

AGENCY STRATEGIC PLAN  
FOR THE FISCAL YEARS 2013-2017 PERIOD

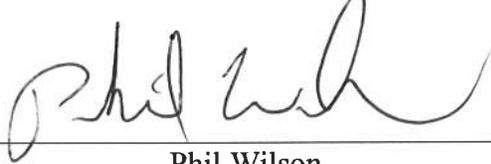
BY

TEXAS DEPARTMENT OF TRANSPORTATION

Commission Member	Home Town	Dates of Term
Jeff Austin III	Tyler	2011-2013
Ted Houghton	El Paso	2003-2015
William Meadows	Fort Worth	2008-2013
Jeff Moseley	Houston	2012-2017
Fred Underwood	Lubbock	2007-2015

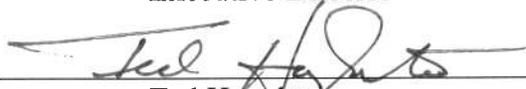
July 6, 2012

Signed:



Phil Wilson  
Executive Director

Approved:



Ted Houghton  
Commission Chair



## Letter from Texas Transportation Commission Chair

On behalf of the Texas Transportation Commission, I am pleased to present the Texas Department of Transportation's 2013-2017 Strategic Plan. In this document, we detail the goals and philosophy that will allow us to work with others to provide safe and reliable transportation solutions for Texas. Additionally, we discuss some of the core activities that support the department.

While TxDOT produces transportation plans for specific components of the overall transportation system, the strategic plan describes what the department seeks to accomplish during the next five years and identifies the strategies it will use to achieve the desired results.

Throughout its 95-year history, TxDOT has done some remarkable things for Texas. The department is recognized as a national transportation leader that develops and maintains a diverse transportation network serving more than 25 million Texans and that helps fuel a vibrant state economy. But TxDOT leaders understand that the agency must continuously improve to become even better stewards of the public's resources.

For the past two years, the department has undergone significant, positive changes. It has been a time of new beginnings both for the leadership and TxDOT as a whole. We're listening to our customers' feedback about core business functions that we should improve and are focusing our attention on modernizing the department to address those issues.

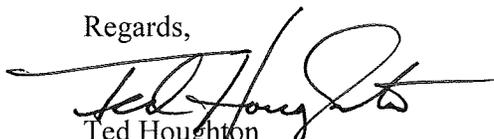
Today, we have emerged from the modernization process a stronger, nimble, more responsive organization that is more adept at meeting the needs of Texans. And the new TxDOT leadership team has introduced fresh ideas that will help navigate this department through the financial challenges ahead.

The department recognizes that our work in creating a safe and effective Texas transportation system is not done alone. It has always been bolstered by the tireless efforts of our many community partners statewide, both public and private, who work with TxDOT every day in different ways. We are grateful for their valuable input and assistance.

Looking ahead, the Commission intends to nurture those partnerships. How we engage with others is vital to that effort. We will continue to embrace a collaborative approach to foster the teamwork necessary for Texas communities to flourish and to ensure an exceptional transportation system for the future.

In closing, the Commission would like to thank the Texas Legislature for its guidance and support through our modernization process and the dedicated TxDOT team for its professionalism, resiliency, and willingness to grow. We look forward to working with the Legislature, the public, and the transportation community to continue providing the transportation system that the state needs and that Texans deserve.

Regards,



Ted Houghton  
Chair, Texas Transportation Commission



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## **Statewide Vision, Mission, and Philosophy**

### ***Texas State Government Mission***

Texas state government must be limited, efficient, and completely accountable. It should foster opportunity and economic prosperity, focus on critical priorities, and support the creation of strong family environments for our children. The stewards of the public trust must be men and women who administer state government in a fair, just, and responsible manner. To honor the public trust, state officials must seek new and innovative ways to meet state government priorities in a fiscally responsible manner.

Aim high . . . we are not here to achieve inconsequential things!

### ***The Philosophy of State Government***

The task before all state public servants is to govern in a manner worthy of this great state. We are a great enterprise, and as an enterprise, we will promote the following core principles:

- First and foremost, Texas matters most. This is the overarching, guiding principle by which we will make decisions. Our state, and its future, is more important than party, politics, or individual recognition.
- Government should be limited in size and mission, but it must be highly effective in performing the tasks it undertakes.
- Decisions affecting individual Texans, in most instances, are best made by those individuals, their families, and the local government closest to their communities.
- Competition is the greatest incentive for achievement and excellence. It inspires ingenuity and requires individuals to set their sights high. Just as competition inspires excellence, a sense of personal responsibility drives individual citizens to do more for their future and the future of those they love.
- Public administration must be open and honest, pursuing the high road rather than the expedient course. We must be accountable to taxpayers for our actions.
- State government has a responsibility to safeguard taxpayer dollars by eliminating waste and abuse and providing efficient and honest government.
- Finally, state government should be humble, recognizing that all its power and authority is granted to it by the people of Texas, and those who make decisions wielding the power of the state should exercise their authority cautiously and fairly.

## **Relevant Statewide Goals and Benchmarks**

### ***Economic Development***

#### **Priority Goal**

To provide an attractive economic climate for current and emerging industries and market Texas a premier business expansion and tourist destination that fosters economic opportunity, job creation, and capital investment by:

- Promoting a favorable business climate and a fair system to fund necessary state services;
- Addressing transportation needs;
- Maintaining economic competitiveness as a key priority in setting State policy; and
- Developing a well-trained, educated, and productive workforce.

#### **Relevant Benchmarks**

- Percentage of state highway system rated good or better based on the Pavement Management Information System Condition Score
- Percentage reduction in traffic congestion using the Texas Transportation Institute's Travel Time Index.

### ***Public Safety and Criminal Justice***

#### **Priority Goal**

To protect Texans by:

- Achieving an optimum level of state wide preparedness capable of responding and recovering from all hazards

#### **Relevant Benchmarks**

- Number of traffic deaths per 100,000 population
- Number of traffic deaths per 100,000 population involving alcohol

## ***Natural Resources and Agriculture***

### **Priority Goal**

To conserve and protect our state's natural resources (air, water, land, wildlife, and mineral resources) by:

- Providing leadership and policy guidance for state, federal, and local initiatives;
- To maintain Texas' status as a leader in agriculture; and
- Encouraging responsible, sustainable economic development.

### **Relevant Benchmarks**

- Percentage of nitrogen oxide and criteria pollutants reduced in the air

## Agency Mission

**Our Mission** – Work with others to provide safe and reliable transportation solutions for Texas.

## Agency Philosophy

### TxDOT values:

- Trust - We understand the importance of being trustworthy and credible, both as an agency and as individuals.
- Integrity - We honor our commitments and keep our word.
- Responsibility - We are reliable and dependable in carrying out our mission and roles.
- Excellence - We do our work at a high level of quality.
- Service - We do what we do for others with a spirit of humility and honor.

## Agency Goals

### Goal: Maintain a Safe System

- *Objective: Reduce crashes and fatalities on the system through innovations, technology, and public awareness*
- *Objective: Maintain and preserve the transportation assets of the state of Texas*

### Goal: Address Congestion

- *Objective: Partner with local officials to develop and implement congestion mitigation plans in Texas*

### Goal: Connect Texas Communities

- *Objective: Prioritize new projects that will increase the state GDP and enhance access to goods and services throughout the state*

### Goal: Become a Best in Class State Agency

- *Objective: Ensure the agency deploys its resources responsibly and has a customer service mindset*
- *Objective: Focus on work environment, safety, succession planning, and training to develop a great workforce*

## Agency Priorities

Priority	Examples
Be the Safest DOT in the United States	<ul style="list-style-type: none"> <li>• Texas' 3.4% drop in fatalities (vs. US drop of 2.9%) from 2009 to 2010</li> <li>• Lowest employee accident rate of any DOT</li> </ul>
Develop and Implement Authorized Comprehensive Development Agreements (CDAs) and Discuss the Need for Additional CDAs	<ul style="list-style-type: none"> <li>• Progress on the Grand Parkway (Houston District)</li> <li>• Progress on US 290 Corridor (Houston District)</li> <li>• Progress on I-35E (Dallas District)</li> <li>• Progress on NTE/I-35W (Fort Worth District)</li> <li>• All TxDOT CDAs authorized by 82<sup>nd</sup> Legislature that are under procurement or contract</li> </ul>
Develop Innovative Maintenance Approaches That Reduce Costs and Improve/Preserve Transportation System Conditions	<ul style="list-style-type: none"> <li>• Better utilization of technology for assessing road &amp; bridge conditions</li> <li>• Innovative contracting approaches that extend roadway lifecycles</li> <li>• Better utilization of new materials (e.g. warm mix asphalt)</li> </ul>
Develop Effective Information Systems	<ul style="list-style-type: none"> <li>• Development and application of business intelligence tools for decision making</li> <li>• Conversion to Microsoft Outlook</li> </ul>
Act as Resource for Transportation Funding	<ul style="list-style-type: none"> <li>• Expanded use of the State Infrastructure Bank and Transportation Reinvestment Zone financing options</li> <li>• \$4 billion of additional infrastructure investments for roads made possible through partnerships</li> </ul>
Implement Congestion Mitigation Projects	<ul style="list-style-type: none"> <li>• Expansion of rapid-response wrecker programs in major metropolitan areas</li> </ul>
Further Strengthen and Enhance Our Relationship with MPOs, Counties, and Other Key Stakeholders	<ul style="list-style-type: none"> <li>• Large MPOs April 2012 presentation labeled "In Partnership with TxDOT"</li> <li>• I-35 and I-69 Segment and Advisory Committees</li> </ul>

## Agency External/Internal Assessment

### I. OVERVIEW OF AGENCY SCOPE AND FUNCTIONS

The Texas Legislature created the Texas Highway Department in 1917. In 1975, the Legislature merged the Texas Highway Department with the Mass Transportation Commission, renaming the agency the State Department of Highways and Public Transportation. In 1991, the Texas Legislature created the Texas Department of Transportation (TxDOT), an executive agency. This action merged the State Department of Highways and Public Transportation, the Department of Aviation (created as the Texas Aeronautics Commission in 1945, name changed to Texas Board of Aviation in 1989); and the Motor Vehicle Commission (created in 1971). In 1997 the Texas Turnpike Authority merged with the Texas Department of Transportation. In 2009, the Texas Legislature created the Texas Department of Motor Vehicles (TxDMV) and transferred the motor vehicle dealer registration, vehicle titles and registration, and auto theft prevention functions to the new TxDMV. The Texas Legislature transferred the motor carrier registration functions to the TxDMV on January 1, 2012.

Today, TxDOT, in cooperation with local and regional officials, is responsible for planning, designing, building, operating and maintaining the state's transportation system. This includes acquiring right-of-way for state highways and other modes of transportation; researching issues to save lives and solve problems; constructing roads and bridges and improving airports; and maintaining roadways, bridges, airports, the Gulf Intra-coastal Waterway, and ferry systems. Other functions carried out by TxDOT include public transportation grant management, rail safety, traffic safety, and travel information.

*Traffic Safety:* TxDOT is committed to making travel as safe as possible for all users of the state's transportation system. While we continue to make progress in making our system safer, indicated by the 13% reduction in the fatality rate over the last five years, safety remains a major concern. According to analysis of Texas Crash Records Information System data, in 2010 a reportable crash occurred every 81 seconds on Texas roads, resulting in more than 3,000 fatalities and 215,593 injuries. Approximately one-quarter of the 3,000 people killed were motorcyclists, pedestrians, or bicyclists and 100 fatalities occurred in construction and maintenance zones. In addition to the loss of life, motor vehicle crashes cost approximately \$20.6 billion in economic loss each year and cause an estimated 40% to 50% of all unpredictable congestion.

*TxDOT and the Importance of System Preservation:* The Texas transportation system is

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*TxDOT, either directly or through grants, provides maintenance for 193,000 lane-miles of highways, more than 33,500 on-system bridges, more than 17,000 off-system bridges, more than 300 airports, and more than 2,700 rural and small urban public transportation vehicles.*

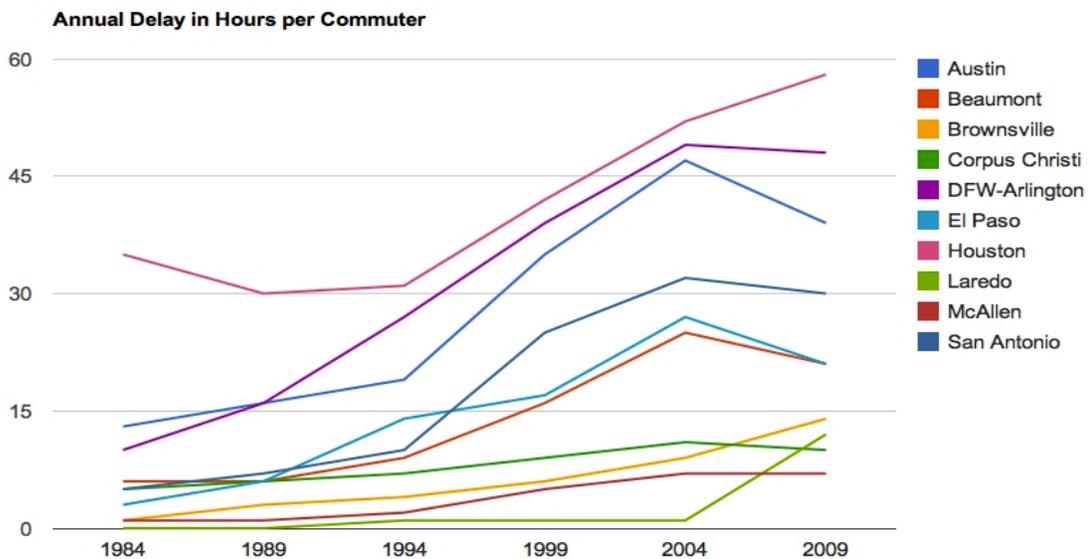
among the state's largest capital investments. It is also the largest system in the nation. TxDOT is currently responsible for maintaining approximately 193,000 lane-miles of highways, maintaining and inspecting

more than 33,500 on-system bridges, inspecting more than 17,000 off-system bridges (those owned by counties, cities, and some governmental agencies), and providing grant assistance to maintain the State’s more than 300 airports and more than 2,700 public transportation vehicles in the rural and smaller urban areas of the state.

As transportation infrastructure ages, routine and preventive maintenance helps to extend the life of system elements and reduce long-term costs. Deteriorating roadways, bridges, airport pavements, and buses must be replaced or rebuilt at a much higher cost than that of regular maintenance. However, maintenance is only a part of the total cost of deteriorating infrastructure. Preserving the state’s transportation assets and increasing their value to the public are critically important for the state’s economic health, safety, and environmental stewardship. To minimize the costs of managing and maintaining the transportation system, TxDOT strives to preserve and restore the condition of the state’s transportation infrastructure through the application of innovative asset management programs and improved maintenance operations practices.

*TxDOT’s Role in Addressing Congestion:* Like many other growing states, traffic congestion is one of the most critical transportation issues facing Texas. More people driving on the state’s already crowded transportation facilities means further exceeding the available capacity. While to some, congestion is the inevitable result of a strong economy -- a sign of a successful region with large numbers of people – it does have negative implications as well.

Every year, drivers, passengers, truckers, and visitors spend countless hours stuck in traffic jams, costing businesses time and money waiting of their goods, polluting the air, exacerbating road and vehicle wear-and-tear, increasing driver stress, and wasting more gas. And as the state’s population grows, congestion is only expected to get worse.



Source: *2011 Urban Mobility Report*, Texas Transportation Institute

So what can we do? With increased future transportation funding being unlikely and the necessity for spending on safety and maintenance projects looming as well, Texas must make the best use of those funds. The state and its local government partners must work together to expand the capacity of our transportation systems. But that alone will not solve the problem. We must find smart ways to manage the growth of congestion by increasing the efficiency of our existing roadways, looking for multi-modal solutions, and targeting improvements that hold the greatest potential for long-term, system-wide impacts.

*Texas' Role in International Trade and the Importance of the Border:* According to TradeStats Express, Texas has led the nation in exporting activity for ten consecutive years. Total revenue in 2011 was \$249.86 billion, up from \$95.42 billion in 2002 - an increase of \$154.43 billion. Texas' largest export market continues to be its NAFTA trading partners, which accounted for \$108.59 billion or over 43% of total state exports during 2011. Mexico ranked as the top export destination with \$86.63 billion in Texas exports; Canada ranked second with \$21.96 billion; China ranked third at \$10.94 billion; Brazil ranked fourth at \$9.98 billion; and the Netherlands ranked fifth at \$9.03 billion.

Given these statistics, it is clear that Texas continues to grow and profit from its geographical location and position in the world market. This makes the development of infrastructure and multi-modal transportation key factors for Texas' continued success.

Texas is home to 29 international border crossings with the neighboring Mexican states of Tamaulipas, Nuevo Leon, Coahuila and Chihuahua. TxDOT supports the border crossings, and its 27 commercial airports and 12 deep water ports, with the infrastructure that connects them to the Texas state highway system.

At the forefront of global developments that impact Texas and its transportation infrastructure is the \$5.25 billion expansion of the Panama Canal that is scheduled for completion in 2014. The expansion of this major trade route is expected to provide a great economic development opportunity for Texas. Growing trade between the United States, South America and Asia puts the state in a position to capture a larger share of Asian and South American imports, while expanding export markets.

*Texas/Louisiana Border:* For 2013-2017, in addition to routine maintenance, there are approximately \$144.3 million in mobility-related transportation projects that serve the Texas/Louisiana border region as defined by Government Code Chapter 2056.

*Enhancing Military Facilities:* For 2013-2017, there are approximately \$529.5 million in transportation projects that will directly impact major military installations in Texas.

## **II. ORGANIZATIONAL ASPECTS**

The five-member Texas Transportation Commission (Commission) governs TxDOT and appoints an executive director to oversee the agency's daily operations. Each part-time, salaried commissioner position is a representative of the general public appointed by the

governor with advice and consent of the Senate for overlapping six-year terms. Since 2003, one of the members must represent rural Texas.

The Texas Transportation Commission appointed TxDOT's current executive director, Phil Wilson, in October 2011. The executive director heads a new organizational structure that allows the agency to use its resources to best serve our customers. Specifically, the organizational structure focuses on aligning our core functions to ensure similar services and programs work together to maximize efficiency. It also moves the agency into a "district franchise model," which allows the agency's 25 districts across the state the flexibility to achieve agency-wide goals set by the Commission and the Administration. The new organizational alignment also works to ensure that districts have the tools they need to deliver those goals.

*Workforce Challenges:* TxDOT's diverse programs and projects are supported by more than 11,900 full-time employees, including engineers, designers, maintenance technicians, environmental specialists, planners, information technology specialists, financial experts, human resources professionals, research specialists, program administrators, directors, project managers, and many others. Appendix E contains the Workforce Plan, which contains key statistics and findings related to the agency's human resources.

A key challenge facing the department is the recent and potential future loss of institutional knowledge and expertise due to retirements. Furthermore, by FY 2016, the department's workforce will have 36% of employees eligible for retirement. This turnover rate, should it be realized, will have enormous impact on the department's organizational structure, operations, and service delivery. While the supervisory, mid-level, and executive employees collectively make up a small percentage of those eligible to retire, forecast data indicate the department could experience a 58% turnover rate in all management levels between now and FY 2016. The department faces a tremendous challenge if appropriate succession planning strategies are not executed in an effective manner to provide optimum staffing acquisition, training, and development transition.

The Workforce Plan detailed in Appendix E outlines seven key emphasis areas that the department will pursue to address this and other workforce development issues. The department will focus on:

- Reinforcing the Existing Workforce Strengths
- Talent Development
- Enhancing Bench Strength
- Knowledge Transfer
- Community/Employee Outreach
- Succession Planning
- Adjust to a Technological Work Environment
- Improved Employee Review Process

*Worker Safety:* TxDOT's Safety: Mission Zero initiative is focused on a disciplined approach to continuously improve our safety culture. The goal is for each district, division, region and office to achieve zero fatalities, injuries and preventable vehicle/equipment incidents one day at a time.

Through March 2012, TxDOT has achieved the following: Currently the best in class compared to other reporting Departments of Transportation in the country for the lowest recordable injury incident rate and zero fatalities. In addition - compared to fiscal year 2011 year to date our all injury rate is down 22%, lost - time rate is down 48%, lost production rate is down 51%, vehicle incident rate is down 16% and our vehicle liability incurred cost is down 91%.

*Public Private Partnership (PPP) Agreements:* TxDOT is using innovative contracts to deliver certain large and complex projects. These contracts are awarded based on best-value. They combine work activities typically contracted independently into a single contract. For example, design, construction, and maintenance can all be included in the same contract. Some agreements may also include financing the project.

*TxDOT Contract Training:* TxDOT recognizes that good contracting practices are vital to its mission. Few if any state agencies spend more money through contracts or depend on contracts more completely for the tools necessary to produce the results demanded by the legislature and by the public. Therefore, TxDOT has implemented an active and aggressive training program for its contract managers and other contracting personnel, including selection team members, contract administrators, negotiators, contract reviewers, signature authorities, and policy-makers.

*Policy and Plan for Utilization of Historically Underutilized Businesses (HUBs):* In accordance with the Texas Government Code, Sections 2161 of the Texas Administrative Code, Title 34 §§ 20.10, TxDOT is committed to contracting with Historically Underutilized Businesses (HUBs) to provide equal opportunities to compete for contract opportunities procured by the department.

TxDOT adopts the State of Texas HUB Rules under Section 2161 as the department's HUB Rules. It is TxDOT's policy to promote and encourage contracting and subcontracting opportunities for HUBs in all contracts and make a good faith effort to utilize HUBs in all procurement categories by requiring the department's contract managers, procurement staff, and prime contractors to make a good faith effort to solicit and utilize certified HUBs.

TxDOT HUB Performance in Fiscal Year 2011: The agency's main procurement category is in construction, of which the agency primarily receives federal funding. In the construction procurement category the state goal for Fiscal Year 2011 was 11.9%; TxDOT contracted 8.11% of its construction contracts with HUBs in that year. However, TxDOT exceeded the federal Disadvantaged Business Enterprise (DBE) Program goal of 11.7% by contracting 11.87% of construction contracts with designated DBEs in Fiscal Year 2011. TxDOT also met the state procurement goal for the

commodities contracts (12.8%) and the department exceeded the state procurement goal for professional services (20%) by awarding 30.6% of such contracts to HUBs in Fiscal Year 2011.

#### HUB Goals by Procurement Categories

TxDOT has developed internal policies, procedures and programs to coordinate the department's efforts to meet or exceed the Fiscal Year 2012 HUB procurement goals in the following categories:

- 11.2% for heavy construction other than building contracts
- 21.1% for all building construction, including general contractors and operative builders' contracts
- 32.7% for all special trade construction contracts
- 23.6% for professional services contracts
- 24.6% for all other services contracts
- 21.0% for commodities contracts

In Fiscal Year 2013, TxDOT will set agency specific HUB goals — using guidelines established by the Comptroller's state HUB rules — that are more appropriate given the department's contracting history, upcoming contracting forecast, and the agency specific HUB market for that procurement category. The department will assign individual contract goals for HUB participation on contracts as necessary to meet the annual HUB goals; these individual contract goals for HUB participation will be based on the availability of qualified HUBs, work site location, dollar value of the contract, and type of work items specified in the contract. The department also will require and monitor the HUB Subcontracting Plan for each contract undertaken by the department.

#### Programs to Increase HUB Participation

TxDOT supports and is committed to the participation of minority and small business for procurement opportunities solicited by the department and is committed to on-going outreach, industry development, and technical assistance programs that encourage and assist DBEs/HUBs/SBEs to do business with the agency. TxDOT largely expends funds in the “Heavy Construction Other than Building Contracts” category in which the agency primarily receives federal funding and administers contracting with minority contractors following the federal Disadvantaged Business Enterprise (DBE) Program guidelines. On state funded construction and maintenance contracts, TxDOT administers a Small Business Enterprise (SBE) Program in accordance with Transportation Administrative Code §9.55.

TxDOT's HUB Program goals are to:

1. Ensure that historically underutilized businesses have an equal opportunity to participate in the performance of contracts;
2. Create a level playing field of which historically underutilized businesses can compete fairly for contracts and subcontracts

3. Ensure nondiscrimination on the basis of race, color, national origin, or gender in purchasing activities and in the award and administration of contracts;
4. Remove barriers to the participation of historically underutilized businesses in department purchases and contracts;
5. Assist in the development of firms that can compete successfully in the market place outside of Historically Underutilized Business programs; and
6. Develop and maintain a program that facilitates purchasing and contracting opportunities for historically underutilized businesses.

### III. FISCAL ASPECTS

Total Budget for 2012-2013 Biennium: \$19.782 billion

By Items of Appropriation (2012-2013 Biennium):

- Goal A: Provide Transportation Planning (*Plan, Design, Research, Manage, Acquire ROW*): \$2.386 billion
- Goal B: Implement Transportation Improvements (*Construction, Reconstruction, Aviation Services*): \$6.692 billion
- Goal C: Preserve the Transportation System (*Maintenance, Gulf Intracoastal Waterway, Ferry Operations*): \$7.001 billion
- Goal D: Optimize Services and Systems (*Public Transportation, Traffic Safety*): \$364 million
- Goal E: Enhance Rail Transportation (*Plan, Design, Manage, Right of Way, Maintenance, Safety*): \$55.3 million
- Goal F: Indirect Administration (*Central Administration, Information Resources, Other Support, Regional Administration*): \$402.5 million
- Goal G: Debt Service Payments (*General Obligation Bonds, State Highway Fund Bonds, Texas Mobility Fund Bonds, Other Debt Service*): \$1.717 billion
- Goal H: Develop SH 121 Subaccount Projects (*Plan, Design, Manage, Acquire ROW, Construction, Maintenance*): \$1.157 billion
- Goal I: Develop SH 130 Subaccount Projects (*Plan, Design, Manage, Acquire ROW, Construction, Maintenance*): \$6.3 million

By Method of Finance (2012-2013 Biennium):

- General Revenue Fund: \$234 million
- Federal Funds: \$6.139 billion
- State Highway Fund: \$5.3 billion
- Toll Revenue: \$1.157 billion
- Concession Fees: \$6.3 million
- Bond Proceeds (SHF): \$1.09 billion
- Debt Service (SHF): \$713 million

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- Bond Proceeds (Texas Mobility Fund): \$311 million
- Debt Service (TMF): \$645 million
- Bond Proceeds (General Obligation Bonds): \$24 million
- Bond Proceeds (GO Bonds, Proposition 12): \$4.144 billion
- Interagency Contracts: \$9 million

*Trends in appropriations and expenditures, significant events*

- While expenditures related to work done on projects started using our bond programs will continue for several years, new letting from those programs is expected to be completed during FY 2013-2014.
- Future federal funding levels remain uncertain. In order to continue current levels of funding without raising the federal motor fuels tax rate, the Highway Trust Fund would need additional sources of revenue.
- Over 90% of the federal stimulus funds (ARRA) will be expended by the end of FY 2013, and, at this time, no replacement program is expected.
- As TxDOT continues to rely largely on traditional State Highway Fund revenue, the majority of the funds will need to be used to maintain the state highway system, leaving little funding for new construction.
- Assuming that all of the bond programs are fully utilized as expected, the combined debt service over the next five years (2013-2017) will average about \$1.09 billion per year.

*Budgetary Limitations*

- 2012-2013 Biennial FTE allocation: 12,087
- Key 2012-2013 appropriations riders:
  - Rider 3 requires TxDOT to obtain prior written approval from LBB to transfer appropriations from any strategy into Contracted Planning and Design, Right of Way Acquisition, Existing Construction Contracts, New Construction Contracts, Construction Grants & Services, Existing Maintenance Contracts, New Maintenance Contracts, and Contracted Routine Maintenance strategies. TxDOT also must obtain prior written approval from LBB to transfer appropriations among any of these strategies. Furthermore, no appropriations may be transferred into, among, or out of these strategies unless TxDOT submits a report to the LBB regarding the purposes and projected impact of the transfers on transportation projects and future appropriation needs.

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- Rider 15 requires TxDOT to spend at least ½% and up to 1% of all project contract funds on landscape improvements on each project.
- Rider 22 prohibits TxDOT from expending any appropriated funds to enter into a comprehensive development agreement (CDA) (or similar public-private agreement) without prior written approval from the LBB.
- Rider 23 prohibits TxDOT from expending any funds received from CDA payments, concession fees, or toll project revenues without prior written approval from the LBB and the Governor.
- Rider 42 requires TxDOT to use \$300 million of the General Obligation Bond Proceeds for right of way acquisition and planning for the most congested roadway segments in the four major metropolitan regions of the state. Furthermore, the rider provides TxDOT \$500 million for bridge projects, \$600 million for metropolitan and urban mobility projects, \$200 million for statewide connectivity projects, and \$1.4 billion statewide for rehabilitation and safety projects.

Texas is experiencing significant erosion in traditional transportation funding. Income from traditional transportation funding sources (taxes and fees) is no longer sufficient to keep pace with current and projected highway construction and maintenance cost increases.

The March 2011 report of the 2030 Committee, *It's About Time: Investing in Transportation to Keep Texas Economically Competitive*, deems the current level of transportation funding as unacceptable, giving it a failing grade of F, and predicting worsening road conditions and increasing traffic congestion if the current trend continues.

*Capital Improvement Program (CIP) for FY2013-2015:* TxDOT's facilities are a fundamental component of the highway system that either directly or indirectly supports the agency's mission, transportation functions and highway operations. TxDOT is committed to the long-term preservation of all its assets, including the proper maintenance, repair and improvement of its statewide building facilities and infrastructure.

The priorities for FY2013-2015 CIP projects are:

- Essential maintenance, rehabilitation and major repairs, including life safety, building code, and regulatory compliance related projects required to provide for a safe and healthy working environment for employees and the public
- Renovation and additions to existing facilities to extend the useful life of the asset
- Land acquisitions for the expansion of existing facilities or construction of a new facility

- New construction to replace substandard and obsolete facilities

#### IV. SERVICE POPULATION DEMOGRAPHICS

As the Texas population grows, more people are expected to use the state’s transportation system. Since 1970, the growth in population, the number of vehicles on Texas roads, and the number of vehicle miles traveled (VMT) have all increased much more rapidly than the Texas transportation system has expanded. In the last decade alone, Texas has been one of the ten fastest-growing states in the country and its population is expected to grow significantly by 2030.

	2000 Population*	2010 Population*	Numerical Change 2000-2010	Percent Change 2000-2010
United States	281,421,906	308,745,538	27,323,632	9.7%
<b>Texas</b>	<b>20,851,820</b>	<b>25,145,561</b>	<b>4,293,741</b>	<b>20.6%</b>
California	33,871,648	37,253,956	3,382,308	10.0%
Florida	15,982,378	18,801,310	2,818,932	17.6%
Georgia	8,186,453	9,687,653	1,501,200	18.3%
North Carolina	8,049,313	9,535,483	1,486,170	18.5%
Arizona	5,130,632	6,392,017	1,261,385	24.6%

Source: U.S. Census Bureau. 2000 and 2010 Census Counts

According to the Texas State Data Center, Texas is predicted to grow from its current population of 25 million to 40 million people by the year 2035. Population and job growth will bring more congestion to urban areas, increase the stress on roads and bridges and place greater demand on rural highways to support freight movement and travel connections between farms, ranches, homes, jobs and markets. These demands continue to increase faster than the roadway capacity that is needed to handle all of this growth. In addition, while population growth is certainly a challenge, the aging of the population is one as well, creating impacts to effective highway design, safety challenges, and an increased demand for public transportation.

#### V. TECHNOLOGICAL DEVELOPMENTS

The department will use information technology (IT) to support the department’s mission by providing business-driven, information technology services that meet or exceed industry standards and best practices, ensuring a secure, innovative, and cost-effective environment. In 2011, as part of its “mission to modernize,” the department initiated a project to develop a new IT organizational structure. As the department prepares to implement the new IT governance structure, 2012 is already proving to be a pivotal year.

If properly implemented, IT governance can bring about several benefits including stronger IT/business unit relationships, improved accountability, reduced risks and inefficiencies, and more effective strategic planning. The department is focused on efforts to eliminate redundancy, increase IT accountability to its customers, and develop appropriate organizational structure.

Effective May 1, 2012, the department centralized all IT personnel and resources under the Chief Information Officer for TxDOT. The new goals for the IT divisions and offices will be to:

1. Become a mature IT organization that meets industry standards that best fit the needs and mission of TxDOT.
2. Be the “go to” IT organization within the agency for IT service and solutions.
3. Be recognized as a leader in TxDOT modernization efforts.
4. Maintain “state of the art” enterprise architecture (EA) that adapts as technology advances.
5. Become the employer of choice for IT staff in Texas government.

*Impact of anticipated technological advances:* Going forward, the critical IT success factors involve ongoing support for doing business on the Web while focusing on transparency and accessibility; implementing new technologies and procedures to effectively integrate geographic information systems (GIS) with business processes and applications; integrating GIS and global positioning data (GPS) with survey and engineering design; ongoing implementation and support of electronic document management, imaging, and electronic forms technologies; and, continued development of enterprise systems management.

*Anticipated need for automation (either purchased or leased):* For TxDOT to complete projects, continue to take advantage of ever-changing technological advances, and maximize business enablement, the following critical success factors must continue to be an integral part of the organization, including the planning and budgeting processes:

- Maintaining an IT organization that manages and readily adapts to continuous technological innovations and prevailing business trends;
- Retaining qualified IT professionals;
- Improving IT project management and the development life cycle;
- Improving the speed and efficiency of the procurement process and the accuracy and efficiency of the project planning process;

- Delivering quality IT products promptly;
- Researching, evaluating and implementing new technology;
- Creating an enterprise computing environment that promotes cross platform migration, mature data management practices, uniform development, and a comprehensive technology infrastructure;
- Continuing to acquire the funding needed to replace legacy systems, develop new applications, and provide the appropriate software and hardware resources needed for its business and engineering areas;
- Implementing an improved method to manage applications;
- Developing comprehensive security and disaster recovery programs; and
- Improving capabilities regarding data center service delivery oversight.

## **VI. ECONOMIC VARIABLES**

*Aging Infrastructure:* Texas built the majority of the state's Farm to Market roads and primary State Highway routes in the 1940s, 1950s and 1960s. These roads have a typical design life of 15 to 20 years. Although TxDOT uses preventive maintenance treatments to get the most out of the state's highways, when the roads reach the end of their design life, they require more extensive and more costly reconstruction.

The state built the first segment of Interstate highway in Texas in 1962 and completed construction on the last stretch of it in 1992. Interstate highways have a typical design life of 30 years. Even these 47,000 lane-miles of higher quality Interstate and U.S. Highway roads will require costly reconstruction when they reach the end of their design life. In 2010, approximately 2 percent of the state's roadways were reaching the end of their design life and likely to require reconstruction rather than simply preventive maintenance.

The state's public transportation fleet is aging too. TxDOT administers grant programs and awards transportation development credits to maintain and routinely replace over 3000 public transportation vehicles in the rural and smaller urban areas of the state. Keeping pace with age and use replacement best practices, 300 – 400 of these should be replaced each year.

*Increased Freight Demand:* According to the 2030 Committee report, freight traffic is expected to grow at twice the rate of passenger vehicle traffic (miles traveled by truck will increase by 120 percent) as the Texas economy grows over the next 25 years. Trucks and trains in rural and urban corridors are a key part of the economy and must

travel on reliable timetables. If freight does not move efficiently in Texas, the state will lose jobs to areas where freight moves more easily.

TxDOT is addressing this issue two ways. First, as a result of the department's modernization efforts, TxDOT will include freight stakeholders in the pre-development stages of the next statewide long-range transportation plan. Bringing industry leaders in trucking, logistics, rail and marine transportation earlier in the planning process will create a synergy between these industry groups, metropolitan/regional planners, local government and elected officials that should yield multimodal solutions that don't just address moving cars on highways, but also the goods Texans produce and consume every day. Secondly, TxDOT continues to look for innovative solutions from the public and private sector entities. An example of this approach is the low-emission "Freight Shuttle" that is being developed for use on TxDOT owned right-of-way. The "Freight Shuttle" could provide for the movement of freight without adding to congestion on our highway system.

*Energy Sector Impacts on the Texas Transportation System:* Energy activities (particularly oil, gas, and wind) have been increasing greatly over the years in Texas. While this activity is good for the economy of Texas, some significant concerns have been identified that need to be addressed. These include roadway damage and safety, along with an increase in truck traffic, right of way usage, environmental concerns, and bridge impacts/restrictions. To address this issue, Texas leadership has created an Executive Level Task Force including executives from TxDOT, the Department of Public Safety, the Texas Commission on Environmental Quality, the Railroad Commission of Texas, the Texas Department of Motor Vehicles, Counties, and various industries. The Task Force provides a forum for the coordination of efforts, sharing of information, and identifying opportunities for partnerships and potential solutions to common issues.

*Transportation Funding: Diminishing Revenue and Higher Costs:* According to the 2030 Committee report, income from traditional transportation funding sources (taxes and fees) is no longer sufficient to keep pace with current and projected highway construction and maintenance cost increases. Recent one-time funding infusions from a variety of sources have enabled road and bridge conditions to be maintained, even while traditional funding sources have declined. The one-time funding infusions make it easy to overlook the problems coming in the near future.

Adding to the funding and growth challenges, today's more fuel-efficient vehicles pay lower fuel taxes per mile than when the tax rates were set almost two decades ago. While they offer benefits such as leaving a smaller carbon footprint and allowing Texans to travel further per gallon, increasingly fuel-efficient cars and trucks generate less income from motor fuel taxes to fund the rising demands on Texas roadways as we move further into the 21st century. Texans will not be able to count on ever-increasing fuel tax revenues as they have in the past.

According to analysis by the Public Transportation Division, operating costs for public transportation systems have risen steadily over the years as health care, workers

compensation, and insurance costs have grown. Additionally, generally higher and wildly fluctuating fuel prices have constrained industry efforts to sustain and expand existing service levels. Furthermore, even as federal investment in public transportation has increased and as our rural and smaller urban areas have continued to grow, critical match resources such as state funding have remained flat, sustaining a 50% reduction on buying power and an even greater drop in per capita expenditures when accounting for growth and inflation since the year 2000.

## **VII. IMPACT OF FEDERAL STATUTES/REGULATIONS**

Congress established a state-administered, federally-financed transportation program. Legislation may compel states either directly or indirectly to take action they otherwise might not take. The most powerful tool the federal government has in its relations with the states is money. Recipients of federal funds are bound by federal mandates. Congress may also threaten to cut off funds if states do not implement a particular policy.

For example, U.S. Code 23, Chapter 1 provides for a federally-assisted State highway program. Although Congress and the Executive Branch of the United States government authorize and execute the appropriation of Federal funds for expenditure under this chapter, the U.S. Code also confirms the sovereign rights of States to determine which projects shall be federally financed.

Congress by law authorizes the federally-funded transportation programs, including the eligible activities that may be funded with federal dollars and any programmatic requirements related to federal-aid funding. Congress also establishes and controls the availability of federal funds through annual appropriations acts. The majority of the primary highway formula programs contain special contract authority, which allows states to obligate the federal government to pay the project costs beyond any given single year's appropriations authorization. The use of contract authority allows states to plan for the development, financing, construction, operations, and maintenance of major transportation projects, which usually cannot be accomplished within a single appropriations cycle.

Federal transportation authorities oversee the state-administered, federally-financed programs for compliance with federal statutes and regulations. The federal government also must approve a proposed project in advance of the state's obligation of federal funds for the project. Therefore, state departments of transportation must work closely with federal transportation and other regulatory bodies to ensure compliance and approval throughout the transportation project planning, development, and financing processes.

The state-administered, federally-financed program works on a reimbursement basis. States and localities incur project costs (once the project is reviewed and approved for federal funding by the appropriate federal entity), spend state or local funds for those costs, and submit requests for reimbursement to the federal government. Different transportation programs reimburse the states at different reimbursement rates.

For example, the primary federal-aid highway program reimburses state expenditures for 80% of the eligible project costs.

## **VIII. SELF-EVALUATION AND OPPORTUNITIES FOR IMPROVEMENT**

TxDOT has undergone numerous reviews over the last several years, the most recent being Grant Thornton's Management and Organizational Review completed in May, 2010 and the Restructure Council report completed in January, 2011. These reports provided a framework for TxDOT Executive Leadership to begin to "modernize" the agency.

In addition to reviewing the recommendations in the various reports, TxDOT Executive Leadership has listened to and worked with elected officials, Metropolitan Planning Organizations, city and county officials, the public, and TxDOT employees in identifying and acting on areas of concern.

*Leadership and Culture:* According to the Grant Thornton report, TxDOT has a singular, deeply entrenched culture that reflects 93 years of service dedicated to providing top notch transportation infrastructure to the State of Texas. However, it goes on further to say that this culture can still be a tremendous strength, but also can act as a tremendous inhibitor to internal change and to the ability to understand, accept and respond to an evolving external environment. Some issues and concerns with senior leadership cited in the report include perception of not trusting other TxDOT staff, not setting clear expectations or goals, not setting a tone of accountability, and not being open to feedback.

*Implementing Change:* Department change initiatives tend to be fragmented. Some of the characteristics include lack of clear and complete definition, weak solutions development, and reliance on poorly defined implementation plans. There also appears to be a lack of consideration of best practices.

*Organizational Structure:* While the Grant Thornton report states "the organizational design is not the fundamental issue at TxDOT," it did recognize that some improvements could be realized in making structural changes.

*Financial Management:* Financial management of the department's multi-billion dollar budget is critical. The highest standards of accountability and transparency become even more important since TxDOT's budget is one of the largest and most complex budgets in Texas government. With the emergence of alternative financing options to supplement federal and state gas taxes, how TxDOT builds and pays for roads has become much more complex and intensely scrutinized. The Restructure Council report states that the key challenges of TxDOT's financial management function are accuracy, clarity, and transparency.

*Information Technology:* According to the reports, TxDOT does not have an integrated, enterprise-wide information technology system. It has numerous and

fragmented independent systems that significantly limit the flexibility and effectiveness of TxDOT operations.

*Human Resources:* The Grant Thornton report reveals that the human resources management functions do not meet acceptable standards and are poorly administered and misaligned with the performance measures desired for TxDOT. Much of this can be attributed to the fact that human resources play a subordinate role in TxDOT business operations.

*Communications:* TxDOT's past communications have not consistently been viewed by various TxDOT audiences as timely, reliable, or accurate. The Grant Thornton report assesses the TxDOT communications effort as deficient in all key areas, with poor support systems and data availability as well as poor external and internal communication.

*Plan, Design, Build:* The vast majority of TxDOT work centers on planning, designing, building, and maintaining roads, highways, and bridges. Of particular note from the reports are the following areas:

- Environmental Planning – Steps should continue to be taken to streamline the environmental review process to reduce the time required for completion of these reviews.
- Rural Planning Organizations – TxDOT should continue to support the role of the Rural Planning Organizations.
- Right of Way Process – TxDOT should continue the efforts towards an expedited right of way acquisition process to speed project delivery, which should help contain overall project costs.
- Engineering Workforce Analysis – Reliable information is needed over the cost-effectiveness of using in-house engineering services versus the services of outside engineering consultants in planning, designing, and building highway projects.
- Field Operations Staffing – TxDOT should continue to analyze its field operations to ensure the resources are placed where they are most needed.

*Procurement:* General procurement shortcomings identified by the Grant Thornton and other past reviews must be corrected especially in the contracting function. One key issue for TxDOT's procurement practices is a failure to follow consistent and disciplined management practices, often attributable to a lack of clear lines of authority and disjointed procurement activities.

*Activities Subsequent to Report Recommendations*

*New Executive Leadership:* Most significantly, the Transportation Commission hired a new Executive Director, Mr. Phil Wilson, in October 2011. This has led to significant reorganization of the department, particularly at the leadership level. Under the new organizational chart (see Appendix B), the senior level executive positions include:

- Chief of Staff
- Chief Strategy and Administration Officer
- Chief Planning and Project Officer
- Chief Communications Officer
- Chief Financial Officer
- Deputy Executive Director/Chief Engineer

With this new leadership, the Department will keep the culture aspects of the agency that have generated pride among employees while providing a top notch transportation system for Texans. At the same time, new leadership will allow for a new culture to take hold that will carry the agency forward in a positive way.

*Actions on Recommendations:* The Restructure Council report resulted in 78 recommendations for the agency. These were then consolidated into 37 modernization projects. Of the 37 projects, 17 have been completed, 13 are underway with completion targeted for the end of 2012, 4 were transitioned from projects to “work”, 1 was closed with the work transitioned to other improvement projects, 1 is delayed due to ProjectONE activities, and 1 is not started. In addition to the 37 modernization projects, TxDOT has taken on the task of inventorying all the other department improvement projects and efforts that are planned for the near and long-term and is prioritizing those projects to ensure the agency is focusing on tasks that connect with our mission and goals.

Change takes time and it goes beyond the actual implementation of improvements. It will be coordinated through a multi-generational plan, which will take three to five years to complete. At TxDOT, this work is divided into three phases of change. The first phase, Modernization, focused on Restructure Council recommendations and institutionalization of the methodology. TxDOT is now working on the second phase, Operational Excellence. This phase focuses on the institutionalization of capabilities, continuous improvement with discipline, and achieving performance excellence. Lastly, the third phase, Innovation, will lead to TxDOT being a model for other state agencies and leading in innovation.

The agency is committed to taking a disciplined approach to implementing change that will deliver an improved leadership model, opportunities for innovation, and increased collaboration with employees and stakeholders.

Using a disciplined approach to change, TxDOT will methodically think through a situation or problem to correctly identify, design, build, and implement an appropriate solution. This requires gathering input from those most impacted by the change (voice of the customer) to ensure the end result also increases collaboration.

As a result, TxDOT will be recognized as a performance-driven organization, a great place to work, and an organization committed to quality customer service.

a) *Completed Projects:* Many of the modernization projects (along with others identified subsequent to the audits) have already been completed:

- The government relations and communications functions have been separated
- An Office of Compliance and Ethics has been established
- A new IT organizational structure has been established
- The role of position title classification has been assigned to Human Resources
- Activity-based cost methodology has been assessed
- An innovative finance function has been established
- External experts in transportation finance have been engaged
- Inter-district lending tracking has been improved
- A transportation planning think tank was established to assist with the Strategic Research Program
- Best practices and governance have been standardized and adopted across major metropolitan areas
- The department has centralized and improved Historically Underutilized Business (HUB) and Disadvantaged Business Enterprise (DBE) functions
- An assessment of the engineering workforce has been completed

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- The department established the modernization vision and change governance
- The Commission and Executive Administration adopted goals, objectives, and priorities
- The department has established a business architecture practice and model
- Improved financial policies and processes have been adopted
- The department established an integrated transportation planning process
- An alignment of highway planning functions under a Chief Planning and Project Officer was completed

b) *Ongoing Projects:*

- Establish a communications organizational structure
- Improve workforce planning process
- Establish position management position
- Improve performance management process
- Assess and streamline policy development process
- Establish human resources organizational structure
- Perform a policy content review
- Establish project management discipline
- Establish new financial management organizational structure
- Improve IT operations and development policies and processes
- Improve IT governance processes
- Standardize construction and maintenance definitions and processes
- Rollout streamlined environmental review process
- Streamline Right of Way acquisition and utility accommodation process

- Establish field operations franchise model
- Establish leadership/organizational development function
- Standardize construction and maintenance definitions and processes

Modernization has set the foundation for change as TxDOT strives to become best in class. The immediate benefits of modernization which are increased employee morale and collaboration will go a long way in establishing a new way of doing business and building a culture of excellence. While projects have identified financial and efficiency savings, realizing those savings will take time as project implementation occurs.

We are now more focused than ever on our mission. Modernization has created a disciplined approach to prioritizing improvements to ensure future initiatives are aligned with our goals. We are becoming more accountable in the delivery of our services, more innovative in developing transportation solutions and more responsive to improving customer satisfaction.

## **Agency Goals**

### **Goal: Maintain A Safe System**

- *Objective: Reduce crashes and fatalities on the system through innovations, technology, and public awareness*
- *Objective: Maintain and preserve the transportation assets of the state of Texas*

### **Goal: Address Congestion**

- *Objective: Partner with local officials to develop and implement congestion mitigation plans in Texas*

### **Goal: Connect Texas Communities**

- *Objective: Prioritize new projects that will increase the state GDP and enhance access to goods and services throughout the state*

### **Goal: Become A Best In Class State Agency**

- *Objective: Ensure the agency deploys its resources responsibly and has a customer service mindset*
- *Objective: Focus on work environment, safety, succession planning, and training to develop a great workforce*

## Agency Priorities

Priority	Examples
Be the Safest DOT in the United States	<ul style="list-style-type: none"> <li>• Texas' 3.4% drop in fatalities (vs. US drop of 2.9%) from 2009 to 2010</li> <li>• Lowest employee accident rate of any DOT</li> </ul>
Develop and Implement Authorized Comprehensive Development Agreements (CDAs) and Discuss the Need for Additional CDAs	<ul style="list-style-type: none"> <li>• Progress on the Grand Parkway (Houston District)</li> <li>• Progress on US 290 Corridor (Houston District)</li> <li>• Progress on I-35E (Dallas District)</li> <li>• Progress on NTE/I-35W (Fort Worth District)</li> <li>• All TxDOT CDAs authorized by 82<sup>nd</sup> Legislature that are under procurement or contract</li> </ul>
Develop Innovative Maintenance Approaches That Reduce Costs and Improve/Preserve Transportation System Conditions	<ul style="list-style-type: none"> <li>• Better utilization of technology for assessing road &amp; bridge conditions</li> <li>• Innovative contracting approaches that extend roadway lifecycles</li> <li>• Better utilization of new materials (e.g. warm mix asphalt)</li> </ul>
Develop Effective Information Systems	<ul style="list-style-type: none"> <li>• Development and application of business intelligence tools for decision making</li> <li>• Conversion to Microsoft Outlook</li> </ul>
Act as Resource for Transportation Funding	<ul style="list-style-type: none"> <li>• Expanded use of the State Infrastructure Bank and Transportation Reinvestment Zone financing options</li> <li>• \$4 billion of additional infrastructure investments for roads made possible through partnerships</li> </ul>
Implement Congestion Mitigation Projects	<ul style="list-style-type: none"> <li>• Expansion of rapid-response wrecker programs in major metropolitan areas</li> </ul>
Further Strengthen and Enhance Our Relationship with MPOs, Counties, and Other Key Stakeholders	<ul style="list-style-type: none"> <li>• Large MPOs April 2012 presentation labeled "In Partnership with TxDOT"</li> <li>• I-35 and I-69 Segment and Advisory Committees</li> </ul>

## Objectives and Outcome Measures

Goal		Objective		Outcome	
1	Provide Transportation Planning	1	Effective Planning & Design	1	Percent of Design Projects Delivered On Time
				2	Percent of Design Projects Delivered On Budget
				3	Percent of Non-MPO Funds Allocated to Improve the Top 100 Most Congested Roadway Segments
				4	Percent of MPO Funds Allocated to Improve the Top 100 Most Congested Roadway Segments
2	Implement Transportation Improvements	1	Construction and Reconstruction	1	Percent of Construction Projects Completed On Budget
				2	Percent of Two-Lane Highways with Improved Shoulders
				3	Percent of Construction Projects Completed On Time
				4	Percent of General Aviation Pavement in Good or Excellent Condition
3	Preserve the Transportation System	1	System Maintenance	1	Percent of Bridges Rated in Good Condition or Higher
				2	Statewide Maintenance Assessment Program Condition Score
				3	Statewide Traffic Assessment Program Condition Score
4	Optimize Services and Systems	1	Support Enhanced Public Transportation	1	Percent Change in the Number of Small Urban and Rural Transit Trips
		2	Enhance Public Safety and Security	1	Number of Fatalities per 100 Million Miles Traveled

## Strategies and Output, Efficiency, and Explanatory Measures

Goal		Objective		Strategy		Measure		Type
1	Provide Transportation Planning	1	Effective Planning & Design	1	Plan, Design, and Manage Transportation Projects	1	Number of Construction Projects Preliminary Engineering Plans Completed	OP
						2	Dollar Volume of Construction Contracts Awarded in Fiscal Year	OP
						3	Number of Projects Awarded	OP
						4	Dollar Volume of Construction Contracts Awarded to Improve the Top 100 Most Congested Roadway Segments in Fiscal Year	OP
2	Implement Transportation Improvements	1	Construction and Reconstruction	4	Support and Promote General Aviation	1	Number of Grants Approved for Airports Selected for Financial Assistance	OP
3	Preserve the Transportation System	1	System Maintenance	2	New Maintenance Contracts	1	Number of Lane Miles Contracted for Resurfacing	OP
3	Preserve the Transportation System	1	System Maintenance	4	Provide for State Transportation System Routine Maintenance / Operations	2	Number of Highway Lane Miles Resurfaced by State Forces	OP
5	Enhance Rail Transportation	1	Enhance Rail Transportation	6	Ensure Rail Safety through Inspection and Public Education	1	Number of Federal Railroad Administration (FRA) Units Inspected	OP

## Technology Resource Planning

TxDOT is pursuing the following four (4) agency-wide technology initiatives during the 2013-2017 strategic planning cycle.

1. Mainframe Application Modernization (MAM)
2. Enterprise Resources Planning (ERP) – HB 3106 (Project ONE)
3. Enterprise Business Intelligence System (EBIS)
4. Enterprise Content Management (ECM)

### Mainframe Application Modernization (MAM)

#### Initiative Description:

This initiative continues the Texas Department of Transportation (TxDOT) effort to evaluate and execute strategies, and implement solutions to modernize the Information technology environment and IT processes. The scope of modernization includes all areas of IT, and not just mainframe applications within the Management Information System (MIS) portfolio. MAM will also continue integration and/or replacement of Enterprise Resource Planning (ERP) related systems that were not included in the ProjectONE project sponsored by the Comptroller of Public Accounts (CPA). In addition, early strategy and planning has identified major requirements for implementing formal governance frameworks and associated purchases and tools for IT service management, IT project portfolio management, and enterprise architecture.

MAM is managed as a program of subprojects that addresses the following core modernization goals in an incremental fashion. Subprojects are initiated in alignment with the current TxDOT modernization effort and the TxDOT mission, values, and goals, and will include both tactical and strategic efforts. The MAM core goals are:

- Provide TxDOT with a roadmap for the strategic planning and implementation of an enterprise architecture that facilitates business process reengineering, replacement of outdated information systems and data repositories with web-based solutions.
- Provide TxDOT with an enterprise architecture that aligns IT applications and data with the business objectives and processes of the department and provides guidance in the planning of future IT project development activities within TxDOT.
- The roadmap also addresses gaps in functionality related to the Centralized Accounting and Payroll/Personnel System (CAPPS), which is an ERP system being implemented by ProjectONE. CAPPS will replace some, but not all, existing TxDOT ERP application systems. A gap analysis of CAPPS has identified several ERP-related systems that must be modernized in order to interface effectively with the new statewide ERP financial system.
- Provide greater flexibility and agility in responding to changing business needs and the ability to support evolving business processes. Obtain the ability to respond to changing business needs through the migration of pre-relational database structures (such as ADABAS and VSAM) to one of the core technology relational database management systems (such as Oracle or Microsoft SQL

Server).

- Provide better tools for reporting to Administration, the Texas Legislature and the public, resulting in more efficient and accurate reporting and decision-making capabilities through enhanced ad hoc reporting and inquiry functionality.
- Reduce data integrity concerns and the effort required to reconcile duplicated data in multiple databases.
- Improve integration and integrity of relevant operational budgeting, funding and expenditure systems with the PeopleSoft ERP modules in CAPPS.
- Improve the ability of IT to respond to business users and equip technical staff to leverage modern and emerging technologies so as to more effectively support TxDOT business customers and the public.
- Organization Strategy: Roadmap to achieve more efficient investment of resources, and creation of a sustainable new IT operational model.
- Governance Process: Recommend processes for managing data, applications, security, and new solution development techniques. The components of governance will allow the creation of measurable operational metrics that enable efficient management of TxDOT IT operations, and assure interlock of IT with TxDOT business requirements.
- Technology Adoption: Includes, but is not limited to, documenting how TxDOT should implement service oriented architecture (SOA) and business process management (BPM). SOA and BPM comprise major changes in the way TxDOT designs, constructs, deploys, and supports IT solutions. The technology adoption component of the strategy will also identify productivity tools, code conversion/transformation, application development frameworks, and technology platform standardization.
- New Skill Set Training: Recommend training and experience requirements necessary to successfully follow the roadmap, and begin the next steps to satisfy MAM requirements.
- IT Project Portfolio: The IT project portfolio component of the strategy will produce a recommended portfolio of IT projects required to implement the strategy. The IT project portfolio documentation will contain requirements, business cases, priorities, dependencies, scope, and timelines for strategy and IT project activities. In addition to the documentation of the portfolio analysis, complete project initiation documentation will be produced for each major project identified.

MAM projects are defined so as to satisfy the basic program requirements. The projects progress in stages from the pre concept stage (Strategy), to the planned stage (Planned), to active (Active). Projects are in the Planned state once there is an actual team in place and they have begun developing business case(s), justification(s) and/or Charter(s). Projects are in the Active state once they have been approved by the department.

**Associated Project(s):**

Name	Status
MAM Roadmap Project	Active.
Information Technology Service Management	Active.

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Content Management System (TxDOT.gov Improvement Project)	Active.
Oracle Primavera Portfolio Management	Active.
Enterprise Business Intelligence System	Active.
Customer Relationship Management	Planned.
Database Management Architecture Infrastructure	Planned.
Consultants and staff augmentation	Planned.
Enterprise Architecture Management Program	Strategy.
TxDOT Enterprise Service Bus (Competency Center)	Strategy.
Technology Competency Center	Strategy.
IT Education Project	Strategy.
CAPPS Integration Project	Strategy.
Mainframe Application Migration	Strategy.
Database Management Architecture Infrastructure 2	Strategy.
Enterprise Business Intelligence System 2	Strategy.
Service Oriented Architecture (SOA) implementation	Strategy.
<b>Agency Objective(s):</b>	
<p>The projects in this initiative directly support the objectives of achieving Excellence and providing valuable Service to the community of citizens. They also directly support TxDOT being a best in class state agency. The projects indirectly support the goals of maintaining a safe system, addressing congestion, and connecting Texas communities.</p>	
<p>VALUES:</p> <ul style="list-style-type: none"> <li>• Excellence - Improved governance (EA, ITSM, OPPM) will improve investment choices in IT.</li> <li>• Service - Improved architecture for data, Business Intelligence reporting, and application architectures will improve information services to the public and internal to TxDOT.</li> </ul>	
<p>GOALS:</p> <ul style="list-style-type: none"> <li>• Improved IT capabilities will assist TxDOT business units in transportation system safety related automation for maintenance, design, and monitoring.</li> <li>• Improved IT capabilities will assist TxDOT business units to alleviate congestion with improved data and application architectures that will assist with early forecasting and improved reporting.</li> <li>• Assisting TxDOT to be recognized as a best in class state agency via improved operating model and business efficiencies. The operating model is enhanced by adoption of governance framework standards that assist management in operating efficiently. Improved business efficiencies obtained by increasing IT and business agility using modern solution technologies and architectures.</li> </ul>	
<b>Statewide Technology Priorities:</b>	
• P1 – Cloud	• P6 – Mobility

<ul style="list-style-type: none"> <li>• P2 – Data Management</li> <li>• P3 – Data Sharing</li> <li>• P4 – Infrastructure</li> <li>• P5 – Legacy Applications</li> </ul>	<ul style="list-style-type: none"> <li>• P7 – Network</li> <li>• P8 – Open Data</li> <li>• P9 – Security and Privacy</li> <li>• P10 – Social Media</li> </ul>
<p>The project portfolio listed in section 3 aligns with priorities P1, P2, P3, P4, P5, P6, P7, P8, P9, and P10.</p>	
<p><b>Guiding Principles:</b></p>	
<p>Connect: The content management and customer relationship management systems will support the direct communication with citizens.            Innovate: The ITSM, enterprise architecture, Oracle Primavera Portfolio Management, and the various Technology Competency Center projects (SOA, enterprise service bus) will serve as the focal point for introducing innovative new uses of information technology within TxDOT.            Trust: The CAPPs integration and business intelligence projects will allow TxDOT to more accurately report on project status, financial status, and projections for future projects.            Deliver: The suite of projects in the MAM initiative will serve as a foundation for increasing the interconnectedness and agility of the TxDOT IT and business capabilities.</p>	
<p><b>Anticipated Benefit(s):</b></p>	
<p>Citizen/customer satisfaction: The MAM suite will enhance the delivery of IT services within and outside (to the public). Ultimately, the enhancements will shorten the time to upgrade and/or repair TxDOT IT solutions.</p> <p>Security improvements: Security architecture, as a part of the enterprise architecture, will have a more central role in the planning and implementation of IT solutions across the TxDOT enterprise.</p> <p>Foundation for future operational improvements: The enterprise architecture, IT service management, IT project management, and SOA will provide TxDOT with an integrated IT service management, governance, and solution development processes based upon industry standard frameworks.</p>	
<p><b>Capabilities or Barriers:</b></p>	
<p><b>There are two potential barriers:</b></p> <ol style="list-style-type: none"> <li>1. Urgency to produce immediate value may not allow sufficient time for implementation of complex projects.</li> <li>2. Practical limitations on how many projects and how much change can be performed simultaneously.</li> </ol>	

<p><b>Enterprise Resources Planning (ERP) – HB 3106</b></p> <p><b>Project Name: ProjectONE</b></p> <p><b>System Name: Centralized Accounting and Payroll/Personnel System (CAPPs)</b></p> <p><b>Initiative Description:</b></p> <p>ProjectONE is an effort to create the foundation for a single set of books for Texas government. The many benefits to the state include the following:</p> <ul style="list-style-type: none"> <li>• One destination for real-time reliable information,</li> </ul>
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- A "single source of truth" reducing conflicting data, and
- Better tracking and standardization of financial information.

This approach has led to the creation of the Centralized Accounting and Payroll/Personnel System (CAPPS), a Web-based system that will enable agencies to have real-time access to financial information and provide enhanced reporting capabilities. CAPPS will also replace numerous outdated processes and systems, allowing agencies to better focus their resources on key mission activities. CAPPS also encompasses other initiatives to integrate financial data and processes into more cohesive and standardized systems for the highest levels of efficiency.

**Associated Project(s):**

Name	Status
ProjectONE	Pending Funding Approval

**Agency Objective(s):**

TxDOT is participating with the Texas Comptroller of Public Accounts (CPA) in the implementation and deployment of the statewide ERP system, CAPPS. Upon implementation, this system will provide a single set of books for financial, human resources-related activities, and other functions in the future, affording TxDOT better efficiency and supporting our value of excellence. Implementation of CAPPS will be a building block in TxDOT’s goal of becoming a best in class state agency.

**Statewide Technology Priorities:**

<ul style="list-style-type: none"> <li>• P1 – Cloud</li> <li>• P2 – Data Management</li> <li>• P3 – Data Sharing</li> <li>• P4 – Infrastructure</li> <li>• P5 – Legacy Applications</li> </ul>	<ul style="list-style-type: none"> <li>• P6 – Mobility</li> <li>• P7 – Network</li> <li>• P8 – Open Data</li> <li>• P9 – Security and Privacy</li> <li>• P10 – Social Media</li> </ul>
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The CAPPS project aligns with P2, P3, P4, P5 and P9.

**Guiding Principles:**

ProjectONE addresses the guiding principle of “Innovate” as it is leveraging technology services between TxDOT and the Comptroller of Public Accounts.

ProjectONE addresses the guiding principle of “Trust” by improving accounting procedures - using a unified system and providing more transparency for the related functions.

**Anticipated Benefit(s):**

CAPPS will provide a tool to shine the brightest light on the state’s finances, give decision-makers seamless access to state data and allow the state to make better use of the data at its fingertips. It will also reduce intensive manual effort in key business processes such as asset management and procurement while improving inter-departmental and inter-agency communication.

**Capabilities or Barriers:**

Barrier: The project is pending dependent on funding approval.

<b>Enterprise Business Intelligence System (EBIS)</b>	
<b>Initiative Description:</b>	
<p>The project will design, develop, and implement a new user-friendly web-based enterprise business intelligence reporting system. The new system will enhance organizational capability and will be a strategic asset. It will strategically align TxDOT's business functions and processes that they support, by building needed interactive dashboard and ad hoc reporting capability that will allow better visibility into the factors that drive costs and the ability to respond more efficiently to customer and business needs.</p>	
<b>Associated Project(s):</b>	
None	
<b>Agency Objective(s):</b>	
<ul style="list-style-type: none"> <li>• Trust - The business intelligence technology will provide TxDOT administrators with the information to improve budgeting and planning, financial analysis and customer support, ensuring that taxpayer dollars are being used wisely.</li> <li>• Responsibility - The business intelligence technology will provide TxDOT administrators with better visibility into the factors that drive costs and the ability to respond more efficiently to customer and business needs.</li> <li>• Integrity – The business intelligence technology will provide finance professionals and managers across the organization to monitor performance, analyze specific metrics, and compare them to budgets or performance benchmarks. This will enable TxDOT to more closely monitor budgets and will facilitate planning resulting in more effective use of funds.</li> <li>• Best in class state agency - The business intelligence technology will make TxDOT operations more transparent by providing attention to customer service, usability and accessibility to agency information. Agency stakeholders will be empowered with the necessary business intelligence tools, and timely access to useful information, resulting in improved customer service.</li> </ul>	
<b>Statewide Technology Priorities:</b>	
<ul style="list-style-type: none"> <li>• P1 – Cloud</li> <li>• P2 – Data Management</li> <li>• P3 – Data Sharing</li> <li>• P4 – Infrastructure</li> <li>• P5 – Legacy Applications</li> </ul>	<ul style="list-style-type: none"> <li>• P6 – Mobility</li> <li>• P7 – Network</li> <li>• P8 – Open Data</li> <li>• P9 – Security and Privacy</li> <li>• P10 – Social Media</li> </ul>
The EBIS project aligns with P2, P3, P4, P6, P8.	
<b>Guiding Principles:</b>	
<ul style="list-style-type: none"> <li>• <b>Connect:</b> The business intelligence reporting system will make TxDOT operations more transparent by providing usability and accessibility to agency information.</li> <li>• <b>Innovate:</b> Agency stakeholders will be empowered with the necessary business intelligence tools, and timely access to useful information, resulting in improved customer service.</li> <li>• <b>Trust:</b> The business intelligence technology will provide the agency with better visibility into the factors that drive costs and ability to respond more efficiently to customer and business needs. This will enable TxDOT to more closely monitor budgets and will facilitate planning resulting in more effective use of funds.</li> </ul>	

<ul style="list-style-type: none"> <li>• <b>Deliver:</b> The business intelligence reporting system will provide agency with real time reporting and mobile connection capabilities resulting in an agile workforce.</li> </ul>
<b>Anticipated Benefit(s):</b>
<ul style="list-style-type: none"> <li>• The enterprise business intelligence reporting system will improve time, cost and productivity due to real time access to reports, improved efficiency of report generation and reduced complication of report creation.</li> <li>• Agency will benefit with improved data security by implementing new data management program.</li> <li>• The enterprise business intelligence system will create foundation for future strategic reports needed to improve agency operational forecasting and planning.</li> </ul>
<b>Capabilities or Barriers</b>
<p>Capability: The EBIS project is supported by all levels of TxDOT management.</p> <p>Barrier: There will likely be a steep learning curve for agency staff due to limited experience and knowledge of enterprise business intelligence technology. TxDOT will use vendor services to assist with project implementation.</p>

<b>Enterprise Content Management (ECM)</b>	
<b>Initiative Description:</b>	
ECM allows the department to manage the complete life cycle of records using consistent indexing standards corresponding to the records retention schedule. TxDOT currently uses FileNet Content Services with more than 50 separate libraries. There is one FileNet P8 Content Manager for the Finance Division.	
<b>Associated Project(s):</b>	
Name	Status
FileNet P8 Migration Planning	12 month project began 4/9/2012
Email Migration – LDAP choice	Just starting
<b>Agency Objective(s):</b>	
The goal of “best in class” agency. ECM will allow the department the consistent storage, retrieval, management and destruction of records. Distributed access to information and records will support the alignment of business processes with best practices for information management and enable continued process improvement efforts. Life-cycle management of records in a centralized repository will protect records and the department.	
<b>Statewide Technology Priorities:</b>	
<ul style="list-style-type: none"> <li>• P1 – Cloud</li> <li>• P2 – Data Management</li> <li>• P3 – Data Sharing</li> <li>• P4 – Infrastructure</li> <li>• P5 – Legacy Applications</li> </ul>	<ul style="list-style-type: none"> <li>• P6 – Mobility</li> <li>• P7 – Network</li> <li>• P8 – Open Data</li> <li>• P9 – Security and Privacy</li> <li>• P10 – Social Media</li> </ul>
ECM aligns with P2 Data (Content) Management and P3 Data (Content) Sharing.	
<b>Guiding Principles:</b>	
Trust – A single source records repository makes management and retrieval more reliable, provides transparency, and promotes a consistent message across the agency.	

Deliver – Collaboration and sharing records across organizational units reduces duplication and storage requirements.

**Anticipated Benefit(s):**

Operational efficiencies –

Cost savings will occur by reducing the amount of physical storage needed for hard copies and electronic storage for those duplicate documents currently housed in multiple libraries.

Time savings will occur on retrieval of documents indexed in compliance with department standards.

Productivity could increase by improving, standardizing and automating enterprise business processes.

Security improvements can be accomplished by defining the business requirements and designing the system based on those requirements.

Foundation for future operational improvements - The integration of the E-Forms system with the legacy mainframe MIS systems and the FileNet EDMS has enabled the development of business processes that can transcend organizational boundaries. The implementation of workflow-enabled content management provides a platform for future business process improvements.

Compliance (required by State/Federal laws or regulations) An integrated content management system based on a standardized enterprise document/record organization and automatically assigning retention rules to documents supports improved consistency in complying with records retention requirements for official state records maintained electronically. It will also support improved response to open records requests. Finally, the ability to manage destruction of electronic records in an enterprise repository when they become eligible will reduce unnecessary exposure to legal discovery and open records demands.

**Capabilities or Barriers:**

Capability - Integration of forms management system, mainframe systems and FileNet have been established allowing for more effective workflows.

Barrier - Network infrastructure (limited band width especially to remote sites) may affect system performance.

## **Appendix A: Agency Strategic Planning Process**

The new TxDOT Administration developed and recommended and the Texas Transportation Commission in March 2012 adopted a new mission statement, a new set of agency goals, and a set of core values for the agency.

The TxDOT Administration conducted a series of internal, leadership-level planning sessions to identify the strategic emphases for each of the agency's core functions. The result was a set of near-term operational priorities for each core function in support of the agency's efforts to achieve operational excellence and pursue the agency's strategic goals.

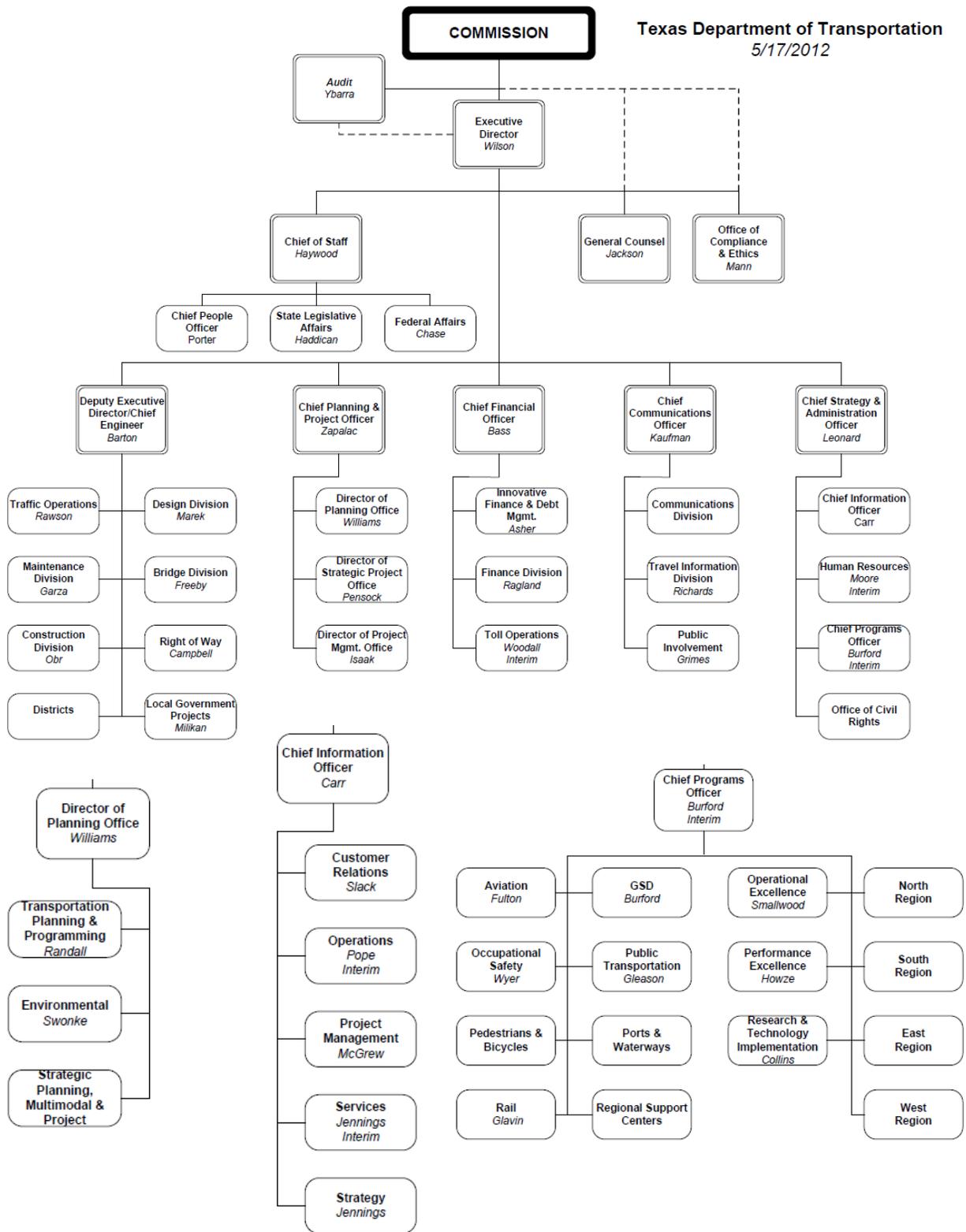
The TxDOT Administration developed a set of key priorities for the 2013-2017 strategic plan (pages 5 and 26 of this plan). These key agency priorities will provide guidance for the agency in focusing its limited financial, capital, technological, and human resources in the near-term to demonstrate how the agency will achieve its goals.

The TxDOT Administration presented a summary outline of the draft strategic plan to the agency leadership at the district, regional, division, and office level via an interactive teleconference in May 2012. The meeting provided the agency leadership team the opportunity to review and comment on the strategic emphasis for the next few years and to engage in dialogue with the TxDOT Administration about the plan.

The TxDOT Administration reviewed and revised the draft strategic plan in May 2012.

The TxDOT Administration presented the final strategic plan to the Texas Transportation Commission in June 2012 for formal adoption prior to the July 6, 2012 official submission deadline.

## Appendix B: Current Organizational Chart



## Appendix C: Five-Year Projections for Outcomes

### Projected Outcomes Fiscal Years 2013-2017

<b>Outcome</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Percent of Design Projects Delivered On Time	70%	71%	71%	72%	72%
Percent of Design Projects Delivered On Budget	47%	48%	48%	49%	49%
Percent of Non-MPO Funds Allocated to Improve the Top 100 Most Congested Roadway Segments	26%	26%	26%	26%	26%
Percent of MPO Funds Allocated to Improve the Top 100 Most Congested Roadway Segments	19%	19%	19%	19%	19%
Percent of Construction Projects Completed On Budget	95%	95%	95%	95%	95%
Percent of Two-Lane Highways with Improved Shoulders	60.7%	61.2%	61.7%	62.2%	62.7%
Percent of Construction Projects Completed On Time	75%	75%	75%	75%	75%
Percent of General Aviation Airport Pavement in Good or Better Condition	78.3%	78.4%	78.4%	78.5%	78.5%
Percent of Bridges Rated in Good Condition or Higher	81.8%	82.4%	83.0%	83.6%	84.2%
Statewide Maintenance Assessment Program Condition Score	77.0	76.5	76.5	76.0	76.0
Statewide Traffic Assessment Program Condition Score	87.9	88.0	88.1	88.2	88.3
Percent Change in the Number of Public Transportation Trips	1%	1%	1%	1%	1%
Number of Fatalities per 100 Million Miles Traveled	1.27	1.26	1.25	1.24	1.23

## **Appendix D: List of Measure Definitions**

### ***Goal A: Provide Transportation Planning***

#### **Objective A.1 – Effective Planning and Design**

##### **Outcome Measure: Percent of Design Projects Delivered On Time**

**Short Definition:** The percent of all design projects completed within 30 days of the project ready to let date during a fiscal year.

**Purpose/Importance:** Timely completion of construction documents allows funding decisions to be forecast with greater accuracy. With full implementation of project portfolio management tools, TxDOT expects to improve its design projects delivered on-time performance.

**Source/Collection of Data:** The primary source of data is the P6 software, an enterprise project management software tool. This software is designed to aide engineers in developing schedules and to estimate the duration of time to complete Project Development activities. As the project progresses/advances, Project Development employees report the actual number of hours it took for them to complete an activity. Once the project is completed, there is a historical record of the hours it took to complete each activity, as well as the duration of time it took to complete all project development activities. Once all project development activities are completed, the actual date is recorded.

**Method of Calculation:** The number of projects completed on time divided by the total number of projects completed. A project is considered on time if actual ready to let date is within the target ready to let date plus 30 days.

**Data Limitations:** There are locally let projects outside of TxDOT's control. If the projects are locally let, TxDOT does not have access to the data.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Outcome Measure: Percent of Design Projects Delivered On Budget**

**Short Definition:** The percentage of construction contracts awarded during a fiscal year with contract award amounts within plus or minus ten percent of the engineer's estimated construction contract costs.

**Purpose/Importance:** The measure is designed to improve the accuracy of estimating the costs of construction projects and reporting on the accuracy. Improvement in project cost estimating affects the efficient and effective use of available funds for the transportation system.

**Source/Collection of Data:** The engineer estimates the project construction cost at various key milestones during the project development and records their Engineers Estimated Construction Cost in the Design and Construction Information System. The regions will analyze the data and report on the variance.

**Method of Calculation:** The percent is calculated by dividing the number of projects on budget by the total number of projects awarded in the fiscal year. A project is considered to be on budget if the contract award amount is within plus or minus 10 percent of the final engineer's estimate.

**Data Limitations:** Locally let projects are outside of TxDOT's control. TxDOT has no control over the calculated Engineer's Estimated Construction cost and the contract award amount is not available to TxDOT.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Outcome Measure: Percent of Non-MPO Funds Allocated to Improve the Top 100 Most Congested Roadway**

**Short Definition:** The percent of Non-MPO funds allocated to the top 100 most congested roadway segments compared to the total amount of Non-MPO funds allocated in the UTP.

**Purpose/Importance:** The Legislature has indicated the importance of focusing resources on the Top 100 Most Congested Roadway Segments in the state. This performance measure indicates the degree to which TxDOT targets their available funds to improve mobility within the Top 100 Most Congested Roadway Segments in the state.

**Source/Collection of Data:** Data sources will include DCIS, which will provide a list of projects flagged as the Top 100 Most Congested Roadway Segments and the Unified Transportation Program (UTP) for Non-MPO allocations.

**Method of Calculation:** The total Non-MPO funds allocated are determined by adding up the ten years of Non-MPO allocations shown in the Funding Summary of the approved UTP, Categories 1, 3 (except for any TMF or Prop 12 funds given to MPO's), 4, 6, 8-12 (except for any Category 12 funds used for the Cat 5 & 7 Reconciliation) . DCIS was then queried to list all projects (CSJ's) that are designated as the 100 most congested roadways. From this list, the total Non-MPO allocations are determined based on funding category and work program. The total amount of Non-MPO funds allocated to the 100 most congested roadway segments are then divided by the total amount of Non-MPO funds allocated the UTP to produce a percentage.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** No

### **Outcome Measure: Percent of MPO Funds Allocated to Improve the Top 100 Most Congested Roadway Segments**

**Short Definition:** The percent of MPO funds allocated to the top 100 most congested roadway segments compared to the total MPO funds allocated in the UTP.

**Purpose/Importance:** The Legislature has indicated the importance of focusing resources on the Top 100 Most Congested Roadway Segments in the state. All of the identified roadway segments are located within large urban area MPO boundaries. This performance measure indicates the degree to which the state's large urban area MPOs target their available funds to improve mobility within the Top 100 Most Congested Roadway Segments in the state.

**Source/Collection of Data:** Data sources will include DCIS, which will provide a list of projects flagged as the Top 100 Most Congested Roadway Segments and the Unified Transportation Program (UTP) for MPO allocations.

**Method of Calculation:** The total MPO funds allocated are determined by adding up the ten years of MPO allocations shown in the Funding Summary of the approved UTP, Categories 2, parts of 3 (only TMF or Prop 12 funds given to MPO's), 5 & 7 and portions of Category 12 used for the Category 5 & 7 reconciliation. DCIS was then queried to list

all projects (CSJ's) that are designated as the 100 most congested roadways. From this list, the total MPO allocations are determined based on funding category and work program. The total amount of MPO funds allocated to the 100 most congested roadway segments are then divided by the total amount of MPO funds allocated in the UTP to produce a percentage.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** No

### **Strategy A.1.1 - Plan, Design, and Manage Transportation Projects**

#### **Output Measure: Number of Construction Projects Preliminary Engineering Plans Completed**

**Short Definition:** The number of construction plans processed for letting and awarded in the Design Division and the Traffic Operations Division.

**Purpose/Importance:** This measure reflects the Department's performance toward reaching a previously established goal of completing a certain number of plans. Meeting our established goals reflects the Department's commitment to planning, designing and managing highway projects that meet the needs of the traveling public, and developing an efficient and effective transportation system.

**Source/Collection of Data:** The primary sources of the data are (1) order of letting list provided by Finance Division, Letting Management Section and (2) processed plans log by the Field Area Sections. At the end of each month the Field Area Sections report the number of plans that were processed for that month.

**Method of Calculation:** The number of plans completed and awarded are totaled each month, and totaled for quarterly reporting.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Output Measure: Dollar Volume of Construction Contracts Awarded in Fiscal Year**

**Short Definition:** Cumulative low bid total of construction contracts awarded by the Commission within a TxDOT fiscal year (September 1 through August 31).

**Purpose/Importance:** This measure provides information regarding the cost incurred by the department in the execution of contracts to construct, maintain and rehabilitate the highways and bridges in Texas.

**Source/Collection of Data:** Data for this measure is obtained from letting information contained in the Design Construction Information System (DCIS) adjusted based upon those projects actually awarded and not rejected by the Commission.

**Method of Calculation:** The dollar volume is calculated by totaling the low-bid dollar amounts of construction contracts awarded by the Commission on a fiscal year basis.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Output Measure: Number of Projects Awarded**

**Short Definition:** The number of construction contracts that are awarded each fiscal year by the Commission.

**Purpose/Importance:** This measure provides information regarding the number of highway construction contracts awarded by the department each fiscal year.

**Source/Collection of Data:** Construction Information System (CIS) files are used as a source of data for a program that produces a report with this information. The Construction Division and the Design Division are responsible for the data.

**Method of Calculation:** A simple count of contracts awarded during the fiscal year, taken from the aforementioned report. The method of projection is based on historical trends: the ratio of the number of highway construction contracts awarded to the projected cash available for construction lettings.

**Data Limitations:** Unforeseen economic developments that may increase or decrease projected cash flow dollar for construction lettings will affect the anticipated target.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

**Output Measure: Dollar Volume of Construction Contracts Awarded to Improve the Top 100 Most Congested Roadway Segments in Fiscal Year**

**Short Definition:** Cumulative low bid total of construction contracts awarded by the Commission within a TxDOT fiscal year (September 1 through August 31) to improve the Top 100 most congested roadway segments.

**Purpose/Importance:** This measure provides information regarding the cost incurred by the department in the execution of contracts to improve the Top 100 Most Congested Roadway Segments in Texas.

**Source/Collection of Data:** Data for this measure is obtained from letting information contained in the Design Construction Information System (DCIS) adjusted based upon those projects actually awarded and not rejected by the Commission.

**Method of Calculation:** The department identifies the projects scheduled for letting each year that improve the Top 100 Most Congested Roadway Segments. The department identifies and totals the low-bid amounts awarded for construction contracts for those projects on that list. Performance for this measure is reported in millions.

**Data Limitations:** Projects can be delayed within the fiscal year due to environmental issues, plans not ready on time, and ROW acquisition issues. TxDOT does not have control over the timing of locally let projects. State revenue projections may change during the year which may result in changes to available funding for projects. Also, the amount of federal apportionment and obligations may also change which may result in changes to available funding for projects. This information is only applicable at the end of the fiscal year.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** No

## **Goal B: Implement Transportation Improvements**

### **Objective B.1 - Construction and Reconstruction**

#### **Outcome Measure: Percent of Construction Projects Completed On Budget**

**Short Definition:** The percent of construction contracts completed 10% or less over the contract award amount.

**Purpose/Importance:** The purpose of this measure is to determine the percentage of construction projects completed within the budgeted amount. The completion of construction projects within budget is an essential element in determining the department's efficiency in delivering projects.

**Source/Collection of Data:** Data will be collected from the SiteManager computer system.

**Method of Calculation:** The total number of construction contracts completed 10% or less over the contract award amount divided by the total number of construction contracts completed in the fiscal year.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

#### **Outcome Measure: Percent of Two-Lane Highways with Improved Shoulders**

**Short Definition:** The number of centerline miles of two-lane highways equal to or greater than 24 feet pavement width (includes shoulders) as a percent of total two lane highway centerline miles in the state.

**Purpose/Importance:** Studies have indicated that safety is improved on two-lane highways when pavement width is at least 24 feet.

**Source/Collection of Data:** Texas Reference Marker database.

**Method of Calculation:** Total Centerline Miles of Two-lane Highways less Total Centerline Miles of Two-lane Highways less than 24 feet divided by the Total Centerline

Miles of Two-lane Highways equal Percent of Two-lane Highways with Improved Shoulders.

**Data Limitations:** The data should be relatively easy to obtain through the Texas Reference Marker database as certified for the calendar year ending.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

### **Outcome Measure: Percent of Construction Projects Completed On Time**

**Short Definition:** The percent of construction contracts completed 10% or less over the original duration period provided in the contract at awarded.

**Purpose/Importance:** The purpose of this measure is to determine the percentage of contracts completed on time. The completion of contracts on time is an essential element in determining the department's efficiency in delivering construction projects.

**Source/Collection of Data:** Data will be collected from the SiteManager computer system.

**Method of Calculation:** The total number of construction contracts completed on time divided by the total number of projects completed. On time is defined as contracts completed 10% or less over the original duration period provided in the contract award.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Outcome Measure: Percent of General Aviation Pavement in Good or Excellent Condition**

**Short Definition:** Runway pavement condition ratings are categorized by poor, fair, good or excellent condition and reflect the overall surface condition of each landing surface. This measure will report the percentage of pavements in good or excellent condition.

**Purpose/Importance:** The measure identifies system-wide trend in the improvement or deterioration of runway pavements and aids TxDOT in determining the effectiveness of its Airport Capital Improvement Program.

**Source/Collection of Data:** Airport Master Record (5010 database) maintained by the National Flight Data Center (FAA).

**Method of Calculation:** The percentage is calculated by dividing the number of pavements in good or excellent condition by the total number of airports in the system.

**Data Limitations:** Data set includes only General Aviation, Reliever, and Non-Primary Commercial Service Paved runways.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Strategy B.4 - Support and Promote General Aviation**

### **Output Measure: Number of Grants Approved for Airports Selected for Financial Assistance**

**Short Definition:** This measure is the sum of all the airport capital improvement grants that are approved by the Transportation Commission for state or federal financial assistance.

**Purpose/Importance:** This measure shows the number of capital improvement grants issued to local governments for airport improvements.

**Source/Collection of Data:** The count comes from the minute orders approved by the Transportation Commission for the appropriate period.

**Method of Calculation:** Each grant approved by Commission for capital improvement projects is counted to determine the number of grants approved. An airport may receive more than one grant.

**Data Limitations:** This measure is entirely dependent upon the amount of funding approved by the Legislature for state grants and the amount of federal funds allocated to Texas.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

### ***Goal C: Preserve the Transportation System***

#### **Objective C.1 - System Maintenance**

##### **Outcome Measure: Percent of Bridges Rated in Good Condition or Higher**

**Short Definition:** Number of on-system and off-system bridges not identified as structurally deficient, functionally obsolete, or substandard for load in the Bridge Inspection Database as a percentage of the total number of on-system and off-system bridges in the state.

**Purpose/Importance:** Tracking this measure over time helps TxDOT evaluate the effectiveness of its bridge replacement and rehabilitation efforts and the adequacy of overall bridge funding.

**Source/Collection of Data:** Bridge Inspection Database maintained by the Bridge Division.

**Method of Calculation:** Total number of on-system and off-system bridges not identified as structurally deficient, functionally obsolete, or substandard for load in the Bridge Inspection Database divided by the total number of on-system and off-system bridges in the Bridge Inspection Database, shown as a percentage.

**Data Limitations:** Specific bridge condition data are collected and input in the Bridge Inspection Database on the two-year safety inspection frequency. Accordingly, a lag may occur in database updates that show the improved bridge (rehabilitation or replacement) condition. TxDOT maintains data on bridges off the state highway system. It is possible that some off-system bridges built by counties or municipalities may not be reported to TxDOT and therefore not included within this measure. The performance measure does not include bridges that are not eligible for the Highway Bridge Program (HBP),

including privately owned bridges, pedestrian bridges, utility bridges, railroad bridges, and federally owned bridges. In addition, under the federal ten-year rule, bridges in the inventory with a date of construction or date of major reconstruction occurring within the past 10 years will not be considered as structurally deficient or functionally obsolete and not eligible for the HBP.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

### **Outcome Measure: Statewide Maintenance Assessment Program Condition Score**

**Short Definition:** The Texas Maintenance Assessment Program (TxMAP) provides for the evaluation of 23 elements of the highway infrastructure divided into three main components; Pavement, Traffic Operations and Roadside. Elements are rated on a scale of one to five on randomly selected one-mile sections. Approximately 5% of the Non-Interstate System and 10% of the Interstate System are evaluated.

**Purpose/Importance:** TxMAP documents the overall condition of the highway system and allows maintenance managers to monitor the condition for determining resource needs.

**Source/Collection of Data:** Field assessments are conducted annually under TxMAP. These evaluations are performed by personnel from the Maintenance Division.

**Method of Calculation:** A statewide composite score is determined by taking a weighted average of the districts' average scores based on their percent of the state centerline miles.

**Data Limitations:** This composite score is an indication of the maintenance level of service for the state's highways and roadsides. The score may vary from year to year and will be affected by available funds, traffic volumes, unexpected needs and weather.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Outcome Measure: Statewide Traffic Assessment Program Condition Score**

**Short Definition:** The statewide score as assessed by TxDOT Traffic Operations Division in the Texas Traffic Assessment Program (TxTAP).

**Purpose/Importance:** Traffic control devices (such as signs and traffic signals) play an important role in highway safety and efficiency. The TxTAP program is a tool used by the department to evaluate uniformity, quality, and consistency of traffic control devices in place on the state highway system. Use of this process allows for the agency to obtain a sampling of the uniformity/condition of traffic control devices on the state highway system and track progress in this area.

**Source/Collection of Data:** The Traffic Operations Division conducts a yearly statewide field review of traffic control devices for each TxDOT District.

**Method of Calculation:** Various traffic control devices are evaluated in each TxDOT district annually and each district receives a score for uniformity, quality, and consistency of these devices. These twenty-five individual district scores are then averaged to derive an annual statewide average.

**Data Limitations:** Since it is not possible to evaluate every traffic control device statewide, TxTAP scores are based on a relatively small sample of all traffic control devices. However, TxDOT believes that the TxTAP process provides an accurate and valuable snapshot of the uniformity/condition of traffic control devices on the state highway system both in a localized geographic area and for the state highway system as a whole.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Strategy C.1.2 - New Maintenance Contracts**

### **Output Measure: Number of Lane Miles Contracted for Resurfacing**

**Short Definition:** This measure calculates the total number of lane miles receiving roadway surface improvements under Contracted Routine Maintenance plus the total number of lane miles let to receive roadway surface improvements under Contracted Preventive Maintenance. These surface improvements include asphalt seal coats and asphalt concrete pavement overlays throughout the state by contract.

**Purpose/Importance:** Providing safe roadways for the traveling public and protection of the infrastructure of these roadways are of prime importance. Asphaltic seal coats protect roadway infrastructure from water intrusion into the underlying structural layers. This helps deter the water from deteriorating the base material, thereby causing a pavement failure. The presence of water in the base material during cold weather can be harmful due to the heave caused by freezing. Asphalt concrete pavement overlays are applied to not only reshape a roadway to eliminate hazardous surface aberrations, but also to add structure to a roadway to facilitate increased load carrying capabilities.

**Source/Collection of Data:** The source of data used to collect this measure is the computerized MMIS (for Contracted Routine Maintenance) and DCIS (for Contracted Preventive Maintenance). While MMIS reports resurfacing in square yards, the square yard units are converted to lane miles by dividing the square yards by 7,040 square yards per lane mile. DCIS reports resurfacing directly in lane miles.

**Method of Calculation:** The quarterly output is arrived at by collecting the number of lane miles by the various surface treatments applied to the state's roadways by contract from MMIS and DCIS reports and summarizing them (total number of lane miles under Contracted Routine Maintenance completed during the reporting period for roadway surface improvements plus the total number of lane miles under Contracted Preventive Maintenance let during the reporting period for roadway surface improvements).

**Data Limitations:** The accuracy of the data is dependent upon the work units input into the Maintenance Management Information System (MMIS) by personnel in the district and work units input into the Design and Construction Information System (DCIS) by personnel in the Finance Division.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Strategy C.1.4 - Provide for State Transportation System Routine Maintenance / Operations**

### **Output Measure: Number of Highway Lane Miles Resurfaced by State Forces**

**Short Definition:** This measure calculates the total number of lane miles receiving roadway surface improvements. These surface improvements include asphalt seal coats and asphalt concrete pavement overlays completed throughout the state by state forces.

**Purpose/Importance:** Providing safe roadways for the traveling public and protection of the infrastructure of these roadways are of prime importance. Asphaltic seal coats protect roadway infrastructure from water intrusion into the underlying structural layers. This helps deter the water from deteriorating the base material, thereby causing a pavement failure. The presence of water in the base material during cold weather can be harmful due to the heave caused by freezing. Asphalt concrete pavement overlays are applied to not only reshape a roadway to eliminate hazardous surface aberrations, but also to add structure to a roadway to facilitate increased load carrying capabilities.

**Source/Collection of Data:** The source of data used to collect this measure is the computerized MMIS. While MMIS reports resurfacing in square yards, the square yard units are converted to lane miles by dividing the square yards by 7,040 square yards per lane mile.

**Method of Calculation:** The actual output is arrived at by collecting the number of lane miles by the various surface treatments applied to the state's roadways by state forces from MMIS reports and summarizing them.

**Data Limitations:** The accuracy of the data is dependent upon the work units input into the Maintenance Management Information System (MMIS) by district personnel.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Goal D: Optimize Services and Systems**

### **Objective D.1 - Support Enhanced Public Transportation**

#### **Outcome Measure: Percent Change in the Number of Small Urban and Rural Transit Trips**

**Short Definition:** The percent change in the number of trips delivered by Non-metropolitan public transportation systems statewide from the previous year.

**Purpose/Importance:** To record the percent change in public transportation ridership.

**Source/Collection of Data:** TxDOT collects the ridership data for small urban (50,000 to 199,999 population) and non-urbanized area agencies, as well as agencies receiving funding for specialized transportation services. These agencies receive public transportation program grant funding from TxDOT. The percent change in ridership is based on actual data and forecasted passenger trips data. The department subtracts the previous year ridership from the current year figure, divides the difference by the prior year figure, and multiplies it by 100 to get a percentage. If current year ridership figures are not available for a transit agency, the department estimates it using prior year data and a straight-line forecast and modifies it by any knowledge of specific circumstances as needed. The forecast of a future year change is based upon the most recent four years of ridership data.

**Method of Calculation:** Percent change is calculated by subtracting the prior year ridership figure from the current year figure, dividing that difference by the prior year figure, then multiplying by 100 to get a percentage. The forecast of future year changes is a straight-line forecast, based upon the most recent four years of ridership data. If there is a known factor that would impact either the historical data or future expected ridership, the forecast is updated to account for that factor.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## **Objective D.2 - Enhance Public Safety and Security**

### **Outcome Measure: Number of Fatalities per 100 Million Miles Traveled**

**Short Definition:** The number of fatalities per 100,000,000 vehicle miles traveled in the state.

**Purpose/Importance:** Changes in the number of persons killed per 100 million vehicles miles traveled is an important measure used to evaluate overall transportation safety and provides a useful historical indicator of progress in this area.

**Source/Collection of Data:** The number of statewide traffic fatalities and vehicle miles traveled are compiled on a calendar year basis by the Texas Department of Transportation.

**Method of Calculation:** This measure is calculated by dividing the total annual statewide vehicle miles traveled by 100 million. The total number of statewide traffic fatalities are then divided by this figure which results in the number of traffic fatalities per 100 million vehicle miles traveled.

**Data Limitations:** Although change in this measure is a straightforward and useful measure, many external factors can influence the measure such as inclement weather, driver behavior, and increases in vehicle miles traveled.

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Lower

**Key:** Yes

## ***Goal E: Enhance Rail Transportation***

### **Objective E.1 - Enhance Rail Transportation**

#### **Strategy E.1.6 - Ensure Rail Safety through Inspection and Public Education**

### **Output Measure: Number of Federal Railroad Administration (FRA) Units Inspected**

**Short Definition:** The number of FRA units performed by TxDOT rail safety inspectors in all five inspection disciplines (Track, Signal and Train Control, Hazardous Materials, Motive Power and Equipment and Operating Practices).

**Purpose/Importance:** This measure is intended to show the productivity of railroad safety inspectors by making it possible to compare the amount of actual work produced by a particular inspector with the goal previously established for that inspector. This measure is important because it provides supervisors and division management with an objective basis for the evaluation of performance of individual employees, and because it also allows the Commission to determine overall division performance.

**Source/Collection of Data:** FRA units are recorded weekly in the FRA database. The federal database can be accessed by supervisory personnel to total the inspections for each inspection discipline and calculate the overall total inspection units for each reporting period.

**Method of Calculation:** The federal database can be accessed by supervisory personnel to total the inspections based upon the particular kind of inspection activity involved.

**Data Limitations:** None

**Calculation Type:** Non-cumulative

**New Measure:** No

**Desired Performance:** Higher

**Key:** Yes

## Appendix E: Workforce Plan

### *Anticipated Changes Over the Next Five Years*

Texas' favorable business environment has fast become a big attraction to organizations wanting to capitalize on the state's business opportunity offerings. Recently there have been increases in rural expansion, tourism, a resurgent oil and gas boom, and the presence of growing retirement communities.

Additionally, emerging technologies, consumer demand for viable transportation options and the necessity for the right mix of workforce skills, competencies and experiences are redefining TxDOT's workforce mission.

During the last five years, the department has been through several rounds of comprehensive agency and management reviews. As a result, the department will embark on a progressive talent management strategy and a total rewards system.

Strategic workforce planning will allow the department to proactively integrate organizational process change that avoids labor surpluses, mitigates talent shortages (panic hirings), and establishes opportunities for competent employees to advance and maintain business readiness and flexibility.

The FY 2013-2017 Workforce Plan examines the existing workforce skill levels, assesses future worker competencies and advocates for a progressive succession strategy, which will enhance efforts in cultivating a diversified talent workforce capable of meeting department goals.

### *Current Workforce Profile (Supply Analysis)*

#### **Critical Workforce Skills**

The department employs qualified individuals in a myriad of program disciplines. There are 732 active business job descriptions that include 938 competencies.

The list below categorizes the types most required in job positions or those which employees possess. Strong employee competencies are critical to meet ongoing business objectives and goals.

#### *Current critical workforce skills include the following:*

<i>Leadership/Management</i>	<i>Transportation Federal/State Laws</i>
<i>Information Technology</i>	<i>Engineering/Architecture</i>
<i>Roadway System Maintenance</i>	<i>Finance</i>
<i>Human Capital Management</i>	<i>Aviation/Waterway/Rail Operations</i>
<i>Environmental/Archeological</i>	<i>Customer Service Assistance</i>
<i>Contract Negotiation/Administration</i>	<i>Project Management</i>
<i>Communications/Media</i>	<i>Auditing</i>
<i>Research and Analysis</i>	<i>Occupational Safety</i>

<i>Purchasing/Procurement</i>	<i>Legal Services</i>
<i>Facilities/Property Management</i>	

## Workforce Demographics

### Gender, Age, Diversity

In FY2011, the department employed an average workforce population of 11,968 employees. Of that total, there were 2,581 females (22%) and 9,387 males (78%). The mean age was 47 years and 77% of the workforce population was 40 years old or older.

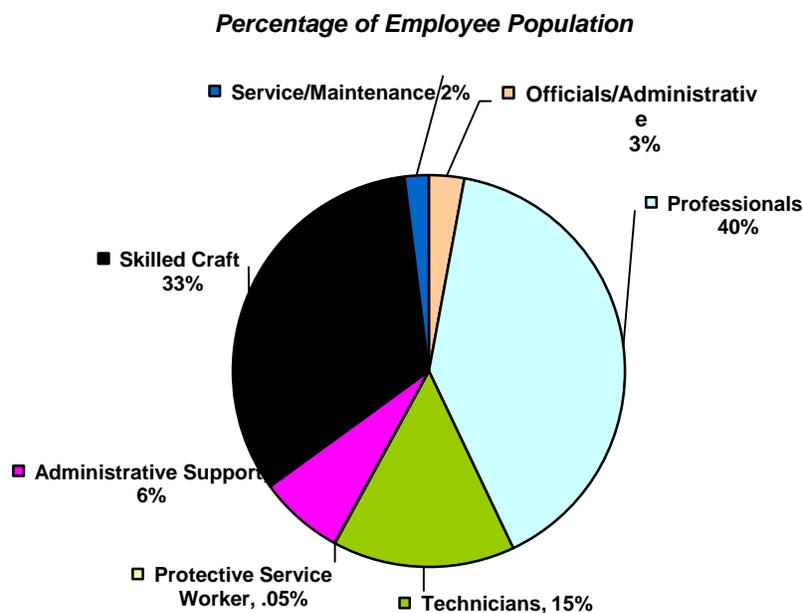
### Tenure

Of the department employees, 5,164 (44%) have 10 years or less department service. There are 3,703 (31%) employees with >10 to 20 years of service while 2,847 (24%) employees have 20+ years. The average length of department service time is 14 years and the same length of time holds true for overall state government longevity time as well.

With slightly less than half of the workforce with 10 years or less department experience, the number of employees who possess the seasoned expertise and process “wisdom” is in short supply. The data shows that tenure accruing years is represented by a smaller employee group and may give support to a prevailing trend that employees will leave state government to pursue more lucrative compensation packages during their wealth building years.

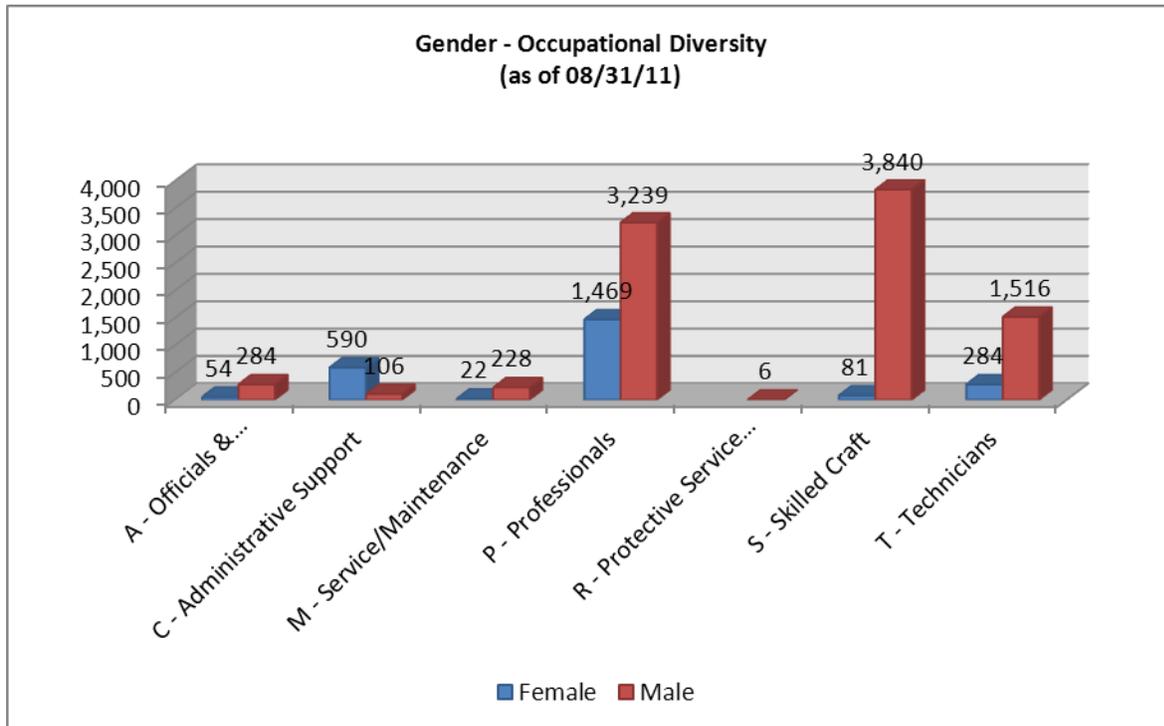
### Job Categories

Three main job categories comprise the largest number of department employees (84%). The categories, “*Professionals, Technicians, and Skilled Craft*”, underscore the broad range of competencies utilized in accomplishing the department’s mission. Department data in most of the job categories reflect comparable to or above statewide workforce statistics.



### Gender

The department female population is represented mostly in the “*Professional, Technicians and Administrative Support*” job categories. The categories “*Skilled Craft and Service/maintenance*” have historically been occupied by males, and we continue to experience little interest by the female population to apply or engage in this kind of work.



### Employee Turnover and Projected Attrition

During the last decade TxDOT has enjoyed one of the lowest turnover rates when compared to other state agencies and the statewide workforce. This has been a testament to its good fortune even though it continued to lose some of its more seasoned experienced workers to the private sector. However, the trend appears to be that employees are leaving for more lucrative positions in transportation industry-related firms and comparable private sector organizations. In FY2011, approximately 33 percent of the state workforce turnover occurred in the 16 to 29 years age group, followed by the 30 to 39 years age group at 16 percent.

EMPLOYEE TURNOVER - FIVE-YEAR TREND*					
Fiscal Year	2007	2008	2009	2010	2011
TxDOT	11%	12%	7%	12%	9%
All Agencies	17%	17%	14%	15%	17%

\*TxDOT percentages include interagency transfers because it is considered a loss to the agency. State agencies percentages do not include interagency transfers as they are not considered a loss to the State as a whole. Rounded to the nearest whole number.

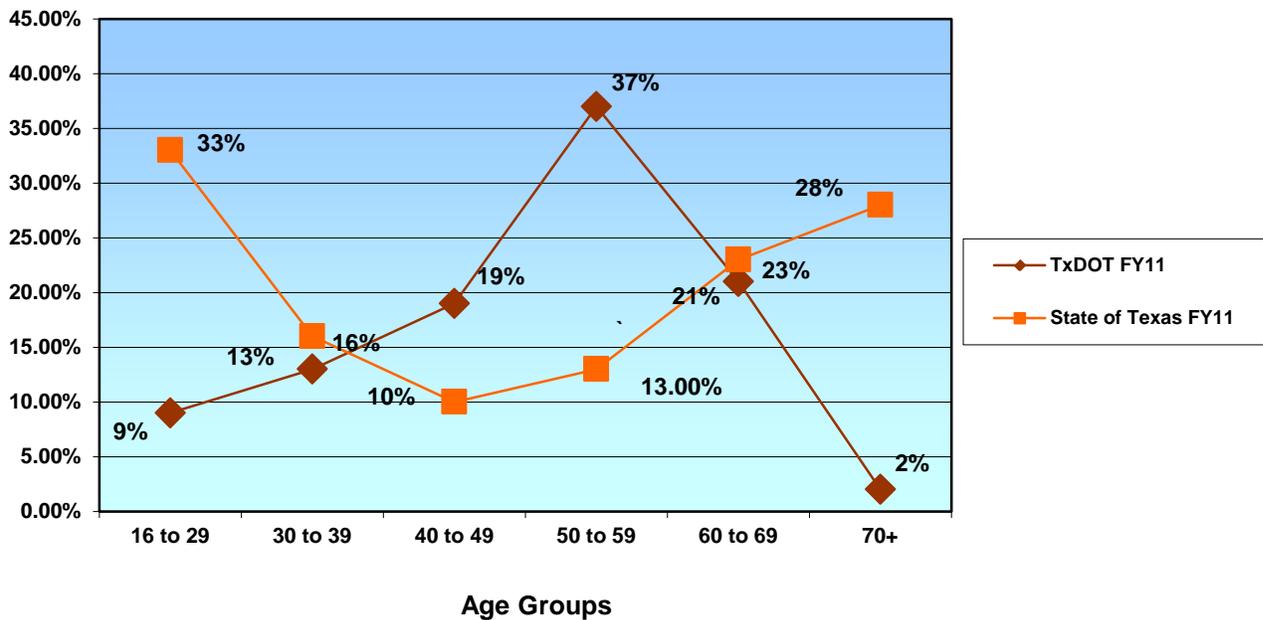
**Length of Service**

<b>Tenure of Separating Employees Compared to Tenure of All Employees* FY2011</b>				
<b>Tenure in Years</b>	<b># Separating Employees</b>	<b>% Separating Employees</b>	<b>All Employees</b>	<b>% All Employees</b>
0 – 4	261	25%	2112	18%
5 – 10	162	16%	3052	26%
11 – 15	96	9%	2215	19%
16 – 20	89	9%	1488	13%
21 – 25	128	12%	1597	14%
26 – 30	203	19%	927	8%
31 & above	106	10%	323	3%
<b>Total</b>	<b>1045</b>	<b>100%</b>	<b>11,714</b>	<b>100%</b>

\* Data comparison based on number of employees active on 8/31/2011.

**Age**

**Age of Separated Employees**



In the Texas State Auditor’s Classified Employee Turnover Report for Fiscal Year 2011, that year was cited as the highest turnover rate since fiscal year 2008. There was an increase of 15 percent and the majority of the employment separations were voluntary. Several influencing factors were noted such as the continued increased retirement numbers, perceived lack of employment due to budget cuts and dwindling merits awards.

During the past five years, state employee retirements have increased by 40.6 percent, while merits decreased by 55 percent for the same time period. Better pay/benefits continue to reign as the top two reasons for employee departures.

### Occupations

During the past five years the department maintained a 7% to 12% cyclical turnover rate.

BUSINESS JOB CATEGORIES	PERCENT TURNOVER RATE				
	FY07	FY08	FY09	FY10	FY11
EXECUTIVE / ADMINISTRATIVE/ CLERICAL / LEGAL	10.3%	10.6%	8.8%	18.1%	8.04%
FINANCE / ACCOUNTING	9.1%	11.0%	7.6%	11.4%	11.9%
INFORMATION TECHNOLOGY	9.4%	10.5%	7.4%	15.2%	7.1%
ARCHITECTURE	5.6%	13.7%	4.4%	0.00%	0.00%
ENGINEERING / ENGR. SUPPORT	9.9%	9.4%	5.8%	5.9%	6.6%
CIVIL RIGHTS / BUSINESS OPPORTUNITY	10.2%	12.8%	6.2%	5.8%	9.0%
HUMAN RESOURCES	6.3%	7.2%	4.6%	6.7%	9.2%
OCCUPATIONAL SAFETY	9.5%	10.9%	10.0%	15.8%	7.4%
GENERAL SERVICES CONTRACTS / PURCHASING	9.1%	12.7%	6.3%	9.1%	8.2%
MAINTENANCE / SKILLED CRAFT / FERRY OPERATIONS	12.2%	12.4%	8.0%	9.0%	10.9%
LABORATORY / MATERIALS	6.9%	7.1%	5.6%	5.8%	5.4%
MOTOR VEHICLE / VEHICLE TITLE & REGISTRATION	11.1%	7.4%	9.7%	360.1%**	15.4%
PLANNING / ENVIRONMENTAL / AVIATION / PUBLIC TRANSPORTATION / LEGISLATIVE	16.0%	47.4% *	9.3%	10.4%	10.6%
RIGHT OF WAY	13.1%	8.1%	6.5%	8.6%	4.9%
TRAVEL / PUBLIC INFORMATION	9.8%	15.9%	7.8%	18.5%	14.5%
ENVIRONMENTAL	5.6%	9.0%	8.0%	9.8%	6.7%
NOT DEFINED	20.3%	5.1%	12.3%	8.4%	13.5%
<b>TOTAL</b>	<b>10.8%</b>	<b>11.7%</b>	<b>7.3%</b>	<b>11.6%</b>	<b>8.7%</b>

\*Higher than normal attrition due to the legislatively mandated transfer of 186 PTN employees to HHSC.

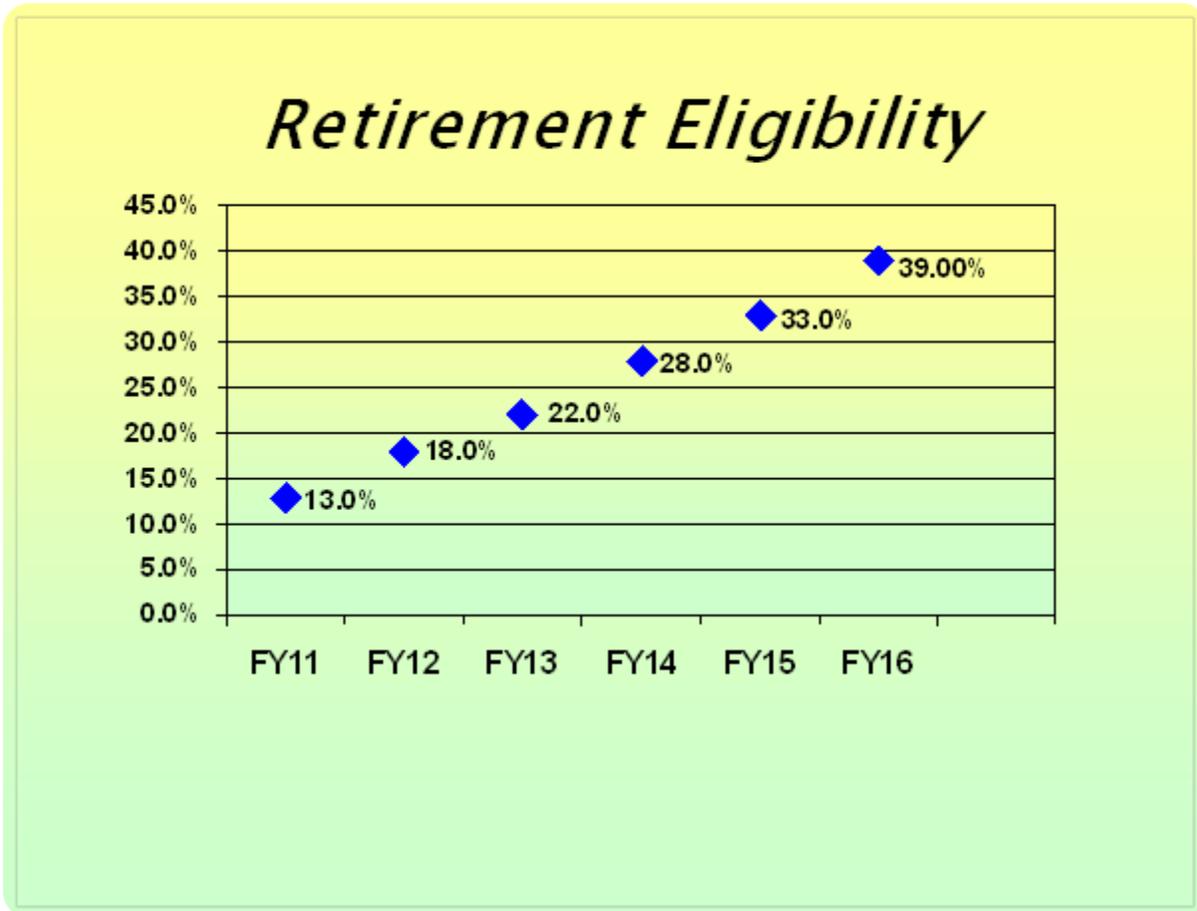
\*\* Legislatively mandated transfer of 507 division/office employees to the newly created Texas Department of Motor Vehicles.

### Retirement Eligibility

Loss of institutional knowledge and expertise due to retirement is important to department operations. It affects succession planning levels the department should embark upon to ensure the attraction of the “right mix” of new employees and the training development of existing staff in key competencies.

The chart below depicts the projected increases in the number of employees eligible to retire between the fiscal years 2011 and 2016. The data projects that approximately 18% of the current workforce can retire in FY2012.

In FY2011, the mean age of retiring employees was 57 years with 25 years of TxDOT service time and 25.7 years of overall state government service time. There was a 12% increase in retirements over last fiscal year and in the last five years there has been a 53% increase in the number of department retirements.



**Retirees by Job Category**

By FY2016, the department's workforce will have 39% of its employees eligible for retirement. This turnover rate, if realized, will have enormous impact on the department's organizational structure and service delivery.

<b>BUSINESS JOB CATEGORY RETIREMENT ELIGIBILITY</b>	<b>% FY11 or Before</b>	<b>% FY12 or Before</b>	<b>% FY13 or Before</b>	<b>% FY14 or Before</b>	<b>% FY15 or Before</b>	<b>% FY16 or Before</b>
EXECUTIVE/ADMINISTRATIVE/ CLERICAL/LEGAL	19%	23%	27%	34%	39%	44%
FINANCE/ACCOUNTING	12%	21%	25%	31%	37%	43%
INFORMATION TECHNOLOGY	13%	19%	22%	27%	34%	40%
ARCHITECTURE	29%	40%	52%	60%	64%	69%
ENGINEERING / ENGR. SUPPORT	15%	20%	25%	32%	38%	44%
CIVIL RIGHTS / BUSINESS OPPORTUNITY	23%	29%	32%	39%	39%	42%
HUMAN RESOURCES	18%	20%	25%	33%	38%	43%
OCCUPATIONAL SAFETY	16%	22%	29%	35%	37%	45%
GENERAL SERVICES CONTRACTS / PURCHASING	22%	28%	32%	37%	42%	47%
MAINTENANCE / SKILLED CRAFT / FERRY OPERATIONS	10%	14%	18%	22%	27%	32%
LABORATORY / MATERIALS	18%	23%	26%	33%	39%	44%
MOTOR VEHICLE / VEHICLE TITLE & REGISTRATION	9%	9%	18%	18%	18%	18%
PLANNING / AVIATION / PUBLIC TRANSPORTATION / LEGISLATIVE	13%	18%	23%	27%	36%	42%
RIGHT OF WAY	17%	27%	29%	36%	44%	48%
TRAVEL / PUBLIC INFORMATION	13%	18%	27%	30%	32%	38%
ENVIRONMENTAL	12%	16%	19%	23%	27%	33%
NOT DEFINED	21%	28%	38%	45%	48%	62%
<b>TOTAL</b>	<b>13%</b>	<b>18%</b>	<b>22%</b>	<b>28%</b>	<b>33%</b>	<b>39%</b>

While the supervisory, mid-level, and executive employees collectively make up a small percentage of those eligible to retire, forecast eligibility data indicates the department could experience a 58% turnover rate in all management levels between now and FY2016.

In FY 2013, there could be significant supervisory and upper management staffing adequacy issues, if appropriate succession planning strategies are not executed timely to provide optimum staffing acquisition, training, and development transition.

<b>Percentage of Management Staff Eligible to Retire Within the Next Five Years</b>						
<b>MANAGER / WORK LEVEL</b>	<b>FY11 or Before</b>	<b>FY12 or Before</b>	<b>FY13 or Before</b>	<b>FY14 or Before</b>	<b>FY15 or Before</b>	<b>FY16 or Before</b>
SUPERVISOR	16%	22%	28%	39%	48%	56%
BRANCH	20%	25%	33%	45%	53%	57%
SEC / STAFF	20%	27%	36%	48%	56%	63%
EXEC MGR	25%	28%	42%	50%	64%	67%
EXEC DIR	0%	0%	0%	0%	0%	0%
<b>TOTAL</b>	<b>18%</b>	<b>24%</b>	<b>32%</b>	<b>43%</b>	<b>52%</b>	<b>58%</b>

*Future Workforce Profile (Demand Analysis)*

**Future Staffing Outlook**

A surging population growth, shifting demographic trends and job creation restored to pre-recession employment levels in December 2011 favors Texas as economically healthy. Some of the fastest growing occupations in Texas are the oil and natural gas sectors that grew by 18.7% and a 4% growth in trade, transportation and utilities sectors. The soon to be completed Panama Canal expansion will provide economic development opportunity along Texas’ coastal areas creating job opportunities in a great many industries.

Certain clusters of occupational groups within the department will see a dramatic increase in vacancies due to employee retirements including executive, administrative and managerial occupations. Higher-skilled professions will require more education, better communication, math, information technology, and reasoning skills.

The historical career ladder promotion structure that has been the cornerstone of progression is now archaic and new state employees want the focus on talent versus experience. Employees no longer embrace the notion of sitting in a role for five to 10 years before they can progress. They want early on organization engagement and ongoing leadership training.

**Gap Analysis**

The department is challenged to acquire, develop, deploy and retain a competent workforce. Work is being done to complete a comprehensive strategic training program that will address and

sustain a management and technical training program. The list below details those core competencies the department will build on to strengthen its workforce.

***Workplace Knowledge and Skill Alignment:***

Leadership / People Management	Inter Relations / Multi-Lingual	Information Technology
Environmental / Archeological	Engineering / Architecture	Roadway Maintenance
Finance / Asset Management	Human Capital Management	Customer Relations Management
Natural/Cultural Resources	Contract Administration	Aviation/Rail/Waterway Operations
PPP / CDA Marketing / Negotiation	Project Management	Multimodal Transportation
Research / Development	Government Rules / Regulations	Community / Citizen Outreach
Org Change Management Business Acumen	Adult Education / Training	Performance Measures / Metrics
Safety / Security Administration	Facilities / Property Management	Legal Services

**Strategy Development**

For TxDOT to be a competitive employer, a renewed emphasis on employee engagement is necessary. Research studies routinely survey employees about their expectations from their employers. Top responses were full appreciation for work done, a feeling “in” on things, open two-way communication, good wages, and interesting work with opportunities for growth and development.

These responses mirror The Survey of Organizational Excellence, conducted by the School of Social Work of the University of Texas at Austin of state agencies. Survey results also showed fair pay as a continued concern based on low scoring by department employees. Scoring levels indicate employee viewpoints regarding the competitiveness of the total compensation package and it also addresses how well the package “holds up” when employees compare it to similar jobs in their communities.

Other low scores in internal communications and diversity give rise to targeted improvement initiatives as well. Such conventional employee attitude responses impact the abilities of attraction, motivation, and retention strategies to prove successful.

In an era where more department employees are becoming retirement eligible and fewer workers stay long term with state government, the attraction of top talent to public service continues to be restrained by its limited competitive compensation and benefit packages, these key challenges become more heightened by impending labor shortages fueled by a recovered Texas economy.

High profile news media coverage of the imminent talent shortage and emerging market opportunities clearly underscores the need to drive and mold a human resource strategy for long lasting impact on the department's workforce. The department is dedicated to adopting a uniform and well communicated plan for the development, tracking, delivery and evaluation of all department training delivered. This allows the department to take pro-active measures in addressing immediate training and development needs as they occur rather than being reactive to documented trends.

The following are the key emphasis areas of the workforce plan.

#### Reinforce Existing Workforce Strengths

TxDOT will continue a myriad of talent-market programs. These programs include accelerated hiring processes, high school or college summer employment opportunities, a balanced work and life environment, flexible work schedules, career development programs, temporary recruitment programs, job rotation/cross training, executive training, tuition assistance, award and recognition programs, recruitment and retention bonuses.

#### Talent Development

Now is the time to establish organization career progression academies for the next TxDOT leadership generation. Data and demographics can offer guidance in determining employee retirements and targeted areas for organizational change, and showcase business needs for creative recruitment strategies.

Job rotation and cross training programs (in-house talent cultivation) and a succession planning program, and developing career progression models (management, leadership and technical) are all examples of workforce strategies that lend itself to building and strengthening the department's core business units. A look at certification programs will enhance employee qualifications with increased skills in the area of project management and other technical areas. Integrating staff development with flexible, mobile career ladders, advocating work/life balance programs, offering competitive salaries coupled with pay for performance incentives, as well as supportive employee recognition programs, are all employee-focused recruitment and retention preparedness strategies.

#### Enhancing Bench Strength

Attracting and retaining critical work segments in our department will require positioning our agency as top draw in the public sector transportation world. Future employee development programs must have a central focus on maximizing already acquired employee knowledge, skills and abilities and cultivating additional strengths to enhance the full suite of management skills, abilities and technical expertise.

Management leadership must propel the push towards stronger analytical and business intelligence capabilities. This means a greater investment in capturing and harnessing information necessary to facilitate sound, well-reasoned decision making processes, financial management, public-private collaborations and customer service.

### Knowledge Transfer

The department has joined the ranks of other state transportation agencies in implementing a new initiative called Knowledge Management. This project involves a visionary approach to identifying, collecting and cataloging “legacy and present knowledge” into one repository capable of providing information through decentralized networks to users.

The idea behind the approach is to provide information tools that capture critical business knowledge while at the same time create an environment which can facilitate learning by employees from in-house professionals, support continued knowledge development and provide a forum for sharing best practices.

### Community/Employee Outreach

The influx of workers into the state can provide TxDOT with a greater talent pool to draw from when job opportunities exist within the department. However, the real challenge lies in our talent management strategy to ensure that we, as a Texas employer, provide collaborative partnerships with higher education institutions and businesses that help us build TxDOT’s workforce with sustaining, long term skill development. As technologies change, so too will workplace skills; we must poise the department to be a competitive employer.

### Succession Planning

Worker knowledge and experience development (beyond entry-level and basic process understanding) is the cornerstone to succession planning. Without planning it only serves to further exacerbate the loss of institutional knowledge and expertise as aging department employees retire and younger potentials seek the better job and/or career offers.

It is critical to implement strategies that increase employee job satisfaction, build loyalty, and foster long-term employer-employee relationships with high demand and exceptional performing employees. Through these strategies the department can cultivate a skilled workforce composed of subject matter experts and leaders in the transportation field.

### Adjusting to a Technological Work Environment

As the department examines workforce trends and its needs, the use of technology-driven systems assistance in carrying out critical functions will become paramount. Efficient service delivery will require employees to possess a wide range of competencies, much in the self-service environments being able to handle a wide array of business functions. Future directives will adjust employee required skills sets (includes both cultural and business) and a sound general understanding by employees of the department’s mission is essential in accomplishing positive transportation solutions for Texas communities and its citizens.

### Improving the Employee Review Process

The department will develop a mid and year-end performance goal review process. It will be closely tied to the department’s merit process.

## Appendix F: 2012 Survey of Employee Engagement



**Texas Department of Transportation**  
**Executive Summary**  
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## Introduction

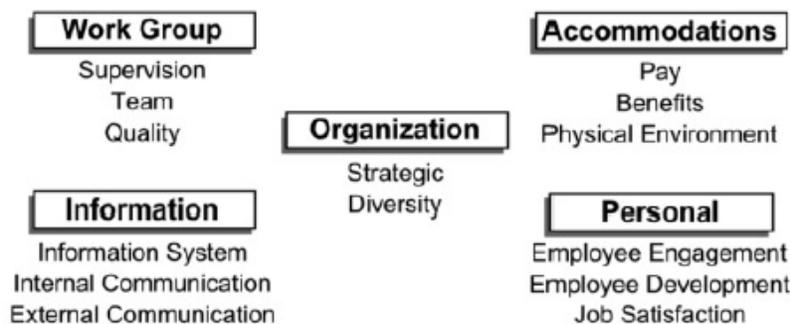
**Thank you** for your participation in the Survey of Employee Engagement (SEE). We trust that you will find the information helpful in your leadership planning and organizational development efforts. As an organizational climate assessment, the SEE represents an employee engagement measurement tool based on modern organizational and managerial practice and sound theoretical foundations. In short, the SEE is specifically focused on the key drivers relative to the ability to engage employees towards successfully fulfilling the vision and mission of the organization.

Participation in the SEE indicates the willingness of leadership and the readiness of all employees to engage in meaningful measurement and organizational improvement efforts. The process is best utilized when leadership builds on the momentum initiated through the surveying process and begins engagement interventions using the SEE data as a guide. Contained within these reports are specific areas of organizational strengths and of organizational concern.

The **SEE Framework** initially consists of a series of items to ascertain the demography of the respondents. The purpose is to measure whether or not a representative group of respondents participated. The second section contains 71 primary items. These are used to assess essential and fundamental aspects of how the organization functions, the climate, potential barriers to improvement, and internal organizational strengths. The items are all scored on a five-point scale from Strongly Disagree(1) to Strongly Agree(5) and are averaged to produce various summary measures - Constructs, Climate indicators, and the Synthesis Score.

The SEE has 14 Constructs which capture the concepts most utilized by leadership and those which drive organizational performance and engagement. These constructs are: Supervision, Team, Quality, Pay, Benefits, Physical Environment, Strategic, Diversity, Information Systems, Internal Communication, External Communication, Employee Engagement, Employee Development, and Job Satisfaction. In the Climate section of the reports are the Climate indicators: Atmosphere, Ethics, Fairness, Feedback, and Management.

### Workplace Dimensions Survey Constructs



## Organization Profile

### Texas Department of Transportation

#### Organizational Leadership:

- Phil Wilson, Executive Director



## Benchmark Groups

The most current benchmark data are provided in your report. To get a better idea of how this organization compares to others like it, we provide three types of benchmark data: organizations with a similar size, similar mission, and organizations belonging to a special grouping.

The Benchmark Categories for this organization are:

- **Organization Size:** Size category 6 includes organizations with greater than 10,000 employees.
- **Mission Category:** Mission 7 (Business and Economic Development)  
The Business and Economic Development category includes organizations involved in workforce, transportation, economic, and overall development of the communities they serve.
- **Special Grouping:** None

## Survey Administration

**Collection Period:**  
02-15-2012 through 03-17-2012

**Additional Items and Categories** (if applicable) may be used to target areas specific to the organization. Refer to the Appendix of the Data Report for a complete listing.

- 15 additional items
- Category 1 (17 codes)
- Category 2 (53 codes)
- Category 3 (4 codes)

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## Overall Score and Participation

### Overall Score

The overall survey score is a broad indicator for comparison with other entities. The Overall Score is an average of all survey items and represents the overall score for the organization. For comparison purposes, Overall scores typically range from 325 to 375.

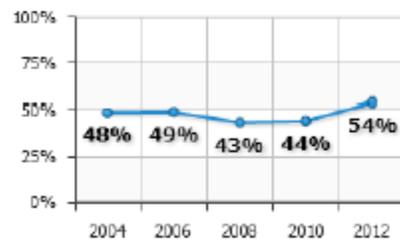
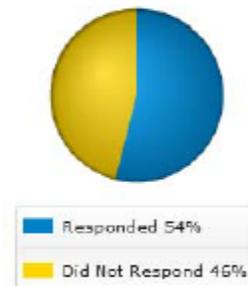


### Response Rates

#### Overall Response Rate

Out of the 11466 employees who were invited to take the survey, 6181 responded. As a general rule, rates higher than 50 percent suggest soundness. Rates lower than 30 percent may indicate problems.

At 54%, your response rate is considered average. Average rates mean that many employees have a reasonable investment in the organization, want to see the organization improve and generally have a sense of responsibility to the organization. Other employees may suffer from feelings of alienation or indifference.



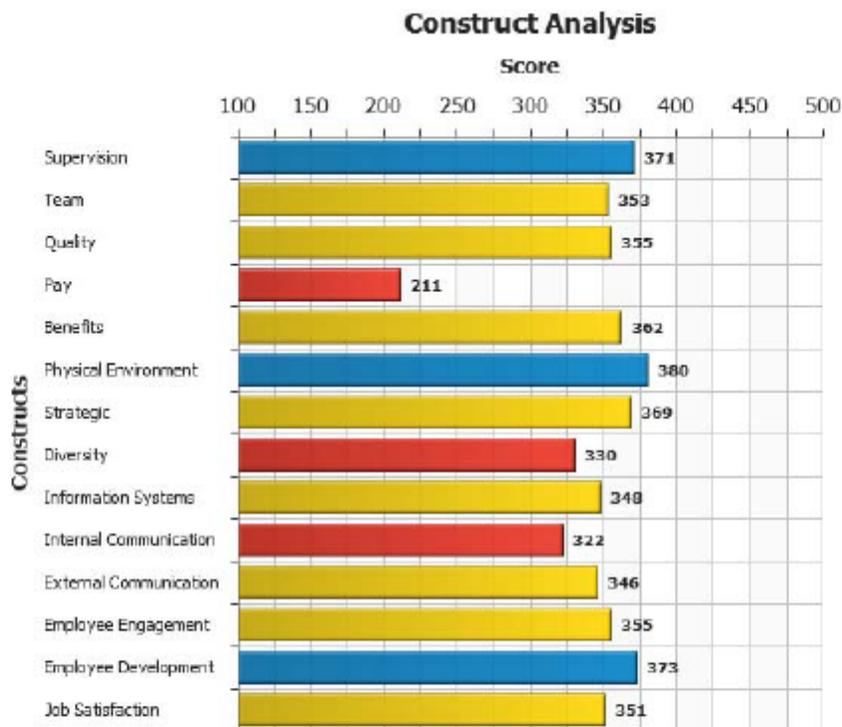
#### Response Rate Over Time

One of the values of participating in multiple iterations of the survey is the opportunity to measure organizational change over time. In general, response rates should rise from the first to the second and succeeding iterations. If organizational health is sound and the online administration option is used, rates tend to plateau around the 60 to 65 percent level. A sharp decline in your response rate over time can be a significant indicator of a current or potential developing organizational problem.

## Construct Analysis

Constructs have been color coded to highlight the organization's areas of strength and areas of concern. The 3 highest scoring constructs are blue, the 3 lowest scoring constructs are red, and the remaining 8 constructs are yellow.

Each construct is displayed below with its corresponding score. Highest scoring constructs are areas of strength for this organization while the lowest scoring constructs are areas of concern. Scores above 350 suggest that employees perceive the issue more positively than negatively, and scores of 375 or higher indicate areas of substantial strength. Conversely, scores below 350 are viewed less positively by employees, and scores below 325 should be a significant source of concern for the organization and should receive immediate attention.



## Organizational Typology: Areas of Strength

The following Constructs are relative strengths for the organization:

### Physical Environment

Score:380

The Physical Environment construct captures employees' perceptions of the total work atmosphere and the degree to which employees believe that it is a 'safe' working environment. This construct addresses the 'feel' of the workplace as perceived by the employee.

High scores indicate that employees view their work setting positively. It means that the setting is seen as satisfactory, safe, and that adequate tools and resources are available.

### Employee Development

Score:373

The Employee Development construct is an assessment of the priority given to employees' personal and job growth needs. It provides insight into whether the culture of the organization sees human resources as the most important resource or as one of many resources. It directly addresses the degree to which the organization is seeking to maximize gains from investment in employees.

Average scores suggest employees feel that minimum needs are being met for personal development and enhancement of job skills. Scores at this level provide opportunities for the organization to increase the skills, abilities, and satisfaction of employees through training and educational opportunities.

### Supervision

Score:371

The Supervision construct provides insight into the nature of supervisory relationships within the organization, including aspects of leadership, the communication of expectations, and the sense of fairness that employees perceive between supervisors and themselves.

No area in an organization is more important and often more resistant to change than the middle areas of the organization. Improving average Supervision scores requires careful study to determine the correct causative factors, which may include the supervisory selection process, availability of support services, and opportunities for leadership and professional training. A frequent problem with supervisors is that those tasks a person may be successful with are not the same tasks that are required when one is promoted to supervision. Use feedback sessions to discuss the results with employees to make a more complete determination of the factors that influence your score.

## Organizational Typology: Areas of Concern

The following Constructs are relative concerns for the organization:

### Pay

Score: 211

The Pay construct addresses perceptions of the overall compensation package offered by the organization. It describes how well the compensation package 'holds up' when employees compare it to similar jobs in other organizations.

Low scores suggest that pay is a central concern or reason for satisfaction or discontent. In some situations pay does not meet comparables in similar organizations. In other cases individuals may feel that pay levels are not appropriately set to work demands, experience and ability. Cost of living increases may cause sharp drops in purchasing power, and as a result, employees will view pay levels as unfair. Remedying Pay problems requires a determination of which of the above factors are serving to create the concerns. Triangulate low scores in Pay by reviewing comparable positions in other organizations and cost of living information. Use the employee feedback sessions to determination the causes of low Pay scores.

### Internal Communication

Score: 322

The Internal Communication construct captures the organization's communications flow from the top-down, bottom-up, and across divisions/departments. It addresses the extent to which communication exchanges are open, candid, and move the organization toward its goals.

Low scores suggest that employees feel information does not arrive in a timely fashion and often it is difficult to find needed facts. In general, Internal Communication problems stem from these factors: an organization that has outgrown an older verbal culture based upon a few people knowing "how to work the system", lack of investment and training in modern communication technology and, perhaps, vested interests that seek to control needed information. Triangulate low scores in Internal Communication by reviewing existing policy and procedural manuals to determine their availability. Assess how well telephone systems are articulated and if e-mail, faxing, and Internet modalities are developed and in full use.

### Diversity

Score: 330

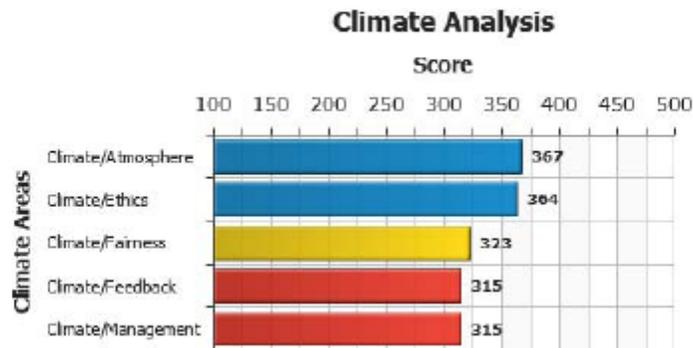
The Diversity construct addresses the extent to which employees feel personal differences, such as ethnicity, social class or lifestyle, may result in alienation from the larger organization and missed opportunities for learning or advancement. It examines how the organization understands and uses creativity coming from individual differences to improve organizational effectiveness.

Average scores suggest that while there may be no feeling of unfair discrimination toward any particular group, there may be "a sameness", a cultural homogeneity that may not be in the organization's best interest. Triangulate Diversity scores by reviewing the organization's demographic numbers as well as how representative various groups are within the hierarchy of the organization. Consider recruitment procedures and training programs for persons that are underrepresented to improve size of candidacy pools for hiring and promotion; conduct community outreach, including recruitment programs with high schools and colleges; establish mentor programs to encourage the development of opportunities for underrepresented groups.

## Climate Analysis

The climate in which employees work does, to a large extent, determine the efficiency and effectiveness of an organization. The appropriate climate is a combination of a safe, non-harassing environment with ethical abiding employees who treat each other with fairness and respect. Moreover, it is an organization with proactive management that communicates and has the capability to make thoughtful decisions. Climate Areas have been color coded to highlight the organization's areas of strength and areas of concern. The 2 highest scoring climate areas are blue (Atmosphere, Ethics), the 2 lowest scoring climate areas are red (Feedback, Management), and the remaining climate area is yellow (Fairness).

Each Climate Area is displayed below with its corresponding score. Scores above 350 suggest that employees perceive the issue more positively than negatively, and scores of 375 or higher indicate areas of substantial strength. Conversely, scores below 350 are viewed less positively by employees, and scores below 325 should be a significant source of concern for the organization and should receive immediate attention.



### Climate Definitions:

**Atmosphere:** The aspect of climate and positive Atmosphere of an organization must be free of harassment in order to establish a community of reciprocity.

**Ethics:** An Ethical climate is a foundation of building trust within an organization where not only are employees ethical in their behavior, but that ethical violations are appropriately handled.

**Fairness:** Fairness measures the extent to which employees believe that equal and fair opportunity exists for all members of the organization.

**Feedback:** Appropriate feedback is an essential element of organizational learning by providing the necessary data in which improvement can occur.

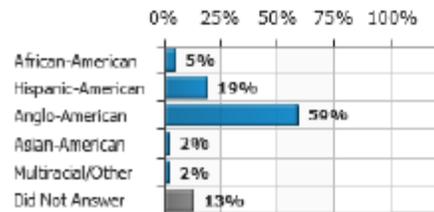
**Management:** The climate presented by Management as being accessible, visible, and an effective communicator of information is a basic tenant of successful leadership.

## Participant Profile

Demographic data helps one to see if the Survey response rate matches the general features of all employees in the organization. It is also an important factor in being able to determine the level of consensus and shared viewpoints across the organization. It may also help to indicate the extent to which the membership of the organization is representative of the local community and those persons that use the services and products of the organization.

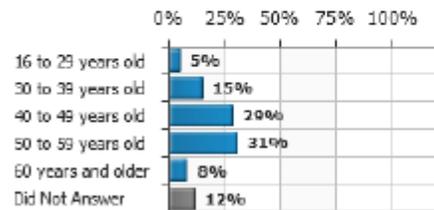
### Race/Ethnic Identification

Racial/Ethnic diversity within the workplace provides resources for innovation. A diverse workforce helps ensure that different ideas are understood, and that the community sees the organization as representative of the community.



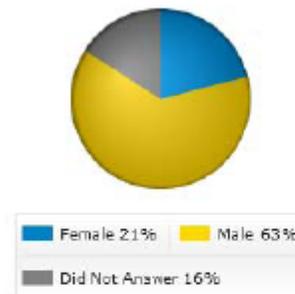
### Age

Age diversity brings different experiences and perspectives to the organization, since people have different challenges and resources at various age levels. Large percentages of older individuals may be a cause of concern if a number of key employees are nearing retirement age.



### Gender

The ratio of males to females within an organization can vary among different organizations. However, extreme imbalances in the gender ratio when compared to actual gender diversity within your organization should be a source of concern and may require immediate attention as to why one group is responding at different than anticipated rates.



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## Benchmark Data and Other Resources

### **Benchmark Categories:**

**Benchmark Data** composed of the organizations participating in the survey are provided in your reports. Benchmarks are used to provide a unit of comparison of organizations of similar mission and size. If you selected to use organizational categories, internal benchmarks between categories as well as over time data illustrate differences and changes along item and construct scores. Our benchmark data are updated every two years and are available from our website at [www.survey.utexas.edu](http://www.survey.utexas.edu).

### **Reporting and Other Resources:**

A **Data Report** accompanies this summary. The data report provides greater detail than the executive summary. The data report is largely a quantitative report of the survey responses. Demographic data are presented in percentages and real numbers. Construct means and benchmark comparison numbers are provided on all variables. Item data are broken into mean, frequency counts, standard deviations, and number of respondents. Item benchmark data are also displayed.

**Electronic Reports** are provided in two formats. First, all executive and data reports are included in pdf files for ease in distribution and for clear printability. This file format is widely used, and a free pdf reader called Adobe Acrobat reader is available from [www.adobe.com](http://www.adobe.com). The second type of electronic reports are in Microsoft Excel format. These reports are construct and item survey data in a flat spreadsheet format. This allows the user to sort highs and lows, search for individual items, or create custom reports from the survey data.

**Using the Survey as a Catalyst** for organizational improvement is essential to the survey process. The survey creates momentum and interest. At the end of the executive summary report is a series of suggested next steps to assist in these efforts.

**Additional Services** are available from our group. We conduct 360-Degree leadership and supervisory evaluations, special leadership assessments, customer and client satisfaction surveys along with the ability to create and administer a variety of custom hardcopy and online survey instruments. Consultation time for large presentations, focus groups, or individual meetings is available as well. For additional information, please contact us at anytime.

## Next Steps: Interpretation and Intervention

After the survey data has been compiled, the results are returned to the survey liaison, executive director, and board or commission chair approximately one to two months after data collection stops. These individuals are strongly encouraged to share results with all survey participants in the organization. Survey results are provided in several formats to provide maximum flexibility in interpreting the data and sharing the data with the entire organization. The quick turnaround in reporting allows for immediate action upon the results while they are still current.

The Executive Summary provides a graphical depiction of the data. Graphical data can easily be reproduced in a company newsletter or website. For additional detailed data, the Data Report is useful for examining survey data on the individual item level. Response counts, averages, standard deviations, and response distributions are provided for each item. Excel files provide electronic access to scores. Scores can be sorted in various ways to help determine strengths and areas of concern. The electronic data can also be used by Excel or other software to create additional graphs or charts. Any of these formats can be used alone or in combination to create rich information on which employees can base their ideas for change.

Benchmark data provide an opportunity to get a true feel of the organization's performance. Comparing the organization's score to scores outside of the organization can unearth unique strengths and areas of concern. Several groups of benchmarks are provided to allow the freedom to choose which comparisons are most relevant. If organizational categories were used, then internal comparisons can be made between different functional areas of the organization. By using these comparisons, functional areas can be identified for star performance in a particular construct, and a set of "best practices" can be created to replicate their success throughout the organization.

These Survey Data provide a unique perspective of the average view of all participants. It is important to examine these findings and take them back to the employees for interpretation and to select priority areas for improvement. This is an opportunity for the organization to recognize and celebrate areas that members have judged to be areas of relative strength. By seeking participation and engaging people on how the organization functions, you have taken a specific step in increasing organizational capital. High organizational capital means high trust among employees and a greater likelihood of improved efforts and good working relationships with clients and customers.

### Ideas for getting employees involved in the change process:

- Hold small focus groups to find out how the employees would interpret the results
- Conduct targeted follow-up surveys to collect additional information including comments
- Provide employees with questionnaires/comment cards to express their ideas

### Ideas for sharing data with the organization:

- Publish results in an organizational newsletter or intranet site
- Discuss results in departmental meetings
- Create a PowerPoint presentation of the results and display them on kiosks

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## Timeline

### April and May: Interpreting the Data

- Data are returned to survey liaisons, executive directors and board members
- Review Survey data including the Executive Summary with executive staff
- Develop plans for circulating all the data sequentially and provide interpretations for all staff

### June: Distributing Results to the Entire Organization

- Implement the plans for circulating the data to all staff
- Create 3 to 4 weekly or monthly reports or organization newsletters
- Report a portion of the constructs and items, providing the data along with illustrations pertinent to the organization
- Select a time to have employees participate in a work unit group to review the reports as they are distributed to all staff, with one group leader assigned to every group. The size of the groups should be limited to about a dozen people at a time. A time limit should be set not to exceed two hours.

### July: Planning for Change

- Designate the Change Team composed of a diagonal slice across the organization that will guide the effort
- Identify Work Unit Groups around actual organizational work units and start each meeting by reviewing strengths as indicated in the data report. Brainstorm on how to best address weaknesses
- Establish Procedures for recording the deliberations of the Work Unit Group and returning those data to the Change Team
- Decide upon the Top Priority Change Topic and Methods necessary for making the change. Web-based Discussion Groups and Mini-Surveys are convenient technologies
- First change effort begins
- Repeat for the next change target

### August and Beyond: Implementation and Interventions

- Have the Change Team compile the Priority Change Topics and Methods necessary for making the change and present them to the executive staff
- Discuss the administrative protocols necessary for implementing the changes
- Determine the plan of action and set up a reasonable timeline for implementation
- Keep employees informed about changes as they occur through meetings, newsletters, or intranet publications
- Resurvey to document the effectiveness of the change