



**Texas Department of Transportation
Workforce Plan
2011-2015**

**Human Resources Division
August 2010**

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Anticipated Changes Over The Next Five Years

Historically, the Texas transportation system has served the state well. However in recent decades it has been challenging to keep pace with the state's population growth, increased road usage, new trade agreements, changing trends in business practices, and the need for additional funding and revenue sources. The transportation infrastructure, much of it built many decades ago, is now badly in need of rehabilitation and reconstruction. Consequential mobility needs are at a critical point, some requiring immediate infrastructure improvements while at the same time promoting long-term economic prosperity, and a sustained ability to provide a safer transportation system and cleaner air to all Texans.

The State's economic prosperity and all Texans' quality of life are inextricably tied to the value and convenience of the state's transportation systems. Infrastructure improvements, whether to existing systems or through new alternatives, are needed to address congestion, efficiency and safety and will promote sustainable job growth in Texas. Also, coupled with escalating highway construction and automobile fuel costs has made other transportation modes more favorable as transit options; therefore, expanding transportation planning into areas such as commuter and freight rail. Texas must have multi-modal transportation systems that can economically move people and goods throughout the state. This is essential to support long-term economic vitality, quality of life, the natural environment, U.S. military preparedness, and to minimize dependency on foreign energy.

The department employed close to 14,000 state workers annually and exercises control over a multi-billion budget for state transportation needs. Emerging technologies, consumer demand for viable transportation options and the necessity for the right mix of workforce skills, competencies and experiences are redefining TxDOT's role and responsibility as the state's transportation leader and partner in the national/international commerce scene.

A system whereby the department can attract competent labor and develop well-trained and productive transportation-focused employees must include innovative foresight for progressive advancement in acquiring skills, abilities and knowledge competencies. Strategic workforce planning will allow the department to proactively integrate organizational processes that avoid labor surpluses, mitigate talent shortages (panic hirings), and establish opportunities for competent employees to advance and maintain business readiness and flexibility.

The following workforce plan examines the department's current workforce skills level, assesses required future worker competencies and advocates for a progressive succession system, which will enhance the department's efforts in cultivating talent workers capable of meeting the challenges of the department.

Current Workforce Profile (Supply Analysis)

A. Critical Workforce Skills

The department employs qualified individuals in a myriad of program disciplines. Strong employee competencies are critical to meet ongoing business objectives and goals.

Current critical workforce skills include the following:

- ◆ Leadership/Management
- ◆ Transportation Federal/State Laws
- ◆ Information Technology
- ◆ Engineering/Design
- ◆ Roadway System Maintenance
- ◆ Finance
- ◆ Human Capital Management
- ◆ Aviation/Waterway/Rail Operations
- ◆ Customer Service Assistance
- ◆ Environmental/Archeological
- ◆ Contract Negotiation/Administration
- ◆ Project Management

B. Workforce Demographics

Gender, Age, Diversity

In FY2009, the department employed an average workforce population of 13,354 employees. Of that total, there were 3,205 females (24%) and 10,149 males (76%). The mean age was 46.3 years and 75% of the workforce population was 40 years old or older.

Tenure

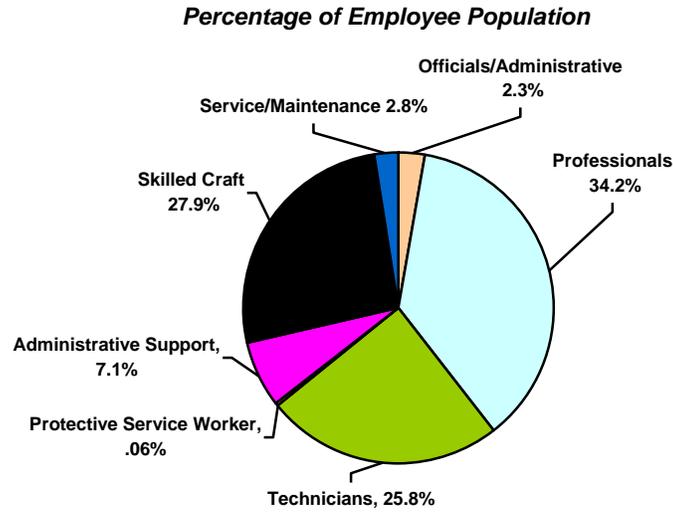
Of the department employees, 6,356 (47.6%) have less than 10 years of department service. There are 2,233 (16.7%) employees with 10 to 15 years service while 4,765 (35.68%) employees have 15+ years. The average length of department service time is 13.2 years while the overall state government longevity time is 14 years.

With slightly less than half of the workforce with 10 years or less department experience, the number of employees who possess the seasoned expertise and process “wisdom” is in short supply. The data clearly shows the tenure accruing 10 to 15 years is represented by a smaller employee group and gives credence to the prevailing trend that these employees will leave state government to pursue more lucrative compensation packages during their wealth building years.

Worker knowledge and experience development (beyond entry-level and basic process understanding) is the cornerstone to succession planning. Without planning it only serves to further exacerbate the loss of institutional knowledge and expertise as aging department employees retire and younger potentials seek the better job and/or career offers. It is critical to implement strategies that increase employee job satisfaction, build loyalty, and foster long-term employer-employee relationships with high demand and exceptional performing employees. Through these strategies the department can cultivate a skilled workforce composed of subject matter experts and leaders in the transportation field.

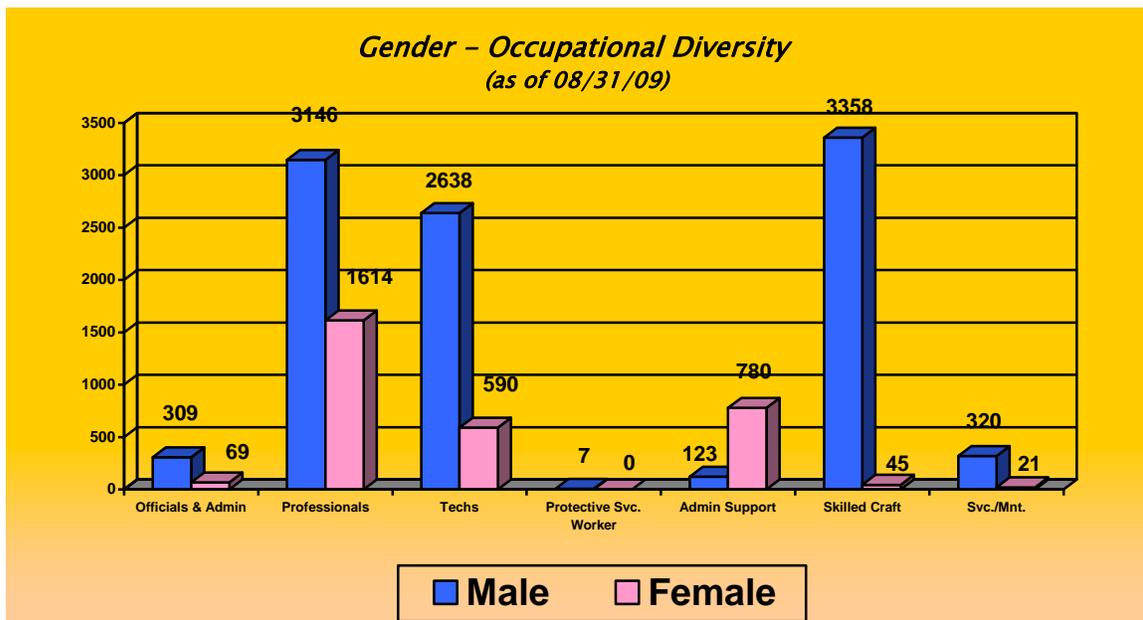
Job Categories

Three main job categories comprise the largest number of department employees (87.9%). The categories, “*Professionals, Technicians, and Skilled Craft,*” underscore the broad range of competencies utilized in accomplishing the department’s mission. Department data in most of the job categories reflect comparable to or above statewide workforce statistics.



Gender

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



C. Employee Turnover and Projected Attrition

During the last decade TxDOT has enjoyed one of the lowest turnover rates when compared to other state agencies and the statewide workforce. This has been a testament to its good fortune even though it continued to lose some of its more seasoned experienced workers to the private sector.

However, the growing trend appears to be that employees are leaving state employment for more lucrative positions in transportation industry-related firms and comparable private sector organizations. In FY2009, approximately 33% of the state workforce turnover occurred in the 16 to 29 years age group, followed by the 30 to 39 age group at 14%.

In the Texas State Auditor’s FY2009 Employee Turnover Statistics report, there was discussion about the inverse relationship between the state’s unemployment rate and state government’s turnover rate. The past five years has shown whenever the unemployment rate decreased, the turnover rate increased and vice versa. Data figures released show statewide turnover has averaged around 16% for the last five years. With the onset of the recession since December 2007, Texas has experienced higher unemployment rates due to loss of jobs in sectors that are comparable to department jobs. This has contributed to lower turnover in all department organizational functional areas but state economic indicators are forecasting a rebound and expansion again in 2010.

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

High profile news media coverage of the imminent talent shortage and emerging market opportunities clearly underscores the need to drive and mold an organization strategy for long lasting impact on the department’s workforce. The department, through carefully directed workforce strategies, can position itself for a strong future by attracting and retaining optimal staff.

EMPLOYEE TURNOVER					
<u>FIVE-YEAR TREND</u>					
Fiscal Year	2005	2006	2007	2008	2009
TxDOT	10.4%	9.7%	10.8%	11.7%	7.3%
All Agencies	17%	16%	17%	17%	14%

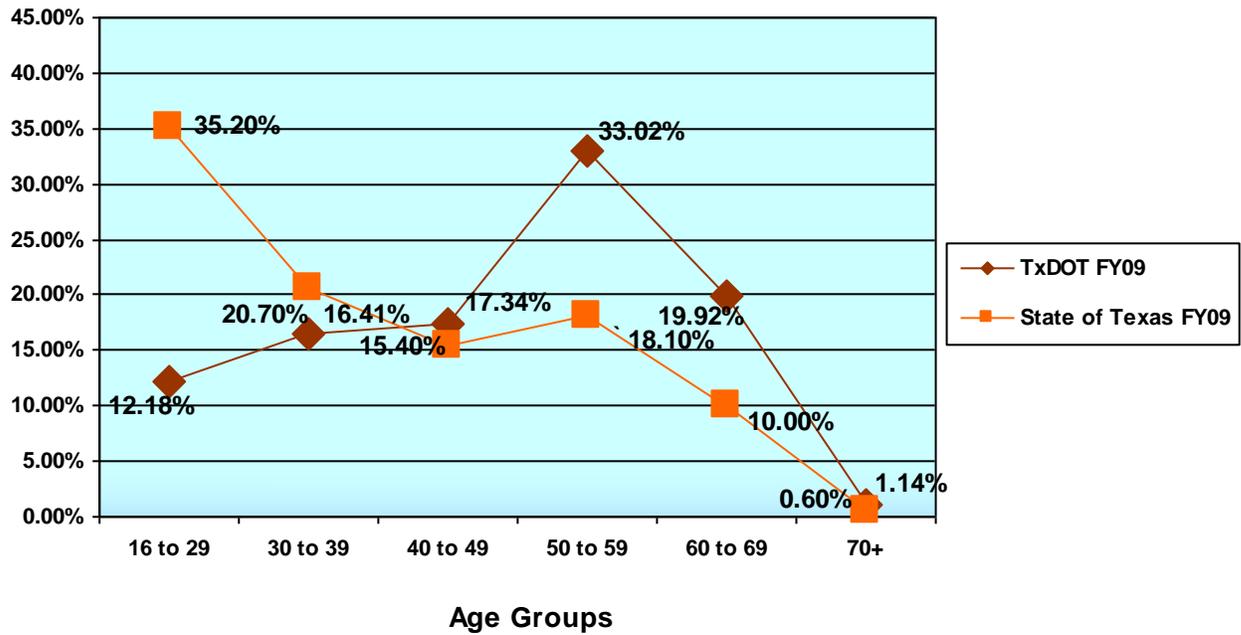
Length of Service

Tenure of Separating Employees Compared to Tenure of All Employees *				
FY2009				
Tenure in Years	# Separating Employees	% Separating Employees	All Employees	% All Employees
0 – 4	326	33.64%	3,161	24.28%
5 – 10	182	18.78%	3,109	23.88%
11 – 15	80	8.26%	2,125	16.32%
16 – 20	64	6.60%	1,467	11.27%
21 – 25	100	10.32%	1,869	14.35%
26 – 30	136	14.04%	903	6.94%
31 & above	81	8.36%	386	2.96%
Total	969	100%	13,020	100%

* Data comparison based on number of employees active on 8/31/2009.

Age

Age of Separated Employees



Occupations

During the past five years the department maintained a consistent cyclical turnover rate.

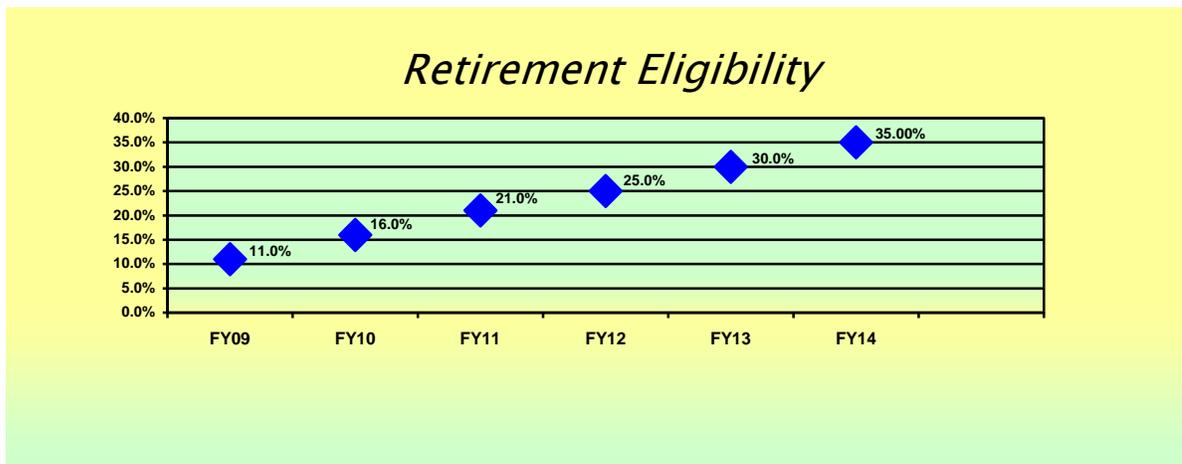
BUSINESS JOB CATEGORIES	PERCENT TURNOVER RATE				
	FY05	FY06	FY07	FY08	FY09
A. EXECUTIVE/ADMINISTRATIVE/ CLERICAL/LEGAL	10.3%	8.4%	10.3%	10.0%	8.8%
B. FINANCE/ACCOUNTING	6.6%	7.9%	9.1%	11.0%	7.6%
C. INFORMATION TECHNOLOGY	7.3%	8.5%	9.4%	10.5%	7.4%
D. ARCHITECTURE	8.5%	6.1%	5.6%	13.7%	4.4%
E. ENGINEERING/ENGR. SUPPORT	8.2%	8.4%	9.9%	9.4%	5.8%
G. CIVIL RIGHTS/BUSINESS OPPORTUNITY	14.5%	14.8%	10.2%	12.8%	6.2%
H. HUMAN RESOURCES	8.3%	6.9%	6.3%	7.2%	4.6%
I. OCCUPATIONAL SAFETY	5.0%	1.6%	9.5%	10.9%	10.0%
J. GENERAL SERVICES CONTRACTS/PURCHASING	9.7%	7.0%	9.1%	12.7%	6.3%
K. MAINTENANCE/SKILLED CRAFT/ FERRY OPERATIONS	12.3%	11.2%	12.2%	12.4%	8.0%
L. LABORATORY/MATERIALS	11.6%	7.4%	6.9%	7.1%	5.6%
M. MOTOR VEHICLE/VEHICLE TITLE & REGISTRATION	11.4%	9.9%	11.1%	7.4%	9.7%
N. PLANNING/ENVIRONMENTAL/ AVIATION/PUBLIC TRANSPORTATION/ LEGISLATIVE	12.7%	18.6%	16.0%	47.4% *	9.3%
P. RIGHT OF WAY	11.0%	12.9%	13.1%	8.1%	6.5%
Q. TRAVEL/PUBLIC INFORMATION	10.1%	7.6%	9.8%	15.9%	7.8%
V. ENVIRONMENTAL	18.7%	8.1%	5.6%	9.0%	8.0%
Z. NOT DEFINED	5.3%	15.0%	20.3%	5.1%	12.3%
TOTAL	10.04%	9.7%	10.8%	11.7%	7.3%

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

D. Retirement Eligibility

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

The chart below depicts the actual projected increases in the number of employees eligible to retire. Current data projects that approximately 25% of the department’s workforce will be eligible to retire by FY2012. In FY2009, the mean age of retiring employees was 58 years with 23.4 years of TxDOT service time and a 24.2 overall state government time.



Retirees by Job Category

By FY2014, the department’s workforce will have 35% eligible for retirement. This large scale retirement turnover will have enormous impact on the department’s organizational structure and service delivery.

BUSINESS JOB CATEGORY RETIREMENT ELIGIBILITY	% FY09 or Before	% FY10 or Before	% FY11 or Before	% FY12 or Before	% FY13 or Before	% FY14 or Before
A. EXECUTIVE/ADMINISTRATIVE/ CLERICAL/LEGAL	14.83%	19.37%	24.35%	28.97%	33.33%	39.18%
B. FINANCE/ACCOUNTING	13.64%	17.36%	23.14%	30.58%	34.30%	40.50%
C. INFORMATION TECHNOLOGY	10.27%	13.81%	18.05%	23.89%	27.61%	33.81%
D. ARCHITECTURE	13.64%	18.18%	29.55%	40.91%	52.27%	59.09%
E. ENGINEERING/ENGR. SUPPORT	10.31%	14.34%	19.53%	24.39%	29.84%	36.13%
G. CIVIL RIGHTS/BUSINESS OPPORTUNITY	26.47%	26.47%	32.35%	38.24%	41.18%	47.06%
H. HUMAN RESOURCES	16.11%	22.82%	26.17%	28.86%	34.23%	40.94%
I. OCCUPATIONAL SAFETY	18.18%	23.64%	29.09%	34.55%	43.64%	49.09%
J. GENERAL SERVICES CONTRACTS/PURCHASING	16.29%	23.44%	28.35%	34.15%	38.39%	43.30%
K. MAINTENANCE/SKILLED CRAFT/ FERRY OPERATIONS	10.02%	13.70%	18.71%	22.80%	26.99%	31.37%
L. LABORATORY/MATERIALS	12.29%	18.27%	22.92%	29.57%	32.23%	37.54%
M. MOTOR VEHICLE/VEHICLE TITLE & REGISTRATION	17.31%	22.12%	27.24%	30.45%	34.29%	39.10%
N. PLANNING/AVIATION/PUBLIC TRANSPORTATION/ LEGISLATIVE	13.01%	17.12%	22.60%	28.42%	33.90%	37.67%
P. RIGHT OF WAY	14.97%	21.39%	26.20%	35.29%	38.50%	44.92%
Q. TRAVEL/PUBLIC INFORMATION	12.66%	15.82%	22.15%	27.22%	36.71%	39.87%
S. STUDENT/CO-OP/INTERN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
V. ENVIRONMENTAL	9.02%	11.28%	15.04%	18.80%	23.31%	27.82%
Z. NOT DEFINED	21.74%	30.43%	30.43%	34.78%	47.83%	52.17%
TOTAL	11.42%	15.56%	20.60%	25.35%	30.02%	35.33%

While the supervisory, mid-level, and executive employees collectively make up a small percentage of those eligible to retire, forecast eligibility data indicates the department could experience a 35% turnover rate in all management levels between now and FY2014. And there could be significant supervisory and upper management staffing adequacy issues (25%) by FY2015, if appropriate succession planning strategies are not executed timely to provide optimum staffing acquisition, training, and development transition.

Percentage of Management Staff Eligible to Retire Within the Next Five Years						
MANAGER / WORK LEVEL	FY09 or Before	FY10 or Before	FY11 or Before	FY12 or Before	FY13 or Before	FY14 or Before
SUPERVISOR	14.83%	19.37%	24.35%	28.97%	33.33%	39.18%
BRANCH	13.64%	17.36%	23.14%	30.58%	34.30%	40.50%
SEC / STAFF	10.27%	13.81%	18.05%	23.89%	27.61%	33.81%
EXEC MGR	13.64%	18.18%	29.55%	40.91%	52.27%	59.09%
EXEC DIR	10.31%	14.34%	19.53%	24.39%	29.84%	36.13%
TOTAL	11.42%	15.56%	20.60%	25.35%	30.02%	35.33%

Projected Attrition

A review of employee turnover examines the reasons for leaving, length of department service and employment movement within occupational categories. An analysis of the data available through the State of Texas Employee Exit Survey show retirement, better pay/benefits and poor working conditions/environment as the top reasons for state employment departures.

Typically, the department employee exit survey response rate averages about 24% with pay ranking as the number one motivating factor for separation of employment. Also, these same employees tell us they are going to the private sector with possibly a \$5,000 or more increase in annual salary. While the majority of exiting employees state they would work for the department in the future, they cite changes in compensation and benefits (43%) as the areas most in need of improvement.

Turnover in business title categories range from less than 10% to a high of 15%, all dependent on various influencing factors such as the employee group size, legislative restructuring and general labor market conditions occurring during any given fiscal year. In the past the department has done well with balancing the retention of core competencies against the normal retirement and attrition. However, a critical department workforce shortage will rise as top management and seasoned professionals leave, taking with them much needed technical expertise and long term organizational knowledge.

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

Future Workforce Profile (Demand Analysis)

A. Future Staffing Outlook

A surging population growth in Texas and shifting demographic trends will increase the state's demand for efficient movement of goods and people. Five years ago it was estimated that two-fifths of state and local government employees would be eligible to retire in 15 years. HR strategists had predicted that beginning in the year 2008 a wealth of skills and experience will begin to disappear from the job market.

A workforce crisis may also be triggered by the convergence of two demographic trends: the growing number of aging Baby Boomers exiting and the much smaller number of available younger people who follow behind them. Competition for younger knowledge workers trained in "hard skill" disciplines such as science and engineering will become very competitive in the marketplace.

Certain clusters of occupational groups will see a dramatic increase in vacancies due to employee retirements including executive, administrative and managerial occupations. Some of the fastest growing occupations in Texas will require high levels of education and skills while also demanding higher wages. According to the Bureau of Labor Statistics (BLS), professional and technical occupations such as engineers, architects, and environmentalists are expected to grow faster and open more new positions than any other occupations.

Higher-skilled professions will require more education and better communication, math, information technology, and reasoning skills. The department has already identified potential problems in recruiting engineering graduates as the number of students graduating with engineering degrees has been on the decline. Demographics show not only will more skills and education be needed, but that the workforce will be less skilled and less educated due to waning student interest in science and engineering coupled with academia's inability to keep pace with the rapid technology expansion and complexity. Additionally, the hiring of other types of engineers, i.e., petroleum, and higher starting salaries in the private sector, has exacerbated the problem in hiring newly graduated and/or licensed engineers.

Texas' population is expected to grow to more than 25 million and the Lone Star state continues to buck national recession trends with continued city growth in Dallas-Fort Worth, Houston, Austin and San Antonio according to recently released census estimates. A Moody's report stated Texas cities will outpace the rest of the country in coming out of the recession and will be one of the first regions to achieve a new employment peak. Though current recession related economic woes has created a relatively flat labor market, no real industry job gains but no significant losses either, Texas is already studying and looking at the emerging demand between skilled workers and the state's ability to supply them.

Jobs once considered “blue collar” now involve sophisticated, highly specialized technology, field certifications and knowledgeable workers. The Texas Workforce Commission, says, “When we look at high-demand occupations, no longer is it sufficient to have a strong back and a good heart to earn a good wage. Today’s employers require specific skills.” Capital investments occurring in oil refineries and advanced manufacturing technologies has launched tremendous focus on skilled talent development for these and other evolving economic opportunities in Texas. Compensation packages for workers with a high school education and post-secondary training in manufacturing jobs could earn about \$47,000 annually. In-demand occupations in welding, construction and oil occupations will offer very high wages and great benefit packages. This data illustrates emerging labor market opportunities and reflects Texas’ growth as the next center of trade is strong.

B. Gap Analysis

Faced with potential significant changes in the labor market, the department will be challenged to acquire, develop, deploy and retain a competent workforce. The department’s Standing Committee on Training (SCOT) is working towards a comprehensive strategic training program that will address and sustain a management and technical training program. The strength of an engaged workforce is a continual part of any business strategic plan.

Workplace knowledge and skill alignment:

Leadership	International Relations	Information Technology
People Management	Engineering/Design	Roadway Maintenance
Finance/Asset Management	Human Capital Management	Customer Relations Management
Natural/Cultural Resources	Contract Administration	Aviation/Rail/Waterway Operations
Marketing/Negotiation	Project Management	Multimodal Transportation
Research/Development	Government Rules/Regulations	Community/Citizen Outreach
Multi-lingual	Business Acumen	Performance Metrics

C. Strategy Development

For TxDOT to be competitive in the talent pool market war, a renewed emphasis on employee engagement will be necessary. Research studies routinely survey employees about their expectations from their employers. The top three responses were interesting, challenging work, open two-way communication and opportunities for growth and development.

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

Such responses could become conventional employee attitude, thus the focus of our attraction, motivation, and retention strategies, will be on the flexibility to shift with marketplace demands in a recovering economy. Most common retention strategies often fall short of resolving turnover issues and fail to recognize the things that generate the most value and matter most to employees.

Job rotation and cross training programs (in-house talent cultivation) and the feasibility of a succession planning program, an entry-level engineer’s program, and developing career progression models (management, leadership and technical) are all examples of workforce strategies that lend itself to building and strengthening the department’s core business units. A look at certification programs is needed to equip employees with increased skills in the area of project management and other technical areas.

The SCOT is dedicated through its efforts to address critical training needs in technical areas. The department is considering adopting a uniform and well communicated plan for the development, tracking, delivery and evaluation of all department training delivered or attended. This measurement allows the department to take a pro-active stance to addressing immediate training and development needs as they occur rather than being reactive to documented trends.

TxDOT continues to work with local Texas Prefreshman Engineering Programs (TexPREP), an eight-week academic enrichment program for middle and high school students that encourage students to pursue careers in transportation. Also, department personnel work with colleges and universities by providing input into school curriculum development to assure students have the foundation knowledge needed for successful careers in transportation.

TxDOT already offers a myriad of talent-market programs that drive its organizational success through attraction and retention of transportation knowledge-based workers. These programs include accelerated hiring processes, high school or college summer employment opportunities, a balanced work and life environment, flexible work schedules, career development programs, temporary recruitment programs, job rotation/cross training, executive training, tuition assistance, award and recognition programs, recruitment and retention bonuses.

The department has also joined the ranks of other state transportation agencies in implementing a new initiative called Knowledge Management. This project involves a visionary approach to identifying, collecting and cataloging “legacy and present knowledge” into one repository capable of providing information through decentralized networks to users. The idea behind the approach is to provide information tools that capture critical business knowledge while at the same time create an environment which can facilitate learning by employees from in-house professionals, support continued knowledge development and provide a forum for sharing best practices.

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

If forecast trends hold true and the labor pool begins to tighten, TxDOT will need to assess its competitive position and align its recruiting, hiring and training programs. It must offer competitive salaries and promote employees to higher salary ranges (within budget constraints) to align employee engagement with business performance. The development and promotion of in-house talent will be essential for long term mission objectives.

Now is the time to establish organization career progression academies for the next TxDOT leadership generation. Data and demographics can offer guidance in determining employee retirements and targeted areas for organizational change, and showcase business needs for creative recruitment strategies. Competition for the same pool could become fierce between the private sector, government and not-for-profit organizations. Ensuring employee competency readiness from policy levels to execution levels sustains the department with the most productive and efficient workforce.

Attracting and retaining critical work segments in our department will require positioning our agency as top draw in the public sector transportation world. Future employee development programs must have a central focus on maximizing already acquired employee knowledge, skills and abilities and cultivating additional strengths to enhance the full suite of management skills, abilities and technical expertise. Management leadership must propel the push towards stronger analytical and business intelligence capabilities. This means a greater investment in capturing and harnessing information necessary to facilitate sound, well-reasoned decision making processes, financial management, public-private collaborations and customer service.

Integrating staff development with flexible, mobile career ladders, advocating work/life balance programs, offering competitive salaries coupled with pay for performance incentives, as well as supportive employee recognition programs, are all employee-focused recruitment and retention preparedness strategies. New hire quality imperatives and optimum organization workforce management “think tanks” that dominate the employer-employee work relationship will serve to position the department for business success and meet Texas’ future transportation realities.