



Tennessee Department of Transportation
Office of Strategic Planning

Best Practices in Transportation Department Performance Measurement Structures

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Prepared by



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Appendix A – List of Organizations Contacted

Appendix B – Interview Scripts

Performance measurement is commonly focused on the MEASURES.

However, the STRUCTURE within which they operate is equally important.

I. Introduction

Public and private organizations alike are abuzz with talk about performance measurement. It is recognized as a powerful tool for building accountability and providing data on what is most important about business operation. Most of this discussion is centered on good measures (i.e., What should they look like? How do we develop them?). However, less focus has been placed on how organizations *structure* themselves for performance measurement or, in a sense, develop their framework for performance measurement.

Having such a framework is *foundational* to successful performance measurement, as it is critical to know more than just what the measures themselves are. For example, it is important to know the answers to such questions as:

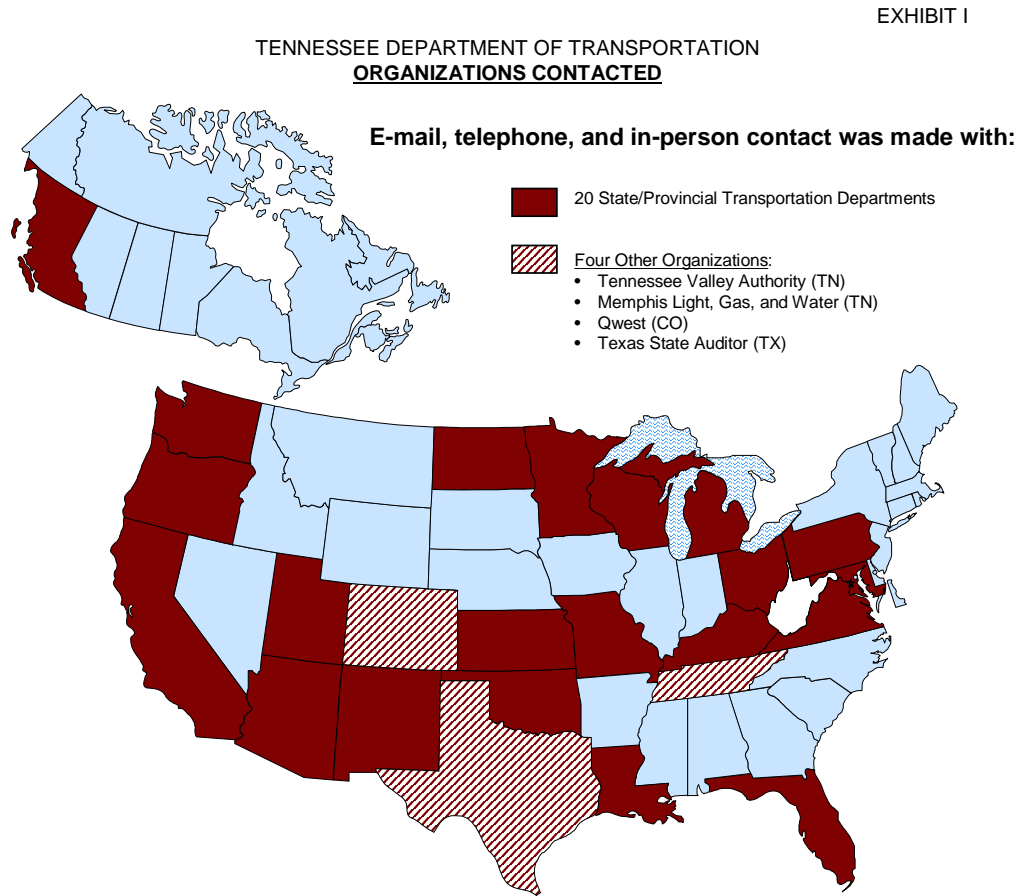
- How will performance measurement data be collected?
- Where will it come from?
- How will it be analyzed?
- How will it be reported?
- Who will analyze it? Report it?
- Who will be the recipients of reports?
- What will the reports look like?



Being able to answer these questions is especially important in large government agencies – such as transportation departments – that must continually balance the complex delivery of public services with calls for heightened accountability and visibility. Recognizing these answers are not readily available and needing to address them as part of an effort to develop a *Performance Measurement Guidebook*, the Tennessee Department of Transportation’s (TDOT’s) Office of Strategic Planning commissioned a study of transportation department performance measure structures. This report discusses the results of that study.

A. Methodology

Structured communication with 24 organizations took place as part of the study, as shown in EXHIBIT I below. As the illustration below indicates, these organizations included 19 state departments of transportation (DOTs), one Canadian provincial transportation ministry, two private organizations, and one additional state agency that is a leader in performance measurement. Organizations were selected based upon recognized success in performance measurement implementation, possession of a strong linkage between strategic planning and performance measurement, or both.



Specific organizations and individuals contacted are listed in APPENDIX A. Contact was made in the form of e-mail, telephone, and/or one-on-one visits.

Structured scripts were developed by TDOT’s Performance Measurement Team and used in discussions with these organizations; copies of these scripts are provided in APPENDIX B.

Sample documents and tools from surveyed DOTs are available from TDOT’s Office of Strategic Planning.

B. Results

As presented in the next two sections, the study revealed a series of trends and best practices related to implementation of performance measurement in transportation departments.

Seven components must be developed to fully implement performance measurement in a DOT environment.

II. Trends

Implementation of a performance measurement structure is a time-consuming and, at times complex, endeavor. It involves the consideration of, and careful planning for, a number of critical elements that are both tangible and intangible in nature. These factors include the DOT's:

- Overall performance measurement business approach. 
- Data collection and analysis approach. 
- Data reporting approach. 
- Performance measurement roles. 
- Linkages to other planning efforts. 
- Tactical implementation. 
- Change management. 

While each organization surveyed had unique experiences in implementing these elements, 25 general trends also emerged. These general trends are discussed below.

A. Overall Performance Measurement Business Approach



It is critical to have a well-defined performance measurement paradigm within which to work so that the “big picture” describing how performance measurement is structured and will fit into the DOT is clear. This big picture comprises multiple business approaches to performance measurement, each varying due to individual organizational development patterns, political pressures, and historical management information needs among transportation departments. Discussions with survey respondents indicated that these approaches are best understood when the scope of what is being measured and the methodology being used are clear.

Scope of Measurement

The types of measurements being taken drive the scope of the performance measurement effort. Transportation departments surveyed used one or both of two types, Trends 1 and 2, as follows:

Trend 1 – Use of Business-Based, Process-Oriented Measurement

Process-oriented measurement focuses on the business of the DOT. It is concerned with measuring the specific performance of everyday operation, such as the efficiency of a specific snow and ice removal technique or the number of bid packages completed on time.

Trend 2 – Inclusion of Broader-Based, Strategic-Oriented Measurement

Strategic-oriented measurement is focused on broad organizational initiatives and is concerned with the future of the DOT. Its projects are more administrative, relate less to engineering in nature, and are often theme-based. Examples could include measures around the number of existing agency processes that are integrated with environmental requirements or the completion of new partnership initiatives.

Process-oriented measurement was found to be common in all DOTs, with all DOTs reporting that they included such measurement in their performance measurement effort. Strategic-oriented measurement was less common, with approximately one-third of all DOTs surveyed including such measurement in their performance measurement effort.

Methodology

Regardless of the scope of the performance measurement effort, it can be integrated into the DOT through a wide variety of methods. Transportation departments surveyed indicated two predominant approaches (Trends 3 and 4):

Trend 3 – Alignment With the Traditionally “Siloed” DOT

The “siloed” approach calls for each major DOT functional area to design its own measures around its business. Sometimes there is connection to broader executive management initiatives; however, little integration between functional areas, performance measurement, and the agency’s objectives often exists. This is the traditional DOT approach to performance measurement.

Trend 4 – Movement to a Progressive, Balanced Scorecard Approach

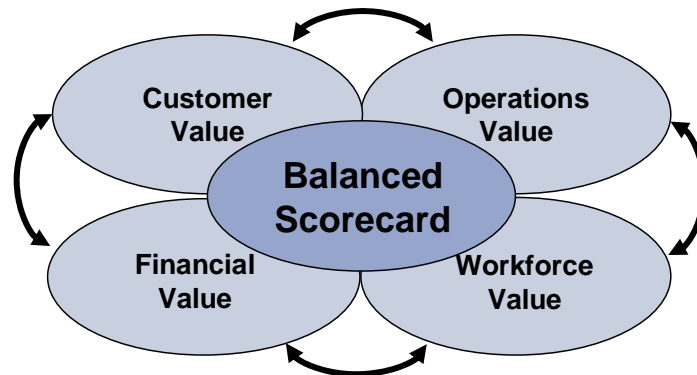
The balanced scorecard approach is an answer to calls for more accountability and visibility in program and organizational management. It focuses on systematically linking the agency’s strategies and objectives with finance, customers, internal processes, and employees in a series of scorecards in order to deliver a desired level of performance. Integrated measures are developed that create links between functional areas.

The siloed approach was prevalent in slightly more than two-thirds of the DOTs surveyed. DOTs with the most mature and progressive strategic planning or quality offices have been reviewing the balanced scorecard approach, largely because of the connection between measurement and strategy that it features. The Michigan DOT has implemented six areas of scorecard measurement across its organization; other state transportation departments, including Illinois and Missouri, are also moving toward the scorecard approach.

EXHIBITS II and III below further illustrate the balanced scorecard approach.

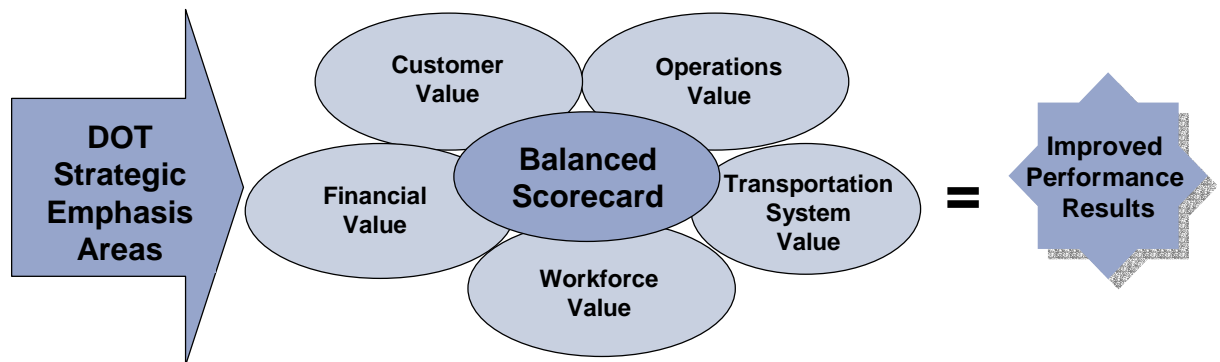
The balanced scorecard approach comprehensively links DOT strategy, process, and measurement.

TENNESSEE DEPARTMENT OF TRANSPORTATION
BALANCED SCORECARD OVERVIEW



A balanced scorecard should tell the story of a DOT's strategy starting with the organization's objectives and linking those to the sequence of actions that must be taken with financial processes, customers, internal processes, and employees to deliver the desired performance.

TENNESSEE DEPARTMENT OF TRANSPORTATION
BALANCED SCORECARD APPROACH



The balanced scorecard is an invaluable mechanism for translating TDOT's strategic agenda into specific objectives, measurements, and performance standards AND monitoring the implementation of that strategic agenda during subsequent periods.

B. Data Collection and Analysis Approach

Data collection and analysis is accomplished using a mix of old and new technology as well as manual tasks.



How performance measurement data is collected makes a significant impact on its acceptance by middle managers and employees alike, as it needs to be "painless," economical, and make sense in order to be adopted as an additional work step.

Equally important, the methods used to analyze the data once it is collected are critical to the ability of top and executive managers to make decisions and lead the organization. Data

collection and analysis approaches that support this success, as well as ideas for implementing the approaches, are described below as trends and best practices. Discussions with survey respondents indicated that there are primarily four of these approaches (Trends 5–8) being used in DOT performance measurement, and they are:

Trend 5 – Development of Customized “Umbrella” Programs

Because of the variety of functions performed within the DOT – planning, design, construction, maintenance, and information technology, among others – a large number of databases and data sources exist. Some DOTs have worked with in-house as well as private developers to create an “umbrella” program, or programs that will automatically pull requested data from a wide variety of systems and place it in one database for easy access and analysis.

Trend 6 – Application of Performance Measurement Software

Some off-the-shelf software programs are being used to support performance measurement efforts. One of note is pbviews, which provides support to those organizations employing the balanced scorecard approach; this survey identified the Michigan DOT and the Office of the Texas Auditor as two reference points for pbviews in particular. Pbvies requires purchase of the software and license; customized on-site training is also available. Administrators who are proficient in the use of the software are encouraged to be part of the DOT performance measurement structure implementation team.

Trend 7 – Extended Use of Microsoft Excel

Microsoft Excel is also a commonly used electronic tool in performance measurement structures. Because it is often incompatible with other non-Microsoft-based programs throughout the DOT, it usually serves as an *analytic*, not collection, tool. When used as a collection tool, however, it is often in the form of a template into which divisions enter data.

Trend 8 – Reliance on Manual Techniques

Some DOTs do not use electronic collection devices at all and either report performance measurement data directly or use Excel or another program to manipulate very limited amounts of data.

Two-thirds of the surveyed DOTs used electronic means for collecting data; only half indicated that they did any electronic manipulation or analysis of data received, including exception report and crosstab development. Approximately one-fourth of the DOTs surveyed indicated using umbrella programs, and several from that group also indicated that the umbrella program must be flexible enough to accept additions and changes to reflect the changing reporting requirements of DOTs.

A sampling of the data collection and analysis approaches used by DOTs is presented in EXHIBIT IV below.

TENNESSEE DEPARTMENT OF TRANSPORTATION
SAMPLE DATA COLLECTION AND ANALYSIS APPROACHES

Organization	Data Collection and Analysis Approach			
	Umbrella	Performance Measurement Software	Microsoft Excel	Manual
California Department of Transportation				✓
Kentucky Transportation Cabinet			✓	✓
Memphis Light, Gas, and Water				✓
Michigan Department of Transportation		✓		
Minnesota Department of Transportation	✓			
Pennsylvania Department of Transportation			✓	✓
Texas State Auditor's Office		✓		
Virginia Department of Transportation			✓	✓

Data reporting is increasingly being accomplished using high technology.

C. Data Reporting Approach



The way in which performance measurement data is reported can have a very powerful effect on messages developed and sent about the DOT, given that performance measurement data is universally recognized as an authoritative source. The most visible element of a performance measurement structure that contributes to this condition is the reporting approach. It is the one place to which all people impacted by performance measurement refer.

Many combinations of methods can be used to report the data. The types of reporting vehicles used to shape DOT performance measurement efforts identified by study respondents included a combination of five types, as outlined below and referred to as Trends 9–13.

Trend 9 – Posting Intranet and Database Reports

There is a movement under way in DOTs to make more of their performance measurement data available to broader internal audiences. Database-generated reports containing performance measurement information are being posted to intranet sites. The Virginia and Oregon DOTs, for example, are posting project-related performance measurement data to their internal sites.

General reporting frequency: Weekly; monthly; continuous.

Trend 10 – Accessing the World Wide Web

Because of calls for increased accountability from outside sources, DOTs are also moving toward posting more performance measurement-related data on the World Wide Web. The Washington State DOT's quarterly posting of the *Gray Book* on its Web site is one example.

General reporting frequency: Monthly; quarterly.

Trend 11 – Issuing Bound Reports

Performance measurement data is also commonly found as primary data included in DOT annual reports and business plans. For some DOTs, regular bound reports currently serve as the primary vehicle for performance measurement reporting, such as in the New Mexico State Highway and Transportation Department. For others states, performance measurement's sole exposure is just as a component of one of these larger reports, such as in Kansas.

General reporting frequency: Biannually; annually.

Trend 12 – Providing Executive and Mid-Management Reports

Managers in some DOTs receive regular reports, in both written and electronic form, on the status of performance measurement. Generally, key measures are reported on frequently and supporting measures less frequently. For example, in Michigan and Kentucky, the executive team receives monthly reports on key initiatives and receives reports quarterly, as well as annually, on all measures.

General reporting frequency: Weekly; monthly; quarterly; annually.

Trend 13 – Building and Distributing Notebooks

It should be noted that the Washington State DOT updates its primary reporting mechanism – a notebook – quarterly and ensures that key decision makers, including elected officials and the legislature, receive copies. The goals of the updates are to track anomalies from the previous month.

Internal posting of performance measurement-related data is taking place in one-fourth of the organizations surveyed. However, because of the more extensive exposure of performance that is created, the movement for similar postings on the World Wide Web is slower to take hold; one-fifth of the DOTs polled are aggressively placing performance measurement data on the World Wide Web. Almost all DOTs polled develop regular bound reports and provide interim reports to management on, at a minimum, the status of key performance measures.

Respondents that indicated they had received positive feedback on the format of their reporting vehicles had one thing in common: they reported information in a manner that involved text and

Effective assignment of executive and quality or strategic planning office roles are critical to performance measurement implementation.

graphics in order to appease multiple learning and comprehension styles. A sample of a particularly effective report is that used by the Wisconsin DOT.

D. Performance Measurement Roles



Effective performance measurement structures are dependent upon a team of professionals at different levels and across the DOT to implement, monitor, and continually improve the performance measurement experience. A wide range of leadership and management roles must be carefully defined and assigned to personnel with the skill sets to carry them out. Transportation departments surveyed indicated three key considerations (Trends 14–16) concerning these roles in developing and maintaining a performance measurement structure:

Trend 14 – Assigning Full-Time Equivalents to Match the Agency’s Level of Commitment to Performance Measurement

The number of full-time equivalents (FTEs) committed to implementing performance measurement efforts ranged among DOTs polled, depending upon the individual DOT and the emphasis it placed on performance measurement. In states that had simply monitored and reported performance measurement, such as Oklahoma and Ohio, dedicated FTEs numbered as few as 0.33. In other states where performance measurement had a much larger role, FTEs numbered as many as 9.00, such as in Michigan. All states indicated that they had more dedicated talent at the initial implementation of performance measurement. A sampling of FTE levels assigned to performance measurement at DOTs appears at the end of this subsection.

Trend 15 – Ensuring Strong Executive Roles

States that indicated they had made a large and lasting impact on their organizations all had direct executive involvement in the development and communication of the structure. Two respondents that had been successful in implementing the balanced scorecard approach, the Texas State Auditor’s Office and the Michigan DOT, both indicated that the top leaders in their organizations were not just active sponsors, spokespersons, or change agents for performance measurement, but were “champions,” taking advantage of every opportunity to relay the importance of, and their expectations for, performance measurement. In contrast, in states such as Oregon and Wisconsin, loss of very strong initial executive involvement has diminished the planned far-reaching impact of performance measurement.

Trend 16 – Establishing Facilitative Quality/Strategic Planning Office Roles

In all but two of the DOTs contacted, responsibility for implementing performance measurement fell to the organizational equivalents of the quality office or strategic planning office. Within these organizations, five of the most common staff roles included:

- Start-Up Coordination

Staff assist with the development, initiation, and management of implementation plans for integrating a performance measurement structure into existing DOT processes. This includes development of white papers and training, such as in Wisconsin, and executive team presentations, such as in Michigan, among other activities.

- Ongoing Overall Coordination

Staff also assume responsibility for managing the performance measurement process. That is, they facilitate activities to be sure that measures are developed, updated, analyzed, and reported on, as well as to ensure that relevant steps are documented and that training occurs.

- Coaching

All respondents indicated that they do not actually develop measures for managers to use; rather, they coach others in that development.

- Data Collection and Analysis

Data collection and analysis is a common role for quality/strategic planning office staff. This responsibility includes electronic, as well as manual, gathering and manipulation of data. In some offices responsible for performance measurement, such as in Oklahoma and Ohio, staff act more as a clearinghouse for performance measurement information, while staff in other states, such as Oregon, extensively structure and analyze data.

- Reporting

Reporting is also a common role for quality/strategic planning office staff to perform. Much like data collection and analysis, significant effort is often spent as a clearinghouse. However, quality/strategic planning office staff often spend considerable time structuring, formatting, and publishing performance measurement results in the form of written and electronic reports.

In none of the respondent organizations was the quality/strategic planning office charged with managing, or ultimately held responsible for the success of, the performance measurement effort and structure.


EXHIBIT V below contains a sampling of how survey respondents characterized the roles of quality or strategic planning offices in performance measurement.

TENNESSEE DEPARTMENT OF TRANSPORTATION
STAFF ROLES IN QUALITY OR STRATEGIC PLANNING OFFICES

Organization	Quality or Strategic Planning Office Staff Roles					Performance Measurement (FTEs/Total FTEs)
	Start-Up Coordination	Ongoing Overall Coordination	Coaching	Data Collection and Analysis	Reporting	
Kentucky Transportation Cabinet	✓	✓	✓	✓	✓	3.00/5,700
Memphis Light, Gas, and Water	✓	✓		✓	✓	5.00/2,600
Michigan Department of Transportation	✓	✓	✓	✓	✓	9.00/3,000
New Mexico State Highway and Transportation Department	✓	✓	✓	✓	✓	2.00/2,600*
Oklahoma Department of Transportation				✓	✓	0.33/2,400
Oregon Department of Transportation	✓	✓		✓	✓	2.00/3,000
Texas State Auditor's Office				✓	✓	0.75/240
Washington State Department of Transportation	✓	✓	✓	✓	✓	4.00/6,000
Wisconsin Department of Transportation	✓	✓	✓	✓	✓	1.25/3,900

* Current staffing level; expansion planned for immediate future.

E. Linkages to Other Planning Efforts

 Performance measurement cannot stand alone and flourish in a DOT environment. Since the measurement should ultimately yield a regular report on the performance of the organization, performance measurement must be closely linked with other planning activities across the agency, as well as with those planning efforts or influences that exist outside the agency but have a significant impact. Survey respondents indicated that there are three such linkages with which performance measurement structures should interact in order to be successful, and they are described below as Trends 17–19:

Trend 17 – Linkages Established via Gubernatorial Directives

Many respondents indicated that governors in their states had performance measurement or other heightened accountability efforts that DOT not only had to respond to but also had to ensure that it continued to adhere to or provide regular reports on.

Performance measurement linkages can be derived from internal and external sources.

Trend 18 – Linkages Established via Statewide Transportation Planning

Respondents also indicated that increased reporting requirements for their statewide transportation plans required forms of performance measurement.

Trend 19 – Linkages Established via Strategic Planning Efforts

Because it is key to systematically track the progress of strategic initiatives, performance measurement must also link to strategic planning efforts. This has been especially prevalent in organizations that are actively implementing the balanced scorecard, including the Texas Auditor's Office and Michigan DOT.

F. Tactical Implementation

A tactical implementation plan must be thoughtfully developed and initiated.



A performance measurement structure has many components, each with its own complex implementation considerations, including decisions, communications, and logistics. Therefore, when the totality of these considerations is realized, it is clear that a performance measurement structure cannot be successfully integrated into the DOT if its implementation is not carefully planned and carried out. The essence of these considerations is described below in Trends 20–22:

Trend 20 – Focusing Implementation Efforts on the Division Level

All but two DOTs indicated that implementations of performance measurement only took place as far down in the organization as the division manager level. In addition, work units and individual DOT employees are generally not involved in measuring performance of tasks at their level. Only one-third of the respondents indicated that they saw a value in driving the effort further down in the organization and/or had plans to do so.

Trend 21 – Setting a Limited Scope for Performance Measurement

Survey respondents also indicated that the scope of organizational change brought forth by performance measurement must be limited. Performance measurement must be applied to key points of existing processes rather than being the focus of a full business process reengineering effort to support performance measurement. In fact, in the California DOT's performance measurement implementation process, it quickly became clear that while performance measurement was important, it must also find specific, non-intrusive points for integration with current business operations and processes.

Trend 22 – Establishing a Reasonable Implementation Timeline

None of the survey respondents indicated that they were able to develop and implement a performance measurement structure in a year or less. In fact, for quite a few the effort spanned as many as 2 to 8 years.

Extensive cultural change is required by performance measurement implementation.

G. Change Management



Overlaying a business-based management structure, such as performance measurement, on a traditionally engineering-based organization like the DOT, poses some unique cultural challenges, including: “*What does this have to do with building roads and bridges?*” and “*Is this just another of management’s flavors of the month?*” Overcoming these challenges requires effective, largely communication-based change management components to be added to the performance measurement structure. Discussions with survey respondents indicated the following related trends:

Trend 23 – Centering of the Effort on Strong Management Involvement

Senior and top management must take a cue from executive leadership and “walk the walk” and “talk the talk” constantly if the change management is to be successful, according to approximately half of the respondents. Staff members need to see that their immediate managers understand performance measurement, think it is important, and are using it. They must regularly receive signals from executive management reinforcing this message.

Trend 24 – Poor Organizational Understanding of Performance Measurement

Almost all respondents indicated that the concept of performance measurement and its application, value, and benefit were not truly understood by many staff and some managers.

Trend 25 – Use of Practical and “Personal” Communication Strategies

All respondents indicated that performance measurement must be communicated as a results-oriented concept to employees and managers alike. It must also be presented personally or in small groups to ensure it is understood; such interactions should occur multiple times, rather than just once. In fact, some DOTs have used division managers or small, key groups that report to them as their main points of contact for introducing performance measurement.

Thirteen best practices have been identified for DOTs to use in successfully implementing performance measurement.

III. Recommended Best Practices

A number of “tested,” effective practices used to implement performance measurement in DOTs were identified during the course of the study. Additional practices that have been identified as part of other studies or tested in other environments, and would add value to performance measurement structure implementation, were also identified by the consultant. All of these practices, including their perceived benefits and suggestions for quick implementation, are introduced below.

Recommended Best Practice 1 – Ensure Ongoing, Highly Visible Executive Support

All organizations take their cues from the top; DOTs are no different. All survey respondents indicated that the extent of a performance measurement structure’s success hinged on the level of visibility of executive leadership assigned to it. As discussed in the trends section, the leader of the organization has to be an ongoing champion for performance measurement, touting it on every occasion possible. Leaders must integrate performance measurement into their management decisions and demand that their direct reports do the same.

Benefits

- Clear communication that performance measurement is a serious effort and not a “flavor of the month” initiative.
- Learning by repetition: by hearing the same message time and time again, the message will eventually become second nature.

Implementation Suggestions

- Immediately arrange in-person consultations between executive managers and their counterparts in other DOTs to learn specific leadership techniques used in implementing and reinforcing performance measurement.
- Arrange a single topic (performance measurement), all-hands meeting for executives to introduce the initiative; follow up with division and/or work unit meetings to independently discuss the topic. Executives should be assigned to attend portions of each follow-up meeting to:
 - Reinforce the message.
 - Listen to related grievances.
 - Brainstorm approaches to overcome stated grievances and potential implementation challenges.
- Develop regular columns by executives in DOT newsletters or similar communication organs, such as TDOT’s *Journeys*, to reinforce the performance measurement message as well as report progress.

- Arrange for publication of the performance measurement story and its successes in trade publications and ensure such publication is directly communicated back to DOT employees.

Recommended Best Practice 2 – Establish a Clear Delineation Between Strategic and Operational Measurement

DOTs that have implemented both operational- and strategic-oriented performance measurement approaches indicate that a “firewall” should be drawn between the two to ensure that they have measurement that is distinct from each other. According to Michigan, Pennsylvania, and Oregon DOTs, failure to do so can result in strategic-oriented measurement getting lost in the more traditional and easily understood process-oriented measurement.

Benefits

- Both types of measurement will take place simultaneously.
- Audience-specific measurement information can be more readily compiled.

Implementation Suggestions

- Divide performance measurement progress reports into two sections.
- Assign each measurement with an introductory label as either “operational” or “strategic.”
- Conduct separate planning sessions for operational and strategic measures.
- Empower executive management with the understanding and terminology to use when discussing the two types.

Recommended Best Practice 3 – Limit the Scope of the Performance Measurement Structure

All DOTs indicated that any performance measurement structure should limit its expanse by only measuring what is most important. Because of the numerous programs that are managed by DOTs and the level of complexity of each, it is easy to measure a wide variety of process and program components. However, many DOTs are now finding ways to measure fewer programs and processes and focus on prioritized key improvement areas.

Benefits

- Refined agency focus on key areas.
- Enhanced ability to monitor improvement progress.
- Ability to show results sooner.

Implementation Suggestions

- Identify business areas, programs, or units that are any or all of the following:

- Highly visible.
 - In need of improvement.
 - Executive management’s priorities.
- Limit the performance measurement effort to cover only executive team emphasis areas and related key process measurements.

Recommended Best Practice 4 – Adopt Overall Business Approaches That Promote Business-Planning Interrelationships

For DOTs seeking to manage their organizations using a broad strategic agenda, the performance measurement framework should consider the interrelationship between business area functions and strategic planning efforts. When asked, most DOTs indicated that a void existed between these two. More mature and progressive quality or strategic planning offices indicated that their executive teams realized the value of creating this interrelationship and were seeking it out. The central tenet of the balanced scorecard approach is making such an interrelationship occur.

Benefits

- Focuses the measurement effort.
- Clarifies the role of strategy in measuring agency performance.
- Lends itself to quantification of strategic measures, thus eliminating some of the “softness” often associated with strategy and its measurement.
- Demonstrates the interconnected nature of engineering-related business areas.
- Brings more clarification to existing working relationships within the DOT organization.

Implementation Suggestions

- Leverage the extensive amount of research that has already been done on the balanced scorecard approach. Numerous articles have been written by such authors as Kaplan, as well as Norton and Kerr, and case studies have been placed in such publications as the *Harvard Business Review* and the *Journal of Accountancy*.
- Spend real time with practitioners. While many private companies have implemented the balanced scorecard approach, a number of government agencies have as well, including the Michigan DOT and the Texas State Auditor’s Office, among others. Either hold a symposium for them or visit them at their sites.
- Develop a sample scorecard and test it. Spend time with executive management to identify four to five key measures for one business area and pilot it. Refine it, report the results to executive management, then develop draft scorecards for other areas.
- Collect sample scorecards and guiding documents used by a cross section of agencies and private sector companies that are utilizing the balanced scorecard approach and learn from their efforts.

Recommended Best Practice 5 – Assign Process Ownership to the Strategic Planning Office and Data Ownership to Divisions

Ownership of performance measurement data should be at the division level in the hands of division directors or their equivalents; ownership of the performance measurement process used should remain with the implementors, such as the quality or strategic planning office. Ultimately, the work of performance measurement should be the responsibility of those who own the program that it is measuring. It is for these reasons that division managers should provide the candidate measures and measurement to be centrally monitored and reported. They should be provided with coaching by the quality or strategic planning office on how to perform these tasks.

Strategic planning and quality offices that lead should limit their activity to a facilitative role after initial implementation has occurred, focusing and monitoring progress as well as analyzing and reporting performance measurement results.

Benefits

- Assigns performance measurement responsibilities where they are most appropriate.
- Builds ownership for performance measurement.
- Makes actual measurement more meaningful by placing it with those who will actually use it.
- Assigns quality initiative managers to perform their most valuable roles: facilitation, coaching, and process improvement.

Implementation Suggestions

- Develop and document clear roles and responsibilities for performance measurement. Establish related job descriptions.
- Create straightforward and simple manual and electronic templates and tools for divisions to use in establishing measures as well as collecting and transmitting resultant measurement data.
- Establish and conduct regular coaching sessions with managers.
- Conduct regular meetings of data owners and groups.

Recommended Best Practice 6 – Leverage Reporting Mechanisms to Make Performance Measurement Reporting “Routine”

To be effective and actually read, performance measurement reports should become an integrated part of the routine of management, employees, and stakeholders. Reports should be delivered on a regular schedule and have a predictable reporting mechanism. They should be the same each time, without confusing formatting or layout so readers are focused on looking for changes or anomalies. Reports should also be easily accessible through a number of mediums. A good model is the Washington State DOT's *Gray Book*.

Benefits

- Focuses on what is easy and simple; most people do not want to spend time dealing with the details of performance measurement.
- Limits the amount of staff time required to develop voluminous reports on a regular basis.

Implementation Suggestions

- Conduct a quick environmental scan to clarify which *internal and external* reporting mechanisms really work; reporting mechanisms that work for one DOT may not work for another. Build the reporting tools around the results.
- Ensure executive commitment and ongoing (financial and staffing) resources exist to support the reporting effort; starting an effective reporting effort and then discontinuing it can potentially be more detrimental than doing no reporting at all.
- Test the use of the mechanism with a select audience. Conduct a series of focus groups to refine the mechanism, then roll it out to the entire DOT.

Recommended Best Practice 7 – Maximize the Use of Electronic Reporting

Performance measurement generates an inordinate amount of paperwork, especially through its reports. In addition, the standard for more and more management reports is automation. It is for these reasons that as much reporting as possible should be automated either using existing electronic programs or by adding related functionality.

Benefits

- Over time, fewer human and financial resources would potentially be required to produce reports that describe organizational performance. This not only translates into less paper, but also less labor. For example, the Texas State Auditor's Office assigned four people to spend 3 days per month to reports that appeared in four-inch binders prior to automation and now (post-automation) has a 0.75 FTE that develops reports on a monthly basis.
- Modern software programs, such as pbviews, offer an extensive range of reporting options and customization that older, more manual options cannot readily match. Having this capability provides a wider menu of reporting options that can meet specific needs and preferences of executive managers.

Implementation Suggestions

Selection of a software product should occur at least 6 months to a year after the implementation has started and initial collection, analysis, and reporting processes have stabilized. After that point, a measured approach should be taken to match observed needs and requirements with a software product. At that time, the following steps should be taken:

- Conduct a quick, but in-depth, search of software solutions, weighing them against the reporting requirements that have been collected.
- Encourage vendors to present their products and tools to the implementation team.
- Conduct a 30- to 90-day trial with one business area and include at least one sponsor from executive management, for the selected solution. Most software companies will allow such a pilot.
- Provide detailed training on software use to all users, including:
 - Collecting and initial reporting training for divisions.
 - Analysis and final reporting training for the quality or strategic planning office.

Recommended Best Practice 8 – Clarify and Document as Many Business Processes as Possible Prior to Assigning Measures to Them

Performance measurement is often only focused on capturing and reporting the *end results* of an established area of work. However, in its most powerful form, performance measurement is also focused on *improvements* to those same areas. In order to identify those areas in which performance improvement can be measured, the processes associated with areas to be measured should be clearly understood and documented before applying performance measurement to them. This effort, much like a gap analysis, should result in areas for improvement that should be measured.

Benefits

- The focus is increasingly on real-time problem solving.
- Quicker process and organizational improvement can occur because the roots of performance problems are being addressed.

Implementation Suggestions

- Leverage lessons and tools from similar, previous process mapping efforts. Other agencies have refined approaches that coincide with performance measurement efforts. Two examples include tools used by the Kentucky Transportation Cabinet and the Florida DOT.
- Priority processes may be mapped first. Because of the staff and financial resources required as well as the cultural impact associated with tandem efforts involving extensive process mapping and the introduction of performance measurement, it must be realized that extensive process mapping may not be realistic prior to initiation of a performance measurement approach.
- Take advantage of business processes that are already documented. Meet with process owners and collaboratively conduct gap analysis on each process.

Recommended Best Practice 9 – Phase Implementation to Demonstrate Early, Limited Successes

Due to the heightened level of accountability it demands, performance measurement is often welcomed coolly when introduced into DOT organizations. It is for this reason that a limited application, potentially in the form of a pilot that has demonstrated focused success and benefits, can be a very powerful implementation strategy. Several DOTs indicated that such a take-it-slow approach has been successful, especially when applied to specific functions that are under review or need improvement (such as in the case of California). After targeted early successes are completed and visible to the organization, it is much easier to roll out performance measurement to additional functions.

Benefits

- It is easier to obtain buy-in when demonstrated success can be seen.
- Lessons learned early on can be applied organizationwide to avoid unnecessary, potentially costly start-up mistakes that would otherwise occur on a larger scale.

Implementation Suggestions

- Let it be known early on that the implementation approach is phased and that input on its initial stages will be taken seriously in refining a larger approach for the entire DOT. Employees like to see that a plan is in place and that they can have a role in shaping it; this is a powerful change management tool in disguise.
- Communicate early successes and challenges to executive management. After making necessary course corrections, report the successes to the broader DOT audience on a regular basis. Have the business area sponsor who is being measured act as a spokesperson for the success of the effort; this too is a powerful change management tool in disguise.

Recommended Best Practice 10 – Start Collection, Analysis, and Reporting Activities Manually and Gradually Add Automation as Requirements Become Clearer

Many DOTs have found that collecting, analyzing, and reporting performance measurement data can be a very complex task that involves extensive up-front efforts to clearly and concisely define collecting, analysis, and reporting requirements that can eventually be used to develop or purchase related technology. It is for this overwhelming reason that DOTs should rely on nonautomated collection, analysis, and reporting approaches for at least the first year. During this time, the database should be developed and key requirements ought to be identified so that unnecessary costs are not incurred because of incorrectly focused software and programs.

Benefits

- Costly software investments made with insufficient information for decision making will be limited or avoided.

- The true scope of the performance measurement effort can be determined so the learning curve for staff using performance measurement-related technologies is not as steep.

Implementation Suggestions

- For the first 6 months to a year, strictly use a combination of manual efforts as well as one or two software programs that are commonly used in the DOT. The approach should be kept as simple as possible. A sample model could include:
 - *Data collection:* Utilize a common Microsoft Excel workbook template that all division managers use to report progress; alternatively, regularly interview division managers to collect data.
 - *Data analysis:* Place division measurement results into one Excel file for table development, comparison, etc.
 - *Data reporting:* Use Microsoft Word to develop a simple report with text, supplemented by tables and graphs from Excel.
 - *Process mapping:* Use Word, Microsoft Visio, or manually write out processes.
- Constantly review data requirements and formats to increase clarity, the quality of the data, and the type of data needed by decision makers. Continually poll division managers and executive management on tool requirements.
- Commit full-time resources to handle start-up workload, as manual processing and use of commonly used, non-specialized software can be more time-intensive.

Recommended Best Practice 11 – Integrate Flexibility Into the Design of Processes and Electronic Tools Used

History has demonstrated that ever-changing state and federal reporting requirements, as well as new executive priorities, demand new or changed performance reporting requirements. Because a significant financial and cultural investment will be made in performance measurement, it is critical that the data collection, analysis, and reporting processes that are developed, as well as the electronic programs and systems that support them, have a significant amount of flexibility designed into them to accommodate the dynamic DOT business environment.

Benefit

- Potential needs of all performance measurement data users will be met.

Implementation Suggestions

- Conduct a series of Joint Application Development (JAD) sessions with all possible stakeholders and users of performance measurement data in order to identify their data needs.
- As possible, select electronic solutions that, by their design, are highly configurable and are based on programming code that can be easily and cost-effectively modified.

- Carefully assess solutions that are based on technology that is obscure, highly proprietary, or requires rare programming talent.

Recommended Best Practice 12 – Focus Change Management Efforts on Small Groups and Individuals

DOT respondents with the most successful and mature performance measurement programs indicated that the real buy-in into performance measurement occurred with one-on-one discussions between quality or strategic planning offices and division managers or between the quality or strategic planning offices and small groups of division managers and their direct reports. These sessions focused on what performance measurement is, why it is important, what it will be used for, and their start-up and ongoing roles in implementing it.

Benefits

- Easier to assess the true level of understanding of audience.
- Increased comfort level for audience, as questions and concerns can be raised in a “safe” small group environment.

Implementation Suggestions

- Follow up immediately on questions, concerns, and requests that are made. Removing perceived roadblocks or barriers will accelerate the implementation effort.
- Follow up multiple times with each manager or small group to track their progress and facilitate the resolution of issues.

Recommended Best Practice 13 – Develop a Reusable, Expandable Training Program

All DOTs surveyed indicated that existing, as well as new, DOT employees who will be exposed to performance measurement should be familiar with its key concepts. However, only one DOT surveyed – Wisconsin – had a means in which to systematically deliver such knowledge. Wisconsin’s approach included a repeatable performance measurement training program used to brief new employees. Such a program should be made flexible enough so it can be updated and used for refresher courses, as well.

Benefits

- All employees receive the same message about performance measurement.
- Formal training across the organization on performance measurement sends a clear message that performance measurement is an executive priority.

Implementation Suggestions

- Translate the “basics” of performance measurement (which have been documented for many years by scholars and internal training organizations alike) for DOT use, much like the Wisconsin DOT has.
- Regularly poll the understanding of performance measurement throughout the DOT and dutifully note any special needs of measurement developers, data collectors, and data users. Adaptations of the curriculum should be made to meet those needs as well as to meet the needs of future performance measurement initiatives and components that the implementation team may be planning.








* * * * *

These recommended best practices will contribute to the successful implementation of the seven elements of a performance measurement structure, as illustrated in EXHIBIT VI below.

EXHIBIT VI

TENNESSEE DEPARTMENT OF TRANSPORTATION **RECOMMENDED BEST PRACTICES FOR PERFORMANCE MEASUREMENT**

Recommended best practice that contributes to the successful implementation of these performance measurement structure elements:						
	Overall Business Approach	Data Collection/Analysis	Data Reporting	Roles	Linkages	Tactical Implementation	Change Management
Ensure ongoing, highly visible executive support.	✓	✓	✓	✓	✓	✓	✓
Establish a clear delineation between strategic and operational measurement.	✓	✓	✓		✓	✓	✓
Limit the scope of the performance measurement structure.	✓	✓	✓	✓		✓	✓
Adopt overall business approaches that promote business-planning interrelationships (balanced scorecard).	✓	✓	✓		✓	✓	✓
Assign process ownership to the strategic planning office and data ownership to divisions.	✓	✓	✓	✓		✓	✓
Leverage reporting mechanisms to make performance measurement reporting “routine.”	✓		✓	✓			✓
Maximize the use of electronic reporting.		✓	✓				✓
Clarify and document as many business processes as possible prior to assigning measures to them.	✓					✓	✓
Phase implementation to demonstrate early, limited successes.	✓	✓	✓			✓	✓
Start collection, analysis, and reporting activities manually and gradually add automation as requirements become clearer.	✓	✓	✓			✓	✓
Integrate flexibility into the design of processes and electronic	✓	✓	✓			✓	✓

Recommended best practice that contributes to the successful implementation of these performance measurement structure elements:						
	Overall Business Approach 	Data Collection/Analysis 	Data Reporting 	Roles 	Linkages 	Tactical Implementation 	Change Management 
tools used.							
Focus change management efforts on small groups and individuals.				✓		✓	✓
Develop a reusable, expandable training program.	✓			✓		✓	✓






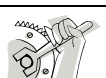

IV. Conclusion

Trends and best practices have indicated that implementing a performance measurement structure is a significant undertaking. There must be thoughtful, ongoing communication; careful investment of time and dollars; and effective adaptation to new concepts, responsibilities, and technology. With so much to consider, how should the implementation effort be managed? Some answers are offered below.

- *Secure solid support early or forget it.* Provide executive management with enough detail about what they are getting into and have them commit to it. Sign a charter and circulate it, if necessary. Without clear, unequivocal support from the beginning, no performance measurement effort will be fully implemented.
- *Manage according to risk level.* Each of the performance measurement structure elements has its own level of risk; the highest should receive focused planning and mitigation efforts early on. EXHIBIT VII below presents these structure elements and associated risk levels.

EXHIBIT VII

TENNESSEE DEPARTMENT OF TRANSPORTATION
PERFORMANCE MEASUREMENT STRUCTURE ELEMENTS AND RISK LEVELS

Performance Measurement Structure Element		Risk Level
Overall Performance Measurement Business Approach		Medium
Data Collection and Analysis Approach		Low
Data Reporting Approach		Medium
Performance Measurement Roles		High
Linkages to Other Planning Efforts		Low
Tactical Implementation		High
Change Management		High

- *Strategize and organize.* Evaluate where the pockets of support and dissension are. Early on, develop implementation and change management plans around those pockets. Maximize the impact of the support and address the dissension head-on. Develop and use a performance measurement guidebook as the living document that staff can use to understand the journey.

- *Learn from other states.* Pick up the telephone, read about them, or visit. They all have some valuable lessons to pass on and want to help.
- *Take it slow.* Performance measurement is a culture change. People need time to adapt to it. Too much change in process and too much technology can be unnecessarily overwhelming.
- *Show results early and often.* DOT staff will be skeptical of performance measurement and will settle for nothing less than observed success in order to fully adopt it.

Appendix A – List of Organizations Contacted

EXHIBIT A-1 below presents detailed information on the organizations that were contacted for the survey.

EXHIBIT A-1

TENNESSEE DEPARTMENT OF TRANSPORTATION ORGANIZATIONS CONTACTED

	Contact			Research Approach		
	Organization	Name	Division/ Responsibility Area	E-Mail	Tele-	Visit
1	Arizona Department of Transportation	Mr. Hari Khanna	Performance Measurement		•	
2	British Columbia Ministry of Transportation	Mr. Dave Byng Mr. Gary Leibel	Properties and Business Management Branch	•		•
3	California Department of Transportation	Mr. Tremaine Downey	Office of Data Management		•	
4	Florida Department of Transportation	Mr. James Golden	Planning	•		
5	Kansas Department of Transportation	Mr. Ron McMurray	Office of Management and Budget		•	
6	Kentucky Transportation Cabinet	Mr. Marc Clark	Quality Office		•	
7	Louisiana Department of Transportation and Development	Ms. Marie Brewer	Planning and Programming		•	
8	Maryland State Highway Administration/Department of Transportation	Mr. Ed Strocko	Planning and Capital Programming	•		
9	Memphis Light, Gas, and Water	Mr. Howard Locke	Strategic Planning and Quality	•		
10	Michigan Department of Transportation	Ms. Nancy Foltz	Performance Excellence		•	
11	Minnesota Department of Transportation	Mr. Dennis Feit	Workforce Development	•		
12	Missouri Department of Transportation	Mr. Kyle Kittrell	Transportation Planning	•		
13	New Mexico State Highway and Transportation Department	Mr. William Gregoricus Mr. Nick Mandell	Bureau of Quality		•	•
14	North Dakota Department of Transportation	Mr. Ken Heitcamp	Office of Business Support		•	
15	Ohio Department of Transportation	Mr. Al Rakas	Assistant Secretary's Office		•	

	Contact			Research Approach		
	Organization	Name	Division/ Responsibility Area	E-Mail	Tele-	Visit
16	Oklahoma Department of Transportation	Mr. Jim Hazeldine	Deputy Director's Office		•	
17	Oregon Department of Transportation	Mr. Scott Bassett	Transportation Development Division			•
18	Pennsylvania Department of Transportation	Mr. Doug Zimmerman	Strategic Management		•	
19	Qwest	Mr. John Mackin	Information Technology			•
20	Tennessee Valley Authority	Mr. Bill Kolz	Executive Management			
21	Texas State Auditor's Office	Ms. Deborah Kerr	Strategic Assessment			•
22	Virginia Department of Transportation	Ms. Connie Sorrell	Policy and Organizational Development	•		
23	Washington Department of Transportation	Ms. Daniella Bremmer	Strategic Planning and Programming	•		
24	Wisconsin Department of Transportation	Mr. Jim Etmanczyk Ms. Marie Showers	Office of Organizational Development Services	•		•

Appendix B – Interview Scripts

EXHIBIT B-1 below provides the interview scripts used in the survey.

EXHIBIT B-1

TENNESSEE DEPARTMENT OF TRANSPORTATION INTERVIEW SCRIPTS

Topic		Initial Survey Questions	Specific Follow-Up Questions
#	Title		
1	Data Collection	<ul style="list-style-type: none"> ▪ How did your organization determine what data would be collected, the methods of collection, and processes for data consistency? ▪ What issues did you face in this area, and what advice do you have to avoid these problems? 	<ul style="list-style-type: none"> ▪ What part of the organization collected and compiled the data? Was it centralized or remote (regions) in nature? ▪ What methods and tools are being used for collection? Is it electronic, manual, or a mix? Which did you consider and which have been tried? Which worked and which did not? Why? ▪ How long does it take to collect data? How often is it collected? How were decisions made around these issues? What options were considered? ▪ How do you ensure that all facets of the organization are collecting information consistently? ▪ Did collection of data have an impact on people's performance? ▪ Overall, what steps/issues/challenges have you encountered and should they be avoided?
2	Data Reporting	<ul style="list-style-type: none"> ▪ Who is the audience for your performance measurement reports? ▪ Within your organization, who owns and prepares your reports? 	<ul style="list-style-type: none"> ▪ What system (manual, electronic or both) supports the reports? What options were considered? ▪ How is the reporting function staffed? What options were considered? ▪ What do you do with the reports? How are they used? ▪ Where do you keep/store/maintain them? ▪ What tools do you use (Vendor, Access, Excel, Word)? ▪ How often do you prepare the reports? ▪ How did you develop your report formats? On your own? Did you get what you wanted? ▪ What form of reports did you use – paper, electronic, PowerPoint, newspaper articles, etc.? Who is your audience/customer and how are you getting it to them and is it helping them? ▪ Is your method working? ▪ Depth/detail/version: do you have different levels of detail of the information for different interested parties?

Topic		Initial Survey Questions	Specific Follow-Up Questions
#	Title		
			<ul style="list-style-type: none"> ▪ Lessons learned/successes/failures: "what were we thinking, and when?"
			<ul style="list-style-type: none"> ▪ How long did it take to develop the reports? How long does it take to prepare them each month? Is it taking too long or about the right amount of time? ▪ What happened that you did not expect? Did you get what you wanted? If not, why? ▪ Do you have comparison reports to prior years? To other states? Best practices, industry standards, etc.? ▪ What did you report?
3	Data Analysis and Leadership Roles	<ul style="list-style-type: none"> ▪ Are your performance measurements linked to your organization's strategies and goals? ▪ Are decisions made based on your performance measurement outcomes and results? 	<ul style="list-style-type: none"> ▪ To what are performance measures linked? In terms of goals? In terms of customers? ▪ How do you monitor performance measures for effectiveness? ▪ How often are performance measures reviewed? In terms of: <ul style="list-style-type: none"> • External feedback. • Internal feedback. • Validity. • Who decides. • Relevancy. ▪ What decision process is used to identify whether the right measures are in place and whether they are effective? ▪ Does each measure have a projected lifespan? ▪ Who makes decisions, based on the results of performance measures? Do they really use the results? Why or why not? Which results and what type are/have been most helpful? ▪ Who gets a copy of the performance measures? ▪ Are your measurements linked to budget/financial decisions? ▪ How do you decide to retire or change a measurement?

Topic		Initial Survey Questions	Specific Follow-Up Questions
#	Title		
4	Tactical Implementation Plan	<ul style="list-style-type: none"> ▪ Within the organization, did you have the right people in place to lead the implementation of this effort? ▪ How did you communicate the rollout of your performance measurement efforts? 	<ul style="list-style-type: none"> ▪ What was it that initiated performance measurement in your organization? ▪ What is your organizational structure and dispersion of staff? To what levels of the organization did your efforts reach? How did you accommodate the variances in the organization's culture? ▪ Do you have a plan? Who developed it? What is in it? Have you updated it? Frequency of updating? ▪ How do you measure your plan's success? ▪ What was the scope of the plan (how many years) and how many measures were included? ▪ What major changes in the plan occurred? ▪ How did you communicate the plan within the organization? What tools did you use? ▪ For how long was the rollout scheduled? How long did it really take to fully roll out the plan? Were there phases? ▪ What kind of testing occurred? Was there a pilot? If so, how was it structured? Where was it housed? ▪ Do you have a related communication plan? ▪ How did you overcome any resistance? ▪ What practical changes did the move to performance measurement make in your organization? ▪ Who owned the plan? Were they the right owners? Why or why not? Have owners changed over time – why or why not? ▪ How did you get buy-in into the plan? ▪ Did you ever use the plan; are you still using it? ▪ What were the categories of measurement that were developed? ▪ How visible was the plan to the greater organization? ▪ Who was involved in developing the framework, measure, and implementation plan development? What did they do? ▪ Specifically, were stakeholders involved in the process of framework, measure, and implementation plan development? Were stakeholder-related measures included? ▪ What was your rollout plan?
			<ul style="list-style-type: none"> ▪ How did you pilot your performance measurements? ▪ How did you prioritize your work?

Topic		Initial Survey Questions	Specific Follow-Up Questions
#	Title		
5	Overall Framework and Linkage to Strategic Plan, Long-Range Plan and Business Unit Plans	<ul style="list-style-type: none"> ▪ How were your framework and associated reports developed? ▪ Are your performance measurements implemented throughout your organization or only at the executive levels? ▪ What type of organizational structure exists to support and manage this effort? 	<ul style="list-style-type: none"> ▪ Did they start with any sort of framework or plan? May we have a copy? ▪ How does the business plan roll into the framework and measures? ▪ What was the timeline for developing the framework? ▪ To what other plans does the framework link? ▪ What sort of sponsorship does the framework have? ▪ Has the sponsorship and ownership changed over the years? ▪ After whom did you model the governance structure? The overall structure? ▪ What changes would you have made in the process for developing the framework? ▪ What has been the review process for the framework? ▪ What changes would you have made in the framework? ▪ If you don't have a framework: <ul style="list-style-type: none"> • How are you approaching performance measurement? • How are you starting it? ▪ What does the organizational structure to support and manage performance measurement look like? ▪ How do you validate that performance measures being used are effective and are the right ones? ▪ How did you train/educate the organization on performance measurement? ▪ How are measures developed? ▪ How far down in the organization do measures go? Were/are they developed from a top-down or bottom-up approach? ▪ How were/are the number of performance measures narrowed? Were/are they? ▪ Overall, what lessons have you learned?
6	Change Management	<ul style="list-style-type: none"> ▪ Did you have a change team, steering committee, or a change leader in place for this effort? ▪ What were your key lessons learned? ▪ What generated your need to create and implement performance measurements? 	<ul style="list-style-type: none"> ▪ What resistance or barriers did you encounter during your implementation? ▪ What organizational cultural roadblocks did you encounter? ▪ How long did it take to get your change implemented? ▪ What policies did you put into place to effectively implement your performance measurements? ▪ How did you develop and conduct your training of performance measurements?

Topic		Initial Survey Questions	Specific Follow-Up Questions
#	Title		
			<ul style="list-style-type: none"> ■ What steps did you undertake to get performance measurements implemented? ■ What was the role of your leadership team? <ul style="list-style-type: none"> ● How big was its role? ● How involved was it in the change implementation? ● How did it communicate with the organization? ● What was its role in making the change successful? ■ Was the implementation of performance measurements a significant change for your organization? ■ What were the major changes that you had to make to establish performance measurements within your organization? ■ What were your methods of communication within your organization and to the various levels of your organization? <ul style="list-style-type: none"> ● What was effective? ● How often did you communicate? ■ What is the size of your organization and what is your general organization structure? ■ What levels were impacted by the change? ■ Did you implement performance measurements into DOT employee performance appraisals? ■ How do you complete the ongoing support of the change management plan and performance measurements? ■ How did you link performance measurements to other efforts, such as strategic plans, long range plans, business plans, etc.? ■ Did you have a change management plan? <ul style="list-style-type: none"> ● Will you provide a copy of your plan? ● What approach did you take to address the changes within the organization? ● Was your approach successful?
7	Other		