaucracy. In today's environment, power moves with knowledge, transcending traditional limits because it accompanies the people who work directly with suppliers, customers, and competitors.

Attempts to label this new economic phenomenon have not quite captured what is happening. Such labels as the "post-industrial economy" and the "service economy" or Alvin Toffler's "information powershift" (1990) don't fully explain what we're experiencing. It is clear, however, that the globalization of the economy, technical advances, and the increasing importance of time are affecting our nation and our lives and that our organizations must find new ways of operating.

America's productivity rate is still the world's standard. From 1981 to 1990, manufacturing productivity grew an average of 3.5 percent a year, compared to 2.3 percent a year in the 1970s ("U.S. Competitiveness Stages a Comeback," 1991). According to the Federal Reserve Board, at the close of the decade, productivity in United States factories remained 30 percent higher than the average productivity of eight other industrialized nations, including West Germany and Japan. However, the rate of productivity improvement among our world competitors is increasing much faster. According to Grayson and O'Dell (1988), if present trends continue, Japan will surpass America's productivity performance in 2003.

Historically, Americans are often first with new ideas, but recently we have had trouble staying in the race to commercialize, improve, and multiply the products of our inventions.

The need for speed and flexibility in the marketplace has put additional strains on management, calling for innovative methods and strategies. As new complexities sweep through the boardrooms and manufacturing floors of America, management is looking for new ways to meet the challenge. The most promising management process is TQM. TQM appears to be the best means of managing productivity, variety, customization, and timeliness because it recognizes that quality depends on understanding and meeting the customer's needs and wants.

It is now clear that the revolution in management is well under way. One key question, of course, is whether America will succeed. Will most managers view TQM as a temporary phenomenon that will fade, or will it be seen as a new way of life for building world-class organizations? We set out to find the answers by studying the experience of organizations in the vanguard of the Quality Revolution. We focused our primary (but not exclusive) attention on winners of the Malcolm Baldrige National Quality Award and the President's Quality and Productivity Award.

## Our Backgrounds

We approached this task from two different perspectives — practical and academic. Finnigan was an early participant in the Quality Revolution, playing a front-line role at Xerox when that company, led by CEO David Kearns, turned around from a steadily losing market position to being the world's leading company in its field. Burt Meerow, president of Buyer's Laboratory, Inc., recently said, "Xerox is one of the few American companies that has looked the Japanese tiger in the eye, come close to being gobbled up, and come back to a position of prominence" ("Xerox Breaks into the Japanese Market," 1992).

Schmidt came to the Quality Revolution more recently, and with a more skeptical attitude. As a psychologist and academician, he has taught and consulted in the field of management and organizational behavior for many years. He has seen the management community get excited — and then lose interest — in a whole array of alphabetized management approaches, from

MBO and PERT to OD and TA. As a junior colleague of the early
human relations gurus — Douglas McGregor, Abraham Maslow,
Carl Rogers, Leland Bradford, and Ronald and Gordon Lip-
pitt — he was part of the early group dynamics movement, which
also promised a new approach to the way people should work
together. As he witnessed the excitement of TQM enthusiasts, he
kept asking, "What's really new here?" and "Is this likely to last?"

The Race Without a Finish Line is the result of these two
approaches — Finnigan's experience in a Total Quality organiza-
tion and Schmidt's research, primarily of Baldrige and Presi-
dent's Award winners. We try to combine perspective, analysis,
and practical how-to-do-it principles in this book. We have in-
cluded examples from both business and government, because
the quality movement is surging ahead in both sectors.

### Intended Audience

Throughout our writing we have tried to "practice what we
preach," viewing our readers as customers and asking, "What are
their needs and how can we meet them?" Who are our custom-
ers? They are the CEOs, administrators, managers, and students
of management who are both intrigued and puzzled by the
Quality Revolution. They have heard about TQM, Deming, and
Baldrige, but they haven't quite decided what the Quality Revo-
lution might entail for them and their organizations. They want
to be more certain about (1) whether this is a new organizational
paradigm to be taken seriously or just a passing fad, (2) how to
explain the basic concepts to colleagues, and (3) how to launch a
Total Quality effort in their own organization.

### Purpose of This Book

One purpose of The Race Without a Finish Line is to bring into
focus some of the learnings from the Baldrige Award–winning
companies as they entered the corporate marathon condition-
ing program called Total Quality Management. A dozen com-
panies were recognized as winners by well-trained, critical exam-
iners for the Baldrige Award. Many others, however, improved

just by using the Baldrige criteria as guides for self-examination and improvement.

Throughout this book we focus on questions like these: How did the Baldrige Award winners go about trying to become Total Quality organizations? What risks did they face? What problems had to be overcome? What experiences and stresses did they encounter? What was the payoff (besides an elegant trophy)? And—perhaps most important—what are these companies doing to keep the effort going?

Although many of our examples come from the Baldrige winners, we must keep in mind that for every winning company there are hundreds of other large and small companies that are embracing the TQM philosophy. Many of them are systematically gathering better data about their customers, encouraging everyone in the organization to suggest better ways of doing things (and listening to those suggestions!), and measuring progress in their performance. Some (3M, Ford, and Corning, for example) have decided not to apply for the Baldrige Award but have used its guidelines to assess their own effectiveness as quality organizations.

Our goal in this book is to give you, the reader (our customer!), a clear idea of what TQM is all about, to help you think about how it might fit in your organization (or division or department), and to help you understand the specific steps you might take to experience this new way of organizational life.

## Overview of the Contents

Part One provides an overview of Total Quality Management, attempts to put the Quality Revolution into perspective, and suggests diagnostic questions to determine whether TQM is appropriate for the reader's organization. Chapter One examines the roots of the TQM movement and discusses the ten management theories and practices that have contributed to TQM. Chapter Two looks at the basics of TQM and the eight key principles it embraces. Chapter Three examines what public agencies are doing to advance or retard the Quality Revolution and looks at the special problems faced by public agencies in

implementing TQM. Chapter Four discusses where TQM will work and where it won't and provides assistance in assessing an organization's probable success in implementing TQM.

In Part Two we offer a strategic implementation plan based on the key success factors we identified as common to all the Baldrige Award winners. Chapter Five looks at the planning required for successful organizational change and delineates the six key elements on which the TQM organization is built. Chapter Six discusses the first essential step toward TQM: solid, consistent leadership that must accept several basic premises about managing. Assuming that the leadership is committed to change, the next step is to put into place the organizational structure to ensure that the transition proceeds smoothly and effectively. In Chapter Seven we discuss three steps that need to be taken as quickly as possible to establish supportive organizational roles and structures.

Chapter Eight discusses data collection tools and problem-solving processes. We argue that since most problems require a team solution, everyone in the TQM organization is a problem solver and should receive training in a systematic problem-solving process. Chapter Nine focuses on the development and implementation of long-term educational programs since training has a very high priority in the TQM organization. Chapter Ten argues for the creation of meaningful recognition and reward systems. Reward and recognition both play an important part in stimulating and sustaining the Total Quality process. In Chapter Eleven, we argue that success in TQM depends on all members of the organization receiving clear, consistent, and credible messages about what is planned and what is going on. We offer nine guidelines for managers striving for an effective communication program.

Part Three looks at the Baldrige and President's Awards and their winners. We examine why and how these large and small organizations competed for these awards, how the competition affected them, what they learned in the process, and how they are maintaining an improvement process since winning their award. Chapter Twelve provides background on both the Baldrige and President's Awards. Chapter Thirteen high-

lights the twelve companies that have won the Baldrige Award since its inception. In Chapter Fourteen we argue for the importance of TQM in producing quality organizations with a commitment to continuous improvement.

The resources at the end of the book provide a glossary of TQM terms, a directory of TQM organizations and centers, and an annotated bibliography of TQM publications.

We believe that TQM deserves careful consideration. After examining some exceptionally successful companies that have applied this approach to their operation, we are convinced that TQM is *not* just a repackaging of old ideas or the latest "flavor of the month" in management technology. We believe it is a style of organizational operation that has demonstrated its value in our highly competitive Information Age.

Managing in the 1990s is more like steering a sailboat than a motorboat. With a motorboat you identify your goal, start up the engine, point the boat, and go. With a sailboat you identify your goal, but then you use the talents of your crew to make the best use of the winds and currents to move toward your goal. It takes more skill, more sophistication, and more team-work — but it's also more fun. Many managers would say the same for Total Quality Management.

In our wide-ranging interviews, readings, and site visits, we have been amazed at the amount of creativity and fresh thinking that is going on among American managers today. We undertook this venture at a time when the American economy was shaky and American management and workers were being examined with a skeptical eye. We have learned a great deal from the organizations that have found a way to be successful in an increasingly competitive marketplace and have been exhila-rated by the learning and excitement in many organizations. We hope that some of this enthusiasm comes through in this book and that *The Race Without a Finish Line* makes some small contri-bution to the creativity and learning that will make the Quality Revolution succeed.

## Acknowledgments

The research and writing of this book has been an exhilarating experience for us for one principal reason — it gave us the op-

portunity to meet and talk with people who are exceptionally upbeat, purposeful, and competent. During the months following the Gulf War, when newspapers were full of stories about America's drift into a recession and its second-class status in the world, we were visiting vibrant American organizations where people worked together to achieve impressive goals—and enjoyed themselves. We found that those involved in the quality movement are generous people, willing to give time and share ideas. We are grateful to them for what they are doing to build this nation—and for taking time out to tell us about their experiences and learnings.

We think first of the Baldrige Award winners. They have demonstrated that exceptional quality is an achievable goal and that they're willing to help others—even competitors—learn how to do it. From their number we are particularly indebted to Paul Noakes of Motorola; Lou Carinola of Cadillac; Roy Bauer of IBM Rochester; Terry Hart and Michele DeWitt of Westinghouse; Nancy Chaffin and John West of Federal Express; Joe Cahalan, Sam Malone, and Norm Rickard of Xerox; Newt Hardie of Milliken; and Richard Allen and Ann Louise Shaeffer of Solectron. If there are useful insights in this book about how TQM really works in successful organizations, they are largely due to the candor of these colleagues.

Among the quality specialists in the public sector, we are especially indebted to Nina Sung and Ruth Haines at the Federal Quality Institute, John Watson and Thomas Hopp at the General Accounting Office, Rudy Garrity at the National Security Agency, Curt Reimann and his colleagues at the Baldrige National Quality Award Office, Hal Rosen from Naval Personnel Research and Development, Ron Walker from the Naval Post Graduate School, Thomas Walker of the Air Force, and Jay Gould III of the Defense Systems Management College. Much of our understanding about TQM at the local level came from Tom Mosgaller of Madison, Wisconsin; Jan Partain and Shelby McCook of Little Rock, Arkansas; Barry Crook of Austin, Texas; and Myron Tribus of Exergy, Inc., and the Community Quality Coalition. We appreciate the advice on education of David Langford of Mt. Edgecumbe High School, Sitka, Alaska, and Norm Deets
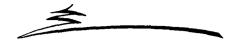
and John Foley of the National Center on Education and the Economy.

Marty Russell was encouraging and helpful throughout this project, sharing her extensive knowledge and assisting us in getting connected with key people in the quality movement. She and Frank Collins supplied their firsthand information about the events leading to the creation of the Baldrige Award, which are reported in Chapter Twelve.

Along the way a number of consultants and experts have unselfishly shared with us their expertise and encouragement. Most notably we appreciate the guidance and assistance of David Nadler, president of the Delta Consulting Group (his work is the basis for most of our thinking on change management and transition strategy). Toru Iura and his associates at the Aerospace Corporation and the University of California, Los Angeles, and Dan Clausing at the Massachusetts Institute of Technology helped us to better understand the technical side of quality. Bill Petak of the University of Southern California helped us to see more clearly the importance of the industry-government-education relationship.

Encouragement is a key requirement for this kind of venture. At the beginning it came from Peter Jordan and Kirby Timmons of CRM Films, where the idea for a book and film on TQM first emerged. Bill Hicks, our editor at Jossey-Bass, showed a marvelous mix of encouragement, good humor, and toughness that kept us on track (and schedule). Without the professional guidance and attention of Mary Garrett, who managed the production of the book, and Helen Hyams, who copyedited the manuscript, this book would still be a dream. We thank them both. Throughout the past year, a steady stream of support came from our wives, Reggie Schmidt and Jo Finnigan, who handled cluttered rooms, our preoccupation, and neglect with grace and love. For their quiet support we are especially grateful.

*Los Angeles, California*                            Warren H. Schmidt
*August 1992*                                        Jerome P. Finnigan

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In addition to his academic work, Schmidt has served as chairman of the Los Angeles County Economy and Efficiency Commission and currently is a member of the Los Angeles City Quality and Productivity Commission. He is a past board member of the NTL Institute and the board of governors of the American Society for Training and Development. He is a certified psychologist in California and a diplomate of the American Board of Professional Psychology. He has conducted executive and management seminars throughout the United States and abroad. Schmidt lives with his wife, Reggie, in Sepulveda, California.

*Jerome P. Finnigan* is human resources manager, Systems Competency Unit, Corporate Research and Technology for Xerox. He earned his A.B. degree (1959) in English from the University of San Francisco and was an intern in public affairs (1960) with the Coro Foundation. He taught high school English and coached football before entering industry with Pan American Airways at Cape Canaveral, Florida. He joined Xerox in 1966 and has held a variety of human resource positions in Los Angeles and Rochester, New York.

Finnigan's assignments have largely been in human resource development and organization development. He was an early advocate of quality circles in the late 1970s and was acting quality officer for the printing systems division during Xerox's implementation of Total Quality. He is a frequent lecturer at UCLA on Total Quality Management.

Finnigan is affiliated with the American Society for Training and Development and the National Alliance of Business. He is past chairman of the California Business Consortium for Management in Education and was a member of the state committee that wrote California's *Strategic Plan for Educational Options in the Twenty-First Century: Roads to the Future.* He is currently a

member of California's Adult Education Steering Committee and the National Center for Research in Vocational Education's committee to draft new designs for the comprehensive high school. He lives with his wife, Jo Ann, in Rancho Palos Verdes, California.

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