

DOES QUALITY MANAGEMENT WORK IN THE PUBLIC SECTOR?

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ABSTRACT

This article examines the quality movement in the United States during the past two decades in the context of public management. Its primary focus is on the utility of quality management approaches in the rapidly changing public organizational environment today in which stability is rare and change, uncertainty, complexity, and ambiguity are frequently the only constants. The fundamental issue explored here is the appropriateness of the application of a management approach that was originally designed specifically for the corporate manufacturing environment to public management needs and requirements. Supplementing empirical evidence from several short-term applications of TQM in federal and state agencies, the paper reviews the impact of the Pennsylvania Department of Transportation's twenty-year experience with its quality improvement program on overall organizational performance and productivity. The synergistic effect of a comprehensive strategic management program on a public quality program is also examined. The article concludes with a discussion of the challenges of sustaining a quality program through the frequent changeover of senior political appointee leadership and the inherent tension between process improvement quality approaches and cost savings/cost avoidance approaches that surface during times of government fiscal crises.

INTRODUCTION

Total Quality Management (TQM) is a business management approach that gained great popularity in the private sector in the United States beginning in the early 1980s. Following the lead of a few early implementer public sector organizations, elements of quality management were more generally implemented in government through ambitious reengineering efforts during the 1990s. During the past decade, various quality approaches have been adopted by public managers in agencies at all levels of government across the country and quality management has become an important organizational trend in the context of change management in the public sector. However, in the face of mounting fiscal pressures in federal and state government budgets across the nation, quality programs are increasingly coming under closer scrutiny to examine whether they are producing appropriate cost-benefits to justify agency resources expended.

This article examines the quality movement in the United States during the past two decades in the context of public management. Its primary focus is on the utility of quality management approaches in the rapidly changing public organizational environment today in which stability is rare and change, uncertainty, complexity, and ambiguity are frequently the only constants. The fundamental issue explored here is the appropriateness of the application of a management approach that was originally designed specifically for the corporate manufacturing environment to public management needs and requirements. Supplementing empirical evidence from several short-term applications of TQM in federal and state agencies, the paper reviews the impact of the Pennsylvania Department of Transportation's twenty-year experience with its quality improvement program on overall organizational performance and productivity. The synergistic effect of a comprehensive strategic management program on a public quality program is also examined. The article concludes with a discussion of the inherent tension between process improvement quality approaches and cost savings/cost avoidance approaches that surface during times of government fiscal crises.

THE ROOTS OF QUALITY MANAGEMENT

Quality Management is an eclectic mix of management ideas (Ehrenberg and Stupak, 1994). It represents the collective intellectual output of numerous contributors including Shewhart, Deming, Juran, Ishikawa, Crosby, and many others. Of these, the two most predominant were Deming and Juran. Both began their professional work at the Western Electric Hawthorne plant in Chicago, coincidentally the site of Mayo's pioneering work in human relations management theory. At the Hawthorne plant, both were profoundly influenced by Shewhart's work in statistical methodologies and control (Deming, 1986; Juran 1995). During World War II, Deming and Juran became actively engaged in the federal government's wartime efforts where they furthered the development of their own statistically-based quality approaches (Landesberg, 1999). Following the war, in the absence of any global economic competition, American industry enjoyed unprecedented growth and prosperity without consideration for or application of Deming and Juran's ideas about manufacturing quality. In the absence of widespread appreciation by American business, both men accepted invitations to go to Japan, where they worked with post-war Japanese industrialists teaching them their principles of statistical and quality control (Landesberg, 1999; Leitner, 2001). Applying those principles in earnest, Japan emerged within two decades as a highly competitive, global economic challenger (Leitner, 2001). Belatedly, in the late 1970s, with the very survival of many domestic industries now threatened, America finally took notice of quality management (Swiss, 1994).

By the mid-1980s, many American corporations and some government agencies began to encourage quality approaches through integrated, multifaceted quality systems (Swiss, 1992). In its American incarnation, these integrated quality systems quickly became identified by the rubric of Total Quality Management or its commonly used acronym, TQM. Interestingly, Deming disavows any connection to TQM (White and Wolf, 1995a). In a 1994 article (Romano, 1994), Deming is quoted as arguing there is really no such thing as TQM—"It is a buzzword. I have never used the term, as it carries no meaning." White and Wolf (1995a) speculate that perhaps Deming eschewed TQM as a label which tended to portray his work as a *system* while he preferred to think of it as a

philosophy. Juran, on the other hand, apparently didn't have any difficulty with the term and eventually became a corporate advisor and consultant on TQM (Mani, 1995).

Swiss (1992) discusses several related but distinct systems that attempt to increase organizational quality. But he identifies Deming-based TQM as the most influential and widespread system and refers to it as "orthodox" TQM. Swiss suggests that Deming was a great synthesizer of related ideas and concepts and, as a result, his version of TQM is really a mixture of a number of related quality practices. Cohen and Eimicke (1994) ascribe specific and particular meaning to each word making up the acronym TQM: "*Total* means applying to every aspect of work, from identifying customer needs to aggressively evaluating whether the customer is satisfied. *Quality* means meeting and exceeding customer expectations. *Management* means developing and maintaining the organizational capacity to constantly improve quality" [italics in the original]. Although it may be possible to describe fine distinctions between the two, most authors and observers use the terms *quality management* and *TQM* interchangeably. We will follow that practice here, although this author prefers the use of the simpler term *quality management* in most contexts.

Modern TQM has emerged as a management approach based on a set of fundamental quality principles and outfitted with a toolbox of diverse techniques and procedures that provides guidance and structure in the practical affairs of running an organization. But these diverse quality approaches and techniques must be applied in a focused and unified approach. With TQM, an organization is viewed holistically as a system of interrelated and interdependent processes (Bowman, 1994) and the quality tools themselves must be administered in complementary ways. But more than that, Carr and Littman (1993) describe TQM as a fundamentally different approach from traditional management characterized by: a customer focus; elimination of errors that does not add value to products and services; prevention of problems; long-term planning; teamwork; fact-based decision making; continuous improvement; horizontal and decentralized organizational structures; and external partnering arrangement. Paralleling an earlier observation by Swiss (1992), Mani (1995) questions if TQM isn't really just old wine in new bottles, the reshaping of various traditional and well-known public administration and management theories into a unified philosophical culture to which an entire organization commits. Stupak and Garrity (1993) suggest that TQM is the "integrated totality of the theories of public administration," which makes it difficult to ascertain its boundaries. White and Wolf (1995b) opine that TQM has been construed more selectively and narrowly and, as a result, defined simply as "another variation on the theme of things staying the same in organizations while they appear to change." They assert, however, that TQM is paradigmatically different from other management innovations and see TQM as the logical framework for guiding the fundamental restructuring of government. Thus, there is disagreement among scholars over even the originality and innovativeness of TQM's approach. At day's end, even if it is just recycled old wine in new bottles, Mani remarks, if somewhat tongue in cheek, that TQM is "better tasting wine."

Connor (1997) identifies the core proposition of TQM as maximizing the quality of organizational goods and services. He identifies five principle approaches to the concept of quality in contemporary usage:

- *The TQM element approach*, in which organizations use specific methods or tools such as quality teams and statistical process control—typically in the absence of an overall plan or commitment to TQM philosophy.
- *The guru approach*, in which organizations embrace the teachings of one of the leading quality thinkers—Deming’s fourteen points, for example, and begin work on implementing them in their own organization.
- *The organizational exemplar approach*, in which members of an organization benchmark other organizations that are known for their success with quality.
- *The Japanese total quality approach*, in which organizations examine and attempt to emulate implementation strategies and techniques used by highly successful Japanese industrialists.
- *The prize criteria approach*, in which organizations use the evaluation criteria for the Deming Prize (Japan) or the Baldrige Award (USA) to identify areas for improvement.

These approaches are not mutually exclusive. Many public organizations pursuing a quality strategy approach experiment with various elements of these different approaches simultaneously.

DOES QUALITY MANAGEMENT WORK IN THE PUBLIC SECTOR?

A frequent topic of discussion in the literature is the applicability of what are essentially manufacturing techniques and approaches to public service delivery. Cohen and Eimike (1994) see little problem in adapting the approaches to the production of goods and services delivered by government. They argue that government’s performance can be improved if human capital is leveraged more effectively through continuous improvement of operating processes and more effective group processes. Swiss (1992) and Rago (1994) counter that it is a serious mistake to attempt to implement TQM in public institutions. These two opposing views define the forum within which the applicability and effectiveness of quality management in government is discussed.

Bowman and Hellein, (1998) point out that by the mid-1990s, a majority of state governments as well as federal agencies had “adopted TQM in at least some of their functions.” But, in the face of widespread challenges in implementing quality programs in public agencies, there began to emerge a growing consensus that it wasn’t suitable for general adaptation to government (White and Wolf, 1995a;). The challenges of applying the principles of TQM to public sector organizations are widely discussed in the literature (Deming, 1986; King 1987; Plsek, 1987; Swiss, 1992; Rago, 1994 & 1996; Connor, 1997; Klagge, 1997). Some observers argue that in the face of earlier management improvement innovation failures such as PPBS, ZBB, MBO, or comprehensive benefit analysis, a strong case needs to be made to distinguish TQM from the litter of these past failures (Frost-Kumpf, 1994; Radin and Coffee, 1993). Frost-Kumpf (1994) also believes that many authors who write about TQM and its potential for application in the public sector too frequently describe a system that promises too much and ultimately delivers too little.

Grant, Shani and Krishnan (1994) argue that TQM mounts a fundamental challenge to conventional management techniques and theories and cannot be simply grafted onto existing management structures and systems.

Swiss (1992) believes that TQM can have a useful role to play in government, but only if it is “substantially modified to fit the public sector’s unique characteristics.” He bases this conclusion on TQM’s roots in statistical quality control and industrial engineering. He provides one of the most comprehensive arguments against the implementation of orthodox TQM in public sector organizations in which he identifies a number of significant problems in adapting a corporate manufacturing management system to the public service sector. Among other factors limiting TQM’s usefulness, Swiss points to its stress on products rather than services, insensitivity to the problems of defining government customers, an inappropriate emphasis on inputs and process rather than results, and demands for top-level leadership that can rarely be met by the governmental culture (Swiss, 1992).

Swiss (1992) also points out that taxpayers evaluate public services not only on the result but also on the behavior and even the appearance of the individual delivering the service. As a result, he reasons that quality metrics for government services are extremely complex to develop and apply in a meaningful way. Swiss makes a strong argument about the difficulty in defining the government customer, which in many cases can be a challenging and even politically controversial issue. Hyde (1995) also identifies finding consensus on customers as one of government’s biggest challenges in implementing TQM. Arguments against TQM’s pronounced focus on inputs and processes may carry less weight today as many government agencies adopt process mapping techniques, process reengineering tools and performance metrics. However, with the continuing rapid turnover of high-level political appointees, the requirement for sustained support from senior leadership and a strong and supportive corporate culture continues to be problematic for many agencies. Swiss’ bottom line is that with all these inherent weaknesses, implementation of orthodox TQM can “easily do more harm than good.” However, Swiss’s diagnosis of TQM in public management is not entirely pessimistic and negative. He ultimately concedes that a limited application of certain modified elements of TQM in the public sector emphasizing client feedback, performance monitoring, continuous improvement and worker participation may be workable and even beneficial.

Rago (1994) also argues that orthodox TQM must be modified substantially in order for it to be useful in the public sector environment, but provides different reasons from the perspective of a state agency practitioner. Rago argues that it is the government environment with its political culture and the unmet needs of a virtually unlimited supply of customers that creates real challenges for the implementation of TQM. He reasons that as a government service agency implements TQM and improves performance in the delivery of services, it expands its customer base to those citizens who needed services but who were too far down on the waiting list to obtain them. Rago points out that this frequently is accompanied by a sustained or diminishing funding level. As a consequence, successful implementation of a TQM initiative frequently results in reduced overall public funding to support increased public services.

In contrast to these potential difficulties, several observers suggest benefits or advantages in adopting TQM in government agencies. These include: (1) producing better and more goods and services with the same or fewer resources (Cohen and Brand, 1993); (2) motivating and empowering employees (Rago, 1996); (3) developing strong leadership among senior management (Rago, 1996); (4) reducing layers of organizational hierarchy (Cohen and Brand, 1993; Rago, 1996); (5) competing more effectively against privatization threats (Osborne and Gaebler, 1992); (6) helping organizations achieve goals and objectives (Cohen and Brand, 1993); and (7) meeting customer (taxpayer) expectations (Carr and Littman, 1993). Each of these advantages is related and broadly overlaps in application. Opinions vary among observers which advantages are most significant in the public sector. With respect to the fifth stated advantage, the work of Osborne and Gaebler (1992) suggests that a government agency's very survival depends upon improved productivity and quality. Cohen and Brand (1993) assert the most important reason for public organizations to adopt TQM is to further efforts in accomplishing organizational goals and objectives, thus improving odds of organizational survival.

Scharitzer and Korunka (2000) argue that the adaptation of TQM in the public service sector is entirely consistent with government's move to make administration more efficient, more powerful, sleeker, and more citizen-oriented. They suggest that in real public organizational life, these efforts reflect New Public Management's (NPM) far-reaching changes in the organization and performance-oriented programs of public service facilities and numerous measures of organizational development. In contrast with Swis (1992) and Rago's (1994) arguments about the difficulty in identifying, defining and responding to government's customer base, Scharitzer and Korunk find this one of TQM's marked advantages—it so nicely dovetails with NPM's focus on the customer and its need to perform in a more citizen-oriented way.

ASSESSING THE EFFECTIVENESS OF TOTAL QUALITY MANAGEMENT IN THE PUBLIC SECTOR

Assessing the value of implementing quality management in organizations is problematic. As late as 1991, Juran noted that there was a large information vacuum in terms of measuring and evaluating the results of implementing TQM in organizations. A year later, Sims (1992) talked about a paucity of systematic and rigorous evaluative efforts. Bowman and Hellein (1998) characterize those empirical studies of quality management in government that had been done as either macro approaches (all jurisdictions as a whole) or micro approaches (concentrating on a single program or department in one jurisdiction). Wilson and Durant (1994) list a host of concerns about shortcomings in meaningful empirical evidence of the value of quality management approaches. Much of the early literature on the implementation of quality initiatives in the public sector tends to be anecdotal, expository and prescriptive (Denhardt, Pyle, and Bluedorn, 1987; Carr and Littman, 1990; Berry, 1991; Berman and West, 1995a&b; Poister and Harris, 1997). Recent publications frequently contain data from empirical studies describing the successes and pitfalls of TQM in government (West, Berman, and Milakovich, 1994; Berman and West, 1995a&b; Zeitz, 1996; Klagge, 1997; Selen and Schepers, 2001). In these studies, reaction by scholars to TQM's efficacy in improving government performance has been mixed. Some scholars have enthusiastically concluded that TQM shows great promise for

public sector management (Milakovich, 1990 and 1991; Davis and Hyde, 1992; Cohen and Brand, 1993; Kravchuk and Leighton, 1993; White and Wolf, 1995a). Other scholars have been less enthusiastic and some are highly critical of its possibilities (Swiss, 1992; Chang, 1993; Walters, 1992 and 1994; Connor, 1997).

Among government officials and practitioners, TQM has also had a mixed reaction. Zeitz's research (1996) suggests that professional, technical, and scientific public employees perform the bulk of value-adding activities in their jobs and are the least favorably disposed towards TQM implementation. Resistance to TQM by practitioners include arguments that it is merely another passing managerial fad; that it is not well suited to a particular kind of work done by their organization; that it increases paperwork, meetings and training time; and that it takes away from the overall time available to do the "real work" (Zeitz, 1996). During the 1990s, there was a growing concern about the actual cost-benefits associated with TQM programs in corporate organizations and articles in professional and academic journals began to question whether quality management really delivered meaningful organization improvement (Romano, 1994). Some decried outright the systemic and fundamental failures of TQM (Harari, 1997). This in turn created similar unrest in the government sector and many public agencies began to worry and question whether they were getting real value from their programs (Poister and Harris, 1997). More recently, in the face of mounting fiscal crises across the nation, particularly in state government, public manager practitioners are increasingly casting a jaundiced eye at quality programs as unaffordable tools in attaining greater cost efficiencies and productivity (Barrett and Greene, 2001; Thompson, 2003; Grata, 2003). In contrast, Barrett and Greene, (2001) argue that strategic planning, quality management and performance measurement become even more important during hard times—"when money is short, knowing which programs work and which don't is of paramount importance." Wilson and Durant (1994) argue that ways must be found to demonstrate quality management's short-term, nonmonetary progress toward achievement of long-range cultural change and quality improvement goals. Without some tangible indication of immediate value with quality management programs, many agencies are ill-disposed to go the distance committing constrained agency resources. Some agencies, such as the Veterans Administration, are already well underway in reversing quality programs begun during an earlier era of organizational reinvention. Daniel Cooper, the agency's new chief administrator, has switched the VA's focus from employee and customer satisfaction to productivity and efficiency (cost-cutting/cost avoidance) concerns (Thompson, 2003).

Part of the problem is in assessing TQM's real contribution to public management is the relative lack of hard data (Scharitzer and Kokrunk, 2000). Although government organizations have had considerable experience with TQM to date, Poister and Harris (1997) point out there is relatively little meaningful empirical data to show for it. Harari (1997) argues that the empirical evidence that does exist demonstrates that only about one in three TQM programs in public and corporate institutions achieve significant improvements in quality and performance. Poister and Harris (1997) suggest several factors contributing to the difficulty in accurately collecting data and assessing public quality management effectiveness: First, many agencies' quality programs are still in their infancy and are concentrating on the early stages of quality improvement. Quality approaches require long-term commitment, emphasizing organizational cultural change

that lead to improved performance. Second, quality processes are intended to produce incremental, continuous improvement that accumulates into meaningful change over extended periods of time. Many public quality initiatives terminate before true effectiveness levels are reached. Third, public organizations are frequently unclear in articulating specific objectives in implementing quality programs. Additionally, whatever objectives may be in place, these tend to evolve over time and focus on different goals and objectives. Fourth, most agencies are inadequately equipped with precise outcome metrics to identify and document the accumulated, shifting benefits of quality programs over the long term (Scharitzer and Korunka, 2000). Bowman and Hellein (1998) identify an additional difficulty with the considerable variation in quality programs by departments and within departments making it extremely difficult to compare quality improvements and track progress and outcomes. These arguments appear well founded.(1) Most of the empirical studies cited in the literature tend to review TQM's effectiveness in narrow, limited applications (Zeitz, 1996) or analyze TQM accomplishments over a relatively brief period of time (Berman and West, 1995b). Even those that claim to be longitudinal studies (Mohrman, Lawler, and Ledford, 1996; Sharitzer and Korunka, 2000) frequently share some of these limitations and deficiencies.

Beyond the difficulty in measuring or assessing success in quality management programs, Harari's (1997) skepticism about TQM is based upon what he perceives as fundamental shortcomings with TQM itself. He identifies ten specific reasons why he believes TQM is likely not to succeed: (1) TQM focuses people's attention on internal processes rather than on external results; (2) TQM focuses on minimum standards; (3) TQM develops its own cumbersome bureaucracy; (4) TQM delegates quality to quality czars and experts rather than to real people; (5) TQM does not demand radical organizational reform; (6) TQM does not demand changes in management compensation; (7) TQM does not demand entirely new relationships with outside partners; (8) TQM appeals to faddism, egotism and quick-fixism; (9) TQM drains entrepreneurship and innovation from corporate culture; and (10) TQM has no place for love (passion).

Grant, Shani, and Krishnan (1994) share similar concerns about TQM's unsuitability for rapid implementation in the public sector. They assert that the assumptions and principles underpinning Total Quality Management approaches are incompatible with organizational models of Western management theory and practice. They argue that TQM cannot simply be templated over existing public agency organizational structures. For it to function properly and completely, TQM requires major changes in public management practices, a redefinition of senior leader and manager roles, changes in organizational goals and objectives, and significant work and organizational redesign. This perspective is reinforced by Sensenbrenner (1995) who identifies three key shortcomings in the nature of public agency senior leadership: (1) a planned lack of continuity at top leadership levels built in through terms, term limits and regularly scheduled competition (elections) for the leadership posts; (2) systems that appear at times to be designed to reward elected officials for conducting the business of government at odds with the best practices of business; and (3) few personal incentives for senior public leadership in making any real organizational performance improvements.

These researchers' skepticism is not unfounded. TQM may be a wonderful idea in concept but the devil is in the details in implementation. The essence of most problems associated with the implementation of TQM programs in public or any other kind of organization has to do with level of organization and leader commitment. In an article published in *Management Review* in 1994, author Catherine Romano interviewed several prominent scholars and practitioners on their views about the success or failure of TQM. Most respondents agreed that organizations in general did not reap the full benefits associated with TQM because it was generally only partially implemented, that is, organizations usually only experimented with some elements of TQM, not the total package. In response to Romano's questioning, Tom Peters responded that "TQM done right is a way of life, not a program". Rosabeth Moss Kanter added that when TQM programs fail, it is because "they are mounted as programs, unconnected to business strategy, rigidly and narrowly applied..." To really succeed, TQM must become the organizing logic and culture of the organization. And it must absolutely have the support of top organizational leadership and management (Krone, 1991; Juran, quoted in Romano, 1994; Mani, 1995). Swiss (1992) attributes the large number of false starts with organizations implementing TQM to the tendency of many organizations to break off a relatively small piece of quality management, such as quality circles, and attempt to make them a freestanding technique for achieving quality. Batten (1994) suggests that one of the most serious deficiencies of many TQM efforts is the tendency to view and practice quality management as a rigid process. Reduced to the level of a program, TQM falls far short of the rigorous demands needed to generate significant organizational change and improvement. Batten concludes that, more than simply another trendy improvement program, TQM needs to function within a committed Total Quality Culture. Most failures with TQM, in fact, result from half-hearted or partial implementations by uncommitted organizational leadership, which Poister and Harris (1997) disparagingly refer to as "total quality lip service."

What becomes evident in this article and many others of similar ilk is that it is very difficult to analyze and compare empirical data about the implementation of Total Quality Management in the corporate or public sector because it is such a loose term—It has been applied in so many different forms and guises that any attempt to compare data and draw thoughtful conclusions stretches the point to meaninglessness. Partial implementation of TQM approaches or short-term experimentation with quality efforts are particularly problematic in that there is no fundamental reason to expect meaningful results over the short haul in the first place. To be successful in a measurable way, organizations must commit to the TQM approach as a complete cultural change with total leadership support and buy-in over the long haul (Rago, 1996). Since most experimentation with TQM tends to be tentative and experimental, it generally does not produce the same positive results achieved by the Japanese who adopted TQM with almost organizational religious fervor.

Cohen and Eimicke (1994) provide an interesting counterpoint to much of the academic literature attempting to make sense of the empirical data. In their study of the NYC Parks Department, they readily acknowledge that the process of TQM implementation was messy and unorthodox and totally out of alignment with any traditional TQM rulebook. Only a few of the TQM analytical tools were implemented and

used. In some cases, managers attempted to use TQM to further their own private agendas. Some managers misunderstood how to use TQM effectively and others openly tried to sabotage quality initiatives. Notwithstanding all these challenges, they conclude that the costs of learning to work in new ways was more than absorbed by the benefits produced during the first projects conducted during their study. Their conclusions support a learning-by-doing approach to implementation of TQM in public organizations. By taking a measured approach to TQM implementation, the NYC Parks Department was able to generate some quick victories with its quality program and organizational change. This provides encouragement for public organizations that would otherwise find it impossible to undergo a rapid organizational culture change in the implementation of quality programs.

In a study conducted by Connor (1997), the author concludes that a frequently overlooked but fundamentally important aspect of the implementation of TQM in public organizations is the human factor. This corroborates the results of an empirical study conducted by Zeitz (1996) concerning employee attitudes towards quality management in a government agency. Lack of concern for the human factor, Connor believes, may be TQM's most serious downside. Connor observes that TQM enthusiasts don't really care about employees, the people who do the work, they care only about customers, process improvement, cycle time, performance, but they tend to ignore people—people are only a “means to an end.” If Connor's observation is true, this could indeed be a critical and damning shortcoming for TQM. Connors acknowledges that organizations can achieve great gains in productivity and performance using quality approaches, but that these gains come at a price. The human cost depends ultimately on the way TQM is implemented. We shouldn't forget the lessons derived from the human relations/human resources school of management. We shouldn't ignore the important ideas about human involvement in organizations as expressed in socio-tech theory. The overall evidence suggests that TQM done correctly can avoid these potential pitfalls. Connor ultimately asserts (I believe correctly) that the Malcolm Baldrige Award criteria have the emphasis on people about right in all categories.

A case study of the IRS implementation of TQM (Mani, 1995) brings out another important point. Implementation of TQM is a long-term commitment. It rarely produces lasting results over the short term. Mani argues that a total quality organization may achieve results not directly attributable to its quality efforts, but that TQM will help an organization hold productivity gains as performance improvements are achieved. As evidence of this, she cites the abandonment of continuous improvement efforts by a Hewlett-Packard plant once certain production objectives were met; the gains were not sustained and the plant eventually had to reestablish the quality continuous improvement. Mani concludes that “quality improvement must be a constant effort or the organization will shift to poor performance, higher costs, and lower quality.

White and Wolf (1995b) assert that TQM has a fundamental advantage over other management approaches. Citing Deming's philosophy that the key to staying in business in the long run is constant and consistent improvement in quality, they argue that TQM can assist organizations in becoming more viable as systems, implicitly raising the overall gross national product while lowering prices. This has the net benefit of demonstrating that

improvements in quality not only do not cost more, but that they indeed can reduce costs and hence lower real prices to consumers in both the corporate and public sectors.

TOTAL QUALITY ORGANIZATIONS AND BEYOND

Hodgetts, Luthans and Lee (1994) identify total quality organizations, learning organizations, and world-class status as successive phases in a new organization design paradigm that replaces the classical paradigm. They suggest that most proponents of TQM would acknowledge no clear distinction between total quality and learning organizations; however, in terms of design specifications that arise out of these approaches, they argue that most observers would admit to a difference. The idea of learning organizations was primarily developed Argyris and Schon in the late 1970s and later popularized by Peter Senge in 1990. In contrast to single-loop learning characteristic of quality organizations, learning organization's double-loop feedback provides for the capability of the organization to anticipate change. There are many elements here that are important. But the emphasis on systems thinking revisits critical ideas born decades earlier as open systems thinking emerged and came to dominate organization theory. TQM's systems approach focuses on the interrelationship between root causes (inputs) and effects (outputs) and facilitates managers addressing the real causes of problems rather than just the symptoms.

Hodgetts, Luthans, and Lee's (1994) third tier in organizational excellence is world-class organizations. These are those that have become not merely leaders in their field but are recognized by peer organizations as the very best. World class organizations are the best in their class in contrast to competitors or like organizations in several strategically important areas. Thus, organizations can be world class in some aspect of their operations without being world-class in all, and they assert this should be the ultimate objective for any organization pursuing a quality program. In the United States, the quality movement has given birth to a highly successful quality program on the national level, the establishment by the Department of Commerce of the Malcolm Baldrige National Quality Award (MBNQA) program in 1988. In annual competitions, corporate organizations submit applications to be assessed or audited according to the MBNQA's strict quality criteria in seven separate categories. Those organizations scoring highest in a given year are given special recognition for their adherence to high quality standards and are recognized as Baldrige winners, world-class organizations to be benchmarked by other organizations aspiring to improved quality programs.

Until now, the Baldrige National Quality Award Program has focused on corporate organizations and there have been no published criteria for public organizations. However, with the recent announcement by the national organization, this appears to be changing. Baldrige criteria for public organizations are under development and will be published shortly. More importantly, the competition will be extended to a category for public agencies. This in and of itself is recognition by a dominant player in America's quality effort that quality management is an appropriate approach for organizations in the public sector.

There is a close relationship between quality management approaches and strategic management. During the 1990s they were invariably linked together in most

public agency reengineering initiatives. The mandate of the National Performance Review was to “improve government performance through strategic and quality management” (Gore, 1993). Quality management and strategic management are alike in many regards. Vinzant and Vinzant (1996) provide a systematic analysis of similarities and differences along five separate points of comparison: organizational view, time orientation, impact on the organizational culture, leadership requirements, and management control emphasis. Although they note several fine nuances of distinction, they conclude that strategic management and [total] quality management “are not fundamentally inconsistent and may be potentially complementary.” This is consistent with the prominent inclusion of strategic planning as one of the seven primary assessment categories in the Baldrige National Quality Program. Blazey (2003) sees the Baldrige approach as an integrated management system from which leaders “cannot eliminate a single part...and still expect to produce optimum value.” For Blazey, quality management and strategic planning are not just consistent and potentially complementary, they are absolutely essential to each other for maximum organizational benefit.

The Pennsylvania Department of Transportation’s Quality Program

The Pennsylvania Department of Transportation (PENNDOT) was one of the first state or federal government agencies to actively pursue a quality program in 1982 (Poister and Harris, 2000). The IRS, by comparison didn’t begin its much-studied quality journey until three years later in 1986 (Mani, 1995). PENNDOT’s early quality change initiative predated by a decade the reengineering movement popularized by Osborne and Gaebler (1992) and the National Productivity Review (1993). The virtue of PENNDOT’s quality journey is that it has been well documented in the literature in over a dozen journal articles tracking its progress over two decades of implementation and evolution (Scheiner, 1981; Poister, 1982 and 1988; Poister and Larson, 1988; Chisholm and Munzenrider, 1989; Harris, 1990; Margolis, 1995; Poister and Harris, 1996 and 1997; Poister, 1997; Poister, Harris, and Robinson, 1998; Poister and Streib 1999a&b; Poister and Harris, 2000; and Margolis, 2002). Although specific quality objectives and metrics evolved during this period of time, it is possible to accurately assess the effectiveness of PENNDOT’s quality program in facilitating great organizational change and much improved performance in the delivery of public goods and services.

PENNDOT’s pioneering change strategy was characterized early on by organization scholars as *revitalization*, defined as “the injection of new life into an agency that has become lethargic” (Denhardt and Jennings, 1987; Poister, 1988). Revitalization, as defined by these scholars, signifies the complete overhaul of poorly performing public organizations into high-performance organizations. Poister asserts that for revitalization to work, new leadership has to reverse ongoing negative trends in organizations that have suffered declines in service delivery, inadequate funding, cutbacks, low morale, lack of management capacity, lack of a sense of mission, loss of political support and public credibility, and loss of integrity. This litany of organizational ills well describes the state of affairs in PENNDOT towards the end of the 1970s—by any measurement, PENNDOT was a badly managed and failing organization.

As a highway department in the years following World War II, PENNDOT had geared up during the 1950s and 60s to construct its portion of the new interstate highway system. Then, through a combination of political abuse, fiscal mismanagement, and managerial neglect, it had fallen into serious organizational disrepair by the mid-1970s (Scheiner, 1981; Poister and Harris, 2000). In an article published in January 1979, in the *Engineering News-Record (ENR)*, the Pennsylvania road network was described as a highway system “marked by such disrepair, disrepute and disarray that restoration seems all but impossible. PENNDOT itself was described as a seriously dysfunctional public organization,

a discredited department, helplessly adrift in a sea of public derision and legislative scorn. Its bureaucracy, decimated by mass furloughs, can hardly function, and PENNDOT has practically abandoned its mandate. It has virtually no capital construction program, and the 44,700-mile highway system entrusted to its care, once one of the finest in the world, is on the verge of becoming a shambles. It is flat broke.

Engineering News Record, January 25, 1979, 26.

The Pennsylvania Transportation Advisory Commission (TAC) had previously come to similar conclusions in a report entitled *New Directions for PENNDOT*, published in April 1976, for the Secretary of Transportation and the State Transportation Commission. In that report, the TAC, chaired by Pennsylvania State University professor, Dr. Thomas D. Larson, asserted that Pennsylvania highways was a transportation system that had reached a crisis point: “Huge debts, years of spiraling inflation, soaring labor costs, thousands of miles of new highways to care for, dwindling resources—all have combined to bring PENNDOT to its fiscal knees.” The report also acknowledged the frequently made charge that “the Department’s own mismanagement and out-dated policies have played a role in bringing the crisis to a head.” The Commission organized an ad hoc Fiscal Review Task Force to “study the nature and scope of the fiscal crisis” and “to provide hard and realistic ways to get out of it.”

PENNDOT’s organizational environment during the two decades leading up to its fiscal crisis provides a close parallel to the conditions proposed by Huber and Glick’s (1993) model that demonstrates the relationship between dramatic changes in the organizational environment and corresponding changes in organizational processes. PENNDOT’s fiscal crisis and managerial woes at the end of the 1970s are also analogous to Gladwell’s (2000) tipping point and Greiner’s (1993) revolutionary period of substantial organizational turmoil and change preliminary to a new period of evolutionary change. Similar to the crisis in American manufacturing and global markets in the 1970s, PENNDOT was faced with a survival crisis. By the end of that decade, the Pennsylvania state legislature was actively debating a number of bills and legislation calling for the dissolution of the agency. PENNDOT had to change or risk organizational death. Almost simultaneously with American industry, it embraced elements of the quality movement.

Following an upset victory at the polls in November, 1978, Governor-elect Dick Thornburgh convinced Dr. Tom Larson, the TAC’s chairman, to become his Secretary of

Transportation with the mandate to fix its problems. The first three years of the Larson leadership in PENNDOT evoked revolutionary change, a complete and fundamental shift in the basic ideas of how PENNDOT was managed. Dramatic changes during this period included (1) a marked reduction in the influence of politics in selecting key managers throughout the state (particularly county maintenance managers); (2) an increase in the level of professionalism in the agency through selection and training; (3) the design and installation of state-of-the-art management support systems (computer-based MIS); (4) the implementation of a management by objectives (MBO) program; and (5) the beginning of a participative management style (Chisholm and Munzenrider, 1989). By 1982, Larson reasoned that he had probably gotten all he was going to get out of hard-nosed management measures and directed a shift in management style from Theory X to Theory Y and quality approaches. Developing a truly transformational quality program is a long-term proposition and PENNDOT leadership realized they were in for the long haul (Poister and Harris, 2000). Rather than a sudden over-night transformation, most of PENNDOT's subsequent organizational change was iterative, cumulative, and evolutionary in nature.

One of PENNDOT's first initiatives in quality approaches was the implementation of quality circles in 1982 (Harris, 1990). In that same year, Bryant and Kearns (1982) published an article in *PAR* touting the effectiveness of quality circles in a federal facility. PENNDOT's crisis had irrefutably set the stage for change in the organizational culture, structure and management approaches. Its transition to a more collaborative, quality management approach was a hard sell at first but over time became an ingrained part of the agency's evolving organizational culture as a quality organization. During the first two years of the quality circle program, the program expanded to 60 circles dispersed around the state. PENNDOT also initiated a quality conference, a professional gathering of employees from the engineering districts and central office bureaus to discuss ongoing and potential quality efforts. Another early aspect of PENNDOT's quality program was Employee Involvement (EI). As the agency evolved, new management policies provided the framework for participative management and group problem solving techniques (Harris, 1990).

PENNDOT's approach to implementing quality management was characterized by small incremental evolutionary steps rather than massive, sudden revolutionary change. As the quality culture spread throughout PENNDOT, quality circles identified many opportunities and challenges that cut across functional organizational lines in the districts, counties, and central office bureaus. To address these issues, quality breakthrough teams were soon organized and empowered to operate cross-functionally across the agency (Harris, 1990). At difference from the quality circles, which were essentially informal groups of volunteers interested in improving quality in their immediate operations, the quality breakthrough teams were formal management-directed bodies that were organized to address a specific broader agency problem and then dissolved when the gap was closed and the problem resolved (Poister and Harris, 2000). This began PENNDOT's initial experience with horizontal and matrix-like organizational solutions. Under Howard Yerusolim, Larson's successor as Secretary of Transportation, PENNDOT later institutionalized employee involvement and team-based problem solving (Harris, 1990). This was later enlarged in a sophisticated participatory approach through PENNDOT's management conference strategic planning process (Margolis, 1995).

In the early 1990s, PENNDOT leaders felt the need to guide the quality effort with some sort of strategic planning focus. A department-level steering committee commissioned the development of a strategic plan for quality that would serve as a model and road map for the rest of the agency (Poister and Harris, 2000). A customer service focus was also embraced during this time period and became a primary pillar of PENNDOT's quality improvement program. During these years, progress in organizational change and quality improvement was uneven and produced mixed results across the 12,000-person, geographically-dispersed organization. Under the leadership of Brad Mallory, PENNDOT's next Secretary of Transportation, the Malcolm Baldrige Performance Excellence criteria was selected as a unifying framework to integrate all quality-related initiatives in 1995. By the end of the 1990s, all organizations in PENNDOT (bureaus, engineering districts, and counties maintenance operations had undergone a Baldrige examination process to identify and close performance gaps to better serve PENNDOT's customers in a volatile organizational environment (Poister and Harris, 2000).

In 1999, PENNDOT underwent another important organizational change as the Operations Review Group (ORG) combined with the recently created Transportation University (TU) to form the Center for Performance Excellence (CPE). Created in 1966 the ORG has been subject to a process of continual evolution and change. For two decades, the ORG had provided a small staff of internal consultants to steer PENNDOT's quality movement. During this time, its functions had included a broad range of disparate organizational assessment tasks: highway construction standards and auditing of documentation, investigative functions, county accreditation, performance measures, support for the development of major highway IT systems, functional performance reviews, productivity, quality, customer service initiatives, reengineering and Baldrige assessments. By the time of the creation of the CPE, it had evolved into primarily an internal consulting group supporting process reengineering and providing a wide array of assistance in improving performance through direct consulting and training.

PENNDOT's Transportation University was modeled after corporate university structures of world class business organizations. The idea was investigated and developed in 1996 and its charter was approved in 1997. It was created out of the former Training Division in the Bureau of Personnel with the purpose of aligning resources available to educate, train, and develop employees to enable them to deliver quality services and products, supporting achievement of current and strategic goals, and provide just-in-time quality learning experiences. The TU was responsible for systematizing the PENNDOT training effort, centralizing its design, development, and administration, and applying consistent measures. One of its principal objectives was to develop and implement a competency-based training approach and administer a curriculum of standardized courses aimed at all levels of PENNDOT employees. The TU was also to serve as the knowledge broker for PENNDOT. It became the central clearinghouse for the movement and distribution of knowledge and information vertically (up and down) and horizontally (between Central Office and the Engineering Districts).

As it was integrated into the structure of the Center for Performance Excellence, the Transportation University was reorganized as a virtual organization. It occupied a modest physical space for staff cubicles, classrooms, and the Knowledge Center Library, but was greatly expanded by a virtual organization structure networking electronically with the entire PENNDOT organization. This virtual organization expanded personnel directly involved in the Transportation University from the small working staff of seven to include several hundred employees. The TU was tasked with using new and emerging technologies to form a synthetic theater of learning that would be completely interoperable with the districts in the field, and provide both to district engineers and subordinate leaders via the Internet to significantly accelerate the conduct of PENNDOT operations. The TU had four strategic objectives written into its charter: (1) Provide learning opportunities that support PENNDOT's ongoing critical business issues; (2) Ensure all training and education activities support PENNDOT's strategic quality objectives; (3) Provide all levels of employees with the knowledge, skills, and competencies needed to meet PENNDOT's strategic (future) objectives; (4) Become the strategic umbrella for training PENNDOT's value chain including customers, contractors, suppliers, and universities that provide tomorrow's workers.

Figure 1. Two Decades of Quality Management at PENNDOT, 1982-2002.

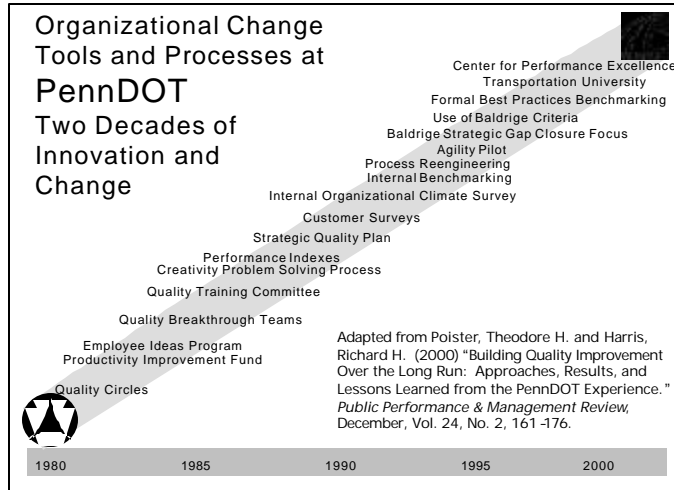
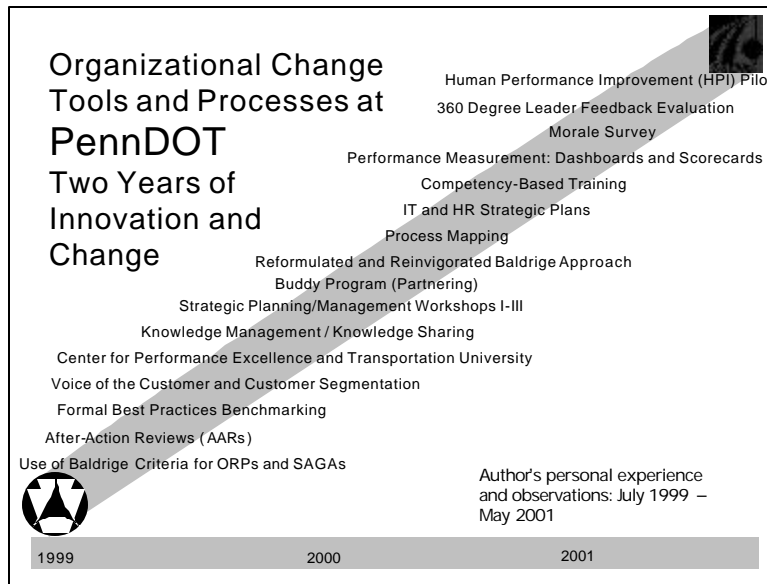


Figure 1 is an adaptation of Poister and Harris' (2000) model of organizational change tools and processes implemented at PENNDOT over a period of two decades (see Note 3 at the end of the article). The model reflects a wide array of successive quality approaches to organizational change and improvement. Most new approaches built upon the successes of earlier tools and strategies. During the latter part of this period, the pace of change continued to pick up as the detail from Figure 2 illustrates depicting a broad array of quality innovation implemented in just a two year period between 1999 and 2001 (see Note 3 at the end of the article).

Figure 2. Two Years of Innovation and Change at PENNDOT, 1999-2001.



Although public agencies are generally categorized as service delivery organizations, TQM's statistical control

methodologies developed in the corporate manufacturing sector have been effectively employed in various areas of PENNDOT's operations including production and distribution of license plates, renewal processing and distribution of drivers licenses and vehicle registrations, and certain aspects of highway and bridge construction (Poister and Harris, 1997).

Not all of PENNDOT's efforts have emanated from traditional quality movement or TQM roots. However, all have been carefully wickered together as part of the agency's overall quality program. Curiously, PENNDOT leadership and employees hardly ever refer to total quality management or TQM. They, perhaps like Deming, find the term not useful, and prefer to talk simply about quality management, performance gap closure, and continuous improvement.

The most important aspect of PENNDOT's quality program has been the integration and synergy derived from its strategic management system. The Miles (1980) process model for organizational adaptation to a rapidly changing external environment strongly suggests a strategic planning process for organizations to make strategic choice decisions of whether to change internal structures and processes or attempt to influence the external environment itself. Early in its organizational redesign process, PENNDOT committed to a strategic planning process as an integral part of its quality approach. Rudimentary at first, it has evolved into a more sophisticated and comprehensive approach. In 1999, PENNDOT embarked on an initiative to develop a new transportation strategic plan for Pennsylvania. The strategic planning team designed a comprehensive strategic planning process that included validating previous research and data from a wide variety of internal and external sources, and an intensive new data gathering process which included surveys, focus groups, and one-on-one interviews with PENNDOT customers. Sixteen focus groups with PENNDOT customers were scheduled and conducted across the state. Additional focus groups were conducted with PENNDOT employees, partners, and stakeholders. Data from the focus groups, interviews, and surveys was compiled and analyzed. The agency conducted a series of three strategic planning workshops for all of its engineering districts and central office bureaus in which organizational leaders participated in a multi-phased strategic planning process. These workshops included a strengths-weaknesses-opportunities-challenges (SWOC) analysis of PENNDOT's current situation and also looked into the future transportation environment. PENNDOT technical teams met on a number of occasions to consider research presented from multiple sources and to validate findings and recommendations.

Out of this collaborative process, senior leadership developed a restatement of PENNDOT's vision, mission, and values statements and a detailed statement of eight strategic focus areas. Subsequently, high-level goals and measurements were developed for each strategic focus area for the years 2002 and 2005. To ensure sound follow through, process owners and technical leaders were assigned for each of 13 high-level goals and 21 strategic objectives identified. A resource-balancing process was followed to ensure adequate financial, human and material resources to meet established objectives. PENNDOT leadership were able to summarize the entire strategic agenda on just one page reflecting each of its significant elements on a scorecard of measures (See Figure 3 below and Note 3 at the end of the article). Once the completed strategic plan, Moving

Pennsylvania Forward, was approved and communicated to all PENNDOT employees, partners, and stakeholders, the agency’s engineering districts and central bureaus were required to link their annual business plans directly to the Baldrige criteria and the strategic focus areas, high-level goals, and objectives in Moving Pennsylvania Forward. In other words, the PENNDOT strategic management system requires a direct linkage and alignment between its centralized strategic plan and decentralized operational and tactical plans.

Figure 3. PENNDOT’s Scorecard of Measures Reflecting the Strategic Agenda

Strategic Focus Areas		High-Level Goals	How Success Will Be Measured	Customer Support (External) (Internal)	Measurement Tool	2002 Target	2005 Target
Maintenance First	Smother roads	Better ride conditions on major National Highway System (NHS) highways	X		International Roughness Index (IRI)	104 for NHS roads	99 for NHS roads
	Cost-effective highway maintenance investment	Reduction in outstanding maintenance needs		X	Condition assessment for highways and bridges	Complete asset management system	Meet target established in 2002
Quality Of Life	Balance social, economic and environmental concerns	Timely decisions based on public and technical input on project impacts	X		Highway project environmental approvals meeting target dates	75% meeting target dates	90% meeting target dates
	Demonstrate sound environmental practices	Attaining world - class environmental status		X	ISO 14001 environmental criteria	Implement a pilot program	Meet ISO standards
Mobility And Access	Delivery of transportation products and services	Honoring commitments on scheduled transportation projects	X		Dollar value of 12- year program construction contracts initiated	\$1.3 billion per year	\$1.4 billion per year
	Cost-effective highway maintenance investment	Reduced travel delays		X	2002 peak period work zone lane reversion 2005 level delays in selected entries	Set baselin in 2000 For reduced 2002 lane restrictions	Meet target set in 2002 to reduce corridor travel delays
Customer Focus	Improve customer satisfaction	Competitiveness on the Malcolm Baldrige Criteria for Excellence		X	Baldrige Organizational Review Package scores customer criteria	80 Department average	100 Department average
	Improve customer access to information	Prompt answers to telephone inquiries		X	Answer rate of calls to the Customer Call Center	94% of calls answered	94% of calls answered
Innovation and Technology	World-class process and product performance	Competitiveness on the Malcolm Baldrige Criteria for Excellence		X	Baldrige Organizational Review Package scores customer criteria	500 level met by lead organizations	500 level met by lead organizations
Safety	Safer travel	Fewer fatalities from highway crashes	X		Number of fatalities per year	5% reduction in fatalities	10% reduction in fatalities
	Safer working conditions	Fewer work-related injuries		X	Injury rate per 100 employees working one year	8.25% injury rate	7.5% injury rate
Leadership At all Levels	Improve leadership capabilities and work environment	Positive trends in employee feedback on job-related factors		X	Organizational Climate Survey selected items	48% positive rating	54% positive rating
Relationship Building	Cultivate effective relationships	Effectiveness of partnership to achieve business results		X	PennDOT partner business effectiveness survey scores	Establish measure baseline and target	Meet target established in 2002

To achieve real success, quality management requires sustained implementation over an extended period of time. Thus, perhaps the most significant challenge to effective quality management in public organizations is the frequent turnover of senior leadership as a result of elections. Allen and Brady (1997) suggest that quality management’s most difficult challenge is sustaining leader commitment and interorganizational communication over time. Noting that quality efforts typically suffer most with leadership changeover, Bowman and Hellein (1998) argue that continuity of support of senior leadership is clearly the most important factor in the sustained success of quality management initiatives in government. Radin and Coffee (1993) point out that expenditures of resources with no gains makes quality management approaches vulnerable to attacks and difficult to sustain during leader changeover. In light of this, the PENNDOT experience has been instructive. During the three previous Pennsylvania gubernatorial administrations since the 1980s—Thornburgh (Republican)1979-87), Casey (Democrat) 1987-1995 and Ridge/Schweiker (Republican) 1995-2003)— PENNDOT enjoyed an unprecedented level of leadership

continuity and was highly successful in sustaining a continuous quality culture. With the transition in 2003 to the new Rendell administration, PENNDOT's quality management culture faces its first serious challenge to that 24-year period of sustained continuity and growth.

Like most other governors elected in November, 2002, Governor Rendell assumed office faced by a fiscal crisis and made reducing the cost of state government a top priority. *Productivity* quickly became the operative word guiding the administration's newly-installed political appointees but it thus far has translated more into cost-cutting and cost avoidance initiatives rather than quality or performance improvement measures. In this budgetary-constrained environment, the new PENNDOT leader team led by Transportation Secretary Allen Biehler has focused immediate attention on reducing costs and realizing efficiencies in PENNDOT's \$4 billion-plus budget. Agency programs are being measured and assessed using cost-benefit analysis approaches. PENNDOT's traditional strategic focus has consequently, at least temporarily, shifted to more immediate fiscal tactical and operational concerns.

Secretary Biehler's new leader team was immediately faced with several pressing fiscal and operational issues. But it also became actively engaged in reviewing all aspects of PENNDOT's quality management culture to determine whether its purported benefits justify the costs and commitment of agency resources (Grata, 2003). For example, in addressing concerns over the amount of time spent in conducting PENNDOT's rigorous Baldrige internal assessment process, the new leader team directed the formation of a high-level team led by two Deputy Secretaries to conduct an organizational survey and analysis to assess actual cost-benefit of the Baldrige program and to make recommendations for its continuance. At the conclusion of the study, the team recommended the retention of Baldrige as PENNDOT's quality integrator and basic business strategy model, but proposed a modified, less-time-intensive Baldrige assessment strategy.

Thus, although moving somewhat cautiously, PENNDOT's new leader team continues along the glide path of quality management. During the first seven months of the new administration, Secretary Biehler has led the new leader team through a number of important milestones including: a strategic management tutorial; a comprehensive assessment of the Baldrige program as the agency's quality integrator and business model; an assessment and revamping of agency strategic focus areas, high level goals, strategic objectives, scorecard and dashboard measures and specific targets; a leadership strategic planning retreat; the development and presentation to the governor of the agency's four top goals and action steps to accomplish them; and the conduct of the agency's annual business plan and budget presentations. These activities represent a significant balance between continuity and change.

PENNDOT's new leader team has moved to update the agency's strategic focus areas, high level goals, and strategic objectives that would support Governor Rendell's new productivity agenda and prepare for the agency's first budget submission cycle. The agency's dashboard and scorecard measures inherited from the previous administration were reviewed and adjusted to better align with the administration's new agenda—the

updated strategic agenda is now tracked using a much-simplified scorecard of measures. PENNDOT leadership continues to monitor developing trends, particularly volatile fiscal trends that potentially affect PENNDOT's revenue base. Secretary Biehler has set in motion plans to engage in a complete review and update of the agency's strategic plan following completion of the agency's annual business plan budgetary cycle. A recent memo jointly issued by Pennsylvania's Secretary of the Budget and Secretary of Administration requiring all agency heads to develop performance measures suggests that PENNDOT's quality management culture will continue to be supported by key leadership. According to the guidance provided in the memo, these performance measures are to

not only identify levels of organizational activity (such as the number of grants made, or the number of clients served) but also identify the qualitative and quantitative outcomes resulting (or anticipated) from program activities, and the efficiency with which resources are used to produce program results (such as cost per unit of service delivered, or time from request to response). Agencies are therefore expected to measure their program performance across several measurement dimensions, including need/demand, output/activity, efficiency, and outcome/impact.

(Masch and Barnett, September 5, 2003)

In short, PENNDOT's new leader team is still working its way through the first year of organizational restructuring. Whether the new administration will ultimately sustain continuity in PENNDOT's organizational culture of quality management and strategic alignment is an issue yet to be determined.

CONCLUSION

Total Quality Management, as commonly implemented, tends to be an eclectic and sometimes disconnected mix of quality management and organizational change ideas and techniques. This fact alone makes it exceedingly difficult to judge whether TQM provides an appropriate and useful management tool for the public sector and whether those experiments with quality management in government have generally proven successful or unsuccessful. When examined closely, empirical studies of the application of quality management in public organizations generally reveals a set of quality programs only partially developed and implemented. Total Quality Management proponents almost universally insist that genuine quality management represents not just a set of management techniques and procedures but a comprehensive change in organizational culture involving the entire organization over an extended period of time. However, empirical data from studies of public organizations which have experimented with TQM typically cover only limited implementations of some aspect of quality management for relatively brief durations of time, which does not provide a fair and logical assessment of its effectiveness in government organizations.

In contrast to some short-term and limited range empirical studies, the benefits of PENNDOT's quality program, measured over a period of two decades, provide a better overall look at and assessment of quality management in the public sector. Although

PENNDOT's approach to implementing a quality program was iterative and incremental, it was also cumulative and each new component modeled, piloted, and eventually implemented, built on previous experience and expanded the agency's understanding of quality and customer service. Over time, PENNDOT developed a comprehensive, unified quality program that integrates a sophisticated strategic planning process. Although not all of PENNDOT's widely decentralized subunits are working at the same level and deriving equal benefit from its quality efforts, the agency has indeed experienced an important cultural change and realized significant increases in performance and quality, most frequently expressed in terms of measured performance improvement and customer satisfaction.(2)

Today's public management combines well with quality management's insistence on a systems approach, customer focus, elimination of errors that fail to add value to products and services, problem prevention, long-term strategic planning, teamwork and employee involvement, fact-based decision making, continuous improvement, horizontal and decentralized organizational structures and external partnering arrangements. Notwithstanding skepticism by some scholars that quality management is incompatible with public sector management, PENNDOT's experience over two decades in these areas demonstrates a high level of compatibility and provides encouragement for public managers in other organizations.

Quality management and strategic planning can be quite compatible with management in the public sector, even in a rapidly evolving environment. As demonstrated by the case at PENNDOT, these work particularly well when employed in tandem in mutually reinforcing roles. Quality management is not simply a collection of processes and techniques used haphazardly and sporadically within an organization. That approach can in fact prove counterproductive and even destructive. Instead, implementing quality management in a public agency requires a comprehensive organizational culture change. It requires sustained commitment from senior leadership and employee involvement at all levels. Leaders must be willing to empower subordinates and employees must be willing to accept additional responsibility for meeting and exceeding taxpayer expectations in the delivery of whatever public goods and services are involved.

As demonstrated by its inclusion as one of the primary categories of the Baldrige National Quality criteria, strategic planning can and should be an integral part of a robust quality program. All employees in a public organization can participate in the strategic planning process by conducting constant internal and external scans of the environment. Building on information from these environmental scans, upper level leadership has the responsibility for developing and articulating the organizational vision and strategic objectives that conform to and support observed and anticipated changes in the agency's environment. Finally, agency employees at all levels can actively be engaged in gap closure and continuous improvement efforts.

Of course, this prescription represents an ideal difficult but not impossible to attain in a public organization. To achieve it, there needs to be greater continuity of leadership in agencies, with political appointees staying in position over extended periods of time and with greater continuity of purpose and policy during times of political

transition. Transformational leadership and new organizational designs must underpin the transition. Public management embracing quality must seek venues for sharing knowledge across and between agencies. Socio-technical approaches can be effectively used for leveraging new emerging technologies and integrating them into agency operations with the best interests of customers and employees in mind. Appointed leaders must focus on encouraging and sustaining an organizational climate of change and continuous learning. High-level careerists and rank and file public employees must be encouraged through empowerment, shared participation in the process, and thoughtful recognition programs to support such efforts.

Notes

1. Other potential reasons for TQM failures and shortcomings include: employee foot-dragging and sabotage; antiquated computer systems and information-sharing technologies; lack of leadership or leader commitment; not-invented-here syndrome, and inadequate or inappropriate compensations and reward systems.

2. An example of where PENNDOT has made notable headway in customer service has been in its much-improved approach to issuing driver licenses and motor vehicle registrations. In previous years, a visit to PENNDOT's DMV could have taken several hours up to a full day or more. As a direct result of the agency's quality approach, success metrics for customer transactions is now measured in minutes. Customers at the window typically can complete most transactions in less than ten minutes and many Pennsylvania residents file for new driver's licenses and vehicle registrations by Internet. Another metric where PENNDOT has made significant gains has been in road smoothness. During the past two decades, the quality of PENNDOT-controlled roadways has improved substantially in terms of both International Roughness Index (IRI) statistics and overall Pennsylvania road user satisfaction surveys (See Poister, 2002).

3. For larger, clearer copies of any of the figures in this article, please contact the author at ssstringham@state.pa.us.

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