

PERFORMANCE 



 MEASUREMENT

AN INSTITUTIONAL
PERSPECTIVE
FROM STATE AND LOCAL
TRANSPORTATION AGENCIES



U.S. Department
of Transportation

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Technical Report Documentation Page

1. Report No. FHWA-OP-02-049		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Performance Measurement: An Institutional Perspective from State and Local Transportation Agencies				5. Report Date August 2002	
				6. Performing Organization Code	
7. Author(s) Public Technology, Inc.				8. Performing Organization Report No.	
9. Performing Organization Name and Address Public Technology, Inc. 1301 Pennsylvania Avenue, N.W. Washington, D.C. 20005-1793				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. DTFH61-00-X-00016	
12. Sponsoring Agency Name and Address Federal Highway Administration – Office of Operations U.S. Department of Transportation 400 Seventh Street, S.W., Room 3404 Washington, D.C. 20590				13. Type of Report and Period Covered	
				14. Sponsoring Agency Code FHWA, HOP-1	
15. Supplementary Notes					
16. Abstract <p>Government agencies throughout the United States face ever-increasing scrutiny of governmental efforts that affect the public or use public funds. At the local level, this scrutiny is greater as the proximity between the customer and governmental agency is increased. In transportation agencies across the fifty states, this focus is especially pronounced. Almost everyone is exposed to the outcomes of public works and transportation agencies on a daily basis.</p> <p>Public awareness and politicians' concerns have spurred government agencies in many U.S. cities and counties to reassess the services they provide, the customers they serve and the manner in which they provide the service. Many agencies have begun to measure the activities and report on the results. That use varies from community to community. Some localities measure, others measure and report, still others measure, report and align these results with their resources and goals. This white paper is designed to facilitate the efforts of government agencies throughout the country that are considering performance measurement or planning to further existing performance measurement efforts.</p>					
17. Key Word Performance Measurement, Transportation Management and Operations, Needs Assessment, Baldrige Criteria, Florida Sterling, Minnesota Department of Transportation, Montgomery County, Maryland, San Jose, California.			18. Distribution Statement No restrictions. This document is available to the public from: The National Technical Information Service Springfield, Virginia 22161		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 42	22. Price

Acknowledgments

Performance Measurement in Local Government Transportation was researched and authored by Peter B. Fleischer under the direction of Robert Hicks, Managing Director at Public Technology, Inc. (PTI). PTI is the non-profit research and technology arm of the National League of Cities, the National Association of Counties, and the International City/County Management Association. Through its Urban Consortium Transportation Task Force, PTI receives federal funding to introduce transportation technological innovations and best practices into city and county government. This white paper is designed to facilitate the efforts of government agencies throughout the country that are considering performance measurement or planning to further existing performance measurement efforts.

Since the year 2000, the U.S. Department of Transportation (U.S. DOT) has fostered a national dialogue highlighting the importance of ongoing transportation system management and operations. This evolving dialogue has moved operations and system performance to the forefront of governmental thinking regarding the efficiency and effectiveness of the nation's complex web of mobility. One PTI white paper addressed operations and management at the city and county level. Many transportation officials agree that performance measurements should be the focus of the next operations discussion.

Much of the national dialogue focused on selecting performance measures that would be accepted by system owners and operators, as well as debating the merits of a federal system that would set up degrees of accountability. However, little emphasis was placed on how a state or local government implements a performance measurement process from an institutional perspective. This report seeks to shed light on this perspective.

Nationwide research and trends analysis have been combined with case studies of local approaches to performance measurement, based on in-depth discussions in several U.S. communities. The report offers city and county government leaders useful approaches and alternatives for establishing an effective performance measurement culture.

The authors extend their appreciation to PTI's Urban Consortium Transportation Task Force members for their assistance and guidance, and to the many individuals within city, county and state government who freely offered their wisdom and expertise.

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Developed by

Public Technology, Inc.
For the U.S. DOT
Federal Highway Administration

Published August 2002

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PUBLIC AWARENESS

AND POLITICIANS' CONCERNS HAVE SPURRED GOVERNMENT AGENCIES
IN MANY U.S. CITIES AND COUNTIES TO REASSESS THE SERVICES THEY
PROVIDE, THE CUSTOMERS THEY SERVE AND THE MANNER IN WHICH
THEY PROVIDE THE SERVICE.

P E R F O R M A N C E M E A S U R E M E N T

A N I N S T I T U T I O N A L P E R S P E C T I V E

F R O M S T A T E A N D L O C A L

T R A N S P O R T A T I O N A G E N C I E S

Introduction

Government agencies throughout the United States face ever-increasing scrutiny of governmental efforts that affect the public or use public funds. At the local level, in contrast to the national level, this scrutiny is even greater as the proximity between governmental agency and customer is increased.

In transportation agencies across the fifty states and throughout the world that focus is especially pronounced. Almost every American, from Nome to Florida and from Honolulu to Maine, is exposed to the outcomes of public works and transportation agencies on a daily basis.

Citizens need adequate drinking water and properly maintained roads to work, shop or play. Freight must be transported and delivered and trash and wastewater recycled or processed. These essential services are a continuous requirement. Consequently, residents and businesses are both aware of local government's public works and transportation efforts and concerned about performance. Local elected officials are also concerned. New York's two-term mayor John Lindsay almost saw his career end in a snowbank when his agencies failed to clear snow promptly from city streets in neighborhoods where more than two million people lived. Road rage on California's notoriously congested freeways has led to and exacerbated ongoing political pressure on transportation professionals in the greater Los Angeles area. In San Jose, California, the city manager notes that congestion is among his city's biggest challenges.

Public awareness and politicians' concerns have spurred government agencies in many U.S. cities and counties to reassess the services they provide, the customers they serve and the manner in which they provide the service. Many agencies have begun to measure their activities and report on the results. A recent Public Technology, Inc. needs assessment found that 49% of the surveyed communities use performance measures to manage transportation service delivery.

EMPLOYEES

RESPOND TO A CULTURE
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FORMANCE TARGETS AND
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COUNTING.

PERFORMANCE

MEASUREMENT CAN LEAD
TO LONG-TERM IMPROVE-
MENT THAT WILL ENDURE
POLITICAL AND ECONOMIC
CYCLES.

That use varies from community to community. Some localities measure, others measure and report, still others measure, report and align these results with their resources and goals.

Several agencies have gone even farther, transforming their performance measurement systems into a key connector between elected officials, local budgets, managers of agencies and employees. This linked system, driven by systematic and detailed knowledge about the performance of selected vital services, provides feedback to all elements of the chain. Agency heads establish performance measurement systems. Employees know how they are performing relative to pre-determined goals and targets. Managers have a predictable process for administration. Elected officials can connect performance results to surveys of voter (customer) satisfaction. They can then make informed votes for budgets that reflect both the wishes and the reality of their constituencies' needs.

One image of a properly functioning performance measurement system and culture emerged at a "Results Management" briefing conducted in Minnesota. The Administration Group, a catchall department including Facilities, Human Resources, and Information Technology detailed its progress. Cynthia Williams of the customer management group noted that "putting together a performance measurement system was like creating a quilt."

Unfortunately, performance measurement, however well implemented, cannot make politics disappear. Carefully selected goals and targets may be pushed aside for "special" goals. Unions retain influence on the development and deployment of the performance measurement process. In response to crisis, budgets may be suddenly chopped by some arbitrary percentage without regard for the finely crafted link between operational performance, strategic plan and funding. Unplanned "change" and the "political system" are inevitable. Nevertheless, performance measurement can lead to long-term improvement that will endure political and economic cycles.

Performance measurement, fully considered, does not come easily. Those who have made significant progress may have spent years designing, testing and implementing their systems. These cities and counties are the first to admit that more went wrong than right. All acknowledge the need for a performance champion within the bureaucracy. They stress the need for one or more elected officials who maintain a sustained belief in the benefits of performance measurement over the long term, "whether or not they understand it."

Performance measurement innovators advocate political stability and necessity for media support. These innovators have dealt with employee reluctance, long procurement cycles or poor consultant guidance that may have delayed necessary computer and software deployments.

Those who persevere do eventually enjoy positive results, which are often presented in terms of outcomes rather than outputs. As an example, tons of asphalt produced is an inferior indicator to new lane miles rated safe by the experts and smooth by the voters. Some localities have discovered that they can save money and resources by not "over-achieving" or performing beyond targets and expectations.

Successful agencies expend considerable effort to survey both customer satisfaction and employee satisfaction. The performance of politicians and managers is perpetually measured unofficially by voters and employees. In the opinion of one industry consultant, "the leadership that does not survey or seek to understand the views of its constituents and workforce denies itself knowledge that the public already knows." It does so at great risk.

Successful performance measurement programs produce the added benefit of enhanced job satisfaction for employees. Employees respond to a culture of clear goals, performance targets and result-based management as long as accountability is not synonymous with blame or pointless bean counting. Despite a much-feared notion that a cascade of reports and data collection will be used to target poor performers, the opposite can occur. Employees can and do embrace performance measurement as a means to self-esteem and personal betterment. The data collected can lead to encouragement, additional resources, and support for new ideas and approaches they may initiate.

Human resources in government agencies have long been an untapped frontier for progress, hence productivity improvement. The key to reaping this harvest is through employee morale and satisfaction. In the city of San Jose, California, employees freely admit they once worked half as hard as they do today. They proudly point to their statistical performance as an outcome of performance measurement. But an effective performance measurement system is only superficially about numbers; it is profoundly about people.

SUCCESSFUL

AGENCIES EXPEND CONSIDERABLE EFFORT TO SURVEY BOTH CUSTOMER SATISFACTION AND EMPLOYEE SATISFACTION.

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P E R F O R M A N C E M E A S U R E M E N T

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P E R F O R M A N C E M E A S U R E M E N T

A N I N S T I T U T I O N A L P E R S P E C T I V E
F R O M S T A T E A N D L O C A L
T R A N S P O R T A T I O N A G E N C I E S

CHAPTER 1

Methods and Approaches

Performance measurement is introduced to government agencies through a number of avenues. These approaches range from “grass-roots” efforts by agency personnel to introduce performance measurement from within, to “top-down” mandates from elected officials or department heads. At all points on that range, it is common for agencies to hire professional consultants to guide strategy and/or support implementation.

Agencies also rely on well known and respected criteria-based management approaches including Total Quality Management, Baldrige, Sterling or the statistical process-oriented Six-Sigma method. Many localities try a combination of methods, and some agencies now use multiple overlapping approaches stemming from earlier aborted or failed attempts to introduce performance measurement.

To introduce or implement performance measurement in transportation one might use approaches tried in other governmental agencies or profit and not-for-profit making ventures. The similarities across all sectors include the need to focus on measures of effectiveness rather than levels of activity, the need for performance champions at all levels within an organization, and the importance of aligning an organization's activities, desired results, strategies, plans and resources.

Changing an organization's management culture, including its personnel policies, reward structures and the role of the middle manager is a desirable, but difficult extension of the performance measurement effort.

There are critical differences as well. Private sector entities often find it easier than do public agencies to align hiring and firing and rewards and bonuses with

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organizational measures of effectiveness such as sales. It is often easier for private concerns to make the many initial and ongoing adjustments that contribute to continuous improvement in planning and processes. Profit and not-for-profit entities may serve fewer masters. Consequently, they often can realign their resources, activities and plans with more speed and less scrutiny.

Governmental agencies tend to exist in a context where change of almost any sort is subject to oversight, criticism, budgetary limitations and conflict or lack of

resolution about goals. Those responsible for initiating performance measurement in a governmental agency must carefully choose which of numerous activities are appropriate for measurement and what results are unambiguously desired. When serving many masters, as do most governmental agencies, it is not always clear what result will be deemed effective or desirable.

When compared with other governmental agencies, implementing performance measurement in transportation agencies is made more complex because many of them have been measuring activities for a long time. For decades, transportation agencies throughout the country and organizations that observe or guide these agencies such as the Federal Highway Administration

(FHWA) and university-based transportation institutes have measured vehicle count, lane-miles built, and hours of delay. There is no shortage of activity, numbers or data.

Agencies need, however, to make sense of the information, and to turn the information into knowledge and the knowledge into results. At FHWA, considerable effort is expended trying to improve the transportation system by blending information, insight and real concerns. Having identified public safety and incident management as foremost concerns within a long list of important transportation issues, Vincent Pearce, a FHWA transportation specialist, notes "Public safety and incident management are forcing a revolution in the perspective people bring to their thinking about transportation. Crashes cause a loss of 50-60% of capacity. Getting public safety agencies to work with transportation is a high priority." Among Pearce's goals is to share insight that helps agencies rank priorities.

Pearce argues, "Performance measurement enhances a locality's ability to know which areas to attack." He counters the argument that measurement is merely an accounting exercise, stating, "Well-documented statistics lead to increased budgetary resources. Performance measurement is a way for agencies burdened by rising demand and limited resources to increase productivity."

FIGURE 1
FREQUENCY OF PROBLEMS

Accidents	17%
Congestion/Flow	15%
Infrastructure Improvements/Additions	13%
Customer Satisfaction	13%
Incidents	9%
Speeding	8%
Emergency Response	6%
Transit Reliability	5%

Source: PTI Operations Needs Assessment, Summer 2000

Along with incident management and safety, congestion is commonly cited as a major threat to the performance of the transportation system. A Public Technology, Inc. survey of local transportation and elected officials undertaken in 2000 summarized the frequency of problems shown in Figure 1. The PTI survey echoes FHWA thinking. The concerns listed above are indicative of FHWA performance priorities.

At the Texas Transportation Institute (TTI), a prominent university-based transportation think tank, researchers study congestion in the context of economic development and public safety. Fifteen years ago, TTI created a "Congestion Index" to measure and compare mobility levels in sixty-eight cities around the U.S. allowing for performance comparisons over time within a city.

Tim Lomax, a TTI research engineer, sees the Index as "a means of getting information to cities and counties so that local officials and public works personnel can use the data for budgetary decisions." TTI's 2001 study focused on hours of delay, off peak vs. peak time, and travel time reliability. Lomax notes that congestion is perceived by the public as an accelerating phenomenon—the absolute level of congestion being less important than any recent up-tick. As Pearce does, Lomax notes that incident management is the critical short-term variable regarding traffic flow. He cites the "number of days when there is an incident" as an important determining factor.

Incident levels, a classic transportation measure, have profound and direct effects on travel time reliability, which in turn has an impact on economic activity and commercial performance. Excessive congestion levels that affect emergency vehicle response time also negatively affect public health, due to increased auto emissions, which pollute the air. These are just two examples of the far-reaching implications of transportation system performance.

Performance measurement may be brought to government agencies in a number of ways. Some agencies attempt to introduce it from within. Others seek professional consultants as advisors and guides to assist implementation. Still other agencies rely on well-known and respected approaches such as the Baldrige, Sterling or statistical process-oriented Six Sigma methods. Many localities try a combination of methods.

Baldrige Criteria for Performance Excellence

The Baldrige Criteria are named for Malcolm Baldrige, United States Secretary of Commerce from 1981-1987. The Baldrige Foundation seeks to honor American companies that have attained extraordinarily high levels of quality performance. The Baldrige Criteria focus primarily on the goals of private sector concerns.

THE BALDRIGE

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THAT HAVE ATTAINED EXTRA-
ORDINARILY HIGH LEVELS OF
QUALITY PERFORMANCE.

**FIGURE 2
BALDRIDGE CORE
VALUES AND CONCEPTS**

- 1) Visionary leadership
- 2) Customer driven
- 3) Organizational and personal learning
- 4) Valuing employees and partners
- 5) Agility
- 6) Focus on the future
- 7) Managing for innovation
- 8) Management by fact
- 9) Public responsibility and citizenship
- 10) Focus on results and creating value
- 11) Systems perspective

These corporate standards serve as a baseline and reference point for many subsequent programs aimed at performance in governmental organizations.

Criteria are intended to provide a valuable framework to assess and measure performance in terms of the customer, products and services, as well as operational, human resource, and financial areas.

There are two Criteria purposes. These are, first, the delivery of ever-improving value to customers, resulting in marketplace success; and, second, the improvement of overall organizational effectiveness and capabilities. These purposes are

worth re-reading. Loaded into these two pithy objectives are numerous statements of priorities; goals and strategy that seek to drive corporate behavior. Much of this can apply to public efforts.

Baldrige details core values and concepts shown in Figure 2 that stem from the overall purposes.

Each of the values or concepts is worth slow, careful consideration. Many books have been written on each of the eleven listed items. Nationwide, executives have devoted extensive resources to turning these buzzwords into active sources of change within their organizations.

The Baldrige Quality Program Criteria aims to help an organization by aligning resources, improving communication, improving productivity, improving effectiveness and achieving strategic goals.

Florida Sterling Criteria

The Florida Sterling Criteria have their roots in the Baldrige Quality Program. The Florida Sterling Council has, over the years, adapted the Baldrige Criteria to include the efforts of government and non-profit entities. Forty-two states around the country have adopted state-level quality award programs including New York's original Excelsior program and Minnesota's Council for Quality. Florida established its program in the early 1990's.

The Sterling Challenge is a self-assessment that any Florida organization may choose to undergo under the guidance of the Florida Sterling Council. The 2002 Sterling Criteria for Organizational Performance Excellence identifies and weights seven categories of management practice. Florida Sterling is based on the original Baldrige criteria and weights. Figure 3 shows a comparison of weights for each criterion.

The major shift, as described by Jim Sherlock, senior awards administrator at the Florida Sterling Council, is the lessening of the weight (33% down from 45%)

given to business results and the resultant increase in the relative weightings of all other categories. Process management and leadership received the greatest increases.

Sterling also lists eleven core values and concepts that are the "embedded beliefs and behaviors of high-performing organizations." Florida Sterling insists on a site visit to ensure that the organization can receive "top-notch" feedback.

Scoring in the self-assessment "an anecdotal, non-systematic approach with an anecdotal, undocumented deployment" earns a 0% score. A score of 100% goes for a "preventative, fact-based, integrated, quality system that has been systematically refined through several evaluation and improvement cycles to meet all current and changing business needs." This system incorporates "innovative processes...with many refinements."

The fee for an organization with more than 250 employees to submit a Florida Sterling application is \$3,500. The site visit fee is \$1,000.

Consultant/Expert Advice

Numerous performance measurement consultants conduct business throughout the U.S., and many of these have extensive experience in the field and impressive credentials as practitioners. For a state, county or city with a budget for consultants, knowing how they operate can be useful.

Craig Holt, a state and local government performance measurement consultant, describes his approach as "results, not activity focused." He advocates the alignment of strategic plans, key foci and specific measures of performance. For Holt, the proper agency leader thinks and uses measurement, understands that success takes time, and requires the alignment of priorities. He sees the middle manager role as "a difficult challenge as they will require the most change in what they do."

Peter Hutchinson, president, Public Strategies Group, has extensive experience in both the private and public sectors. He is a firm believer in listening to customers. "The citizens we serve are constantly and relentlessly measuring government. If we do not measure our performance, then we in government will know less than our citizens do. Resisting performance measurement is not an option."

Hutchinson also believes in priorities. Governments should not "try to know everything and then figure out what is important. That's backward. Start with the out-

**FIGURE 3
COMPARISON
BETWEEN
FLORIDA STERLING
AND BALDRIGE
CRITERIA**

	FLORIDA STERLING	BALDRIGE CRITERIA
Leadership	150 points	125 points
Strategic planning	100 points	85 points
Customer and market focus	100 points	85 points
Information and analysis	100 points	85 points
Human resource focus	100 points	85 points
Process management	120 points	85 points
Business results	330 points	450 points

comes to be produced." He asks, "is what you care about [the same as] what the citizens care about?" Asked how an agency gets started on performance measurement, Hutchinson answers unequivocally, "get in a room with your customers."

T.J. Browne is a project manager with the Sterling Institute. The Sterling Institute (not affiliated with Florida Sterling) provides management, employee and organizational training and development services. Browne focuses on organizational development, including priorities and plans for organizational renewal. Browne studies the reasons employees leave organizations, noting that employee retention is a major component in service quality.

Browne says, "When employees quit, they are usually quitting their managers, not their jobs." He notes, "Supervisory communications skills are often a governmental organization's biggest human resource vulnerability."

ASKED HOW AN AGENCY GETS STARTED

ON PERFORMANCE MEASUREMENT, HUTCHINSON ANSWERS UNEQUIVOCALLY,

'GET IN A ROOM WITH YOUR CUSTOMERS.'

CHAPTER II

Views From the Field: Florida

The State of Florida ranks among the fastest growing states in the United States. In 1950, the population was 2.8 million. By 1980, it was 9.7 million and by 1999 it had surpassed 15 million residents. This five fold increase in fifty years contrasts with New York State's growth of twenty percent during the same period. Florida's road system is extensive. The driving distance between Florida's extremes—Key West and the Alabama border—exceeds eight hundred miles.

Miami and the state capitol in Tallahassee are 460 miles apart.

With rapid population growth comes the challenge of maintaining infrastructure in the face of heavier than expected use, handling ever-higher levels of congestion and planning for even more growth. The need to plan and stay ahead of the curve is a challenge for the state and for its Department of Transportation (DOT).

Florida's state government began to look seriously at "quality" performance in the early nineteen eighties. QualTech was contracted to teach top managers through a Quality Improvement Program (QIP). Eventually, the program was "rolled down" to the middle and other

**FIGURE 4
MOST COMMON
CUSTOMER
CONCERNS**

At night visibility of roadway markings/stripping

"Good" ratings ranged from only 59% of the elderly to 63% of residents to 81% of tourists.

Timely completion of construction projects

"Good" ratings ranged from 32% of residents to only 50% of the elected officials.

Congestion and travel

"Satisfied" ratings ranged from 28% for congestion in District Six to 80% for travel between cities in District One.

Roadway smoothness

"Satisfied" ratings ranged from 53% in District Three to 78% in District Four.

managers. At the heart of the QIP was team leadership training and team facilitation. The ultimate goal was to empower everyday employees to make changes in their own processes. Daring as this was, the first impediment was teaching middle managers to get out of the way and training top managers to understand the flux then occurring in the realms of the middle managers.

In late 1997, Florida DOT took the Sterling Challenge. After a 1998 site visit, the visiting Sterling team declared Florida DOT to be at an "opportune juncture." The department instituted a series of two-day training sessions for top managers, and for three summer months, the DOT executive board was intensively familiarized with the Florida Sterling approach. The executive board includes the DOT secretary, two of his appointees and the district secretary from each of DOT's eight regions. In September of that year, the board voted to adopt Sterling.

The department faced four essential and immediate tasks:

- 1) Establish a strategic planning process
- 2) Define the organization's mission, vision and values
- 3) Create a system to monitor and report results
- 4) Improve the overall leadership system and the opportunities for individual improvement

Two organizational/information needs were identified:

- 1) A survey of employee satisfaction
- 2) A survey of customer satisfaction

Six departmental teams were formed to initiate and advance the above listed essential tasks as well as the two surveys. Understanding DOT's existing leadership system and implementing improvements to it was determined to be an important first step.

It was necessary to relate information systems to decision-making processes. Observations from the teams suggested that data collection be more closely linked to the strengths, weaknesses, opportunities and threats analysis (SWOT). Linking these would move DOT's existing performance measurement apparatus and analytical reporting systems within the context of the organization's overall needs and priorities.

As part of the effort to enhance the leadership system, the group created detailed job descriptions for the district secretaries and defined "core competencies" for that important post. Implied in this difficult move was a belief that organizational effectiveness needed to be the essential measure for these pivotal posts. Since district secretaries are positioned to translate DOT's high-level statewide priorities

into operational activity, their leanings could be political or managerial. The teams leaned toward emphasizing the latter.

A third improvement was to create an anonymous e-mail route for questions or suggestions by DOT employees to the DOT secretary. The DOT secretary, in turn, was obligated to respond to each inquiry in a public manner. This step enhanced employee morale, communications and leadership accountability.

A fourth observation from the teams suggested that DOT surveys did not adequately segment its customers. A subsequent needs assessment produced six user-based requirement types:

- 1) Residential traveler
- 2) Visitor
- 3) Commercial driver
- 4) Transportation disadvantaged (elderly, etc.)
- 5) Elected officials (including public safety)
- 6) Property/business owners

DOT also identified three markets (rural, urban and transitioning) and three geographical segments (north, central and south). A fifty-four cell grid (6x3x3) was used to focus on the segmented customer needs.

With the fifty-plus segments identified, the department hired a consultant to create, distribute and analyze a customer survey in February 2001. Surveys were conducted by telephone calls to Florida residents, commercial concerns, and U.S. visitors. DOT also mailed surveys to government officials and "well-elders" and hand-delivered and distributed surveys to property and business owners.

In assessing the results of these surveys, Florida officials note that there is only one year of this customer preference data. The next customer survey will take place in 2002. Most experts stress that preference ratings are best understood over time through trends shown in a series of such surveys. The most commonly mentioned customer concerns appearing on the survey responses are identified in Figure 4, page 15.

One of the lowest ratings found in the surveys came from government and public safety officials in District Six (the greater Miami area). When rating "input during design" of construction projects, this district indicated only 30% satisfied. No other district in the state was below 50%.

As a result of this markedly low rating, according to Ken Leuderalbert, manager, Florida DOT Quality Initiatives Office, Florida DOT has elevated input during design to be a measure on the statewide strategic plan. At night roadway visibility and timeliness of construction completeness were similarly elevated.

FLORIDA DOT

HAS ELEVATED INPUT DURING DESIGN TO BE A MEASURE ON THE STATEWIDE STRATEGIC PLAN.

Florida has taken further steps. Officials have created a one-page "Report Card" summarizing the Customer Satisfaction Survey. In addition, statewide results are available on the Internet at www.myflorida.com.

While customer surveys are generally considered to be an essential part of a comprehensive performance measurement system, it should be noted that surveying the public may yield fickle and sometimes contradictory results. When asked to rate travel on the Florida Highway System, residents in all seven districts indicated in a range of 81-84% that "posted speed limits on the state highways system" were reasonable. The same survey showed that not many Florida residents (20-30%), felt that "most vehicles remain within the speed limits."

Between September 1998, when the DOT Executive Board adopted Florida Sterling and November 1999, most Sterling activity was confined to the Executive

**FIGURE 5
CONSTRUCTION OFFICE
PERFORMANCE MEASURES**

**Construction Office Performance Measures
for All Contracts Passed Through Fourth Quarter Fiscal Year 2000/2001**

Number of Total District Contracts	Original Contract Amount	% Time Increase of Original Days	% Cost Increase Over Original Amount	% Total CEI Cost Of Present Amount	Total Avoidable Premium Cost	Avoidable Cost % of Original Contract Amount	Avoidable Time % of Original Days	Days from Final Acceptance to Initial Offer	Days from Final Acceptance to Project Passed	
1	66	\$ 165,407,743	10.6%	6.6%	13.9%	\$ 283,870	0.2%	2.1%	62	246
2	74	\$ 270,784,144	22.7%	11.4%	13.8%	\$ 300	0.0%	0.3%	134	407
3	51	\$ 116,282,968	12.4%	13.0%	12.1%	\$ 304,848	0.3%	1.0%	90	430
4	44	\$ 127,068,120	30.1%	18.4%	14.3%	\$ 2,411,537	1.9%	10.1%	145	339
5	50	\$ 111,361,316	10.9%	5.7%	11.5%	\$ 276,114	0.2%	2.7%	40	177
6	24	\$ 58,632,625	0.0%	1.6%	14.8%	\$ 5,646	0.0%	0.5%	37	116
7	44	\$ 147,224,776	17.5%	12.8%	10.5%	\$ 1,972,480	1.3%	9.7%	38	280
8	9	\$ 114,372,232	33.7%	16.1%	14.0%	\$ 983,270	0.9%	4.7%	90	481
Totals	382	\$1,112,133,924	18.0%	11.2%	13.5%	\$ 6,337,723	0.6%	4.0%	131	308

Performance Measure

Description

- Number of Contracts** This is the number of contracts passed during this period.
- Total Original Amount** This is the total value of all contracts passed during this period.
- % Time** This is the increase in time over the original days expressed as a percentage of the Original Days.
- % Cost** This is the increase in cost (actual expenditures less innovative contracting) over the original contract amount expressed as a percentage of the Original Contract Amount.
- % Total CEI** This is the total cost for all Contractor Engineering Inspection expressed as a percentage of the Present Contract Amount.
- Total Avoidable Premium Cost** This is the Total Non-Value Added Cost for all contract changes that could have been avoided.
- Avoidable Cost %** This is the Total Avoidable Cost for all contract changes that could have been avoided expressed as a percentage of the Original Contract Amount.
- Avoidable Time %** This is the Total Days added to contract for all contract changes that could have been avoided expressed as a percentage of the Original Contract Days.
- Days To Initial Offer** This is the Total number of days between the Contract Final Accepted date and the Initial Final Offer of Payment Date by the Department.
- Days to Project Passed** This is the Total number of days between the Contract Final Accepted date and the Contract Pass Date.

Offices of Florida DOT. After a November 1999 Executive Strategic Planning Session Retreat, a “rollout” to the districts began with a statement of six strategic objectives:

- 1) Improve customer satisfaction
- 2) Improve and track customer complaints
- 3) Improve project delivery
- 4) Implement a results based management system
- 5) Improve employee satisfaction
- 6) Develop an effective leadership system

In the spring of 2000 the rollout began. Each of the districts participated in a Sterling Deployment Workshop. About 40 district staff attended, including all managers, from office managers to the district secretary. Sterling was explained and the program-to-date was reviewed. A district champion was selected for each of the objectives. Most importantly, a framework to link the Sterling process to district action plans and departmental strategic objectives was introduced.

Unfortunately, in April 2000, the executive committee was forced to slow down the Sterling process amidst a statewide economic slowdown. Each Florida agency had to draw up reductions of five percent per year over five years. Sterling was still viewed as “an essential way to make a good organization better” but it was put on the back burner. Only in March of 2001 did Sterling move forward again.

By late 2001, Florida DOT indicated progress on a number of performance measurement efforts including road travel reliability, customer complaint tracking, and core process mapping.

Given Florida’s heavy population and its geographic extents, Florida DOT is now focused on travel time reliability. To that end, the Florida DOT Office of Planning created a Mobility Performance Measures Program to measure, describe and ultimately improve the movement of people and goods throughout the state. The program evaluates the quantity of travel, quality of travel, accessibility and use of transportation systems.

In this case, reliability is defined as “the percent of travel on a corridor that takes no longer than the expected travel time plus a certain acceptable additional time.” It should be noted that “expected” and “acceptable” times vary according to the time of day. Data to feed the reliability measurement system comes from sources including inductive loop detectors.

DOT uses these reliability measures to gauge the performance of various stretches of the Interstate System. According to Anita Vandervalk, former manager of the Transportation Statistics Office, recently gathered reliability measures show I-4 in

...RELIABILITY

IS DEFINED AS “THE PERCENT OF TRAVEL ON A CORRIDOR THAT TAKES NO LONGER THAN THE EXPECTED TRAVEL TIME PLUS A CERTAIN ACCEPTABLE ADDITIONAL TIME.”

Results for the Composite Group of all Respondents

Table 3.3: Comparison of 2000 and 2001 Results Ranked by Difference in Item Average

		2001	2000	Difference
38	Alternate work schedules provided when needed to help employees	2.18	2.01	0.17
31	Supervisor has discussed my pay concerns and questions with me	1.56	1.42	0.14
20	Supervisor meets to discuss group's performance, solve problems	1.83	1.74	0.09
47	People's pay is in line with their responsibility and performance	0.96	0.87	0.09
13	Equipment is maintained when needed	1.93	1.85	0.08
43	Recognition given for a job well done	1.37	1.30	0.07
8	I know how well I am doing; have information to measure progress	1.87	1.81	0.06
22	Promotions based on performance and ability	1.39	1.33	0.06
19	My group has resources needed to produce good results	1.61	1.56	0.05
32	I have authority I need to achieve results expected of me	1.96	1.91	0.05
36	We have good ways of measuring our most important goals	1.71	1.66	0.05
37	I get helpful and timely feedback on my performance	1.71	1.66	0.05
39	Supervisor encourages finding new and better work methods	1.94	1.89	0.05
33	High standards of performance	1.77	1.73	0.04
45	My supervisor treats employees with respect	2.16	2.12	0.04
6	Identified customers and how to meet their expectations	2.03	2.00	0.03
7	Supervisor ensures group members have needed knowledge and skills	2.02	1.99	0.03
11	Group works on lasting improvements; not "quick fixes"	1.80	1.77	0.03
15	Work is well planned in our work group	1.87	1.84	0.03
17	People can decide & take action on their own; do not wait to be told	1.95	1.92	0.03
28	Recognition for working together	1.59	1.56	0.03
29	Supervisor asks for our ideas	1.79	1.76	0.03
34	Supervisor gives attention to physical conditions of work area	1.91	1.88	0.03
3	Good use made of people and other resources	1.80	1.78	0.02
12	I am kept well informed about what is happening in my part of DOT	1.63	1.61	0.02
26	Work group uses customer information to improve quality	1.91	1.89	0.02
30	I get satisfaction from my work	2.13	2.11	0.02
42	Supervisor demonstrates importance of quality in day-to-day actions	1.91	1.89	0.02
46	DOT's managers fairly administer the selection process	1.55	1.53	0.02
50	Supervisor concerned about employees' overall well being	2.01	1.99	0.02
4	Access to information I need	2.02	2.01	0.01
10	Supervisor has discussed group mission/goals	1.90	1.89	0.01
21	Work conditions meet DOT safety standards	2.21	2.20	0.01
27	We have common goals; people not just concerned about own group	1.47	1.46	0.01
49	Poor performance is not tolerated	1.69	1.68	0.01
9	Push for daily work does not prevent addressing long term needs	1.76	1.76	0.00
16	Know how my work contributes to group and DOT goals	2.17	2.17	0.00
48	People can let supervisors know views about things that affect them	1.91	1.91	0.00
25	Results expected of me are reasonable	2.09	2.10	-0.01
1	I get the training I need when I need it	1.92	1.94	-0.02
14	I like my job	2.36	2.38	-0.02
2	Clear about what's expected of me	2.12	2.15	-0.03
24	You can believe what management tells you	1.57	1.60	-0.03
53	Proud to belong to work group and DOT	2.24	2.27	-0.03
23	Projects consider effects on environment/community	1.94	1.98	-0.04
51	Since last year's survey, I have seen improvements	1.43	1.47	-0.04
52	DOT acts as a good servant to the community it serves	2.05	2.09	-0.04
41	Award programs effective in recognizing, rewarding performance	1.29	1.34	-0.05
18	Training and development available to all employees	1.82	1.89	-0.07
5	Understand DOT mission and goals	2.05	2.16	-0.11
40	Not difficult to find out about job and career opportunities in DOT	1.76	1.87	-0.11
44	DOT's secretaries will use survey results to improve practices	1.49	1.67	-0.18
35	DOT changing; many new and better ways we will serve the public	1.37	1.73	-0.36
	Total	96.48	96.10	0.38

the vicinity of Orlando performing at acceptable levels despite a statewide trend toward increasing hours of person delay and congestion statewide. Florida's rapid population growth compounds DOT's daily mobility challenge. In fact, a stated DOT goal is "to not let the rate of delay get worse."

Vandervalk, a trained engineer and planner, described how Florida evaluates its rural road segments differently from its routes in congested areas. "In rural areas," she notes, "there will be a comfort index, something akin to the number of times a driver has to take off the cruise control." Appropriately, the concept of a smooth ride varies from place to place just as the concept of an "expected" trip length varies with the time of day.

Vandervalk outlined a goal to eventually link ITS data, reliability measures, the departmental Strategic Plan and the 2020 Florida Transportation Plan. "Through the performance information," she states, "we want to identify trends that will guide our long term plans and move us toward our long term goals."

Progress has also been made in core process mapping, which details the intricate series of activities in planning and implementation. Charts have been created for the Planning Process, Contract Document Production, Transportation Facility Delivery and Transportation Systems Maintenance and Operation. Figure 5 (on p. 18) is an example of a chart that shows contracts passed within each Florida DOT District Office through the fourth quarter of FY 2000/2001.

Challenges

Florida DOT seeks to break down departmental walls among the construction, design, planning and maintenance groups. Too often rivalries or "hidebound parochialism" interfere with overall objectives. Leuderalt sees any measure on a process map as a departmental measure rather than one initiated by an individual.

Eleven "key" performance measures are used in discussions between the governor's office and the DOT secretary. These are:

- 1) External customer satisfaction
- 2) External customer complaints
- 3) Employee satisfaction
- 4) System safety
- 5) System condition
- 6) Percent growth in alternative travel
- 7) System performance
- 8) Construction project time changes
- 9) Construction cost changes

- 10) Delivery of work program
- 11) Organizational effectiveness

DOT has conducted an employee satisfaction survey in each of the last three years. This is an invaluable window into the thinking and attitudes of the department's most valuable resource—its personnel. The maxim, "Be careful what you ask for, you may get it," is appropriate. DOT has seen some discomfoting survey results.

Florida's Leadership and Human Resources Practices Survey asks thousands of respondents detailed questions about jobs and attitudes about those jobs (see Figure 6, page 20). Interestingly, the highest response went to "I like my job." The lowest, by far, went to "people's pay is in line with their responsibility and performance." Between 2000 and 2001, the fastest drop in ratings occurred in response to the assertion "DOT changing; many new and better ways we will serve the public."

In fact, the 2001 Executive Summary states, "a very large percentage of FDOT employees have little or no recent personal evidence of improvement as a result of the survey, especially in areas that may be presenting the greatest frustration for them, i.e., the ways they are being managed day-to-day." The report provides only one overall recommendation—"step up poor managerial performance."

P E R F O R M A N C E M E A S U R E M E N T

AN INSTITUTIONAL PERSPECTIVE
FROM STATE AND LOCAL
TRANSPORTATION AGENCIES

Views From the Field: Minnesota

Not one to shy away from controversy, Minnesota governor Jesse Ventura has taken a vigorous and active approach to the management of Minnesota's twenty-five cabinet agencies.

These governmental departments including agriculture, industry, finance and transportation have been challenged to incorporate a "results management" approach into their daily operations. Their policies and budgets will also be assessed for results under the governor's Big Plan.

Tom Moss, a graduate of Harvard's Kennedy School of Government and a former deputy commissioner with the Minnesota Department of Human Services, was appointed to direct the "results" process. Moss, an affable and focused man, leads a weekly results review meeting. All agencies are expected to attend. Each week selected agencies present their progress.

In September 2001, the state's Administration Agency presented its results and its progress in establishing a results oriented process. Administration includes information technology, facilities management, personnel and twenty other support functions.

The agency has identified fifty-nine critical "outcomes." Deputy commissioner Kirsten Cecil knows there will be many more. She also knows that a catchall agency like Administration faces a daunting challenge in a results-based performance measurement environment. The agency, with its diverse, non-synergistic responsibilities that often lack popular support, is routinely taken for granted.

MNDOT...

PERFORMANCE MEASUREMENT
CHAMPIONS ENVISION A DOT
GUIDED BY PERCEPTION INFOR-
MATION COMING FROM CUS-
TOMER SURVEYS, COST OF
IMPROVEMENT DATA STEMMING
FROM ACTIVITY-BASED COSTING,
QUANTIFIABLE OUTCOME MEAS-
URES AND THE USUAL DOT
EXPERTISE AND JUDGMENT.

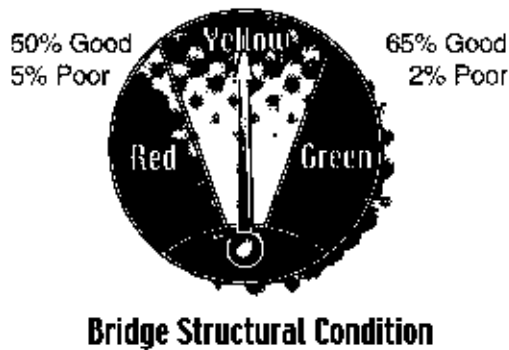
Administration's customers are primarily other governmental agencies. Recently, following efforts at Minnesota Department of Transportation (DOT), the administration department began to craft service agreements with the agencies that depend on Administration's outputs. These arrangements are particularly vexing in a governmental context. Few governments, state, county or local, have the necessary "marketplace" to match internal supply and demand efficiently. The "price" to regulate and balance these inter-agency interactions and transactions is rarely understood.

The best American businesses find these internal transactions, cost accountings and interdepartmental price arrangements extremely complex to track or administer. In government, it is often tradition, power struggle or executive fiat that determines the shape of the relationship.

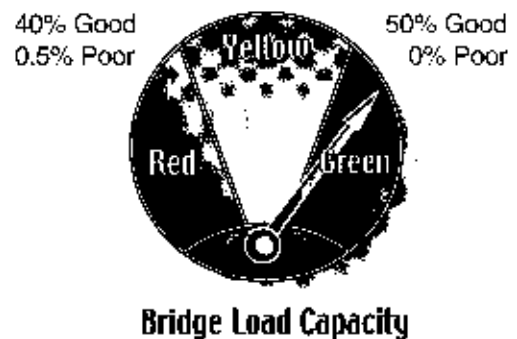
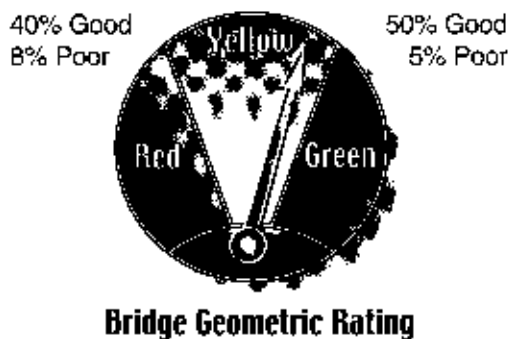
FIGURE 7
THE "DASHBOARD"

6-7-01

Bridge Condition Trunk Highway Principal Arterials Bridges 20 Feet and Over



Targets for the Year 2017:	
Structural Condition:	≥ 65% Good and 2% Poor
Geometric Rating:	≥ 50% Good and 5% Poor
Load Capacity:	≥ 50% Good and 0% Poor
Performance (January, 2000):	
Structural Condition:	57.2% Good and 3.9% Poor
Geometric Rating:	46.9% Good and 6.1% Poor
Load Capacity:	42.2% Good and 0.1% Poor



Source: Office of Bridges & Structures, Bridge Management Unit

Tom Moss understands that he may be asked to help the governor play that referee or judging role. For now, he is content to get his agencies up to speed for the activities they largely control and produce internally. With some reservation, he focuses on MnDOT, which is out in front of many of Minnesota's agencies. Though as Moss says, "they can sometimes be a bit smug about their ability to measure performance. They can easily, and have been doing so for a long time, measure road lanes paved and asphalt poured, but when it comes to something complex like establishment of a multi-modal alternative, they start to fall short." By comparison, measuring the performance of the people who care for foster children or the progress of those children is hard.

Minnesota's Department of Transportation began tracking performance measurement around 1992. The DOT has been tracking indicators, usually output measures, for years. The volume of poured asphalt as a measure of activity has long been a staple of how DOTs nationwide manifested proof of their hard work and tangible progress. In Minnesota today, such activity and output measures are avoided in favor of outcome measures.

According to Dennis Feit, the director of the Office of Performance Planning and Measurement, "we now try to focus on outcomes such as how our customers perceive our work. For example, does the customer rate the streets smooth, safe, or cleared of snow in a timely fashion? But," continues Feit, "we cannot leave it up to the customer entirely. With all due respect, customers often do not fully understand many aspects of engineering, particularly as it involves safety. So we rely also on the advice and counsel of our engineers as we establish our outcome goals and performance targets. We also have to take into account the views of our planners and budget personnel. After this, clear communication is required to explain to our customers why we do what we do and how it will improve transportation in Minnesota."

An example of this comes from a recent study of ramp meters in the Twin Cities. The study shows that metering was effective in reducing crashes and pollution while increasing average speeds on the freeway system. But, according to Feit, "because customers did not understand how ramp meters were designed to help, and because they were experiencing longer waits to enter the freeways, they were very unhappy with the level of metering." As a result of the public reaction, MnDOT was not able to return metering to the pre-study levels. According to Cambridge Systematics, which performed the study, millions of taxpayer dollars are lost each year because of the additional pollution, property damage and lost time caused by the reduced metering. MnDOT concludes that "an investment in communication to explain the facts and advantages of ramp metering would yield a significant payback in terms of reduced pollution, property damage and travel time."

A COMPLETE

PERFORMANCE MEASURE-
MENT SYSTEM INVOLVES
DEPARTMENTAL EMPLOY-
EES AS WELL AS CUS-
TOMERS, MANAGERS AS
WELL AS COMMISSIONERS.
IN ADDITION, SUPPORT
FROM LOCAL ELECTED
OFFICIALS IS NEEDED.



MnDOT's Office of Investment Management team includes Mitch Webster, a planner, and Abby McKenzie, director of Statewide Planning and Analysis. Their goal is to advance use of performance measurement in MnDOT's long-term capital planning. These performance measurement champions envision a DOT guided by perception information coming from customer surveys, cost of improvement data stemming from activity-based costing, quantifiable outcome measures and the usual DOT expertise and judgment.

Activity-based costing, according to Feit, "would allow us to know the full cost of each service to DOT for any incremental improvement. So if the public wants smoother roads or less congestion, we will be able to tell both the public and our commissioner the cost of that improvement." By cost, Feit is referring to both the actual dollar cost and the very important concept of opportunity cost, the single most valuable opportunity given up when a choice is made; when a choice is made, the opportunity cost is the next best alternative or "tradeoff."

Feit hopes that robust performance measurements will enable all MnDOT managers to know the real cost of choices and the likely change in outcomes that stem from those changes. Feit knows that "if we devote the necessary resources to improve the timeliness of snow-plowing on the primary arterials to the desired target (62% within 12 hours), then we may have to accept a decrease in the timeliness (to 45%) on the secondary arterials." Feit hopes that soon MnDOT will be able to present this cost-based target driven choice of outcomes to MnDOT managers in each district.

Performance measures can also help guide tradeoffs among competing needs for long-term capital investments. Minnesota's Twin Cities metropolitan area has the most severe congestion in the state, but rural areas have problems with safety and longer distances to markets. McKenzie states, "by using performance measures to demonstrate how far current funding can move us toward achieving transportation goals, policy makers can better decide how to allocate resources or, more importantly, assess the need for additional transportation funding."

MnDOT plans continuous improvement in its ability to understand its consumers' expectations and preferences. Tom Moss has stated that he wants each of the agencies to improve their surveying techniques and the range of matters surveyed. He has not, however, mandated a "one method fits all" survey regime. "Each agency needs to evolve its own unique set of questions for its unique set of customers." The best survey results will be produced when the people most closely connected to service supply and service demand think through that relationship and fashion their view of the necessary tracking and evaluating questions. Over time, these agencies will make the surveying process more scientific. This will enable them to reduce duplication of effort and create economies of scale.

Back in the Office of Performance Planning and Measurement, Dennis Feit has taken a personal interest in improving the techniques for displaying performance results and turning performance data into tools that senior managers can use to create change and improvements. Feit developed a three-color, pie shaped chart called "the dashboard" that graphically details a department's performance in regard to a specific target or indicator (see Figure 7). The colors red, amber and green, using a traffic light theme, correspond to performance that is inadequate, cautionary or good, respectively. The scheme caught on within the department. Throughout the offices and corridors of MnDOT, red, yellow and green pie slices announce individual units' pride in performance.

Feit was pleased to learn that others in his department modified the original three-slice pie, creating a fourth slice. The new slice, also in amber, highlights performance in excess of the target. This slice represents work that, by virtue of exceeding a target, deprives other functions within the agency of resources needed to improve inadequate results. Feit now uses the improved dashboard.

Minnesota DOT has gone a long way toward defining Big Plan results. Still, Minnesota has a long way yet to go. A complete performance measurement system involves departmental employees as well as customers, managers as well as commissioners. In addition, support from local elected officials is needed. The changes needed are organizational and political.

The full incorporation of a performance measurement system requires a belief within the government that performance measurement is a long term commitment and that important employee and managerial values are linked to the performance-based system. In Minnesota, there was talk about the "411 days" that remained in the Ventura administration. There seemed to be a sense that if the governor did not run for and win a second term, the performance regime could change. A new governor would either reject or modify it. In any case, the bureaucracy shows normal signs of being reluctant to expend too much effort on changes that might be jettisoned soon thereafter.

Tom Moss noted that public recognition for efforts that improve performance is a goal. While important, it is not clear that employee recognition is enough. Minnesota has not yet taken the awkward and admittedly difficult steps of surveying, or meaningfully awarding its employees. Nor, for that matter, has Minnesota gone so far as to survey or change the way its managers conduct their jobs. Performance bonuses are not part of the program.

P E R F O R M A N C E M E A S U R E M E N T

AN INSTITUTIONAL PERSPECTIVE
FROM STATE AND LOCAL
TRANSPORTATION AGENCIES

Views From the Field: Montgomery County, Md.

Montgomery County, Maryland spreads to the west and north of Washington, D.C. The county, with its 900,000 residents, is densely populated and largely suburban. Many residents commute to the District of Columbia. In recent years, job growth along Washington's famous Beltway has shifted both housing and commuting patterns away from the city center. The following is a snapshot of what's taking place within the county.

In 1994, the Department of Public Works and Transportation (DPW&T) began to publish "Journey to Excellence," a document highlighting DPW&T actions and initiatives. The vision, mission and principles are stated in large bold letters early in the document. The vision reads, "We aspire to be a team founded on the belief that success is the result of a dedicated pursuit of excellence and customer satisfaction. We also aspire to be a place where employees are involved, empowered and appreciated to the point that they come to work energized to try their new ideas, and go home wanting to talk about what they accomplished that day." DPW&T's principles state the following.

We will:

- Serve our customers with excellence
- Support our employees
- Strive for continued improvement
- Treat each other with respect
- Do the right thing

- Celebrate successes
- Have fun

Montgomery County faces a number of challenges even as it incorporates these lofty principles into its daily operational routines. In Montgomery County, the Office of Management and Budget (OMB) directs the voluntary, 31-agency performance measurement effort. While the Health and Human Services Department is in the lead, other county departments including DPW&T have made strides. John Greiner, an OMB specialist, was hired with a focus on enabling middle managers "to develop the measures they need to manage." Bruce Meier, OMB budget manager, says, "I would rather go more slowly to get the managers to buy in."

Montgomery County's history with quality programs may turn out to work against the county's current preferences. In 1992, a Total Quality Management Program (TQM) was introduced. Top managers received ten days of training. All other employees were trained for at least five days. Departments were promised that they would share in any savings yielded by improved performance.

TQM faded out as directors changed. Budget crunches ate up the promised savings. Cynicism crept in.

The current program is heir to that cynicism. Some county managers cite a lack of training. Others say OMB is not responsive or flexible. Still others see the current performance effort as "management du jour."

The deputy director for transportation policy, Edgar A. Gonzalez, notes that the DPW&T merits 16 of the 151 pages in the April, 2001 edition of "Montgomery Measures Up"—the definitive summary of Montgomery County performance efforts. Five of these, residential resurfacing, bus transit, commuter services, parking garage maintenance and streetlight maintenance, were transportation initiatives. For residential resurfacing, the "Measures Up" document included outputs (lane miles resurfaced), inputs (dollar expenditures), the projected resurfacing cycle and the efficiency (average cost per mile). For the Ride On bus program, measures include passengers transported, expenditures, on-time performance and cost per passenger. Street lighting measured outages, elapsed time to repair and cost of repair. In each case the mission and desired community outcomes were cited prior to the measures. In all three cases, the desired outcomes combined a quality of life enhancement with a safety objective.

P E R F O R M A N C E M E A S U R E M E N T

AN INSTITUTIONAL PERSPECTIVE
FROM STATE AND LOCAL
TRANSPORTATION AGENCIES

Views From the Field: San Jose, California

In San Jose, a team of transportation managers, led by Wayne Tanda, former director, Department of Transportation, is in the midst of transforming the department. Tanda, a thirty-year San Jose government veteran, was committed to a vision for his department. The Baldrige Criteria inspired his efforts.

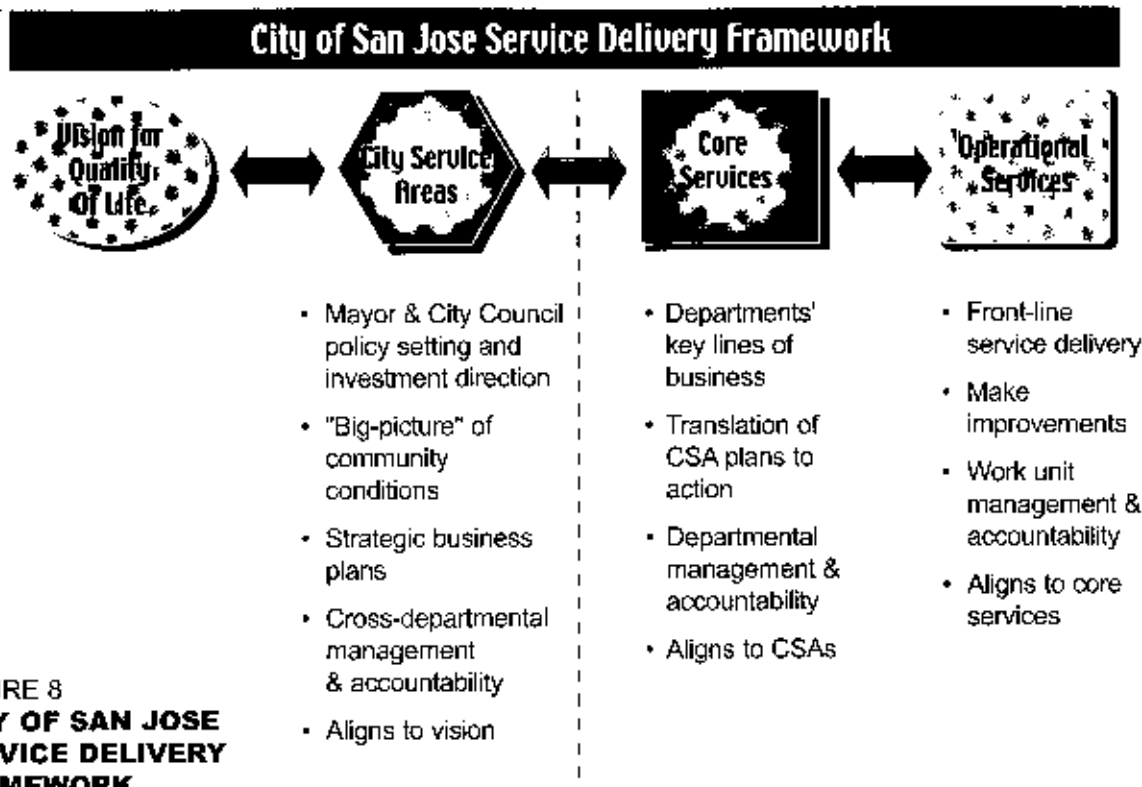
Tanda described the logic that links his organization's strategic plan, its strategic goals, actions, measures and outcomes. He willingly devoted sufficient resources to measurement to enable the department to keep track of its progress. Tanda voiced his vision of the "DOT Way" as "an organization where every member willingly strives to exceed the expectations of its customers, in the most productive manner, while the department supports the development and well-being of each of its members."

From this vision stemmed four strategic goals:

- 1) Exceed the expectations of our customers
- 2) Make continuous improvement an intrinsic part of our culture
- 3) Create a highly skilled workforce
- 4) Support the well-being and development of every colleague

Departmental actions and core services emerged from these goals. The 27 operational activities are now subject to performance measures, each of which is evaluated for actual condition, timeliness, customer satisfaction, and cost effectiveness.

Training at all employee levels is an essential and ubiquitous component of San Jose's approach. In addition to academic offerings, DOT sponsors consultant efforts and team-based activities designed to cross-train and share experience. The goal, according to Tanda, was to enable employees to solve their own workplace problems or ask for the necessary resources to do so. Said Tanda, "they knew best whether they needed Excel training, computer software or another jackhammer."



**FIGURE 8
CITY OF SAN JOSE
SERVICE DELIVERY
FRAMEWORK**

As a result of Tanda's progress at DOT, "Investing in Results (IIR)" has been applied to all sixteen of San Jose's departments. Under the leadership of city manager Del Borgsdorf, citywide performance measurement is becoming the norm. The focal point of IIR is meeting customer needs. Borgsdorf, who came to San Jose from Charlotte, North Carolina's innovative municipal government, spoke of a performance measurement system that focuses on vision, not accountability. He said, "the days of performance measurement as a tool for 'gotcha' are over." The San Jose program has had the full support of mayor Ron Gonzales and the city council.

The Investing in Results effort led to the identification of seven cross-departmental "City Service Areas (CSAs)." The CSAs provide a forum for strategic planning, setting policies, and making investment decisions. CSA-level decisions are carried out at the departmental core and operational service levels. San Jose takes the CSAs so seriously that the city council reorganized its own committee structure along CSA lines.

City Service Areas combine the operations of two or more city departments. For example, the Transportation Services CSA is a joint operation of six departments. The departments plan together, budget together, lobby the council together and most importantly, report their performance together. Duplication of effort, placing blame on others, and the all too familiar cry "it's not my job" are reduced.

The CSA for Economic and Neighborhood Development, charged with growth management, neighborhood preservation, employment and housing opportunities, includes city agencies focused on planning, economic development, housing, public works and cultural services. Their joint responsibility is to maintain San Jose's economic base and the attractiveness of its communities. These CSA outcomes require combined efforts.

The four CSA outcomes for transportation services are:

1. Viable choices in travel modes
2. Convenient commute to workplace
3. Efficient access to major activity centers
4. Transportation assets/services that enhance community livability

Like agencies elsewhere in San Jose and throughout the U.S., there were many employees and long-term managers who saw this effort as yet another half-hearted, half-baked idea from top management that would be partially implemented, half-used and forgotten after the next change of mayor, council or commissioner.

As a partial means of addressing that pervasive suspicion, the Department of Transportation had managers rate themselves anonymously among four categories. These are: 1. commitment; 2. exploration; 3. rejection or; 4) doubt.

Charges of cynicism or cult-like behavior aside, these ratings led Tanda and his team to reassess the environment. Based on employee behavior, reviews, and routine manager-employee interaction, several employees were reassigned. Old teams were dispersed.

In Tanda's nine years at the helm, 150 suspensions, terminations or demotions in a 550-person department took place. In general, department staff viewed these actions as supportive of the higher level of expectations that had become the department's norm. When new hires and replacements are considered, it appears that Tanda, by virtue of longevity and, of course, vision, was able to inculcate his philosophy throughout much of his agency.

The agency's employees, to a person, can cite the departmental goals with a striking air of ownership and confidence. The supervisor of San Jose's three-person pothole repair crew and the team that affixes stripes and markings to the

THE DEPARTMENTS

PLAN TOGETHER. BUDGET
TOGETHER, LOBBY THE COUNCIL
TOGETHER AND MOST IMPORTANT-
LY, REPORT THEIR PERFORMANCE
TOGETHER. DUPLICATION OF
EFFORT, PLACING BLAME ON OTH-
ERS. AND THE ALL TOO FAMILIAR
CRY "IT'S NOT MY JOB" ARE
REDUCED.

pavement know their goals, their relative performance and where they fit in the performance measurement scheme.

The much-discussed concept of empowerment also comes into play. Jose Obregon, San Jose DOT deputy director, detailed empowerment in the following example. "We were preparing to enter into a public-private competition to see if markings could be better done by the private sector. Our fifteen-person team was motivated and they wanted to keep their jobs. When faced with a choice of how to cost effectively run the marking operation, the team opted to self-manage by cutting a senior maintenance worker and replacing him with \$60,000 of materials and equipment. They implemented a redesign of our pavement marking installation process. The combined decisions simplified reporting, improved morale, and led to a higher quality product more efficiently produced." The team won the competition and improved its results by more than 160%.

San Jose tries to follow through with financial rewards for good performance. Managers who meet or exceed their performance targets are eligible for bonuses. The amounts are conservative and there is multidirectional pressure on this evolving incentive system. For example, in 1999, the San Jose Mercury News blasted the city council for providing bonuses of \$5,000 to a number of managers. As a result, the city revamped its pay for performance system that includes adjustments in salaries and non-cash awards like vacation days.

The department uses recognition as a means to show appreciation. For rank and file employees, there is a schedule of awards and prizes that includes restaurant meals, etc. In rewarding individual efforts, DOT must find a balance between honoring a few stars, which may tend to offend others who have contributed, and recognizing large numbers of employees, which may have the effect of diminishing the importance of the reward. Determining the appropriate honors and awards can be difficult. Tanda noted ironically, "we probably did a dozen things that alienated people to make them happy." He was not afraid to be wrong sometimes.

San Jose's agencies now rely extensively on customer and performance surveys. A survey of city residents identified the six most serious issues as:

Traffic congestion	28%
Affordable housing	25%
Education	8%
Public transportation	5%
Crime	4%
Street maintenance	3%

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More detailed questioning revealed that neighborhood pedestrian safety was the quality-of-life item most frequently rated poor or extremely poor. Street maintenance was the most poorly rated item among eleven specific city services.

The survey also found that San Jose residents viewed traffic in their own neighborhood as "acceptable" by a 2-1 margin over "unacceptable." When rating rush hour traffic on local freeways the "unacceptable" rating was five times higher than the acceptable.

The most common responses for improvement in city services were:

- | | |
|---|-----|
| 1) Reduce congestion/improve traffic flow | 22% |
| 2) Housing prices | 14% |
| 3) Mass transit | 12% |
| 4) Roads (repair/expand) | 8% |

San Jose residents showed a clear link between what they perceived as the most serious issues and what they most wanted their elected officials and government to do about these issues. Specifically, they wanted transportation issues addressed, and a disproportionate number saw public transit as the best way forward.

P E R F O R M A N C E M E A S U R E M E N T

A N I N S T I T U T I O N A L P E R S P E C T I V E

F R O M S T A T E A N D L O C A L

T R A N S P O R T A T I O N A G E N C I E S

CHAPTER III

Pulling it all Together Through Alignment

A fundamental process in conducting performance measurement is alignment. Alignment is the process of making sure that the various performance system components fit together properly. When aligned, all the elements relate to each other logically, are mutually supportive and are comprehensible to management, employees and the public alike. In alignment, strategic plans, operations, and targets are coordinated and integrated.

Alignment in performance measurement terms means that an organization knows its desired outcomes, makes plans to achieve them, takes actions that directly and specifically lead to their attainment, and measures the results of those actions.

Reaching alignment and remaining in alignment require ongoing organizational effort, support and focus. At the outset, many government agencies discover that they are engaged in numerous activities that are not consistent with their desired outcomes. Some agencies may find it difficult to identify, rank and choose priorities among their desired outcomes.

Agencies that are perpetually "fighting fires," changing leadership, facing arbitrary budget cuts or needing to be all things to all constituencies may never achieve alignment. Alignment assumes an agency has internal stability and the ability to choose priorities and make decisions.

ITS and Performance Measurement: Automating the Data Collection Process

To create an efficient, long term performance measurement culture, local governments need to overcome several challenges posed by the cost of data collection

and the need for automation of links between data collection and the performance measurement system. Many existing performance measurement systems rely on self-assessment and on manual systems of data capture and link. Agencies generally devote their limited automation resources to overdue and long-proven needs, rather than to “the latest new idea,” such as performance measurement.

Interestingly, the data collection aspects of various Intelligent Transportation System (ITS) efforts, once themselves the “new kids on the block,” are now automated. These systems are capable of feeding operational data directly to the performance measurement system. In fact, one of the oldest ITS applications, freeway management through loop detectors and ramp meters, is a common example.

Glen Carlson, a metro traffic engineer at the Minnesota DOT State Traffic Management Center, describes the links between operational performance data and the ITS system. Carlson details the automated feedback system that links the intelligent technologies of ramp metering and loop detectors to the ongoing computer-driven assessment of congestion and freeway performance.

As freeway traffic in the Minneapolis metro area builds over the course of the morning rush hour, sensors in the road bed (there are 4,000 of these loop detectors within the Transportation Management Center's 240 lanes of freeway) record the increasing levels of lane occupancy and volume. Algorithms analyze this data in relation to previously established thresholds for given segments of the TMC grid. When segment thresholds are reached, indicating a degradation in operational performance—or at least the likelihood that such a degradation will soon occur—the computer signals a change in the ramp metering rates at the meters and ramps “upstream” of the noted bottleneck. By changing the ramp cycle, the pace of entry of new cars onto the freeway system is slowed. This diminishment in volume serves to retard the degradation of operational performance until the relative balance of road capacity, density and car volume is restored, leading to improved system performance.

Of course, in the real world, it does not always work so smoothly. Sometimes, volumes build up past design thresholds, even with slowed ramp meters, and freeway performance drops markedly. Weather, incidents, potholes, and traffic volumes may all be factors.

Experts such as Carlson can observe both the information process and the feedback loop that links volume detection, ramp metering speed and freeway system performance. Multi-colored maps in the TMC show roadway segments in red, yellow and green based on the flow and pace of traffic. Though a “black box” algorithm automatically monitors the data and triggers adjustments, the engineers are able to monitor both the ITS and the performance measurement activities. Incidents are observed and maintenance is planned with the data.

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CHAPTER IV

Conclusion

Interviews with state and local officials confirm that improvement does not occur overnight. The process that begins with measurement is iterative. It takes time and often repeated efforts. The change occurs in waves and, once begun, it is necessary to keep the effort up and the pressure on. A key phrase is "continuous improvement." The results can be extraordinary and far-reaching.

Within a department, change flows from the efforts of the performance measurement "champion" to his or her managers and to their employees. It may also flow "up" to senior departmental management and the locality's political leadership—the city manager, city council or mayor. With each successive penetrating wave the clustered concepts of performance, measurement, accountability, continuous improvement, and self-empowerment take hold and support each other. Negative forces ranging from "gotcha" mentalities to measurement fixation lose hold as an organization migrates from a focus on "what is wrong" toward an emphasis on "what needs to be done" to make things right.

The role of the middle manager changes. By empowering employees to make decisions and achieve agency targets that they may have been involved in setting, the classic relationships among employee, agency head and middle management are transformed. In the classic model, middle managers dominate organizational information pathways, using knowledge and the ability to collect it and dole it out as power. Stripped of that monopoly on information—about goals, targets—the middle managers must become facilitators focused on organizational needs, rather than empire builders.



In many places lacking robust performance measurement, managers who fail to meet targets are often not penalized while those who exceed targets are frequently not rewarded. In fact, it is not uncommon for managers who fail to meet targets to be "rewarded" with more resources (personnel and/or budgetary) so that they can meet their goals. In classical bureaucratic realms, more money and people equate to more status and, in a practical sense, they provide the manager with greater organizational power.

The manager who exceeds targets, meanwhile, often is greeted by the political/bureaucratic system with either a higher target for next time or a cut in resources. Adding insult to injury is the realization that the resources, and hence the power and status, have been transferred from the "succeeding" manager to the "failing" one.

In a performance based culture, the manager who fails to meet targets (assuming that performance measurement has been in use for a while and that targets have been developed and modified over time) is penalized with a smaller span of responsibility and fewer resources. Similarly, a successful manager is rewarded with broader responsibilities and perhaps more resources. Ideally, pay and perks would change too.

As important as ensuring continuity is the need to change the role of employees and managers in this new performance world. The average employee, the man or woman who drives a truck, lays asphalt, reconfigures a traffic signal or puts stripes and markings on the roads is the front line soldier in the war for performance. To make performance measurement work, these individuals need targets and outcomes that are understandable and meaningful. They need to believe in the idea that higher targets are good for customers, departments, the managers and even the employees.

Change in a governmental agency requires political and societal support. Unions represent employees and the unions interact with the public, the press and elected officials. Elected officials determine broad direction and are sensitive to both the public and the press. The press informs the public and may or may not be supportive of the actions of local elected officials and agencies. In short, to effect change, elected officials need to champion the effort, and efforts should be made to give the press information on a continuous basis so that it remains supportive.

Aligning responsibility with demonstrated capability, aligning resources with the willing and capable, aligning pay and perks with performance and results is the model that drives the successful performance measurement culture. It is not easily attained but when it is, organizations can happily do more with less.

Appendices

Commonly Used Terms and Definitions

(From Howard Rohm Consultants, www.netmain.com/usfpm)

Alignment—A structured process that formally and in detail links agency/community goals to performance targets to the deployment of agency resources. It is an iterative process using performance measures and results.

Baldrige Criteria—A set of standards established to guide corporations and other organizations seeking to improve performance and effectiveness.

Best Practices—A systematic study of variations in service level and design, work processes, and products among similar organizations. Used to identify practices that are cost-effective and that might be adopted locally.

Benchmarking—A process of measuring one's products and services against "best practice" or "world class" standards set by others. The benchmark standard may be used to establish realistic goals and compare performance.

Core Values/Service—Those values in which the organization believes.

Customer—The recipients or beneficiaries of a product or service. Customers can be internal or external to the organization.

Goal—A broad statement regarding a desired outcome.

Performance Goal—A specific desired level of performance at a particular point in time.

Inputs—Resources (money, assets, time, etc.) used in the production of products and services.

Mission—A concise statement of the unique nature of an organization. A mission statement defines why the organization exists.

Objective—A measurable statement about the end result that a product or service is expected to accomplish in a given period of time. Objectives are the basic building blocks of strategy.

Outcome—An accomplishment or result of an organization's activities.

Outputs—The products or services produced by an organization.

Performance Measure—An indicator of performance, preferably quantitative, of an organization's outcomes, outputs, processes, goals and objectives.

Stakeholders—Individuals or groups who have an interest in the organization and its products and services.

Strategy—A plan for proceeding; describing results and how they are to be achieved, and determining priorities for achieving results. Strategies are hypotheses to be tested and if needed, changed to meet new challenges and opportunities.

SWOT Analysis—A situation analysis involving self-assessment of strengths, weaknesses, opportunities and threats.

Target—The desired level of performance for a performance measure at a specified period of time.

Vision—Where and what the organization wants to be in the future; vision creates a picture of the destination.

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