

EXHIBIT A



2015-2019 Strategic Plan

AGENCY STRATEGIC PLAN
FOR THE FISCAL YEARS 2015-2019 PERIOD

BY

TEXAS DEPARTMENT OF TRANSPORTATION

Commission Member	Hometown	Dates of Term
Jeff Austin III	Tyler	2011-2019
Ted Houghton (Chair)	El Paso	2003-2015
Jeff Moseley	Houston	2012-2017
Fred Underwood	Lubbock	2007-2015
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July 7, 2014

Signed: _____



LtGen J.F. Weber, USMC (Ret)
Executive Director

Approved: _____



Ted Houghton
Commission Chair

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Letter from Texas Transportation Commission Chair

On behalf of the Texas Transportation Commission, I am pleased to present the Texas Department of Transportation's 2015-2019 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 97-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 the more than 26 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.

The department recognizes that our work in creating a safe, effective Texas transportation system is not done alone. It has always been bolstered by the tireless efforts of our many community partners across the state, 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.

We take seriously our responsibility to be good stewards of taxpayer money. The commission is leading the department into a 21st century business model, focused on cost savings, efficiencies, and increased value. We have privatized our information technology services to produce better tools, better service, and lower risk for the department. We will reinvest the expected costs savings into our IT systems to allow for more efficient operations. TxDOT has completely revamped its handling of engineering, architecture, and surveying contracts. We have centralized contracting authority in the new Professional Engineering Procurement Services Division, and personnel have undergone a rigorous training schedule both on leadership and on contracting practices. And finally, we are working to bring best in class business practices to real estate disposition and value creation at TxDOT. Our goal is to strategically and holistically optimize the TxDOT real estate portfolio.

In closing, the Commission would like to thank the Texas Legislature for its guidance and support 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

Texas State Government Strategic Planning Elements

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 Texas State Government Goals and Benchmarks

Economic Development

Priority Goal

To provide an attractive economic climate for current and emerging industries and market Texas as 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

Key Strategic Themes for TxDOT 2015-2019

Texas is at an historic crossroads for mobility demand.

Throughout the State's history, our transportation system has supported and enabled the state's economy. Today it is a key part of Texas' annual gross domestic product, which was more than \$1.5 trillion in 2013.

The state's population has grown and continues to grow at a very rapid pace, with the addition of more than 4 million new people between 2000 and 2010. Projections are that this rate of growth will continue, and our population will expand from 26 million today to as much as 45 million by 2035.

The introduction of hydraulic fracturing technology to explore and extract natural gas and crude oil has been a boon for the Texas economy. This revitalized energy economy is dependent upon unprecedented volumes of heavy truck traffic typically moving across the state's rural highway system that was not designed or constructed to support these loads.

The expansion of the Panama Canal will 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.

At the same time, Texas stands on the doorstep of a Mexican economy that continues its steady expansion. A robust Mexican economy means even more trade with Texas' largest export partner.

We need a next generation transportation system to meet these demands, and must make strategic investments in this system to ensure we can meet these demands to enable Texas to continue to compete in the global economy and to sustain the quality of life Texans deserve.

TxDOT and its partners, led by the Texas Legislature, must determine an effective way to respond to these challenges in a manner that will preserve the state's transportation investment and support the new opportunities that the state's energy and trade economy offers.

At the same time, the system maintenance demand is great: the replacement cost of the existing highway system alone is estimated at \$500-\$750 billion.

For 2013-2014, 40% of the TxDOT biennial budget (\$8.6 billion) is dedicated to system preservation. TxDOT is currently responsible for maintaining approximately 197,100 lane-miles of highways, maintaining and inspecting more than 34,500 on-system bridges, inspecting more than 18,000 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.

We are operating under a 20th century highway budget, but we are charged with being a 21st century department of transportation.

When analyzed from the perspective of supporting a multimodal department of transportation, the 2013-2014 TxDOT biennial budget dedicates less than 3% of the available resources to non-highway transportation programs.

- Less than 0.5% of the budget supports rail programs. Obtaining funding for freight rail projects remains a significant challenge due largely to the fact that there is no dedicated source of funding at the federal level to assist with freight rail developments and improvements, and the Texas Railroad Relocation and Improvement Fund, established by a constitutional amendment in 2005, remains unfunded.
- Less than 1% of the 2013-2014 TxDOT biennial budget supports public transportation.
- The budget provides less than \$200 million total for the biennium (about 1% of the total) for the state's general aviation system needs.
- Less than \$1 million a year is available to support of the Gulf Intracoastal Waterway and the budget provides \$45 million a year to operate the Texas ferry system.

The budget dedicates 11% of available resources (\$2.4 billion) to debt service, which is used to support payments for highway mobility and safety projects financed over the past decade. Another 11% is used for planning, design, and right of way acquisition to support highway construction. Another 3% is set-aside for payments on North Central Texas toll projects.

Moreover, even the significant budget for the state's highway program is insufficient and must be modernized if we are to truly address the mobility demands we face going forward. For the next 30 or more years, the budget must continue to devote at least ten percent of available resources to debt service – making payments against major highway investments of the past that drivers are able to use today and in the future. Although this debt service provides an essential public good for projects that have and will continue to serve us well, it

is a part of our budget that is paying for infrastructure already delivered and does not help us in facing the transportation funding challenges of today. Accelerated delivery of projects through the bond programs has diminished those challenges, but the outlook for making the additional transportation investments needed is not favorable unless the Legislature identifies and commits additional, renewable, reliable, and flexible revenue sources to future mobility investments.

The ongoing need to maintain the large Texas transportation system also means that we must continue to dedicate a larger and larger share of the TxDOT budget on system preservation and routine maintenance. Without an influx of new revenues to replace the existing system as it reaches the end of its lifecycle, this maintenance burden will further reduce the amount of funds available to address the state's mobility needs.

Finally, state elected officials must work with TxDOT and local and regional partners to make current and new sources of revenues resilient and flexible enough to tackle our transportation demands in a variety of ways, using multiple transportation modes and applications of new technologies in ways we have yet to discover. We must create a vision for our future transportation system and move beyond a budget and transportation policies focused on construction and maintenance of the highway system to new policy and budget systems that support multimodal, transformative transportation options for Texas.

TxDOT and its leadership are committed to working with our partners to make this a reality for Texas. We want to become a true department of transportation, in practice and funding, not in name only. It will take a lot of work, but, if we are to truly fulfill our mission to work with others to provide safe and reliable transportation solutions for Texas, it is work that must be done.

We are at an historic crossroads for our transportation system. We must meet the challenges of today while discovering and creating a vision and path to our state's transportation future.

TxDOT Mission

Work with others to provide safe and reliable transportation solutions for Texas.

TxDOT Philosophy

Our Values:

- Trust - We strive to earn and maintain the confidence of our partners and the people of Texas.
- Integrity - We honor our commitments and keep our word.
- Responsibility - We are accountable to the people of Texas for carrying out our mission and roles.
- Excellence - We do our work at a high level of quality.
- Service - We do what we do for the benefit of the people of Texas.

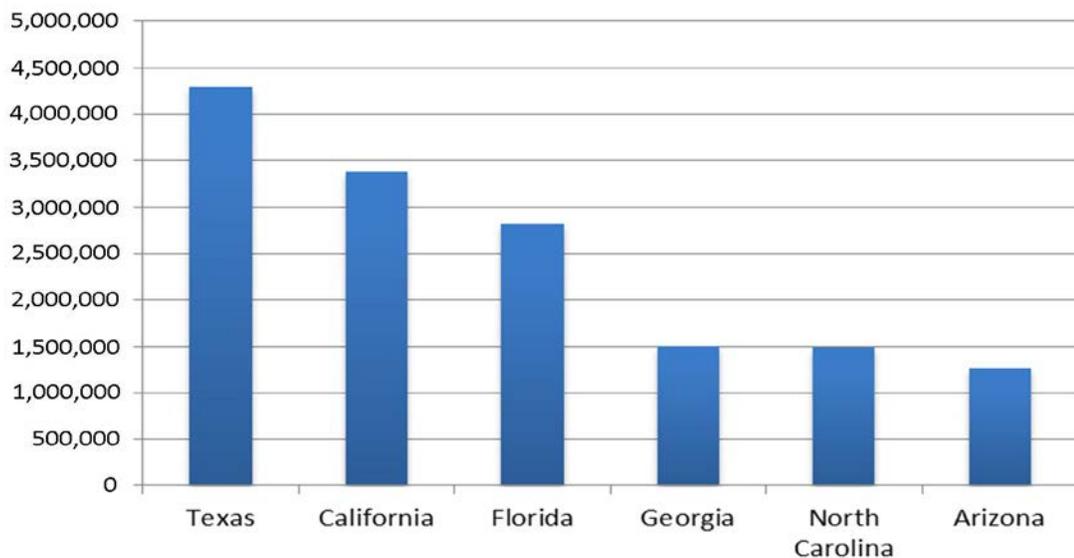
TxDOT External/Internal Assessment

Texas Is at an Historic Crossroads for Mobility Demand.

Population Explosion

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. Texas is one of the ten fastest-growing states in the country. Texas is the second largest state in terms of population (2nd to CA) and area (2nd to AK). Between 2000 and 2010, Texas added more total residents than any other state in the country.

Total Population Growth by State, 2000-2010
States with an Increase of More than One Million Residents



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

Rural versus Urban

In 1940, more than half of Texans lived in rural areas of the state. By 1950, with the continued development of the business economy, for the first time more than half of all Texans resided in the state's urban areas. In 2010, the latest census data reveals that more than 84% of Texans call the urban areas of the state home.

According to the Texas State Data Center, Texas is predicted to grow from its current population of 26 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 needed to handle this growth. In addition to population growth, the aging of the population is another challenge, which affects highway design, driver safety, and an increased demand for public transportation.

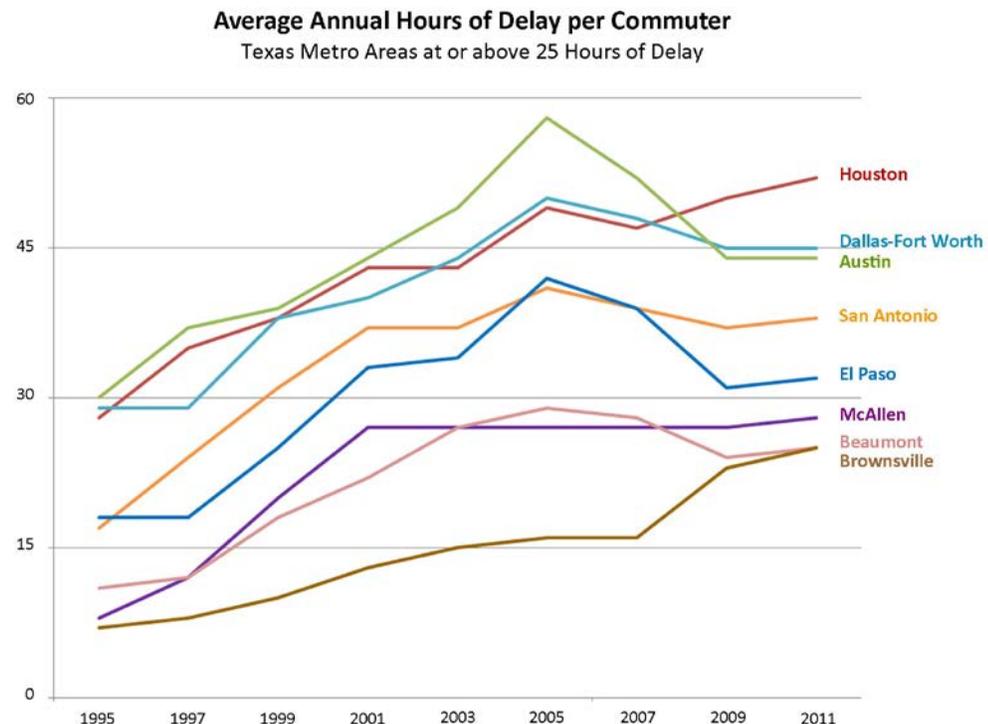
Transportation Safety

TxDOT is committed to making travel as safe as possible for all users of the state's transportation system. We continue to make progress in making our system safer, indicated by a 12% reduction in the total number of annual traffic fatalities between 2002 and 2013. However, safety remains a major concern. According to analysis of Texas Crash Records Information System data, in 2013 a reportable crash occurred every 71 seconds on Texas roads, resulting in 3,377 fatalities and 232,028 injuries. More than 1,000 of the 3,377 people killed in 2013 were motorcyclists, pedestrians, or bicyclists and 115 fatalities occurred in construction and maintenance zones. In addition to the loss of life, motor vehicle crashes cost approximately \$26 billion in economic loss in Texas each year and cause an estimated 40-50% of all unpredictable congestion.

TxDOT's Role in Addressing Congestion

As in 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 gas. And as the state's population grows, congestion is only expected to get worse.



Source: Texas A&M Transportation Institute

So what can we do? With the uncertainty of increased future transportation funding and the necessity of 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. In jointly developing and implementing travel demand management solutions, TxDOT and its local partners can help reduce single-occupant, peak-hour vehicle work trips in our most congested corridors.

Energy Exploration and Marketing

Energy Sector Impacts on the Texas Transportation System

Energy activities, in the areas of oil, gas, and wind energy production, have been increasing greatly over the years in Texas. While this activity is good for the economy of Texas, the development of energy resources significantly affects the Texas transportation infrastructure and challenges the efforts of TxDOT and local governments to ensure the safety of the traveling public and to protect the taxpayers' investment in the state's highways, roads, and bridges. TxDOT, in partnership with other state and local entities, has identified some significant concerns that the state must address. These include roadway damage and safety, along with an increase in truck traffic, right of way usage, environmental concerns, and bridge impacts/restrictions.

Working with legislators, other state agencies, local governments, and other stakeholders to address the impact of energy development on our state's transportation system is a good example of how TxDOT carries out its mission while achieving the department's goals. Research conducted by the Texas A&M University Texas Transportation Institute (TTI) quantified the cost of rebuilding the infrastructure being consumed by increased energy-related activities as approximately \$1 billion annually to the roadways under the jurisdiction of TxDOT and approximately \$1 billion annually to the roadways under the jurisdiction of local governments. TTI's research also determined that reinforcing or armoring these roadways and bridges in advance of the energy-related traffic increases will create substantial cost savings. This would require an additional investment of \$600 million per year for the 2016-2017 biennium. A lack of sufficient funding makes it difficult to perform the continual maintenance required for roadways that are experiencing an increase in heavy traffic due to the growing energy sector. According to TTI, the state will incur on average additional operating costs of an estimated \$3.5 billion due to the deteriorating condition of the Texas highway system from energy sector activity.

Safety is TxDOT's top priority. The statewide increase in energy production and the volume and weight of traffic on farm to market roads and other highways that were not designed or constructed for such loads have increased. In addition to accelerating the consumption of pavements, bridges, and other infrastructure on the affected roadways, the traffic has significantly increased the number of crashes and fatalities. Irregular damage like potholes, narrow roadways, and the edge of roadway

drop-offs create unpredictable driving conditions. This kind of damage is often fatal. Counties in the Eagle Ford Shale saw a 41% increase in fatalities in 2012. Fatalities increased by 27% in the Permian Basin during the same year. Statewide, Texas had 3,399 fatalities, an 11% increase, with more than 50% of these crashes occurring on rural roadways. TxDOT has a responsibility to ensure a safe highway condition for drivers to get where they need to in those areas experiencing deteriorating road conditions. We will continue to work with state and local partners to find effective and safe solutions to address this challenge.

Expansion of the Panama Canal

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 or 2015. 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.

Increased Freight Demand

For the twelfth consecutive year, Texas ranks as the leading exporter in the nation with more than \$279 billion in goods reaching consumers worldwide. According to a 2011 report by the 2030 Committee, freight traffic is expected to grow at twice the rate of passenger vehicle traffic as the Texas economy grows over the next 25 years, with miles traveled by truck increasing by 120 percent. 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 working to address the demands of freight. TxDOT is including freight stakeholders in the pre-development stages of the next statewide long-range transportation plan. Bringing in 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. In addition, TxDOT continues to look for innovative solutions from the public and private sector entities. And, TxDOT will continue to work with the freight stakeholders to incorporate the current MAP-21 increased reimbursement provision to freight-related projects into its Categories 1 and 2 formula fund allocation to TxDOT districts with corridors on the FHWA's Primary Freight Network.

Creation of the Texas Freight Advisory Committee

Recognizing the important role freight plays in our state, the Texas Transportation Commission recently established its first Freight Advisory Committee. The panel of experts will serve as a forum for agency transportation decisions affecting freight mobility.

The group, led by Harris County Judge Ed Emmett as chair and Cameron County Judge Carlos Cascos as vice-chair, will provide advice and recommendations to the Texas Department of Transportation regarding freight transportation and will assist in identifying potential corridors that are critical to the state's economic growth and global competitiveness.

The Texas Freight Advisory Committee will meet regularly to develop recommendations regarding statewide freight transportation policies and performance measures, a comprehensive and multimodal statewide freight transportation plan and to provide assistance in identifying freight-related priorities and funding projections.

Robust Mexican Economy

The \$1.3 trillion Mexican economy is the second-largest in Latin America, with many economists predicting that it will be the largest within a decade. Recent upgrades to its credit ratings by Moody's and Standard & Poor's has only supported that claim. By global standards, Mexico's per capita GDP is high and falls within the World Bank's upper-middle income category. Similarly, Mexico's gross domestic product purchasing power parity is higher than many European and Asian countries such as Italy and South Korea. Part of Mexico's steady economic gains in the last 20 years can be attributed to its pursuit of free trade. By signing free trade agreements (FTAs) with more than 50 countries—including the United States, Honduras, the European Free Trade Area, and Japan—it has put more than 90 percent of its trade under FTAs.

The Importance of the Texas/Mexico Border

Texas has 30 international border crossings with the neighboring Mexican states of Tamaulipas, Nuevo Leon, Coahuila and Chihuahua. TxDOT supports the border crossings, together with the state's 27 commercial airports and 11 deep water ports, with the infrastructure that connects them to the Texas state highway system.

According to the U.S. Department of Commerce, Texas' largest export market continues to be its NAFTA trading partners, which accounted for \$126.9 billion or over 45% of total state exports during 2013. Mexico ranked as the top export destination with \$101 billion in Texas exports; Canada ranked second with \$5.9 billion; Brazil ranked third at \$10.8 billion; China ranked fourth at \$10.7 billion; and the Netherlands ranked fifth at \$9.6 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.

We Need a Next Generation of Transportation to Meet These Demands.

Intermodal Connections

Support for Texas Maritime Infrastructure

The nation's ports and waterways play a critical role in domestic and international commerce. Nowhere is this more evident than in Texas, where access to ports and waterways influences virtually every industrial sector, and has been a key element in our state's economic success.

Texas leads the nation in exports. Texas ports handle more than 550 million tons of foreign and domestic cargo annually. In 2013, waterborne trade accounted for over 46 percent of all exports by value from Texas. There are 26 deep and shallow draft ports operated by port authorities and navigation districts in Texas. These ports are critical gateways for domestic and international freight, and connect the Gulf of Mexico, one of the world's most important oil and gas production and refining regions, to statewide, regional and national markets. Texas ports also connect consumer goods manufactured overseas and other imports with U.S. markets.

In addition to our state's ports, the Gulf Intracoastal Waterway (GIWW) plays a critical role in the Texas economy. An integral part of the nation's inland maritime transportation system, the GIWW links Texas ports with those in Louisiana, Mississippi, Alabama and Florida, enhancing the competitiveness of all Texas ports. Its 379-mile main channel runs the length of the Texas coast, providing access to more than 1,000 individual port and terminal facilities located at the state's 26 deep- and shallow-draft seaports. In a given year, 52,000 barge trips carrying cargo with a commercial value of more than \$25 billion travel up and down the GIWW. In 2012, shippers moved more than 78 million tons of cargo between ports on the Texas portion of the GIWW. Petroleum, petroleum products and petrochemicals accounted for 70 million tons, or 91percent, of that cargo. In 2009, barge traffic on the GIWW carried the equivalent of more than four million truck loads and over eight million truck trips. The use of barges reduced the number of miles travelled by trucks on Texas and U.S. highways by approximately 1.3 billion miles, saving huge amounts of energy, increasing safety, reducing highway congestion and substantially reducing greenhouse gas emissions.

While TxDOT recognizes that our state's ports and the GIWW are vital economic assets and an integral part of the state's transportation system, at present, the Texas Constitution and state laws – as well as the need for clear legislative guidance – have largely prevented the department from directly investing in most of these maritime assets.

TxDOT has worked with some of the state's ports to allocate federal funding for highway or other eligible landside improvements. Many of these investments have involved upgrades to highway corridors serving the ports or entrances at the ports. At times, these have involved the use of Federal Congestion Mitigation and Air Quality (CMAQ) funds or discretionary grant programs such as the Transportation Investment Generating Economic Recovery (TIGER) program.

One key feature shared by all of the state's ports is the GIWW. TxDOT has also sought to expand its role as the non-Federal Sponsor of the GIWW in Texas, through increased partnership with the US Army Corps of Engineers and other stakeholder groups to find areas for state investment in this critical link in the state's freight network. This includes the procurement of dredge material placement areas and partnering to conduct feasibility studies for future federal capital projects. Projects such as these benefit all of the state's ports and enhance the overall efficiency of freight movement.

Looking ahead, TxDOT will continue to work with our state's maritime stakeholders to overcome impediments to their growth and development and help them meet those challenges within available funding. Given the current constitutional and statutory funding restrictions, TxDOT currently focuses its efforts on improving ports' access to the landside transportation network. By addressing issues that are clearly within the department's jurisdiction – such as highway or interstate access, “last mile” improvements or rail connectivity, TxDOT endeavors to ensure that freight can move freely in and out of our state's ports.

Status of Freight Rail in Texas

The freight rail system in Texas is a crucial component of the state's transportation system and freight rail efficiencies directly affect mobility and the state economy. Major commodities moved by rail in Texas include coal, chemicals, petrochemicals, agricultural products, concrete, crushed stone, automobiles and automobile components. Texas ranks first among all states in originating and terminating rail tons of chemicals and petroleum products, placing Texas first in tonnage of hazardous materials transported.

With 10,425 miles of freight railroad tracks, Texas has more miles of track than any other state in the U.S. The three Class I and 43 short-line railroads operating in the state employ more than 16,000 Texans and in 2010 moved 24 percent of the freight tonnage and 27 percent of the total freight values in the state. According to the American Association of Railroads, freight railroads in Texas moved more than 379 million tons of freight in 2011, the latest statistical year available.

Compared to transportation by truck, rail is a more economical, environmentally friendly way to move goods and helps reduce highway congestion. Freight tonnage moved by rail in Texas is equivalent to more than 21 million additional trucks operating on our state's highways if the freight were diverted from rail.

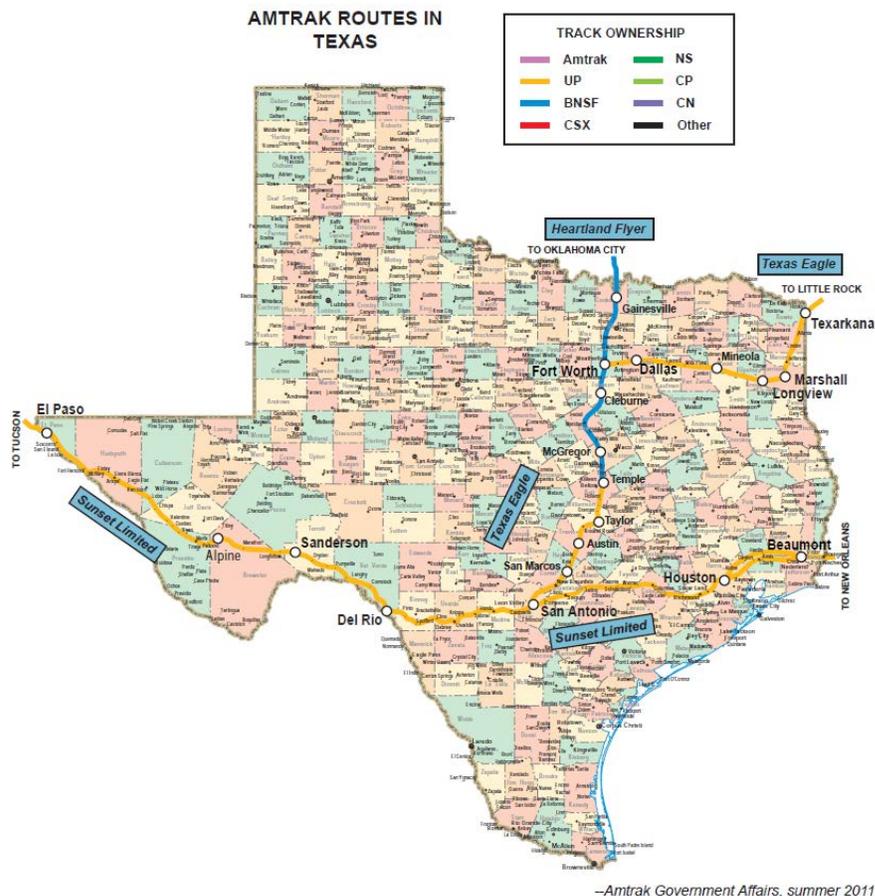
TxDOT's 2010 Texas Rail Plan (plan) guides the Rail Division's planning efforts, and the division will update the plan in 2015. The current plan identified more than \$3.9 billion in infrastructure improvements needed on the state's existing freight rail system. These projects include rail-roadway crossing grade separations, crossing closures, double-tracking, sidings, yard improvements, etc. Conceptual bypass routes around major metropolitan areas, where feasible, could add more than \$3.6 billion in additional needs to the plan. As our state's population and economy grow, the sustainability and increased movement of freight by rail will become even more critical to our transportation system.

Status of Passenger Rail in Texas

Texas' population continues to grow at a phenomenal rate, which significantly contributes to highway congestion. Since it is increasingly clear that we cannot "build our way out of congestion," the state must invest in alternative modes of passenger transportation to address gridlock, which will require funding provided by Congress and the Texas Legislature.

TxDOT Passenger Rail Studies: Passenger rail, including high speed intercity passenger rail (HSIPR), has the potential to help reduce congestion and travel times on major roadways between large urban areas in Texas. TxDOT is currently studying passenger rail service in several different corridors, both within Texas and between Texas and adjoining U.S. states and Mexico. Rail service in segments of at least two of those corridors, Texas-Oklahoma and Dallas/Fort Worth/Houston, could include HSIPR.

The three current Amtrak routes in Texas are: the Heartland Flyer, the Texas Eagle and the Sunset Limited. All have seen dramatic increases in ridership over the years. Amtrak serves most of the state's major urban areas, although not all major urban areas are directly connected. Amtrak's partnership with motor coach services provides bus connections from Amtrak stations to other areas of the state.



<http://www.amtrak.com/pdf/factsheets/TEXAS12.pdf>

Texas-Oklahoma Passenger Rail Study: TxDOT, in cooperation with the Oklahoma Department of Transportation, is conducting the Texas-Oklahoma Passenger Rail Study (TOPRS) to evaluate a range of service options from conventional passenger rail service up to HSIPR in an 850-mile corridor from Oklahoma City to South Texas. It will document the costs, benefits and impacts of rail service alternatives compared to a no-build alternative in a service-level Environmental Impact Statement.

TxDOT staff and U.S. Rep. Henry Cuellar met with U.S Secretary of Transportation Anthony Foxx in January 2014 to request an additional \$400,000 to extend the study to Monterrey, Mexico. At this writing, a final decision on the request is pending.

Dallas/Fort Worth to Houston Corridor: In May 2011 TxDOT obtained a \$15 million Federal Railroad Administration (FRA) grant for the preliminary engineering and National Environmental Policy Act (NEPA) work for HSIPR in the Dallas/Fort Worth-Houston corridor. In January 2014, TxDOT, FRA, Texas Central High-Speed Railway and its consultant signed a memorandum of understanding (MOU) for environmental analyses and documentation relating to HSIPR service between Dallas and Houston.

Dallas-Fort Worth Area: TxDOT has also signed a MOU with FRA to consider potential environmental impacts for passenger rail service between Fort Worth and Dallas. On Jan. 30, 2014, the Texas Transportation Commission (TTC) created the “Commission for High-Speed Rail in the Dallas/Fort Worth Region” to advise the TTC and TxDOT’s executive director on developing intercity rail corridors, new transportation policies, funding and procurement strategies to implement passenger rail service connecting the Dallas and Fort Worth areas.

Passenger and freight rail are an integral part of our state’s multimodal transportation system, and TxDOT is committed to helping develop, improve and maintain a best-in-class rail system for Texas.

In addition to using federal funding and limited legislative appropriations for its rail programs, TxDOT has successfully pursued rail project funding through the federal TIGER grant program. Obtaining funding for freight rail projects remains a significant challenge, however, as there is no dedicated source of funding at the federal level to assist with freight rail developments and improvements, and the Texas Railroad Relocation and Improvement Fund, established by a constitutional amendment in 2005, remains unfunded.

Strategic Investments

Innovative Financing Structures

TxDOT is employing various financing strategies to maximize utilization of the Department’s resources in order to address mobility, safety, and congestion issues throughout the State. The growth of Texas has caused the state’s transportation infrastructure needs to outpace the department’s traditional financial resources, and TxDOT is working to make sure every dollar goes further. To accomplish more efficient project delivery and mitigate funding challenges, TxDOT is always analyzing financing and project delivery structures, including debt, public private partnerships,

long-term contracts and agreements, and other innovative financing strategies, to hedge financial risk and achieve the best value for project.

For example, TxDOT has successfully partnered with the private sector to construct and in many cases to pay for large-scale projects that otherwise would be years away from construction. We have incorporated best practices from around the country and the world. Today, TxDOT currently has underway or in development approximately \$22 billion in active Comprehensive Development Agreements (CDA), which is an umbrella term for Texas Transportation Public Private Partnerships. TxDOT presently has 9 projects valued at \$13 billion underway and projects worth approximately \$2 billion in the active procurement stage. These projects leverage state resources and deliver projects much more expeditiously than with the standard methods of the past. For those 9 projects presently underway, 62% of the total \$13 billion cost in cost was funded from Developer Equity or Toll Revenue Bonds. In addition, these projects are being delivered 8-10 years earlier than they would have been, if more traditional funding and construction methods had been used.

The legislature has also provided TxDOT with the ability to use Non-CDA, Design-Build Agreements for up to 3 projects per year that exceed \$50 million in cost. TxDOT presently has 4 projects valued at \$1.2 billion under construction and 4 additional projects in procurement.

Typically, our CDA and Non-CDA Design-Build Projects also have a multi-year maintenance component. These separate maintenance contracts are procured in conjunction with the design-build contracts and assure that the state is getting high quality work and a lifecycle cost benefit.

Using Technology and Innovation in Transportation

In an era of limited financial resources and evolving technological advances, it is imperative that TxDOT and its partners embrace the opportunities inherent in applying technology and innovations in transportation management to help solve the myriad transportation challenges we face today and into the future.

An example of the types of technological applications we need to continue to invest in going forward is the use of technology to provide advanced driver warning systems for provide state-of-the-art traveler information to travelers entering and passing through work zones along I-35. The use of solar power and wireless communications allows the department to deploy the system in a dynamic construction environment, communicating safety and mobility information to travelers both pre-trip and en-route in an effective manner.

The project has:

- Developed an automated lane closure assessment routine to predict queues and delay, predicting parameters by hour in both normal and worst case scenarios.
- Developed a subscription-based email system to send traveler information. These messages are available on a daily update, with a rolling 7-day forecast distributed twice a week and when high-impact closures are expected.

- Deployed more than 100 equipment sites (Bluetooth, Wavetronix, Cameras) across both the main I-35 corridor and alternate routes to provide a foundational ITS system for the District as well as gather the data to feed the automated systems.
- Developed a comprehensive en-route travel time information system featuring 21 locations across 200 directional miles, updated on a 5-minute cycle 24x7 using portable message signs.
- Developed an advanced traveler information map featuring closure information, travel times, incidents, trip planner, and weather, with the ability to delimit information by the desired date and direction of travel.
- Developed a specification for the use of a mobile end-of-queue system which can be deployed when lane closures are present. This technology provides localized safety protection against end-of-queue crashes. The specification is now being used with other construction projects throughout the state.

TxDOT is also using Bluetooth technology at the state's ferry landings and at the international border crossings to provide wait time information for travelers through those critical access points to the state's transportation system.

And, TxDOT will begin a pilot program that tests a new type of variable speed limit system in June 2014. The pilot program, which was authorized by the 83rd Legislature, will have testing sites on I-20 in Eastland County, I-35 in Temple and Loop 1604 in San Antonio. The new system will alert drivers of upcoming road conditions and traffic congestion and appropriately adjust speed limits by using sensors and electronic signs.

An innovation in transportation management just getting underway in Texas is the application of Integrated Corridor Management (ICM) practices in the state's metropolitan areas. Unlike traditional congestion reduction efforts focused on a single roadway, or even a roadway network, ICM optimizes the entire transportation system of a corridor by utilizing unused capacity of other facilities and modes.

Dallas US-75 ICM is active (as a USDOT pilot) between Plano and downtown Dallas. Stakeholders include: TxDOT for US-75 main lanes and High Occupancy Vehicle lanes; the Cities of Dallas, Richardson, and Plano for frontage roads and Greenville Avenue; Dallas Area Rapid Transit (DART) for express bus, light rail, and park-and-ride facilities; and North Central Texas Council of Governments (NCTCOG) for coordination and the 511 travel information system.

At the Same Time, the System Maintenance Demand Is Great: The Replacement Cost of the Existing Highway System Is Estimated at \$500-\$750 Billion.

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 and 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 2014, approximately 2.4% of the state's roadways are in poor condition and 2.08% are in very poor condition. These roadways have reached the end of their design life and require reconstruction rather than simply preventive maintenance. Texas has 52,536 bridges, about 76 percent more than any other state in the nation. The average age of Texas bridges is 44 years for those on the state highway system and 32 years for bridges off the state highway system.

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.

TxDOT and the Importance of System Preservation

The Texas transportation system is among the state's largest capital investments. It is also the largest system in the nation. TxDOT is currently responsible for maintaining approximately 197,100 lane-miles of highways, maintaining and inspecting more than 34,500 on-system bridges, inspecting more than 18,000 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.

We Are Operating Under a 20th Century Highway Budget, But We Are Charged With Being a 21st Century Department of Transportation.

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.

Transportation Funding: Diminishing Revenue and Higher Costs

In 2008, the Texas Transportation Commission appointed the 2030 Committee at the request of Texas Governor Rick Perry. The commission tasked this volunteer committee of experienced and respected business leaders with providing an independent, authoritative assessment of the state's transportation infrastructure and mobility needs from 2009 to 2030. The committee's first study, *2030 Committee Texas Transportation Needs Report*, was completed in February 2009.

In July 2010, the commission reconvened the 2030 Committee and charged the panel with developing an updated analysis of the current state of the Texas transportation system, determining the household costs of under-investing in the system and identifying potential revenue options to fund transportation improvements. The updated report examines pavement and bridge conditions, urban congestion, and rural connectivity between cities and towns for 2015, 2019 and 2035. The committee completed its second study, *It's About Time: Investing in Transportation to Keep Texas Economically Competitive*, in March 2011. This report 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.

According to the latest 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 TxDOT, 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.

Inflation

The value of money is a long-term concern, as a dollar today is worth less than a dollar in the future. Low interest rates and debt financing have helped TxDOT mitigate the effects of inflation. As a result of inflation projects become more expensive in the future.

Interest Rates

Interest rates have been at favorable levels, providing opportunities to lower delivery costs of certain projects, especially for large projects which are financed over time. Low interest rates have enabled TxDOT to further increase efficient utilization of the Department's revenue sources, delivering projects earlier and for better value. A rise in interest rates will lower the maximum utilization potential of revenue sources, negatively impacting the overall costs of long-term projects.

Total Budget for 2014-2015 Biennium: \$21.208 billion

By Item of Appropriation

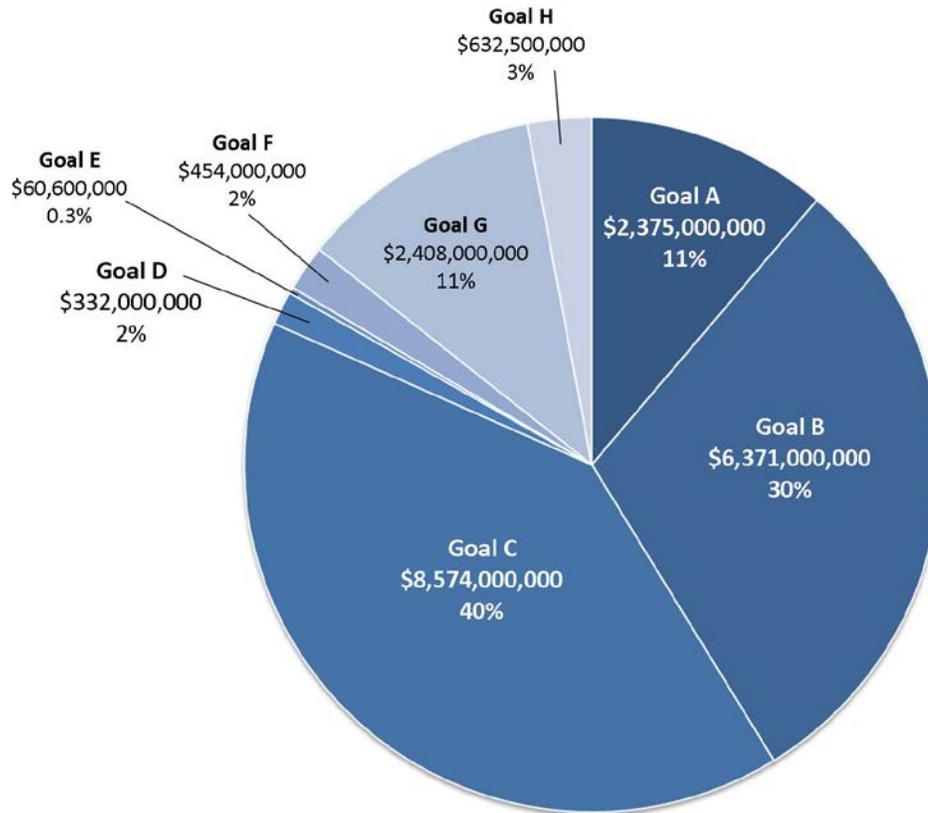


Chart Detail

Goal A: Provide Transportation Planning (Plan, Design, Research, Manage, Acquire ROW)

Goal B: Implement Transportation Improvements (Construction, Reconstruction, Aviation Services)

Goal C: Preserve the Transportation System (Maintenance, Gulf Intracoastal Waterway, Ferry Operations)

Goal D: Optimize Services and Systems (Public Transportation, Traffic Safety)

Goal E: Enhance Rail Transportation (Plan, Design, Manage, Right of Way, Maintenance, Safety)

Goal F: Indirect Administration (Central Administration, Information Resources, Other Support, Regional Administration)

Goal G: Debt Service Payments (General Obligation Bonds, State Highway Fund Bonds, Texas Mobility Fund Bonds, Other Debt Service)

Goal H: Develop Toll Subaccount Projects (Plan, Design, Manage, Acquire ROW, Construction, Maintenance)

By Method of Finance (2014-2015 Biennium):

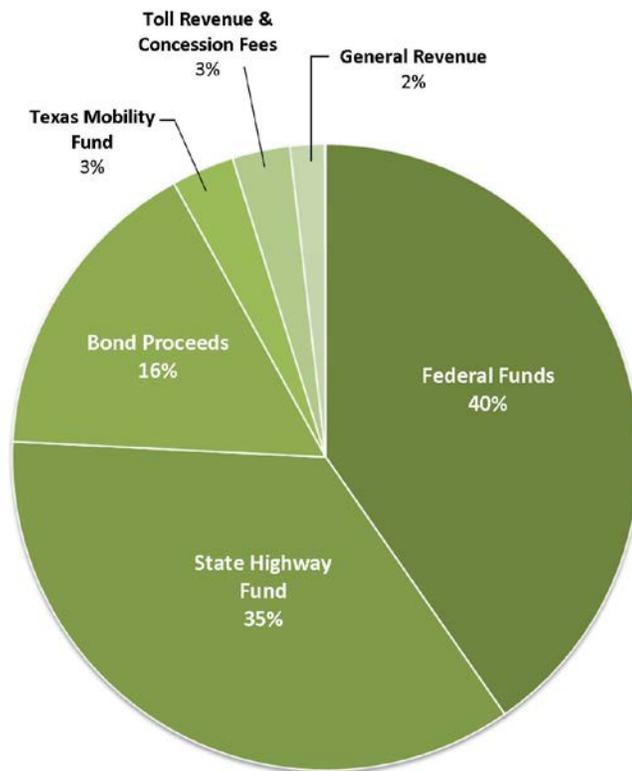


Chart Detail

Federal Funds	\$ 8,550,000,000	40%
State Highway Fund	\$ 7,523,000,000	35%
State Highway Fund	\$ 6,298,000,000	
Debt Service (SHF)	\$ 1,225,000,000	
Bond Proceeds	\$ 3,424,600,000	16%
Bond Proceeds (GO Bonds, Proposition 12)	\$ 2,071,000,000	
Bond Proceeds (SHF)	\$ 823,000,000	
Bond Proceeds (Texas Mobility Fund)	\$ 519,000,000	
Bond Proceeds (General Obligation Bonds)	\$ 11,600,000	
Texas Mobility Fund	\$ 689,000,000	3%
Toll Revenue & Concession Fees	\$ 632,000,000	3%
Toll Revenue	\$ 505,000,000	
Concession Fees	\$ 127,000,000	
General Revenue Fund	\$ 380,000,000	2%
Interagency Contracts	\$ 9,000,000	<1%

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.
- 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 (2015-2019) will average about \$1.59 billion per year.

Budgetary Limitations

- 2014-2015 Biennial FTE allocation: 12,087
- Key 2014-2015 appropriations riders:
 - Rider 3 requires TxDOT to submit a transfer request to the LBB in order to transfer appropriations out of or among the following strategies: 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. Transfers from other strategies into these strategies are subject to the 20% rule found in Article IX, Section 14.01 of the GAA. Furthermore, no appropriations may be transferred 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. If the LBB does not disapprove of or suspend the request to transfer funds in 15 business days, the request is considered approved.
 - 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.

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.

Most of the money appropriated to TxDOT in the general appropriations act is to pay for projects that are already underway, to pay debt service on bonds, and to maintain the existing system. Therefore, in order to boost contracting levels in the future, new funding must enter the system now. To produce the desired output of improved transportation facilities in the future, a sound financial analysis requires that there be sufficient resources to fully develop and build those transportation projects.

Without an infusion of new and reliable funding resources, the department's purchasing power for transportation improvement projects, when adjusted for construction cost inflation, will decline to levels seen in the 1990s. In the meantime, the demand for improvements continues to grow as more and more people move to Texas, congestion worsens, and our existing assets age.

Based on the 2011 report by the 2030 Committee, TxDOT estimates the unmet needs of the state currently at \$4 billion per year - \$1 billion per year for maintenance and \$3 billion per year for mobility needs. In 2013, TxDOT had \$5.7 billion in funding to support the development of needed transportation improvement projects (including maintenance of the existing system). In 2016, the amount of estimated revenues available to meet those needs is expected to drop to only \$2.5 billion, leaving a \$4 billion annual shortfall between available funds and identified maintenance and mobility improvement needs. And, add to that the TTI estimated \$1 billion per year that the department requires to properly maintain the state highways in the regions of the state experiencing heavy traffic from energy production activities.

Required Planning Elements

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 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 2013: The agency's main procurement category is in construction, of which the agency primarily receives federal funding. In the construction procurement category, the state's HUB goal for Fiscal Year 2013 was 11.2%; TxDOT contracted 4.82% 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 12.1% of construction contracts with designated DBEs in Fiscal Year 2013. TxDOT exceeded its special trade construction goal of 32.7% with an attainment of 44.2% and the Department was less than 1% short of meeting the professional services goal of 24.6% with 23.6% attained and other services goal of 24.6% with 24.4% attained.

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 2014 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 2014, 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.

Creating Expanded Opportunities in the DBE Community: The Dallas DBE Pilot Program (locally known as SM Wright Project–Regional Jobs Opportunity Pilot Program (RJOPP)): originated with Dallas City Councilmember Carolyn Davis’ involvement with the SM Wright project (IH 45/US175/SH 310) in south Dallas County, and has been developed in coordination with the Dallas District, Workforce Solutions Dallas, Cedar Valley College from Dallas County Community College District (DCCCD), and the North Central Texas Council of Governments (NCTCOG).

In January 2013, the Regional Transportation Council of NCTCOG and TxDOT Commission allocated \$2 million in Surface Transportation Program funds to support

the Program's four-year trial period. The Program is anticipated to begin the 3rd quarter of 2014 and end the 4th quarter of 2017.

Purpose: The program will place women, minorities and economically disadvantaged persons who possess skill sets and are accepted by the contractor to work on jobs in the highway construction industry. For projects that are federally-funded, this program will assist the employers with their recruitment and diversity efforts and increase contracting opportunities for DBEs on TxDOT construction jobs through mentoring, coaching and professional development. The RJOPP has two phases and \$1,000,000 has been allocated for each phase to accomplish the following:

During the 4-year term of the program, recruit, mentor and place a minimum of 200 minorities, women and economically disadvantaged individuals from the Dallas/Fair Park Community in highway construction projects, including the SM Wright Project. Also recruit and mentor a minimum of 50 certified DBE contractors from the targeted area to improve their competitiveness in getting TxDOT contracts or subcontracts. Monitor and report progress.

Participants:

- Public Agencies: City of Dallas; TxDOT-Dallas District; NCTCOG; and Office of Civil Rights of the Federal Highway Administration (FHWA)
- Private Entities & Non-Profits: Association of General Contractors (AGC); Black Contractors Association (BCA); City Square; Cornerstone Baptist Church; Literacy Instruction for Texas (LIFT); and Regional Hispanic Contractors Association (RHCA)

Texas/Louisiana Border

For 2015-2019, in addition to routine maintenance, there are approximately \$64.3 million in mobility-related transportation projects that serve the Texas/Louisiana border region as defined by Government Code Chapter 2056. TxDOT allocated the following amounts:

- In Camp County, approximately \$3.7 million for the construction of a new farm-to-market road, FM 3535
- In Cass County, approximately \$6.9 million to reconstruct and widen SH 77
- In Gregg County approximately \$11 million for the construction of Phase 1 of a new location roadway, FM 2275 and \$6.4 million for the widening of FM 2206
- In Lamar County \$12.7 million for the widening of US 271
- In Rusk County \$20 million for the construction of SL 571

- In Upshur County approximately \$3.7 million to reconstruct and widen SH 155.

Enhancing Military Facilities

For 2015-2019, there are approximately \$1.86 billion worth of transportation projects that will directly impact major military installations in the following Texas cities:

- El Paso: approximately \$573.8 million in projects
- Corpus Christi: approximately \$638.2 million in projects
- San Antonio: approximately \$639.6 million in projects
- Beaumont: approximately \$9.8 million in projects

Workforce Challenges

TxDOT's diverse programs and projects are supported by approximately 11,600 full-time employees, including engineers, designers, maintenance technicians, environmental specialists, planners, financial experts, human resources professionals, research specialists, 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 2018, 35 percent of the department's workforce will be eligible for retirement.

These retirements, should they be realized, will have enormous impact on the department's organizational structure, operations, and service delivery. Supervisory, midlevel, and executive employees collectively make up approximately 13 percent of the Department's employees eligible to retire between now and fiscal year 2018. Currently, half of the Department's supervisory, midlevel, and executive positions could retire between now and FY 2018.

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 six key emphasis areas that the department will pursue to address this and other workforce development issues.

The department will focus on:

- Becoming a "Best in Class" HR organization
- Strategic Staffing and Recruiting

- Compensation
- Knowledge Transfer and Succession Planning
- Workload Tracking Processes and Metrics
- Leadership and Business Development

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 and Office to achieve zero fatalities, injuries, and preventable vehicle/equipment incidents one day at a time.

Through March 2014, TxDOT has achieved the following:

- TxDOT has the lowest injury rate among state departments of transportation reporting to the North American Association of Transportation Safety and Health Officials for 2012-2013.
- Compared to our five year history, to date:
 - The All-Injury rate is down 25.1%.
 - Lost-Time rate is down 52.7%.
 - Lost Production rate is down 72.0%.
 - Preventable vehicle incident rate is down 23.0%.
 - The vehicle liability incurred cost is down 87.5%.

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.

Over the last twenty years, TxDOT has succeeded in outsourcing all or significant portions of many functions that were previously performed by agency employees. These functions include highway design, environmental review, right of way acquisition, planning, materials testing, landscaping, surveying, routine maintenance, logo sign management, bridge inspection, training, utility coordination, and some aspects of project management. With this increased emphasis on the use of the

private sector to deliver services to the public, TxDOT has concurrently recognized the need for increased emphasis on the training of contract managers to ensure the timely and cost-effective delivery of these services.

TxDOT's extensive contracting program involves contracts entered under many different contracting statutes, all of which impose unique contracting requirements. The most important of these include:

- State Purchasing and General Services, Government Code, Subtitle D
- Professional and Consulting Services, Government Code, Chapter 2254
- Interagency Cooperation Act, Government Code, Chapter 771
- Interlocal Cooperation Act, Government Code, Chapter 791
- Administration of Aeronautics, Transportation Code, Chapter 21
- Rail Facilities, Transportation Code, Chapter 91
- General Provisions and Administration, Transportation Code, Chapter 201
- Bids and Contracts for Highway Projects, Transportation Code, Chapter 223
- State Financing of Public Transportation, Transportation Code, Chapter 456
- Transportation Research, Education Code, Chapter 150

The large number of contracts and the variety of statutory contracting methods demands an active and wide-ranging training program for TxDOT's contract managers. TxDOT has established a training program for contract managers. This program incorporates general contract training offered by the Comptroller of Public Accounts, additional mandatory training focused on the specific needs of TxDOT, and optional training that enables contract managers to maintain certifications and gain additional knowledge in specific subjects.

Professional Services and Other Negotiated Contracts: Professional services contracts include contracts with engineers, architects, surveyors, appraisers, landscape architects, accountants, private consultants, attorneys, and other professional services providers. Before performing any work on a contract, each contract manager is required to take a one-day introductory course, which is offered online and has been taken by 1121 TxDOT employees. As soon as reasonably possible, each contract manager is required to take a comprehensive four-day course covering all aspects of the contracting process. 1,080 TxDOT employees have taken this comprehensive course. Contract managers on professional services contracts are also required to take a minimum of six hours of contract training each year and to retake the comprehensive four-day course every five years. In addition, 51 TxDOT employees have attended contract manager training offered by the Comptroller and are qualified as Certified Texas Contract Managers.

Aside from the mandatory training, TxDOT offers a number of courses to provide additional training to contract managers on professional services and other negotiated contracts. These include overview courses on contracting with governmental entities and on contracting with private sector entities, which are each offered twice annually, as well as annual advanced courses on interagency contracts and advance funding agreements. An annual video teleconference on negotiated contracts is attended by more than 200 employees and explores issues that are common to negotiated contracts. Contract managers also benefit from more than 20 courses on various aspects of project management and from three online courses on different aspects of negotiating techniques.

Ongoing training: We currently offer the following training sessions:

- CTR 104 Best Value Contracting at TxDOT
- CTR 105 Texas Transportation Contracting
- CTR 106 Negotiating TxDOT Contracts
- CTR 107 Intro to Intergovernmental Contracts
- CTR 108 Intro to Contracts with Private Entities
- CTR 109 Advanced Interagency Contracts
- CTR 110 Advance Funding Agreements
- DES 615 Project Management & Contract Administrator for Engineering, Architectural, & Surveying Contracts

Capital Improvement Program (CIP) for FY 2015-2017

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 FY 2015-2017 CIP projects are:

- Essential maintenance, preventive maintenance, minor repairs, 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

- New construction to replace substandard and obsolete facilities
- Land acquisitions for the expansion of existing facilities or construction of new facilities

Technological Developments

TxDOT IT Mission

The goal of the department is to leverage IT to provide better tools, deliver better service, and lower the overall risk to TxDOT. To achieve this goal, the department has outlined the following priorities as part of its mission going forward:

- Improve the stability of the IT environment by addressing key inadequacies and minimizing risk of disruption to business operations
- Communicate regularly with stakeholders, manage expectations, and demonstrate progress on IT improvements
- Progressively adopt industry standards leading to simpler processes for users, cost reduction, and increased predictability and quality of IT services
- Increase the productivity and effectiveness of the end user
- Adopt project management and governance disciplines to successfully complete projects on time and within budget
- Consistently meet or exceed performance metrics (service levels)

New Operating Model

In 2012, as part of its mission to reform IT operations, the department initiated a series of employee led transformation initiatives. The department also conducted a rigorous search for external capabilities and expertise to modernize IT processes and systems required to support current and future TxDOT business operations, unlock efficiencies, and allow the department to reinvest into other strategic priorities.

In June 2013, the department selected NTT DATA after a rigorous evaluation and procurement process, as the preferred partner to manage IT operations, and embarked on a 5-8 year journey that promises to transform IT at TxDOT.

To oversee the partnership and manage the transformation effort, the IT division reorganized itself to build a strong and empowered team conducting the following three functions:

- Vendor management: Special function created to manage contracts and vendor relationships in the outsourced model

- Transformation management: Acts as the guardian of and ensures delivery of transformation initiatives
- Financial planning and analysis: Ensures efficiency in use of funds for IT products and services

To ensure the success of the transformation effort, the department is continuing to invest in learning and professional development opportunities for IT personnel, and supporting their continued career growth to enable the agency to modernize more rapidly and efficiently.

Transition to New Model

Beginning in July 2013, NTT DATA began assuming responsibility for four areas:

- Application maintenance and development
- Customer service
- Network, telecommunications systems, and infrastructure support
- Security of information technology

NTT DATA has implemented several industry standard practices that enable measurement and monitoring of the IT environment and services. As the department has embraced a professionally managed IT environment, the environment has seen improvements, while the IT organization has also gained visibility into risks in critical agency systems and opportunities to standardize services. These insights have helped shape the transformation agenda for the department.

Goals of 2014 Transformation

To address gaps in the IT environment discovered through the transition to a managed IT environment, the department adopted three goals to drive transformation in IT in January 2014:

1. Stabilize: Minimize risk of business disruptions due to unstable IT infrastructure in order to achieve dependable, secure, and reliable IT services
2. Standardize: Improve efficiency by providing streamlined, consistent support under a centralized delivery model, and by adopting modern, secure technology standards
3. Solve: Support the business operations of the department, by focusing on solutions that address the most critical agency-wide needs – ultimately supporting the department's goal of becoming best-in-class

The department is making progress on this plan, which consists of several high impact projects to reduce risk and stabilize the technology environment, including:

- Replacing obsolete mobile devices with modern, secure mobile devices
- Upgrading obsolete network and phone infrastructure
- Deploying advanced information security solutions
- Updating or creating disaster recovery plans for critical business applications
- Minimizing unplanned changes to the applications environment

The 2014 plan is also standardizing IT tools and processes, to improve productivity and efficiency of the department's employees by:

- Deploying modern, standard end-user hardware with standard software setup
- Adopting managed printing throughout the state
- Transforming the customer service model, and empowering users to drive better service, or resolve simple needs themselves
- Moving towards supportable standard software and less custom programming

In addition to stabilizing and standardizing, the department continues to invest in important department wide initiatives to improve management of resources and systems across the state, including:

- Enterprise wide resource planning and management systems
- Systems to support management of the department's fleet of vehicles
- Systems to optimize maintenance of roads, and improve information flow around maintenance
- Tools to analyze and evaluate construction design standards and quality

Technology Priorities for 2015-2019

As the department continues its efforts to transform IT, stakeholders will be actively engaged to help shape future priorities, and the department will continue to leverage its relationships with experienced service providers in IT transformation. The 2015-2019 priorities outlined in this Strategic Plan will compete not only for financial resources, but also for management capacity, and will need to be managed to ensure minimal interruption to department operations. The department will continue to prioritize its resources in the 2015-2019 planning cycle in order to drive critical initiatives that achieve TxDOT agency goals, such as:

- Projects focused on upgrading our infrastructure and modernizing our systems ensure safety, business continuity and disaster readiness, and enable TxDOT IT to become best-in-class to support the agency
- The modernization of information, workflow, asset, and project management systems will lead to improved management of the transportation resources, assets, systems, and initiatives across the state
- Standardization of IT technologies and processes will help generate efficiency to reinvest in further improvements

TxDOT 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*
- *Objective: Ensure consideration of all modes of transportation in the development of more reliable solutions for moving people and goods*

Goal: Connect Texas Communities

- *Objective: Support efficient multimodal options that serve the transportation needs of metropolitan, urban, and rural communities and their economies*
- *Objective: Improve freight movement, enhance international trade, and expand access to markets to support the economic competitiveness of Texas*

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*

TxDOT Priorities

Priority	Accomplishments and Strategies
Be the Safest DOT in the United States	<p><u>Accomplishments</u></p> <ul style="list-style-type: none"> • Texas' 12% drop in statewide traffic fatalities from 3,823 in 2002 to 3,377 in 2013 • Lowest employee injury incident rate of any reporting Department of Transportation <p><u>Strategies</u></p> <ul style="list-style-type: none"> • Work toward zero fatalities on Texas highways. The last day without a death on Texas highways was November 7, 2000. • Applying six-sigma techniques to identify safety anomalies and root-cause(s) of incidents
Further Strengthen and Enhance Our Relationship with MPOs, Local Governments, and Other Key Stakeholders	<p><u>Accomplishments</u></p> <ul style="list-style-type: none"> • Greater coordination with and involvement of external working groups to shape transportation plans and policy <ul style="list-style-type: none"> • Texas Freight Advisory Committee • Various Corridor Advisory Committees (such as I-69 and I-35) • Various Multi-modal Advisory Committees <p><u>Strategies</u></p> <ul style="list-style-type: none"> • Work with MPOs to develop a coordinated approach to performance management in response to MAP-21
Act as a Resource for Transportation Funding	<p><u>Strategies</u></p> <ul style="list-style-type: none"> • Helping local communities take advantage of funding options, such as Transportation Reinvestment Zones and State Infrastructure Bank loans • Use Comprehensive Development Agreements and other legislatively-authorized tools to enhance state and local funding for transportation

Priority	Accomplishments and Strategies
<p>Research Transportation Technology Solutions</p>	<p><u>Accomplishments</u></p> <ul style="list-style-type: none"> • Creation and continuation of Texas Technology Task Force to identify leading-edge technologies with application to transportation • Launch of new “Strategic Research Agenda” with focus on Smart Freight Corridors, Leveraging Ubiquitous Data, and Sustainable/Resilient Infrastructure <p><u>Strategies</u></p> <ul style="list-style-type: none"> • Creation of the Accelerate Texas Center • Development and deployment of environmental sensors and I2I/I2V communications and deployment of connected vehicle infrastructure
<p>Develop Innovative Maintenance Approaches That Reduce Costs and Improve and Preserve Transportation System Conditions</p>	<p><u>Accomplishments</u></p> <ul style="list-style-type: none"> • Use of comprehensive maintenance agreements in conjunction with alternate deliver projects to obtain lifecycle efficiencies • Implementation of total maintenance contracts on key highway corridors (I-35 Austin, Houston inside BW8, I45 Houston to Dallas) <p><u>Strategies</u></p> <ul style="list-style-type: none"> • Development of transportation asset management planning process • Implement Comprehensive Maintenance Agreements on applicable CDA projects that enlist private sector innovation and support for long term asset management. • Partnership with national Pavement Preservation Center
<p>Develop Effective Information Systems</p>	<p><u>Strategies</u></p> <ul style="list-style-type: none"> • Stabilization and upgrade of critical systems to ensure operational continuity and improved disaster response readiness • Standardization of IT technologies and processes to improve service capabilities. • Modernization of applications to reduce complexity, and take advantage of improved functionality and supportability • Implement solutions to improve information sharing, workflow management, collaboration, asset management, and project planning and management

Budgetary Objectives and Outcome Measures

Budgetary Goal		Budgetary Objective		Budgetary Outcome	
1	Provide Transportation Planning	1	Effective Planning & Design	1	Percent of Design Projects Delivered On Time
				2	Percent of 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 Pavement 26 Feet or Wider
				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	Percent of Pavements In Good or Better Condition
				3	Statewide Maintenance Assessment Program Condition Score
				4	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

Budgetary Strategies and Output, Efficiency, and Explanatory Measures

Budgetary Goal		Budgetary Objective		Budgetary Strategy		Budgetary Measure		Type of Measure
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

Budgetary Goal		Budgetary Objective		Budgetary Strategy		Budgetary Measure		Type of Measure
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	8	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 three agency-wide technology initiatives during the 2015-2019 strategic planning cycle:

1. Mainframe Application Modernization (MAM)
2. Technology Replacement and Upgrade (TR&U)
3. Modernize Portfolio and Project Management (MPPM)

Mainframe Application Modernization (MAM)

Initiative Description:

This initiative continues the Texas Department of Transportation (TxDOT) effort to evaluate strategies and implement solutions to modernize the IT environment and IT processes.

The MAM initiative will advance TxDOT's approach to application modernization using the "Rent-Buy-Build" strategy. This strategy will allow TxDOT to modernize and upgrade applications through renting first, using software-as-a-service (SaaS), then buying, deploying off the shelf solutions, and only building, i.e., developing custom applications, where necessary.

MAM is managed as a program of projects that addresses the following goals:

- Adopt industry best practices for IT application management, IT system management, information security standards, and IT process development and implementation in alignment with ITIL practices
- Improve TxDOT's ability to provide support per industry standards by updating applications for supportability and adding new functionality
- Continue to provide greater flexibility and agility in responding to changing business needs, evolving transportation systems, and the ability to support evolving business processes
- Design, develop, and implement enterprise solutions for data management, document management, content management, and portal management. New enterprise class solutions enhance the end user experience with data, documents, and information shared within the agency
- Deploy modern enterprise workflow management solutions that increase efficiency through consolidating applications and improving business processes for the agency
- Implement asset management tools and processes that are efficient, effective, integrated, and adaptable to future changes in regulations and technologies
- Continue to support the enhancement of resource planning and management functionality
- Continue to move the agency off the mainframe system until it is no longer in use
- Manage and improve the portfolio of IT projects required to successfully implement the initiative

The following projects are classified as pre-concept (Strategy), planned (Planned), or active (Active). Projects are in the 'Planned' state once the business case(s), justification(s) and/or Charter(s) have been developed. Projects are in the 'Active' state once a team is in place and the project is operating towards achieving the project's goals.

Associated Project(s):

Name	Status
Data, information, and document management	Planned
Workflow management solutions	Planned
Disaster response readiness	Strategy
Intelligent traffic systems	Strategy
Public infrastructure asset management	Strategy
Service delivery transformation	Active
Applications enhancements	Active

Agency Objective(s):

Maintain a safe system

- This initiative will modernize technology used to move people throughout the state as well as improve access to information in the case of an emergency
- This initiative will also modernize applications which enable business units to better manage the transportation assets of the state of Texas

Address congestion

- This initiative will enhance TxDOT's ability to provide real-time traffic data to the public
- This initiative will also improve the agency's ability to develop congestion mitigation plans as well as modernize the tools which enable road construction

Connect Texas communities

- This initiative will enable the agency to continuously monitor and improve transportation infrastructure which allows for universal access to goods and services across the state

Become best-in-class state agency

- This initiative will modernize the agency's application portfolio and retire outdated, costly mainframe and other legacy applications
- This initiative will improve the agency's access to information and provide the tools necessary to increase efficiency

Statewide Technology Priorities:

- | | |
|--|--------------------|
| 1. Security and Privacy | 6. IT Workforce |
| 2. Cloud Services | 7. Virtualization |
| 3. Legacy Modernization | 8. Data Management |
| 4. Business Continuity | 9. Mobility |
| 5. Enterprise Planning and Collaboration | 10. Network |

The MAM initiative aligns with all the priorities above.

Anticipated Benefit(s):

- Business Enablement – Equips TxDOT business units to better execute on business operations
- Improved data quality – Creates a more efficient system for data validation and eliminates the need to store data in multiple places, improving the timeliness and accuracy of data shared among applications and business units. Also, standardizes processes for data governance, data retention, and data lineage from source to target
- Improved risk management – Maintains up-to-date versions of applications and ensures necessary service agreements are in place to maintain those applications
- Efficiencies – Consolidates applications and simplifies IT maintenance and support needs
- Citizen/customer satisfaction – Enhances the delivery of IT services and improves the user experience, both internally and externally
- Collaboration – Consolidates redundant applications, provides technology platforms that better meet business needs, and increases availability of information throughout the TxDOT organization
- Compliance – Enables TxDOT to facilitate timely and accurate compliance with reporting requirements

Capabilities or Barriers:

Capabilities

1. Experience: TxDOT IT has experience negotiating with and managing vendors, which will allow TxDOT to successfully implement the rent, buy, build application strategy
2. Disciplines: TxDOT has instituted rigorous project governance and organizational change management capabilities, which will enable effective and efficient implementation of these projects, while supporting the agency to embrace the changes
3. Expertise: TxDOT's partnerships with experienced IT service providers bring expertise in IT environment transformation and modernization

Barriers

1. Risk of disruption: TxDOT must ensure that application and system modernization occur with minimal disruption to ongoing business activities
2. State of environment: Current condition of applications environment may present unknown risks in the environment that would hinder planning and implementation of projects
3. Change adoption: Need agency to embrace modern application standards and leverage centralized service delivery model
4. Capacity: Practical limitations exist on how many projects and how much change can be performed simultaneously

Technology Replacement and Upgrade (TR&U)

Initiative Description:

The Technology Replacement and Upgrade initiative aims to stabilize and standardize TxDOT's IT infrastructure, software and hardware environment through ongoing replacement and upgrade of information technology to reduce risk and provide more reliable tools and services for the agency.

Goals of this initiative include:

- Standardize end user environment across the agency (e.g. continue to deploy standard computers, mobile, and printer devices across the agency)
- Improve mobility, efficiency, effectiveness, and collaboration of TxDOT employees through upgrades to current generation hardware and software tools
- Improve network stability, capacity, and performance to provide greater resiliency, security and reach for enhancing business performance
- Improve security of the agency's IT environment and protect agency IT infrastructure from security threats
- Improve TxDOT's ability to provide reliable IT services and efficient support, by adopting industry best practices through implementation of standard technologies
- Provide new tools and capabilities necessary for users to work effectively within the agency as well as with other agencies and entities
- Increase performance across the agency by reducing the number of issues and outages due to outdated infrastructure

The following projects are classified as pre-concept (Strategy), planned (Planned), or active (Active). Projects are in the 'Planned' state once the business case(s), justification(s) and/or Charter(s) have been developed. Projects are in the 'Active' state once a team is in place and the project is operating towards achieving the project's goals.

Associated Project(s):	
Name	Status
Technology replacement and upgrade	Active
Agency Objective(s):	
<u>Maintain a safe system:</u>	
<ul style="list-style-type: none"> • Infrastructure upgrades improve TxDOT's ability to manage the state's transportation system • The replacement of obsolete systems in the environment reduces risk of interruption in the agency's business, hence ensuring safer delivery of transportation to the taxpayers 	
<u>Connect Texas communities:</u>	
<ul style="list-style-type: none"> • This initiative deploys upgraded systems which will secure information, improve tools, and improve services to enable the agency to deliver highly reliable services to citizens as well as maintain access to goods and services across the state 	
<u>Address congestion</u>	
<ul style="list-style-type: none"> • Upgraded technology allows TxDOT to more effectively monitor, analyze, and respond to transportation needs and congestion throughout the state of Texas 	
<u>Become best-in-class state agency</u>	
<ul style="list-style-type: none"> • This initiative will deploy and implement the most up to date and standard tools across TxDOT, resulting in a more modern, reliable, and productive work environment for the agency 	
Statewide Technology Priorities:	
1. Security and Privacy	6. IT Workforce
2. Cloud Services	7. Virtualization
3. Legacy Modernization	8. Data Management
4. Business Continuity	9. Mobility
5. Enterprise Planning and Collaboration	10. Network
The TR&U initiative aligns with all statewide technology priorities.	
Anticipated Benefit(s):	
<ul style="list-style-type: none"> • <u>Foundation for future operational improvements</u> – Builds the foundation for potential technological innovations that can support improvements to TxDOT operations • <u>Security and Reliability</u> – Ensures a secure, reliable operating environment for the agency's operations • <u>Collaboration</u> – Improves infrastructure to eliminate distance barriers and increase availability of information throughout the TxDOT organization • <u>Mobility</u> – Allows agency employees to work efficiently from any location while conducting important field functions through the upgrade and standardization of wireless access points, laptops and mobile devices, and the implementation of new service platforms • <u>Performance</u> – Improves performance of business functions, tools, and services leveraged by users agency-wide • <u>Citizen/customer satisfaction</u> – Enables TxDOT IT to better meet the needs of internal users and ensures systems availability and performance. Current tools are out of date or obsolete, making it difficult to respond to incidents in a timely manner and ultimately diverting capacity away from longer-term, high impact IT projects 	

Capabilities or Barriers:

Capabilities

1. Experience: TxDOT has experience in executing multiple technology replacement projects for thousands of users, including an agency-wide computer, print services, and mobile device refresh
2. Disciplines: TxDOT has instituted rigorous project governance and organizational change management capabilities, which will enable effective and efficient implementation of these projects, while supporting the agency to embrace the changes
3. Expertise: TxDOT's partnerships with experienced IT service providers bring expertise in IT transformation, as well as in identifying, analyzing, and vetting technologies to meet best-in-class industry standards
4. Scale: TxDOT's scale allows the agency to take advantage of cost and deployment efficiencies

Barriers

1. Discovery: As TxDOT transforms the legacy environment, unknown risks in the environment may hinder planning and rollout of improvements
2. Third-party dependency: For projects where third-parties will be involved, TxDOT will need to plan around third-party requirements and limitations
3. Risk of disruption: TxDOT is embracing significant changes in the environment concurrently. TxDOT must ensure that technology and infrastructure upgrades occur with minimal disruption to ongoing business activities
4. Change adoption: As the TxDOT IT environment advances, users will need better training and tools to take advantage of new technologies

Modernize Portfolio and Project Management (MPPM)

Initiative Description:

The Modernize Portfolio and Project Management initiative implements new enterprise portfolio and project management systems that will improve TxDOT's ability to track and report project status, control project management processes, and collaborate across the agency's business units.

The current portfolio and project management processes and technologies are fragmented and nonstandard. The consolidation and standardization of portfolio and project management systems will improve TxDOT's ability to effectively execute programs and projects.

The goals of this initiative include:

- Implement standard, agency-wide portfolio and project management solutions, and replace legacy design and construction information systems
- Provide access to information which helps decision-makers strategically prioritize, plan, and control all projects across TxDOT
- Provide a portfolio view of projects across the agency which allows for greater understanding of project interdependencies and portfolio risks as well as more informed decision making
- At the project level, improve the ability of agency to track, manage and report project status (including progress against schedule, financials, risks, etc)
- At the project level, allow for project information sharing between business units

- Enable TxDOT to continue to build trust with stakeholders through on time project delivery

The following projects are classified as pre-concept (Strategy), planned (Planned), or active (Active). Projects are in the 'Planned' state once the business case(s), justification(s) and/or Charter(s) have been developed. Projects are in the 'Active' state once a team is in place and the project is operating towards achieving the project's goals.

Associated Project(s):

Name	Status
Design and Construction Information System Replacement	Strategy
Bridge Portfolio Management	Strategy
Build Enterprise Class Primavera System	Strategy
Primavera Upgrade	Strategy

Agency Objective(s):

Maintain a safe system

- This initiative will improve oversight and management of ongoing projects, thus helping manage the state's transportation assets

Address congestion

- This initiative will improve oversight and management of ongoing projects, thus supporting the development and implementation of congestion mitigation plans in Texas

Connect Texas communities

- This initiative will allow for a system which can support the prioritization and execution of new projects which enhance access to goods and services throughout the state

Become best-in-class state agency:

- This initiative will allow TxDOT to upgrade to best-in-class, enterprise-wide project and portfolio management systems for core agency functions
- This initiative will enable more informed decision making, reporting and transparency by providing a single integrated source of portfolio, program, and project status
- This initiative will also improve risk management by allowing contingency planning across the entire portfolio of projects within TxDOT

Statewide Technology Priorities:

- | | |
|--|--------------------|
| 1. Security and Privacy | 6. IT Workforce |
| 2. Cloud Services | 7. Virtualization |
| 3. Legacy Modernization | 8. Data Management |
| 4. Business Continuity | 9. Mobility |
| 5. Enterprise Planning and Collaboration | 10. Network |

The MPPM initiative aligns with priorities 2, 3, 4, 5, 8, and 9

Anticipated Benefit(s):

- Efficiencies – Reduces the number of systems and manual processes required for project management, thus reducing resources needed to fund and maintain them
- Accuracy and Transparency – Improves agency's ability to forecast and track project costs across the agency, and allows for more informed decision making through better information on portfolio, program, project and risk management

- Improved oversight processes – Enables TxDOT to more effectively manage vendors and contractors
- Collaboration – Enhances internal information sharing within the agency, as well as external collaboration through access to better information
- Business needs – Enables the agency to better understand and track business needs

Capabilities or Barriers:

Capabilities

1. Experience: TxDOT has past experience in executing large scale system integration, through the Project ONE (ERP) transformation project
2. Disciplines: TxDOT has instituted rigorous project governance and organizational change management capabilities, which will enable effective and efficient implementation of these projects, while supporting the agency to embrace the changes
3. Expertise: TxDOT's partnerships with experienced IT service providers bring expertise in IT transformation, as well as in identifying, analyzing, and vetting technologies to meet best-in-class industry standards
4. Scale: TxDOT's scale allows the agency to take advantage of cost and deployment efficiencies

Barriers

1. Change adoption: Need agency to embrace modern application standards and leverage centralized service delivery model
2. Risk of disruption: TxDOT is embracing significant changes in the environment concurrently. TxDOT must ensure that the MPPM initiative can occur with minimal disruption to ongoing business activities

Appendix A: TxDOT Strategic Planning Process

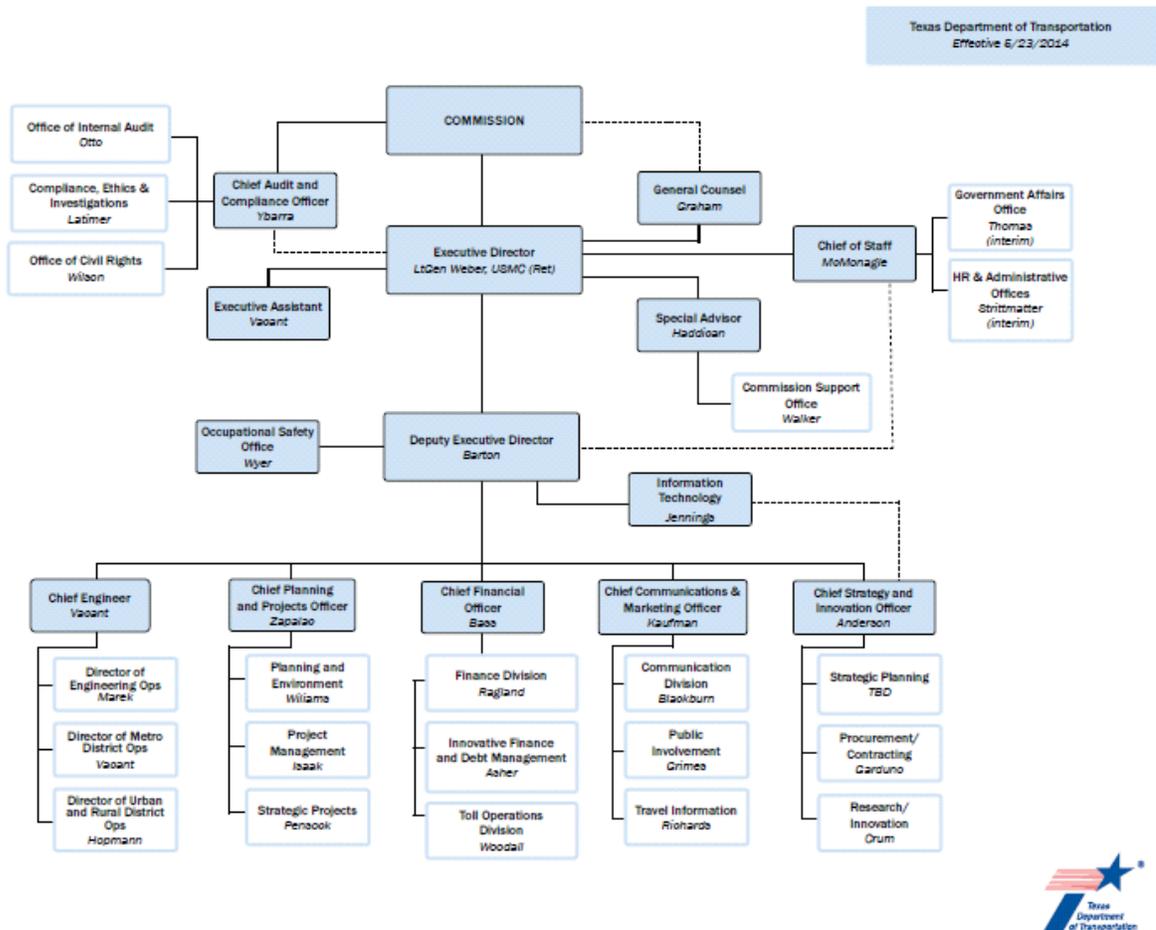
The TxDOT executive leadership developed a set of key priorities for the 2015-2019 strategic plan. These key agency priorities will provide guidance for the agency in focusing its limited financial, capital, technological, and human resources in the near-term to demonstrate how the agency will achieve its goals.

The TxDOT executive leadership reviewed and revised the draft strategic plan in May 2014.

The TxDOT executive leadership presented the key components and themes of the draft strategic plan (including the updated mission, values, goals, objectives, priorities, and performance measures) to the Texas Transportation Commission in May 2014 and received their feedback.

The TxDOT executive leadership presented the final strategic plan to the Texas Transportation Commission in June 2014 for formal adoption prior to the July 7, 2014 official submission deadline.

Appendix B: Current Organizational Chart



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, Lt. General Joe Weber, USMC (Ret.), in April 2014. Building on the efforts of past leadership and continuing that positive momentum, General Weber has established an organization which allows the department to better respond to people throughout the state and to work with the department's partners to envision what the state's transportation needs are now and will be in the future. Under the leadership of Deputy Executive Director John Barton, P.E., the following officers will guide the department in implementing the critical transportation investment strategies needed as the department moves forward:

- Chief Planning and Projects Officer Russell Zapalac

- Chief Financial Officer James Bass
- Chief Communications Officer Bob Kaufman
- Chief Strategy and Innovation Officer Darran Anderson
- Chief Information Officer Tim Jennings

Also reporting to the Deputy Executive Director is Director of Occupational Safety Jerral Wyer.

In addition, the Executive Director has appointed the following key officers, who report directly to the Executive Director:

- Chief of Staff Richard McMonagle (State Legislative Affairs, Federal Government Affairs, and Human Resources functions)
- Special Advisor Jerry Haddican
- General Counsel Jeff Graham

With new leadership, the department will keep the cultural aspects of the agency that have generated pride among employees while providing a top notch transportation system for Texans. The department and its leadership are 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.

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.

TxDOT is now more focused than ever on our mission. The department is becoming more accountable in the delivery of its services, more innovative in developing transportation solutions, and more responsive to improving customer satisfaction.

Appendix C: Five-Year Projections for Budgetary Outcomes

Projected Outcomes Fiscal Years 2015-2019

Outcome	2015	2016	2017	2018	2019	Five-Year Trend Line
Percent of Design Projects Delivered On Time	71%	75%	75%	75%	75%	
Percent of Funds Allocated to Improve the Top 100 Most Congested Roadway Segments	8%	8%	8%	8%	8%	
Percent of Construction Projects Completed On Budget	90%	90%	90%	90%	90%	
Percent of Two-Lane Highways with Pavement 26 Feet or Wider	50.1%	50.8%	51.5%	52.3%	53.0%	
Percent of Construction Projects Completed On Time	70%	70%	70%	70%	70%	
Percent of General Aviation Airport Pavement in Good or Better Condition	78.4%	78.4%	78.4%	78.4%	78.4%	
Percent of Bridges Rated in Good Condition or Higher	81.9%	82.1%	82.2%	82.4%	82.4%	
Percent of Pavements Rated in Good or Better Condition	86.9%	85.2%	82.7%	79.4%	75.5%	
Statewide Maintenance Assessment Program Condition Score	76.50	76.25	76.25	76.25	76.25	
Statewide Traffic Assessment Program Condition Score	88.10	88.10	88.20	88.20	88.30	
Percent Change in the Number of Public Transportation Trips	1%	1%	1%	1%	1%	
Number of Fatalities per 100 Million Miles Traveled	1.20	1.34	1.30	1.26	1.22	

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 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 to complete Project Development activities. As the project progresses/advances, Project Development employees report the actual duration it took to complete an activity. Once the project is completed, there is a historical record of 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. Additionally, there are SPD (Strategic Project Division) projects which are alternative delivery type projects such as design build and/or concession projects. Since these contracting models are different than traditional design bid build projects, these projects are excluded from this data set.

Calculation Type: Non-cumulative

New Measure: No

Desired Performance: Higher

Key: Yes

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

Short Definition: The percent of funds allocated to projects whose scope of work may improve the Top 100 Most Congested Roadway Segments compared to the total 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 for this measure is obtained from the Design Construction Information System (DCIS), which will provide a list of projects flagged as improving the current Top 100 Most Congested Roadway Segments, and the Unified Transportation Program (UTP).

Method of Calculation: The total funds allocated are determined by adding up the ten years of allocations shown in the Funding Summary of the approved UTP which govern the scope of work associated with improving congestion. Example categories include 2, 3, 4, 5, 7 and 12. DCIS is then queried to list all projects (CSJ's) that are designated as improving the 100 most congested roadways as determined by TPP from the most current Top 100 Segments List. From this list, the total allocations are determined based on funding category and work program. The total amount of funds allocated to the 100 most congested roadway segments are then divided by the total amount of funds allocated in the UTP to produce a percentage.

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: Yes

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: 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 that are awarded each fiscal year by the Commission.

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 loaded into the Bid Analysis Management System/Decision Support System (BAMS/DSS) from letting information contained in the Design Construction Information System (DCIS) and the Electronic Letting System (ELS), which is 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: Excludes the original award amounts of those projects that were re-let and awarded again during the same fiscal year.

Calculation Type: 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.

Data Limitations: Excludes the original awards of those projects that were re-let and awarded again during the same fiscal year.

Calculation Type: 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 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 and other contract award information contained in the Design Construction Information System (DCIS) adjusted based upon those projects actually awarded and not rejected by the Commission. Data also includes local government projects, transfers and non-let projects. The contract award amount on Design Build projects may also include design costs in addition to construction costs.

Method of Calculation: The department identifies the projects scheduled for letting or contract award each year whose scope of work may improve the current Top 100 Most Congested Roadway Segments, as identified by TPP Division. The department identifies and totals the low-bid amounts awarded for construction contracts for those projects on that list. The contract award amount on Design Build projects may also include design costs in addition to construction costs. 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: 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 projects completed 10% or less over the total construction project estimated cost.

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: To determine if a project is completed on budget, subtract the Total Construction Project Estimated Cost from the Final Total Construction Project Cost, then divide the result by the Total Construction Project Estimated Cost. Those projects completed 10% or less over the total construction project estimated cost are considered projects completed on budget. Calculate the % of Construction Projects Completed on Budget by dividing the number of Construction Projects Completed on Budget by the total number of construction projects completed for the reporting year.

Total Construction Project Estimated Cost includes: contract award amount plus estimated safety contingency (typically 2-3% of the contract amount), estimated off-duty police officer costs, estimated force account work, estimated bonus payments on items that are allowed by specification, estimated milestone or incentive payments, and estimated 3% contingency.

Final Total Construction Project Cost includes the final amount paid through Sitemanager to the contractor minus any third party-funded change orders.

Data Limitations: None

Calculation Type: Non-cumulative

New Measure: No

Desired Performance: Higher

Key: Yes

Outcome Measure: Percent of Two-Lane Highways 26 Feet or Wider in Paved Width

Short Definition: The number of centerline miles of two-lane highways equal to or greater than 26 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 26 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 26 Feet divided by the Total Centerline Miles of Two-lane Highways equals the Percent of Two-lane Highways 26 Feet or Wider in Paved Width.

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: Yes

Desired Performance: Higher

Key: Yes

Outcome Measure: Percent of Construction Projects Completed On Time

Short Definition: The percent of construction projects completed 10% or less over the total construction project estimated time.

Purpose/Importance: The purpose of this measure is to determine the percentage of projects completed on time. The completion of projects 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 projects completed on time divided by the total number of projects completed. On time is defined as projects completed 10% or less over the total construction project estimated time.

To determine if a project is completed on time, subtract the Total Construction Project Estimated Time from the Final Total Construction Project Time, then divide the result by the Total Construction Project Estimated Time. Those projects completed 10% or less over the total construction project estimated time are considered projects completed on time. Calculate the % of Construction Projects Completed on Time by dividing the number of Construction Projects Completed on Time by the total number of construction projects completed for the reporting year.

Total Construction Project Estimated Time includes: contract time at the time of award plus any time added for the estimated safety contingency, time added for estimated force account work, and time added for the estimated 3% contingency. (TxDOT will document the estimated time to be added at the time of Commission award.)

Final Total Construction Project Time includes the final project time statement in Sitemanager at the time of project acceptance minus time added to the project for any third party-funded change orders.

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: 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 bridges off the state highway system 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. Bridges that are not eligible for the Highway Bridge Program include privately owned bridges, pedestrian bridges, utility bridges, railroad bridges, and federally owned bridges. Bridges that are subject to the federal ten-year rule are not included in the counts of structurally deficient and functionally obsolete bridges. 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 Highway Bridge

Program. The rule prevents a bridge from remaining classified as structurally deficient or functionally obsolete after major reconstruction and thereby affecting the bridge fund apportionments to a State.

Calculation Type: Non-cumulative

New Measure: No

Desired Performance: Higher

Key: Yes

Outcome Measure: Percent of Highway Pavements in Good or Better Condition

Short Definition: The percentage of total lane miles of pavement rated in good or better condition as determined by the Pavement Management Information System Condition Score.

Purpose/Importance: The measure identifies system-wide trend in the improvement or deterioration of pavements and can be used to select preventive maintenance and rehabilitation projects and determine funding needs.

Source/Collection of Data: Pavement Management Information System (PMIS). PMIS uses the data from the ride and distress surveys in the calculation of the Condition Score. The Condition Score combines Distress Score and Ride Score into a single value that corresponds to the average person's perception of pavement quality. The condition score ranges from 1 (very poor) to 100 (very good). "Good or better condition" is defined as PMIS Condition Score of 70 or above."

Method of Calculation: The percentage is calculated by dividing the number of lane miles of pavements in good or better condition by the total number of lane miles in the system. PMIS uses the data from the ride and distress surveys in the calculation of the Condition Score. The Condition Score combines Distress Score and Ride Score into a single value that corresponds to the average person's perception of pavement quality. The condition score ranges from 1 (very poor) to 100 (very good). "Good or better condition" is defined as PMIS Condition Score of 70 or above."

Data Limitations: Data set includes 100% of roadbed miles and is collected once a year. Due to cost and time limitations, the department rates one lane for each roadbed and considers this lane represents all the lanes for the specific roadbed.

Calculation Type: Non-cumulative

New Measure: Yes

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 22 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 annual statewide average assessment score from 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. The Texas Traffic Assessment Program (TxTAP) assesses elements of traffic control devices across three main categories; signing, railroads and signals. The TxDOT Traffic

Operations Division rates these elements on a scale of one to five at randomly selected locations.

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 sources of data used to collect this measure are the computerized Maintenance Management System (MMS) for Contracted Routine Maintenance and the Design Construction Information System (DCIS) for Contracted Preventive Maintenance. While MMS 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 MMS 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 System (MMS) 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: 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 Maintenance Management System (MMS). While MMS 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 MMS reports and summarizing them.

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

Calculation Type: 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 is 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.1.8 - 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: Cumulative

New Measure: No

Desired Performance: Higher

Key: Yes

Appendix E: Workforce Plan

Human Resources Mission

- To be a strategic business partner and advisor.
- To provide best-in-class human resources services.
- To leverage human resources technology and human resources processes to achieve organizational excellence.
- To embrace knowledge management, performance excellence, and leadership development.
- To ensure employees have a productive and safe work environment.

Human Resources Values

- Trust
- Integrity
- Responsibility
- Excellence
- Service

Introduction

As the Texas Department of Transportation (TxDOT) approaches its 100th year anniversary, the breadth of scope and span of its responsibilities continues to advance into new areas and to produce new capabilities for Texas. Our workforce includes experts in engineering, maintenance, rail, maritime, real estate, project management, environmental affairs, research and technology, aviation, and transportation planning and programming. Today, TxDOT is focused on expansion of multi-modal transportation. Now, TxDOT is more than just an agency focused on a system of highways, but also includes boats, planes, buses, and trains, as well as bikes and more.

The workforce of TxDOT is vital to maintaining and expanding the prosperity of Texas. On a daily basis, TxDOT employees advocate for infrastructure and investment to fulfill the Department's mission. Employees at TxDOT have a sense of pride because they know their work improves the quality of life for citizens and brings economic opportunity to the State.

TxDOT had more than 11,700 employees during fiscal year 2013. We have come a long way since the creation of the Department in 1917 when we began with nine (9) employees. Also, the business model has changed, which has allowed us to become more effective and efficient in the achievement of our mission. Currently, TxDOT operations use a design-build model allowing us to focus on the purpose and design of a project. This has allowed TxDOT to encourage others to participate in the building of Texas' economy.



Today, TxDOT’s employees actively participate with the citizens and communities by listening and collaborating to develop the best possible solutions for their regions and the State. Creativity and innovative thinking are becoming essential competencies as we look to the future.

Within the past two years, TxDOT and its Human Resources (HR) Division implemented the following programs and processes:

- Fully implemented and enhanced the work-life balance initiative/wellness program
- Restructured HR by centralizing and consolidating HR field operations to lay the groundwork for a business partner model
- Improved the performance management process to more closely link employees’ performance to their pay and to the Department’s mission
- Implemented and piloted a workforce planning process to utilize, enhance, and transform the workforce for the 21st Century
- Revised and updated TxDOT’s compensation philosophy and process
- Began an Enterprise Resource Planning (ERP) technology project
- Developed HR metrics to improve organizational performance
- Developed a strategic approach for workforce planning
- Revised and simplified the Human Resources Policies
- Redesigned the hiring and recruitment process to gain efficiencies
- Developed an internal project management training program based on the Project Management Institute concepts
- Redesigned on-boarding and new employee orientation
- Focused on developing employee relations to be more proactive
- Enhanced the collaborative resolution program for employees and managers, and
- Embraced new legislation to keep TxDOT workers safe known as the “Move Over Law.”

Workforce Planning – What is it?

As referenced in literature and used by an increasing number of businesses and organizations, it is a process to get the right employees with the right skills in the right jobs to meet an organization's mission and strategic priorities at the right time.

Today, as workforce planning matures; it now becomes more of a strategic process and requires linkage to the Department's mission, goals, and strategies. The foundation of strategic workforce planning is built upon the use of quantitative activities, such as headcount planning, turnover rates, FTEs, and other workforce analytics. These analytics and the resulting metrics can create a framework that can inform and transform organizational strategy. The advantages and outcomes of having a well-developed workforce planning process include:

- Ability to define future workforce gaps to design and implement solutions for those gaps
- Documented knowledge of the competencies the organization needs to develop plans allowing the Department the ability to hire or develop people as needed
- Better preparedness for business contingencies
- Improved ability to adapt and align resources for a flourishing economy, innovation, and technological changes
- Measurable action plans that can drive a human capital operating plan
- Understanding of labor trends impacting the workforce including the effects of retirement, skills gaps, etc., and
- Staff planning focused on workload drivers based on business needs.

As TxDOT embarks on meeting the challenges and opportunities placed before us, the Department took workforce analysis to the next level by using workforce planning models and applications at the business unit level. The first business unit TxDOT enlisted to pilot the process was the Bridge Division. The team worked to identify the right mixture of skills to create a forward-thinking workforce.

TxDOT's objective is to develop a process, to train the right people, and develop the right technology to allow workforce planning to take place. TxDOT's Human Resources Division is working in partnership with the districts, divisions, and offices to identify and plan to address their workforce needs.

TxDOT's Workforce Snapshot – First Half of Fiscal Year 2014

- During the first half of fiscal year 2014, TxDOT's workforce on average was 11,600 employees.
- The average age of our classified regular full and part-time employees is 46.6 years, and the average length of TxDOT service is 11.4 years.

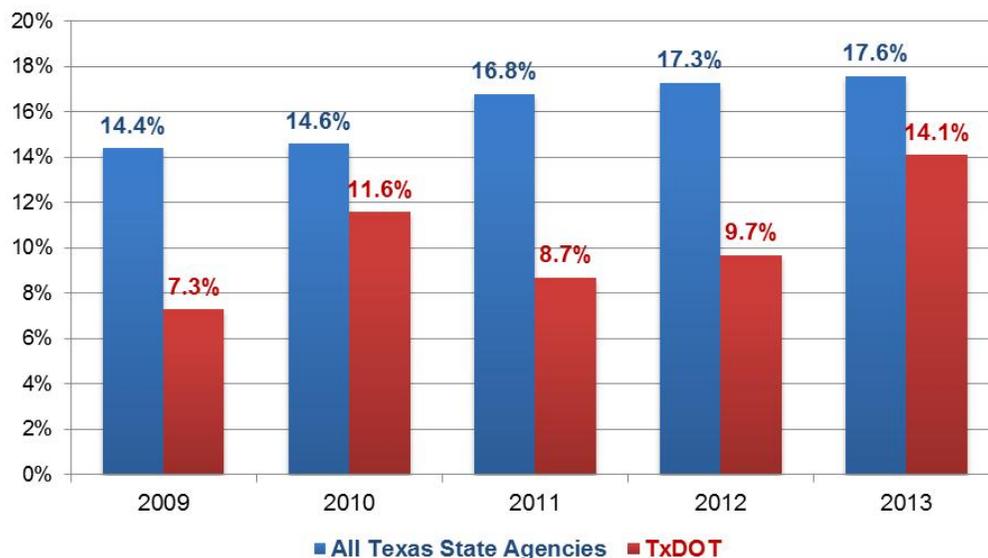
- Males comprise 79 percent of TxDOT’s workforce. Females comprise 21 percent of TxDOT’s workforce.
- Caucasian Americans comprised 64.4 percent of TxDOT’s workforce during the first half of fiscal year 2014. Hispanic Americans made up 24.8 percent of the workforce, and African Americans represented 7.9 percent of the workforce. The remaining 2.9 percent of the workforce were American Indian, Alaskan Native, Asian, or Pacific Islander.
- As of March 2014, 35 percent of TxDOT employees are eligible to retire by the end of fiscal year 2018.
 - TxDOT’s internal job title categories show that:
 - Approximately 40 percent of the employees in Engineering and Engineering Support will be eligible to retire by the end of fiscal year 2018.
 - Thirty-eight percent of employees in the executive, administrative, clerical, and legal jobs are eligible to retire by the end of fiscal year 2018.

Additional details for TxDOT’s workforce are located in the Supply Analysis section of this report.

During fiscal year 2013, TxDOT’s annual turnover rate for classified regular full- and part-time employees was 14.1 percent. The turnover rate in fiscal year 2013 was TxDOT’s highest turnover rate in the past five fiscal years. TxDOT’s higher than normal turnover rate can be related to several factors.

Figure 1

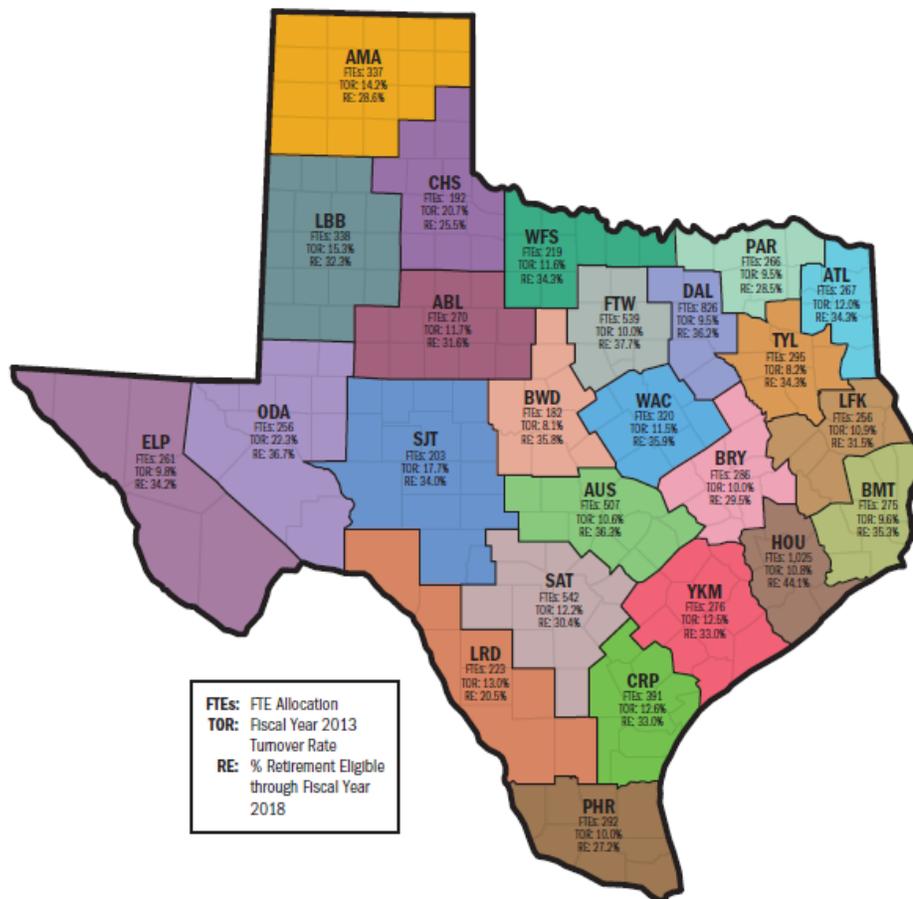
Turnover Rate Comparison TxDOT to State Agencies for Fiscal Years 2010 through 2013



Two contributing factors to this higher than normal turnover rate was the outsourcing of the Information Technology roles and responsibilities to NTT Data – a one-time event – and the increasing employment pressures placed on the supply and demand for workers in the oil and gas industry – specifically in the Eagle Ford Shale and the Permian Basin Shale areas. Figure 2 on the following page provides an illustration of these oil and gas areas across the district offices.

The Eagle Ford Shale is located within portions of the Corpus Christi, Laredo, and Yoakum districts. The turnover rates for these districts in fiscal year 2013 were 12.6 percent (Corpus Christi), 13.0 percent (Laredo), and 12.5 percent (Yoakum). The Lubbock and Odessa districts are within the Permian Basin Shale, and their turnover rates for fiscal year 2013 were 15.3 percent (Lubbock) and 22.3 (Odessa) percent in these districts.

Figure 2



Environmental Scan

Environmental scanning takes account of circumstances and situations occurring in the environment – externally and internally. This scanning allows us to better understand trends and drivers of change and variations. These identified facts have the potential to impact the future of the business and the workforce. The process involves asking these questions:

- What can we see today?
- What might happen in the future?
- How will this impact future decision making?
- Will it impact what we are doing today and how we take action?

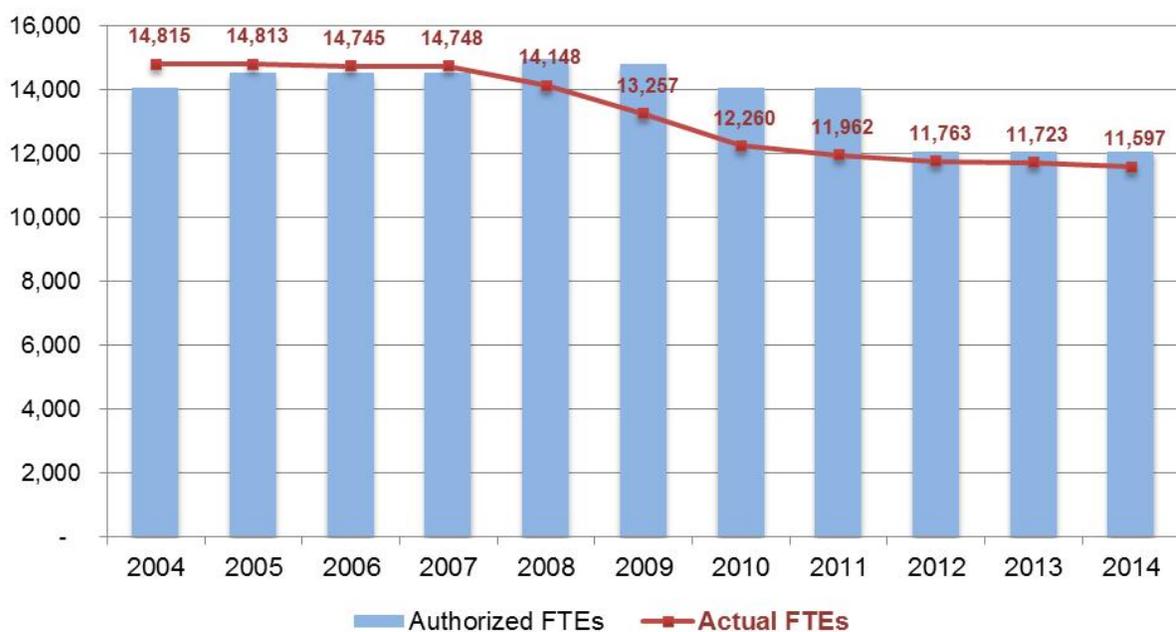
Environmental scanning fosters a lot of “What if” questions and helps identify the drivers of trends and their connection to our business and workforce.

Texas Department of Transportation

During the first half of fiscal year 2014, TxDOT had 11,597 full-time equivalent (FTE) employees. When compared to fiscal year 2004 (14,077 FTEs), the Department’s authorized FTE employee decreased by 14.1 percent to 12,087 FTEs. (Table 1)

Table 1

Full-time Equivalent Employee History Years 2004 through 2014



Today, TxDOT faces many environmental factors impacting the way we do business and how that impacts the workforce. Table 2 lists external and internal factors identified during the environmental scanning for TxDOT.

Table 2

Environmental Factors			
External Factors		Internal Factors	
Aging Infrastructure	Decreased Funding	Aging Workforce and Retirements	Opportunities to Right-Size and Address Span of Control
Moving Ahead for Progress in the 21st Century Act (MAP-21)	Transportation Asset Management (TAM)	Changes in Business Model	Deliberate, Disciplined Approach to Knowledge Transfer
Increased Accountability/ Transparency	Increased Regulatory Requirements and Metrics	Need for Resources to become Proactive versus Reactive	Shortage of Certified Personnel in the Field
Information Technology and Technological Innovations	Shrinking Talent with Needed Qualifications	Deepen Project Management Skills because of Changing Business Model	Redesign the Accountability Model for Managers and Staff
Data-driven, Risk-based Oversight	Competing for Talent with the Oil and Gas Industry	Cultivating Innovation and Embracing New Technologies	Increasing the Business Acumen of Leaders and Employees
Expansion of Panama Canal	Development of High Speed Rail		

Labor Market Influences and Resource Availability

Jobs and Unemployment

As reported by the Texas Workforce Commission and the Comptroller of Public Accounts in March 2014, Texas has added jobs in all of the major industries including professional and business services and transportation and utilities. Texas continues to add jobs and the Texas unemployment rate continues to decrease. As of February 2014, the Texas unemployment rate had declined to 5.7 percent. In February 2014, the U.S. unemployment rate was 6.7 percent. As the Texas unemployment rate continues to decrease, TxDOT may

experience difficulties in attracting professional and skilled-workers, especially, as the oil and gas industry continues to grow and compete for these workers.

Employment Outlook

The January 2014, Federal Reserve Beige Book states:

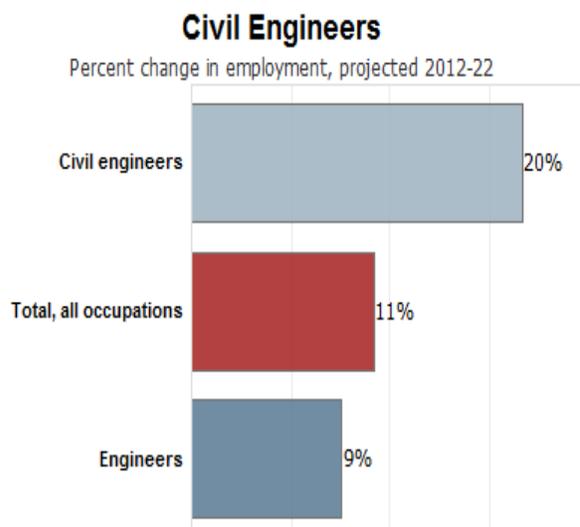
“Employment levels held steady or increased slightly at most responding firms. Staffing firms said employment levels were up, particularly in professional and technical recruiting areas. Some food, fabricated metals, and transportation manufacturing firms noted continued hiring, and scattered reports of adding workers came from auto dealers and high-tech and accounting firms. Other respondents noted steady employment levels while one high-tech firm made cuts and a transportation services firm continued with an incentivized voluntary buyout to reduce employment levels. Acute labor shortages were reported for auditors, engineers, construction workers and truck drivers.”

In January 2014, the Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook 2014-2015 Edition, issued projections indicating the job outlook for civil engineers was 20% faster than average. They also stated “As infrastructure continues to age, civil engineers will be needed to manage projects to rebuild bridges, repair roads, and upgrade levees and dams.”

As new opportunities present themselves for civil engineers, TxDOT may be faced with a supply shortage. Other competing industries include water systems, oil and gas, and renewable energy projects.

Civil engineers focus in many areas, and TxDOT opportunities include those of transportation engineer, design engineer, structural engineer, geotechnical engineer, and construction engineer. The annual employment growth for the engineers and engineering technicians is expected to be 18.4 percent through 2020.

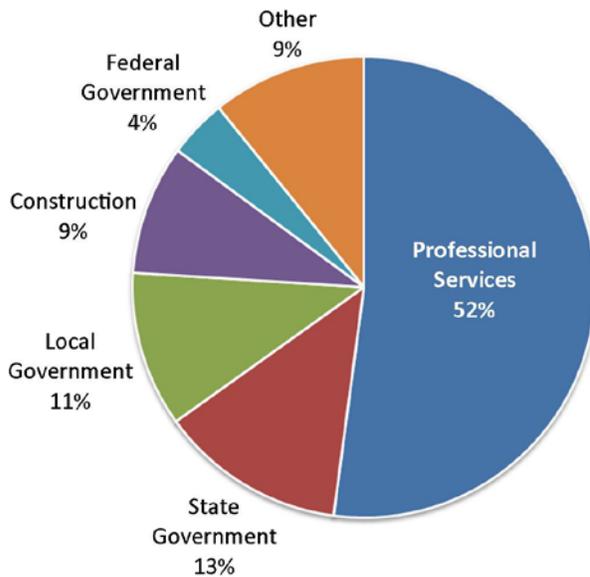
In 2012 the Bureau of Labor Statistics indicated State governments employed 13 percent of the available labor pool of engineers. Federal and local governments employ another 15 percent. Fifty-two percent of the civil engineers are employed in architectural, engineering, and related services. The construction industry employed 9.1 percent.



Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Employment Projections program

Employment of U.S. Civil Engineers by Sector



Besides civil engineers, engineering technicians are required to perform work at TxDOT. The availability of engineering technicians is projected to have little or no change in the job outlook from 2012 to 2022. However, the need to maintain and repair an aging infrastructure will sustain demand for these workers.

TxDOT has several positions that are very specialized in nature. These resources generally are scarce to find in the labor market. The positions include specialized engineers, and construction experts, inspectors, and environmental experts, as well as construction and project management expertise. The experience level required to obtain and polish the required knowledge, skills,

and abilities of these employees is vital to the continued operations and achievement of TxDOT's mission and goals.

Compensation Outlook

Wage pressures are also impacting the availability of the workforce. As reported by the Texas Workforce Commission, the majority of engineering jobs are located within five major metropolitan areas in Texas – Austin, Dallas, Fort Worth, Houston, and San Antonio. While the labor market availability is greater in these areas, TxDOT may not be attractive to applicants because the base pay is generally lower than base pay in the private sector. On the other hand, it might be difficult to recruit an engineer in other regions of the state because the availability of the competencies and skills sets needed and required are not readily available in these rural areas, especially in the areas with major oil and gas operations. In areas of Texas with these oil and gas operations, TxDOT experiences competition for skills and talent. The map located on page 10 (Figure 2) provides a geographical view of where these operations are located in Texas.

According to the January 2014, Federal Reserve's Dallas Beige Book:

“Reports of upward wage pressure increased. Staffing firms said there was pressure on wages and one began offering signing bonuses. Legal firms cited increased pressure on compensation for corporate associates. Wages rose in metals manufacturing, and petrochemicals producers noted rising wages for plant maintenance and heavy construction as well as several skilled positions. A Houston housing contact said labor shortages were pushing up wages for construction workers.”

Benefits Outlook

Current long-term employees view their retirement benefits as slowly eroding. Some employees are concerned that changes in the Defined Benefits Plan will impact them adversely. However, younger employees do not focus on retirement benefits when they begin their tenure at TxDOT. TxDOT should continue to monitor the changing environment and interact with the Employees Retirement System of Texas to stay abreast of potential changes to the State's benefits offerings.

People

TxDOT's employees are the link that allows the consistent success of the Department. Our employees are committed to TxDOT and the mission and work the Department performs. Recently, TxDOT implemented several programs placing emphases on the importance of its employees. These include:

- A focus on safety first through "Mission Zero"
- Performance-based evaluations and merit pay
- Equitable compensation
- Leadership development
- Project management preparation
- TxDOT Academy focused on leading self, leading others, leading function, and leading TxDOT
- Centers of performance excellence, and
- A focus on employee wellness.

TxDOT understands the importance of focusing on an employee as a whole person and allowing an employee to reach his or her full potential.

As TxDOT continues to aspire toward becoming a best-in-class organization, an emphasis on the workforce is paramount so the agency can continue to thrive and optimize resources. A holistic approach from the hiring to retiring of employees is key to fostering a modern workforce equipped to meet the challenges of sourcing work activities in the global environment in which TxDOT now functions. This allows TxDOT to fulfill the mission "to work with others to provide safe and reliable transportation solutions for Texas." Our people need to be well positioned to embrace change and to continue to lead TxDOT into the 21st Century.

Processes

To create a culture of performance excellence and a workforce equipped to meet the evolving demands of functioning as a dynamic organization, consideration should be given to mapping current business processes to identify opportunities to gain efficiencies. This

process involves defining who does what, who is responsible for what, and the measures of success of the business process.

TxDOT oversees many projects and processes directly tied to the Department's mission, and one of the main goals is safety. Federal regulations, technical specifications, and changes to state and federal programming are continually changing. Everyday operations and work activities often require the Department to react and be in crisis mode, requiring senior staff to address issues ad hoc rather than focus on operational strategy.

By defining and refining the current processes and procedures, TxDOT can:

- Ensure knowledge capture and transfer
- Allow measurements to be developed
- Capture data to analyze the quality and efficiency of activities, and
- Create data-driven systems to report meaningful metrics.

Technology

As TxDOT strives toward a state of excellence and becoming a "Best in Class" agency, the agency is embracing technology to modernize how TxDOT does business. One way TxDOT has moved toward attaining this goal is by implementing a new Enterprise Resource Planning (ERP) System. The ERP will replace existing management systems in Finance, Payroll, Human Resources, and Supply Chain. The new ERP system is a prime example of TxDOT's effort to modernize the IT system landscape by reducing the number of applications built on outdated architectures that lack needed functionality and are costly to maintain. The new ERP system will allow TxDOT to streamline Human Resources procedures in compliance with the provisions of the law, delivering more efficient and effective HR management. It also allows TxDOT to maximize self-service HR management allowing employees and managers to effectively self-administer human resources.

Our mission is to implement an ERP system that:

- Streamlines information
- Provides better tools, and
- Improves reporting.

Following full implementation of all components of the ERP (Finance, Human Resources, Payroll, and Supply Chain), TxDOT will be better positioned to provide efficient and effective services; thereby allowing employees to focus on providing services that can provide higher value. This will allow the workforce to be more nimble and agile.

As TxDOT moves into the 21st Century, change is happening and we look forward to the challenges and opportunities it affords the workforce.

Supply Analysis

Current Workforce

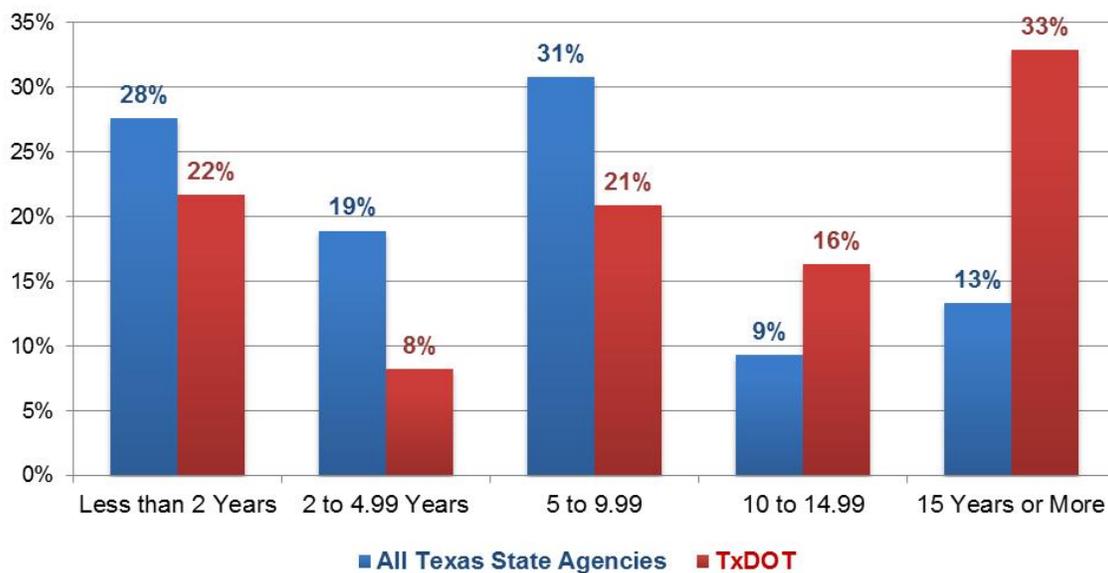
On average TxDOT employees were 46.6 years old and had 11.5 years of TxDOT service. In comparison, the State's employees, were 43.8 years of age and had 7.1 years of TxDOT service (including TxDOT). Almost half (49.2 percent) of TxDOT's employees have 10 or more years of TxDOT service.

TxDOT Length of Service

Approximately 30 percent of TxDOT's workforce has fewer than 5 years of TxDOT service. Almost 33 percent of TxDOT's workforce has 15 years or more of TxDOT service.

Figure 4

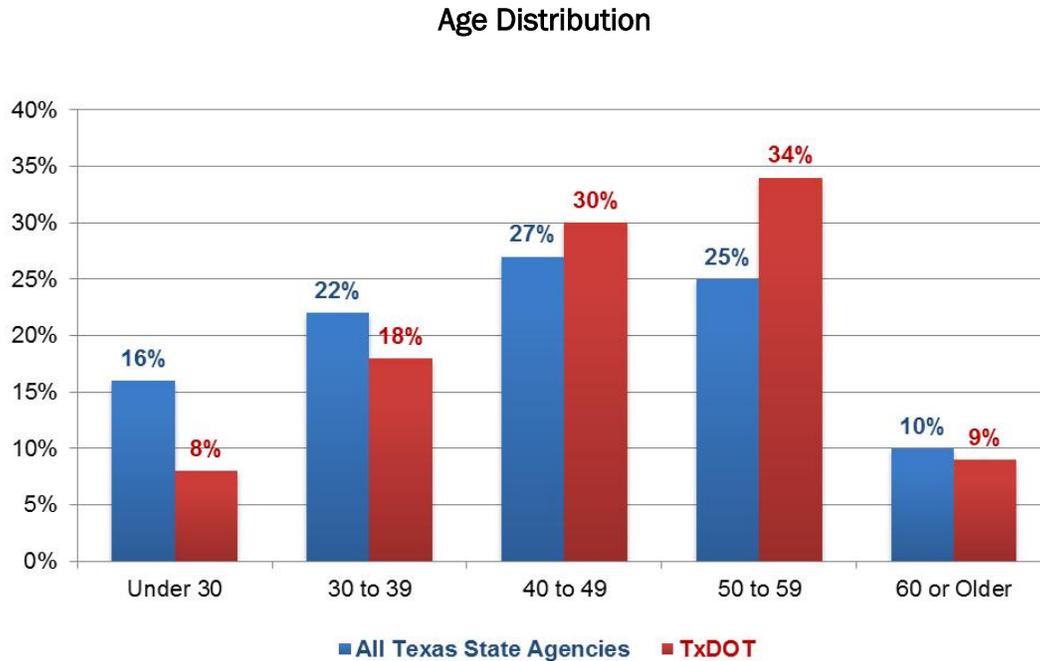
Fiscal Year 2014 TxDOT Length of Service



Age

Seventy-three percent of TxDOT's workforce is 40 or older. Sixty-three percent of the workforce at state agencies is 40 or older.

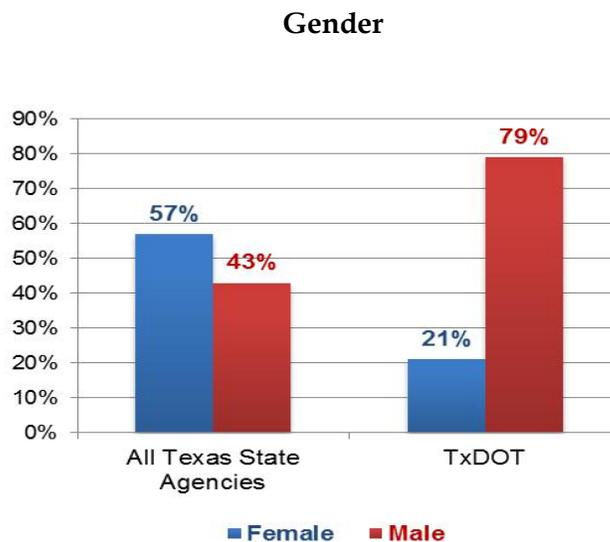
Figure 5



Gender

TxDOT's workforce by gender breakdown is 79 percent male, and 21 percent female. Maintenance positions comprised a large percentage of TxDOT's workforce. These positions are predominately filled by males.

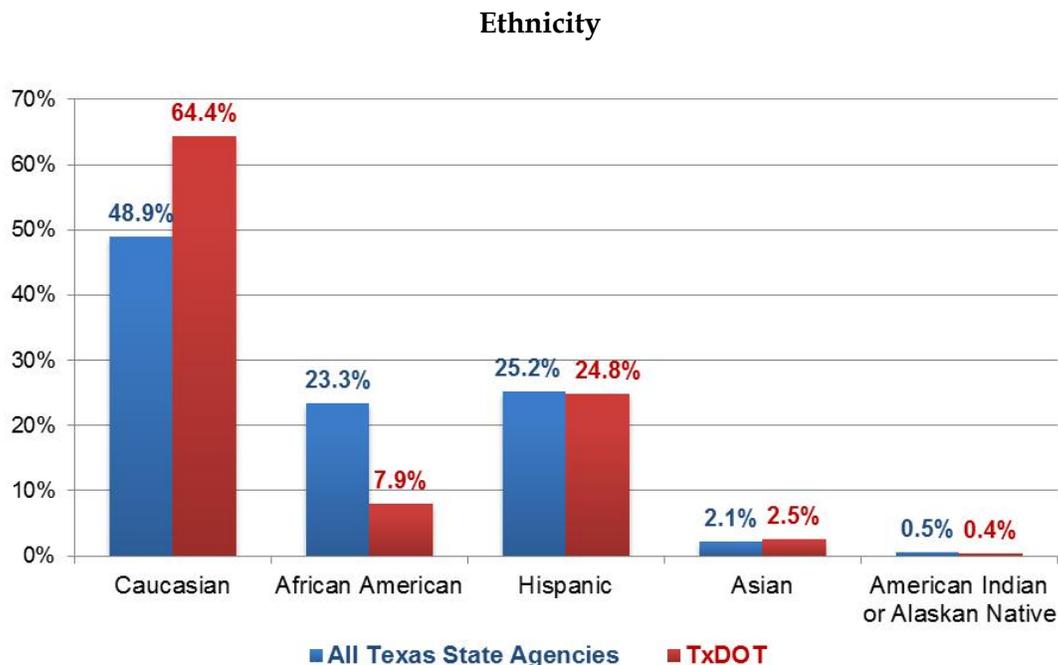
Figure 6



Ethnicity

TxDOT's workforce is comprised of approximately 64.4 percent Caucasian Americans, 24.8 percent Hispanic Americans, and 7.9 percent African-Americans.

Figure 7



Veterans

During the first quarter of calendar year 2014, 8.4 percent of TxDOT's employees were veterans. Comparatively, a January 2013 report by the Texas Senate Committee on Veterans Affairs and Military Installation stated "the Texas Comptroller's annual veterans Workforce Summary of veterans working in Texas state agencies and universities shows that only 5 percent of state employees are veterans."

FTE Allocations, Turnover Rates, and Retirement Eligibility

TxDOT currently is allocated 12,087 full-time equivalent employees. In fiscal year 2013, the turnover rate for TxDOT was 14.1 percent. However, this number was influenced by the outsourcing of the information technology functions to NTT Data. Approximately 200 jobs were transferred to NTT Data.

As of March 2014, 35 percent of TxDOT is eligible to retire by the end of fiscal year 2018. TxDOT's internal job title categories show that approximately 40 percent of the employees in engineering and engineering support jobs will be eligible to retire by the end of fiscal year 2018. Thirty-eight percent of employees in the executive, administrative, clerical, and legal jobs at TxDOT are eligible to retire by the end of fiscal year 2018. Figure 8 provides retirement eligibility information for the 25 TxDOT districts, and Table 3 provides similar information for the divisions and offices through fiscal year 2018.

Texas Department of Transportation District Workforce Analytics

Figure 8

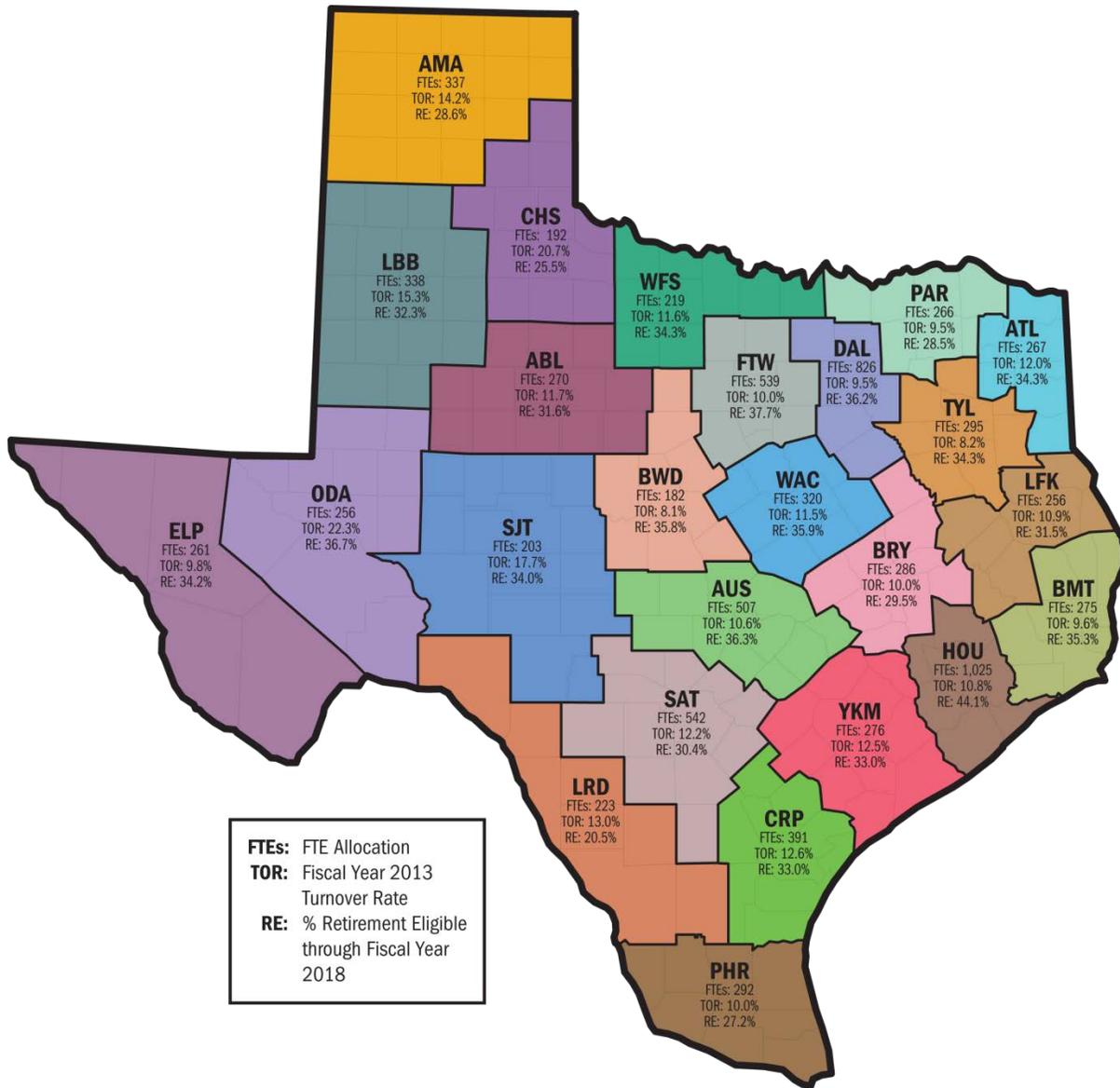


Table 3

Divisions and Offices Retirement Eligibility, FTE Allocations, and Turnover Rates

Divisions/Offices	Retirement Eligibility through FY 2018	FTE Allocations – February 2014	Fiscal Year 2013 Turnover Rate
Administration	31.8%	37.0	27.2%
Audit Office	41.5%	63.0	17.9%
Aviation Division	42.9%	61.0	6.8%
Bridge Division	40.7%	94.0	7.7%
Communications Division	27.3%	95.0	11.2%
Construction Division	44.1%	191.0	5.6%
Contract Services Office	24.0%	26.0	4.4%
Design Division	45.9%	66.0	11.9%
Environmental Affairs Division	30.1%	77.0	5.2%
ERP Implementation Office	36.4%	14.0	22.2%
Federal Legislative Affairs Office	30.0%	15.0	7.7%
Finance Division	34.5%	220.0	9.8%
Fleet Operations Division	30.0%	331.0	N/A*
Human Resources Division	39.95	166.0	11.7%
Information Technology Operations Division	32.1%	60.0	90%
Innovative Financing/Debt Management Office	0.0%	9.0	10.8%

Divisions/Offices	Retirement Eligibility through FY 2018	FTE Allocations – February 2014	Fiscal Year 2013 Turnover Rate
Maintenance Division	46.6%	62.0	8.9%
Maritime Division	20.0%	5.0	44.4%
Occupational Safety Division	41.7%	29.0	19.8%
Office of Civil Rights	34.8%	39.0	24.3%
Office of Compliance, Ethics and Investigations	41.2%	5.0	19.1%
Office of General Counsel	25.0%	26.0	11.5%
PEPS Division	31.8%	50.0	14.4%
Project Management Office	21.1%	42.0	6.1%
Public Transportation Division	47.0%	48.0	4.7%
Rail Division	41.7%	12.0	16.7%
Real Estate Management and Development Division	0.0%	66.0	N/A*
Research and Technology Implementation Office	31.3%	20.0	34.5%
Right of Way Division	44.7%	173.0	7.3%
State Legislative Affairs Office	8.33%	14.0	9.1%
Strategic Projects Division	32.9%	82.0	19.7%
Support Services	46.4%	176.0	N/A*

Divisions/Offices	Retirement Eligibility through FY 2018	FTE Allocations – February 2014	Fiscal Year 2013 Turnover Rate
Division			
Toll Operations Division	31.3%	15.0	13.6%
Traffic Operations Division	42.6%	180.0	7.4%
Transportation Planning and Programming Division	39.5%	110.0	8.1%
Travel Information Division	46.3%	98.0	8.4%

*Data not available due to reorganization

Table 4

TxDOT's FTE Allocations by Budget Strategy

By Budget Strategy	Full-time Equivalent (FTE*) Allocations	Employee Counts	Total Vacant Positions	Authorized FTE Total	Percentage of Strategy
101 PLAN/DESIGN/MANAGE	4,049	3,935	177	4,112	34%
105 ROUTINE MAINTENANCE	5,869	5,948	(71)	5,877	49%
106 AVIATION SERVICES	61	65	(2)	63	1%
107 PUBLIC TRANSPORTATION	47	46	2	48	0%
108 GULF WATERWAY	2	2	0	2	0%
109 FERRY SYSTEM	197	208	(11)	197	2%
116 RESEARCH	12	9	3	12	0%
201 TRAFFIC SAFETY	100	93	7	100	1%

By Budget Strategy	Full-time Equivalent (FTE*) Allocations	Employee Counts	Total Vacant Positions	Authorized FTE Total	Percentage of Strategy
202 RAIL SAFETY	15	14	1	15	0%
204 RAIL PLAN/DESIGN/MANAGE	21	20	1	21	0%
301 TRAVEL INFORMATION	98	95	4	99	1%
401 ADVERTISING ENFORCEMENT	20	17	3	20	0%
601 CENTRAL ADMINISTRATION	685	642	49	691	6%
602 INFORMATION RESOURCES	71	64	154	218	2%
603 SUPPORT SERVICES	364	366	(2)	364	3%
604 REGIONAL ADMINISTRATION	156	139	109	248	2%
TOTAL	11,767	11,663	424	12,087	100%

Date as of April 28, 2014 from TxDOT HRIS reporting tool.

Equal Employment Opportunity Categories

As part of the reporting as outlined by the Equal Employment Opportunity Commission, TxDOT is required to make periodic reports indicating the composition for their workforce by gender and race/ethnic categories. Outlined below are descriptions of the job categories identified.

Officials and Administrators: Occupations in which employees set broad policies, exercise overall responsibility for execution of these policies, or direct individual departments or special phases of the Department's operations, or provide specialized consultation on a regional, district or area basis. Includes: department heads, division chiefs, directors, deputy directors, inspectors (construction, building, safety, transportation), assessors, investigators, and kindred workers.

Professionals: Occupations which require specialized and theoretical knowledge which is usually acquired through college training or through work experience and other training which provides comparable knowledge. Includes: economists, attorneys, systems analysts,

accountants, engineers, librarians, management analysts, airplane pilots and navigators, surveyors and mapping scientists, and kindred workers.

Technicians: Occupations which require a combination of basic scientific or technical knowledge and manual skill which can be obtained through specialized post-secondary school education or through equivalent on-the-job training. Includes: computer programmers, drafters, survey and mapping technicians, photographers, technical illustrators, highway technicians, technicians (electronic, physical sciences), inspectors (production or processing inspectors, and testers), and kindred workers.

Administrative Support (Including Clerical): Occupations which require internal and external communication, recording and retrieval of data and/or information and other paperwork required in an office. Includes: bookkeepers, messengers, clerk-typists, statistical clerks, dispatchers, license distributors, payroll clerks, office machine and computer operators, legal assistants, toll collectors, and kindred workers.

Skilled Craft Workers: Occupations which require special manual skill and a thorough and comprehensive knowledge of the process involved in the work which is acquired through on-the-job training and experience or through apprenticeship or other formal training programs. Includes: mechanics, electricians, heavy equipment operators, stationary engineers, skilled machining occupations, carpenters, and kindred workers.

Service-Maintenance: Occupations in which workers perform duties which result in or contribute to the comfort, convenience, hygiene or safety of the general public or which contribute to the upkeep and care of buildings, facilities or grounds of public property. Workers in this group may operate machinery. Includes: truck drivers, bus drivers, custodial employees, gardeners and groundskeepers, construction laborers, craft apprentices/trainees/helpers, and kindred workers.

The majority of TxDOT's workforce belong in the Professional and Skilled Craft Worker EEO-4 categories. Table 5 identifies the percentage of the various EEO-4 categories at TxDOT.

Table 5

EEO Category	Percentage of Workforce
Administrative Support	5%
Officials and Administrators	3%
Professionals	42%
Service – Maintenance	3%
Skilled Craft Workers	31%
Technicians	16%
Total	100%

Table 6 provides information on the statewide civilian workforce composition and the state agency workforce composition as provided by the Texas Workforce Commission in the Equal Employment Opportunity and Minority Hiring Practice Report. This information is provided as a reference to analyze TxDOT's workforce composition.

To help address needs to actively work to diversify the workforce, TxDOT continuously reviews its recruitment program strategies. Currently, TxDOT's recruitment activities include the following:

- Conditional Grant Program
- College Internship/Coop Programs
- Rapid Hire Program
- Summer Intern Program
- Recruitment Teams
- Career Events
- Targeted Recruitment
- Outreach
- On-Campus Interviews
- Recruitment/Retention Bonus
- Marketing/Branding

Table 6

Statewide Civilian Workforce Composition – Texas Workforce Commission Texas Labor Code §21.0035										
Job Category	Caucasian American #	Caucasian American %	African American #	African American %	Hispanic American #	Hispanic American %	Female #	Female %	Male #	Male %
Totals	5,687,029	54.8	1,259,376	12.1	3,428,409	33.1	5,234,551	45.7	6,213,479	54.3
Officials, Administrators	1,138,696	71.5	143,157	9.0	310,709	19.5	686,343	39.3	1,058,101	60.7
Professional	1,231,184	71.3	195,730	11.3	300,682	17.4	1,140,571	59.1	788,130	40.9
Technical	364,122	64.5	79,971	14.2	120,647	21.4	271,417	41.5	383,014	58.5
Administrative Support	1,339,232	55.9	325,214	13.6	731,409	30.5	1,702,090	65.6	891,790	34.4

Statewide Civilian Workforce Composition – Texas Workforce Commission Texas Labor Code §21.0035										
Job Category	Caucasian American #	Caucasian American %	African American #	African American %	Hispanic American #	Hispanic American %	Female #	Female %	Male #	Male %
Skilled Craft Workers	475,416	46.2	65,335	6.4	488,142	47.4	47,223	4.2	1,079,512	95.8
Service and Maintenance	1,138,379	37.1	449,969	14.7	1,476,820	48.2	1,386,907	40.8	2,012,932	59.2

State of Texas State Agency Workforce Composition – Fiscal Year 2013											
Job Category	Total Employees	Caucasian American #	Caucasian American %	African American #	African American %	Hispanic American #	Hispanic American %	Female #	Female %	Male #	Male %
Totals	350,989	183,686	52.3	60,762	17.3	75,061	21.4	198,771	56.6	152,218	43.4
Officials, Administrators	16,815	11,715	69.7	1,719	10.2	2,440	14.5	8,595	51.1	8,220	48.9
Professional	155,158	91,067	58.7	17,129	11.0	25,014	16.1	86,941	56.0	68,217	44.0
Technical	35,876	16,872	47.0	5,491	15.3	8,603	24.0	20,198	56.3	15,678	43.7
Administrative Support	40,046	18,843	47.0	7,592	19.0	12,269	30.6	34,869	87.1	5,177	12.9
Skilled Craft Workers	10,992	7,054	64.2	881	8.0	2,801	25.5	493	4.5	10,499	95.5
Service and Maintenance	92,102	38,135	41.4	27,950	30.4	23,934	36.0	47,675	51.8	44,427	48.2

Texas Department of Transportation Workforce Composition											
Job Category	Total Employees	Caucasian American #	Caucasian American %	African American #	African American %	Hispanic American #	Hispanic American %	Female #	Female %	Male #	Male %
Totals	11,837	7,626	64.4	930	7.9	2,936	24.8	2,495	21.1	9,342	78.9
Officials, Administrators	364	288	79.1	11	3.0	56	15.4	63	17.3	301	82.7
Professional	4,835	3,113	64.4	395	8.2	1,083	22.4	1,608	33.2	3,227	66.8
Technical	1,850	1,216	65.7	142	7.7	453	24.5	193	10.4	1,657	89.6
Administrative Support	610	403	66.1	47	7.7	157	25.7	529	86.7	81	13.3
Skilled Craft Workers	3,771	2,388	27.6	297	7.9	1,040	27.6	78	2.1	3,693	97.9
Service and Maintenance	407	218	53.6	38	9.3	147	36.1	24	5.9	383	94.1

Note: Items may not add to totals or compute to displayed percentages due to rounding. Detail for Race and Hispanic-origin groups will not add to totals because data for “other

aces” group are not presented and Hispanics are included in both the Caucasian and African American categories.

Demand Analysis

As part of the workforce planning process, an analysis was conducted on work demand. The analysis of demand is an integrated process that looks at multiple areas such as:

- Staffing patterns
- Demand for labor to address aging infrastructure needs
- Anticipated program and workload changes, and
- Workforce skills to meet projected needs.

Although TxDOT can identify areas of demand, the challenge is sufficient access to workload and project task data.

TxDOT added, transferred, or reallocated staff throughout the Department to address turnover that occurred throughout the year. In fiscal year 2013, 1,692 employees left the Department. Seventy-nine percent of these separations were voluntary in nature (voluntary separations plus retirements). Table 7 examines the turnover rates for classified regular employees by category for fiscal year 2013.

As TxDOT reviews these departures, key areas where a demand for replacements occur within core business functions include management, engineering, maintenance, contracting and procurement, human resources and other areas. It is critical that TxDOT hires employees well-suited to complete the TxDOT mission. This includes assembling staff that are properly trained and prepared to move TxDOT forward in the 21st Century.

Table 7

Fiscal Year 2013 Turnover for Classified Regular Employees by Job Category						
TxDOT Job Category	Average Number of Employees	Involuntary Separations	Retirements	Voluntary Separations	Total Separations	Fiscal Year 2013 Turnover
Executive, Administrative, Clerical and Legal	965.8	14	72	41	127	13.2%
Finance Accounting	214.5	3	10	8	21	9.8%
Information Technology*	385.0	202	93	43	338	87.8%
Architecture	38.8		2	1	3	7.7%
Engineering, Engineering Support	3,320.3	19	216	89	324	9.8%
Civil Rights, Business Opportunity	34.5	2	3	3	8	23.2%
Human Resources	135.5	0	14	3	17	12.5%
Occupational Safety	65.8	0	5	2	7	10.6%
General Services, Contracts, Purchasing	406.0	1	29	15	45	11.1%
Maintenance, Skilled Craft, Ferry Operations	5,330.0	107	233	362	702	13.2%
Laboratory, Materials	244.0	0	18	4	22	9.0%
Planning, Aviation, Public Transportations, Legislative	376.0	10	8	14	32	8.5%
Right of Way	141.8	0	8	5	13	9.2%
Travel, Public Information	158.0	2	8	8	18	11.4%

Fiscal Year 2013 Turnover for Classified Regular Employees by Job Category						
TxDOT Job Category	Average Number of Employees	Involuntary Separations	Retirements	Voluntary Separations	Total Separations	Fiscal Year 2013 Turnover
Environmental	136.5	0	4	5	9	6.6%
Other	23.3	0	5	1	6	25.8%
Totals	11,975.5	360	728	604	1,692	14.1%

Note: During fiscal year 2013, TxDOT outsourced the majority of its information technology operations to NTT Data.

Table 8 lists the positions where the majority of separations have occurred thus far in fiscal year 2014.

Table 8

Continuous Turnover - Number of Separations to Date in Fiscal Year 2014		
General Transportation Technician (310)	Area Engineers and Transportation Engineer (32)	General Engineering Technician (33)
Transportation Maintenance Equipment Operator (29)	Accounting Specialist (26)	Right of Way Agents, Surveyors, Survey Technicians (19)
Contract Specialist (14)	Engineering Assistant (12)	Auditors (11)

Influences on Demand

- Texas Economic Growth:
 - Texas added jobs in all of the 11 major industries, including professional and business services, trade, transportation and utilities, leisure and hospitality, education and health services, construction, mining and logging, government, financial activities, information, other services, and manufacturing.
 - There were several reports of upward wage pressures. Construction-related manufacturers said they had to pay truck drivers more, and an oil field services firm noted definite wage increases. Upward wage pressure continued to be reported in petroleum refining, both in construction-type jobs and factory personnel. Two other manufacturers said they intend to give small raises in the near future.

In reviewing the past trends and the future forecast, Texas is facing a challenge in maintaining and growing a skilled workforce. In addition, other factors impacting TxDOT's ability to attract and retain employees is the oil and gas industry.

- Science, Technology, Engineering, Math (STEM) Shortage:
 - Recent research shows that certain U.S. STEM jobs in the labor market are growing at a much faster rate than the general workforce.
 - Although skilled guest workers make up a very small percentage of the overall U.S. workforce, they are disproportionately concentrated in STEM industries. Among all STEM workers, 10.2 percent were not U.S. citizens in February 2014 (over 800,000 workers). In computer and mathematical occupations, 12.4 percent of workers were not citizens. In life, physical, and social science occupations, 10.4 percent were not U.S. citizens. Among architects and engineers, 6.8 percent were not U.S. citizens.

As TxDOT, continues to have a need for highly skilled, professional STEM positions, it is interesting researching the available demand to learn that most of these positions in these fields of graduate study are international students. Table 9 provides an overview of this availability of U.S. graduates in the STEM fields of study.

Table 9

Full-time Graduate Students and the Percentage of International Students by Field (2010)			
Field	Percent of International Students	Number of Full-time Graduate Students - International	Number of Full-time Graduate Students - United States
Electrical Engineering	70.3%	21,072	8,904
Computer Science	63.2%	20,710	12,072
Industrial Engineering	60.4%	5,057	3,314
Economics	55.4%	7,587	6,117
Chemical Engineering	53.4%	4,012	3,504
Material Engineering	52.1%	2,660	2,891
Mechanical Engineering	50.2%	8,352	8,273

Full-time Graduate Students and the Percentage of International Students by Field (2010)			
Field	Percent of International Students	Number of Full-time Graduate Students - International	Number of Full-time Graduate Students - United States
Mathematics and Statistics	44.5%	7,840	9,766
Physics	43.7%	5,716	7,369
Civil Engineering	43.7%	6,202	7,989
Other Engineering	42.1%	7,279	9,992
Chemistry	40.3%	8,059	11,952

Source: National Science Foundations, Survey of Graduate Students and Post doctorate, webcaspar.nsf.gov.

Critical Functions

Table 10 provides a list of positions identified as being critical not only to the mission of TxDOT, but also to ensure the State achieves and complies with the Federal and State regulations, metrics and performance measures.

Table 10

Critical Positions at TxDOT		
Engineers	Engineering Assistants	Engineering Specialist and Technicians
Project and Program Managers	Procurement and Contract Management	Multi Modal Disciplines (Aviation, Maritime, Rail, etc.)
Finance, Audit and Quality Assurance/Control	Performance Business Analyst	Maintenance Field Staff

Competency Needs

As TxDOT moves into the 21st Century, advanced knowledge is required in these scarce and critical positions that encompass having knowledge in the following competencies.

- Self-management – Displays resilience and flexibility in the face of obstacles; demonstrates self-reflection; pursues personal development; and learns.
- Communication – Communicates clearly and precisely through written and verbal means; provides accurate information effectively.
- Problem solving – Frames up and analyzes complex problems; develops practical solutions; acts decisively, based on sound judgment.
- Performance focus – Delivers tangible results/action management; takes economic implications into account; demonstrates "can-do" attitude.
- Teamwork – Involves and consults others; builds partnerships; connects across entities if helpful; displays empathy toward others.
- Change leadership – Uses continuous improvement; communicates reason for change; influences others; demonstrates use of innovative solutions.
- People leadership – Builds diverse teams; coaches and motivates; delegates effectively; gives and receives feedback.
- Project planning and execution – Displays sound project planning; delivers projects to completion; tracks progress.
- Strategic thinking – Conducts strategic, mid- to long-term planning and visioning; displays political savvy; considers broader context, e.g., other entities, society.
- Business acumen – Displays basic budget and finance knowledge; thinks through operational excellence; navigates political landscape.

These competencies will be used during the recruiting process, employment development and training process, and performance management.

Expected Workforce Changes

In the next five years, the demands for the workforce will change and will be influenced by the following regulations and programs:

- Aging Infrastructure
- Moving Ahead for Progress in the 21st Century Act (MAP 21)
- Transportation Asset Management (subset of MAP 21)

- Federal Highway Administration Regulations and
- Information Technology and Technological Capabilities.

During this time, TxDOT will require:

- Increased emphasis on business processes to achieve performance excellence
- Greater focus on program management and contract management
- Increased use of technology to maximize efficiency in workflow through enterprise resource planning and key transportation applications, and
- Increased use of subject matter experts.

TxDOT may need to expand and deepen its skills to accomplish these programs, and make adjustments in available workforce to continue to be successful in the evolving environment.

Changing Needs in the Workforce

As the workforce changes to meet the needs of the 21st Century, it will need:

- Agility to change with the business operations to achieve performance excellence
- Training of staff to integrate new technologies into current processes
- Inclusion of contract management and negotiations skills in professional and management staff development
- Cross-training of employees in critical functions
- Increased emphasis on project management capabilities, and
- Mobile workforce.

There is a nationwide shortage of professional engineers, land surveyors, mechanics, finance managers, ship captains/pilots, and IT professionals (this is not an exhaustive list). The U.S.

Department of Labor & Workforce Development anticipates Texas will have more jobs than qualified workers within 10 years. Texas is expected to have an extremely fluid workforce due to cost of living, economic changes, and demographics which will demonstrate strong economic growth.

Increase/Decrease in Number of Employees Needed to Do the Work

At a minimum, TxDOT should maintain current staffing levels or look for ways to increase the productivity of the workforce. Any decrease in staffing could impact the Department's ability to perform its requirements. Current staff is able to maintain existing workload levels, but

attrition creates overload and leads to backlogs and decreased effectiveness; and it at times leads to large accumulations of overtime. Below are some items to consider:

- Reallocate employees within the Department to address increased demands.
- Continuously review and develop efficient work processes.
- Provide training and effectively manage succession planning.
- Using contract workforce when appropriate.
- Developing skills through training and focused hiring practices.
- Focusing efforts on retaining and developing staff while focusing on knowledge transfer and cross-training.

Gap Analysis

Organizational Structure

- Ensure the functional alignments support TxDOT's changing business model to become a "Best in Class" organization.
- Ensure organization structure provides flexibility, allowing TxDOT to move faster in response to change, challenge, and innovation.
- Continue to improve accountability, communications, productivity, and innovation. It creates an environment where people can work effectively.

Ensure TxDOT's organizational structure continues to support TxDOT's values of:

- Trust
- Integrity
- Responsibility
- Excellence, and
- Service.

Strategic Staffing and Recruiting

- Address staffing and recruiting from a proactive, planning perspective so that it is less reactive.
- Focus on positions critical to achieving the business strategy.
- Improve recruiting process to capture a larger and better qualified applicant pool.

- Validate the critical competencies for key positions.

Compensation

- Ensure the compensation strategy and structures align with business strategy and are connecting through line-of-sight. The compensation strategy should allow the Department to recruit and retain qualified talent.

Knowledge Transfer

- A formalized succession plan is not currently in place.
- A large number of retirement-eligible employees perform critical activities where knowledge transfer plans are not in place.
- A significant number of retirement-eligible employees have institutional knowledge that needs to be documented and transferred.
- Existing technology inhibits the ability to transfer knowledge without having the requisite expertise.

Anticipated Surplus or Shortage of Workers or Skills

- While employees have sufficient skills for the current environment, additional skills will be needed in the future – for example, change management and project management capabilities.
- The Department will also face the challenge of retaining the institutional knowledge that may be lost as a result of employee turnover and retirements.
- The focus for staff will be in transferring knowledge and in positioning key staff members for promotion, career development, and succession planning.
- Conduct a methodical analysis of current work activities, their drivers with related time and cost measures, and develop staffing models based on workload analysis.

Leadership and Business Development

- Staff members and managers are technically competent; however, there is a need to deepen business management and leadership knowledge and techniques.
- Develop leadership that can articulate a vision and a strategy that motivates staff to engage in accomplishing the mission.
- Contract, project management, financial, human resources and technology management knowledge and skills are emerging as a critical need.

Operational (information technology, time keeping, project management, measurements):

- Limited and disparate systems are in place to track resources and time allocations on a per project basis.
- Data-driven systems are needed to capture information that would allow for the measurement of workload and productivity in an integrated manner. For example, capturing essential buckets of work and work tasks.

Strategies for Consideration to Address Identified Workforce Gaps

Strategy: Organizational Structure

Action Plan Goals

- Commit to a transformational change period at TxDOT, with executive-level champions, clearly defined goals and objectives, and acceptance of the time and investment required to implement significant improvement.
- Continue to create organizational structures providing line-of-sight to the Department's mission and goals.
- Continue to identify opportunities to leverage capacity that will streamline business processes and technology and allow for cross-functional teams to address projects and initiatives.
- Ensure the organizational structure supports and fosters an atmosphere and culture of performance excellence.

Objective: Continue to ensure organization is responsive to internal and external environmental factors by remaining agile and responsive to the changing needs of Texas.

Objective: Monitor, evaluate and redesign strategic and operational systems to continually adapt to business model changes.

Objective: Implement best practices sharing and greater depth in critical role redundancy to have a more effective knowledge transfer program.

Strategy: Strategic Staffing and Recruiting

Action Plan Goals:

- Address staffing and recruiting from a proactive, planning perspective so that it is less reactive.
- Focus on positions critical to achieving the business strategy.
- Improve recruiting process to capture a better and more diversified qualified applicant pool.

- Validate the critical competencies for key positions.

Objective: Develop a strategic staffing and recruiting plan that includes processes, procedures, and resulting metrics.

Objective: Develop recruitment plan to attract positions requiring expertise in transportation planning, programming, financing, project management, contract management, and monitoring.

Objective: Develop competencies critical for the accomplishment of the Department's mission and integrate these into the hiring and recruitment process.

Objective: Enhance the recruitment and selection tools and training to enrich the hiring process.

Strategy: Compensation

Action Plan Goals:

- Ensure the compensation strategy and structures align with business strategy and are connecting through line-of-sight. The compensation strategy should allow the Department to recruit and retain qualified talent.
- Consider all available authorized compensation practices to enhance the total compensation package, including the use of recruitment and retention bonuses.

Objective: Ensure roles and responsibilities within the Department are appropriately classified and, if needed, reviewed for reclassification.

Objective: Conduct salary market benchmarking to ensure salary structure is competitive based on current compensation philosophy, and review hiring rate philosophy and placements of positions within appropriate salary range.

Objective: Assess whether existing supervisory structure is representative of the roles and responsibilities required.

Strategy: Knowledge Transfer

Action Plan Goals

- Deploy a disciplined and deliberate approach tailored for purposes of business continuity, which lessens the risk associated with the loss of institutional knowledge.
- Develop procedure manuals and tools to outline standard operating processes.

Objective: Deploy knowledge management and critical expertise continuity based on best practices to address risks associated with retirement of experienced staff.

Objective: Deploy succession planning to strengthen TxDOT's current and future workforce by developing the skills, knowledge, and talent needed for leadership continuity.

Objective: Develop policies, procedures and training to ensure transfer of knowledge for information technology systems.

Strategy: Anticipated Surplus or Shortage of Workers or Skills

Action Plan Goals

- Conduct a methodical analysis of current work activities, their drivers with related time and cost measures; and develop staffing models based on workload analysis.
- Develop a staffing plan based on forecasted business needs.
- Develop an FTE management process to incorporate the analysis, decision making, and change implementation processes that meet operational and strategic needs.
- Establish staffing standards, FTE plans and performance objectives that drive operational and key strategic initiatives.

Objective: Conduct a methodical analysis of current work activities, their drivers with related time and cost measures; and develop staffing models based on workload analysis.

Objective: Develop a staffing plan based on forecasted business needs.

Objective: Develop an FTE management process to incorporate the analysis, decision making, and change implementation processes that meet operational and strategic needs.

Strategy: Leadership and Business Development

Action Plan Goals:

- Develop and deliver training through a TxDOT Academy focused on developing core competencies to lead self, to lead others, and to lead TxDOT.
- Offer TxDOT tailored business development training for engineers and critical staff that focuses on business acumen.
- Provide resources for leaders to gain understanding of techniques used to review processes, gain efficiencies, and utilize metrics.
- Obtain and develop project and contract management competencies.

Objective: Develop tailored business development training for engineers and critical staff that focuses on business acumen.

Objective: Develop a program to transform the approaches used in addressing business situations that would provide guidance to be more strategic, lead change, and embrace innovative practices.

Objective: Provide training to enhance project management and contract management practices and promote TxDOT's internal training opportunities focused on these areas.

Strategy: Operational

Action Plan Goals

- Continue to monitor processes to ensure best practice project management activities are delivered on time and on budget.
- Implement a workload tracking system to identify the capacity of the workforce.

Objective: Establish requirements to be used in the design of a workload tracking system.

Objective: Develop tracking systems to capture the resources and time allocations for on a per-project basis.

Objective: Implement and manage a workload tracking system.

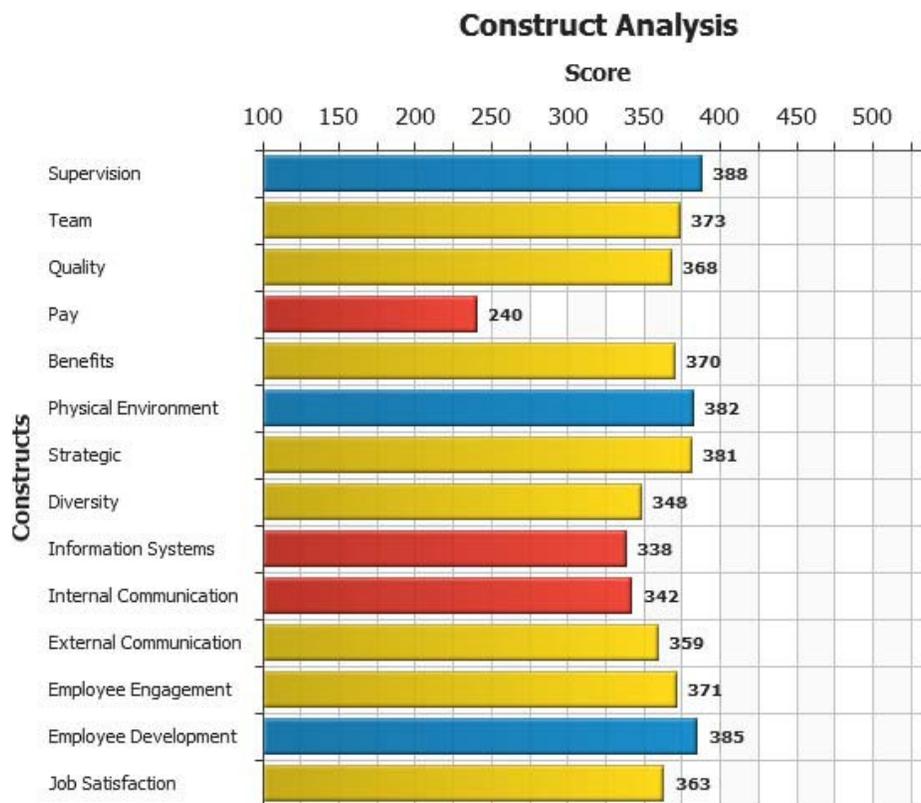
Appendix F: 2014 Survey of Employee Engagement

The Texas Department of Transportation (TxDOT) participated in the 2014 Survey of Employee Engagement conducted by the Institute of Organizational Excellence at the University of Texas at Austin. The team surveyed TxDOT employees February 18 – March 28, 2014. Out of the 11609 employees who were invited to take the survey, 7898 responded, for an overall response rate of 68 percent.

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.



Over Time Comparisons

One of the benefits of continuing to participate in the survey is that over time data shows how employees' views have changed as a result of implementing efforts suggested by previous survey results. Positive changes indicate that employees perceive the issue as adequately improved since the previous survey. Negative changes indicate that the employees perceive that the issue has worsened since the previous survey. Negative changes of greater than 50 points and having 10 or more negative construct changes should be a source of concern for the organization and should receive immediate attention.

