



Articulation Alignment – Background & Context

February, 2018

Human Resources Division

Introduction

The Texas Department of Transportation (TxDOT) is ready to take a larger, organizational approach to educational attainment. We're looking for partner agencies that can fit our organizational culture and provide the best value added proposition for a workforce of up to 6,900 potential college candidates.

Background

TxDOT employs over 12,000 Texans throughout the state. Our employees are State Government professionals in positions that align with the Construction, Utilities, Transportation & Warehousing, Information, Financial Activities, and Professional & Business Services sectors of the economy.

Of those 12,000 employees, there is a population of up to 6,900 employees who may be interested in completing a college degree as part of their career development, or are at least considered candidates for additional education in support of Texas' workforce development goals and the Texas Higher Education Coordinating Board's (THECB) 60x30TX initiative.

TxDOT also has a strategic goal to "Value our Employees" and has begun a Career Development Program to augment our robust internal training program. As a result of career conversations, many of the 6,900 employees learn that significant career advancement comes with an education requirement – stopping some career development in its tracks.

TxDOT already has many internal programs designed to increase performance and work outcomes. Among other initiatives, our internal training is competitive with the private sector, TxDOT has the strongest Wellness Program of State agencies, and our safety programs routinely provide awards and recognition to safe operators. As a result of internal investments in our people, TxDOT has the lowest turnover of large agencies and some of the highest Survey of Employee Engagement responses in Texas. It's important context for our partners to know we're not starting from scratch and we're not in crisis – we're honestly looking to go from "Good to Great".

While financially resourced, TxDOT has limited human resources. TxDOT's employee cap is exactly 12,213.5 and, for a variety of reasons, TxDOT has been shrinking since the 1990's. By comparison, our nearest peer in California has almost 6,200 more employees to manage a portfolio just half the size of ours. We're also planning the transportation system for a Texas that will continue to grow through the 2050's. Needing to "do more with less" compels us to maximize the performance of every position in our organization to meet Texas' transportation goals for the next 100 years.

Conditions at TxDOT

The following section describes enterprise environmental factors at TxDOT, as well as what we understand of our “student body”.

- **Time**
 - High temporal costs of entry like confusing online platforms, long ramp-up times, far off enrolment dates, and getting an out-of-office e-mail during “spring break” would all contribute to poor adoption at TxDOT. Our employees are quick to make decisions and can always show you there’s more critical work to be done. As a result, we will have few chances to get a commitment and must be efficient in execution of anything that could be considered “nonessential”.
- **Price**
 - After time comes cost. While we are expanding our tuition assistance program, we can currently offer employees enrolment at Southern New Hampshire University’s College for America for \$3,600 a year. That price almost removes the need for tuition assistance entirely – and thereby removes a significant barrier to education. That said, SNHU does not accept transfer credits or have articulation with any corporate training program. So while the price is attractive, it still isn’t prompting TxDOT employees to action.
- **TxDOT is all of Texas**
 - The chief barrier to successful partnership between TxDOT and an education institution seems to be our disregard for district boundaries. As an employer, anything TxDOT provides in downtown Houston has to be identical to what we offer in Alpine, Texas. For many, that’s just too much to take on.
- **Flexible and Asynchronous**
 - Many of our candidates work an alternate schedule of 4 days of 10 hour shifts, with some monthly “on-call” duties and “standby” duty during both the hurricane season and winter weather events. Most are parents, many have multiple jobs, and some even have farms or ranches with schedules that will be prioritized ahead of career development.
- **“Statewide” and “Asynchronous” likely means “Online”**
 - We can issue technology to all of our employees – laptops, tablets, I-Phones, hotspots – it’s all available. That said, some employees have avoided these tools for years and some will see college as both the opportunity to learn and as a chance to finally become a late adopter of contemporary technologies.
- **TxDOT Employees as a subset of Adult Learners**
 - Many of our candidates came to TxDOT specifically because they didn’t consider themselves “college material”.

- Part of not being “college material” may include diagnosed – and undiagnosed – learning disabilities, poor English skills, or major deficiencies in core areas that should have been mastered in Grades 1 through 12.
- **Realistic Timelines**
 - While employment with TxDOT is viewed by many as a long term commitment, there has to be a clear path to education success that probably stays within a 1 to 4-year window. We’ve had tuition assistance recipients who have lingered in Associate’s degree programs for up to 6 years and we don’t think that serves the student or TxDOT.
- **TCC, Stacking, Transferability, Competency-Based, Accelerated...**
 - The Texas Core Curriculum (TCC) is revolutionary for higher education in Texas. Today, English 101 is English 101 at any price or location, and education consumers know it.
 - The lines between training and education have blurred. If a training course is also offered as part of a degree program, then consumers expect the commercial training to include academic credit as part of the deal.
 - Certificate and degree programs should build on one another, reduce redundancy, and be internally transferable.
 - Credit-by-Examination, CLEP tests, and department tests should be a thoughtful part of a degree program. Most Texas universities will count up to 24 credits through examination – the equivalent of about 2 full semesters – so we expect colleges to capitalize on this resource-saving strategy in a meaningful way.
 - The competency-based education model makes sense to TxDOT. We work to standards and specifications every day, so it’s reasonable that students should be able to move at their own pace.
 - Prior learning assessments, portfolio classes, and similar evaluations of experience are welcomed. We’ve divorced ourselves from IACET, ACES, and other quasi-educational schemes in favor of working directly with education institutions.
 - An Associate’s degree is not a terminal degree. Graduates should be well positioned to complete a Bachelor’s degree within 2-4 years of receiving an institution’s Associate degree.

TxDOT's "Common Core" of Training

TxDOT averaged 43 hours of training per capita in FY17; more than most other large organizations, according to the Association for Talent Development. TxDOT also spent approximately \$8.3M on training, which was on par with award-winning training organizations. Training is centralized through the Workforce Development section of the Human Resources Division in Austin, with the majority of training provided under contract by vendors that already include Texas colleges and universities who work alongside private training providers, TxDOT's internal trainers, and volunteer adjunct instructors from the field.

Having a centralized training organization also means TxDOT has just one address for the agency's training catalog, employee training records, and an enterprise Learning Management System of record. That's one call to figure out contact hours, completion status, course descriptions, learning objectives, evaluations, instructor qualifications, and any other criteria to support an education provider's articulation decision.

As TxDOT's office of primary responsibility for training, we know the following about most of our employees' training records and can share them with an education partner:

- **Compliance Training**
 - Most of the 6,900 employees eligible for college have completed at least 61 hours of training (almost 2 work months) just to be compliant with our minimum safety and operations standards.
- **Field Personnel – Drivers & Equipment Operators**
 - Many of the 6,900 employees eligible for college are initially tracked into one of two categories – Truck Driving or Equipment Operation
 - We add up to another 136.5 hours for our professional drivers and/or up to another 404.5 hours for equipment operators, most all of which is obtained over the first 1 to 3 years of employment.
- **Managers & Supervisors**
 - All managers at TxDOT are required to attend 40 hours of leadership training, with options to complete another 24 to 192 hours of advanced training – all before being considered for even further advanced training.
- **Specializations**
 - Many employees add specializations to their positions, depending on the work unit. Some professional drivers become licensed in Herbicide application, while some handle

hazardous materials. While not all employees have these qualifications, if a specialization was required for an academic degree program, then employees could complete existing training courses to add them to their training records.

- **Cross-Functional Training**

- Some training transcends positions. Just like leadership training, Project Management, Contract Administration, logistics, and emergency response functions are done by many employees at TxDOT. As a result, many employees have universal access to the training in these skills; if they haven't completed some of this training already. These cross-functional skills may be ready-made for a degree program or an area of emphasis.
- TxDOT has computer based training available to all employees, the core of which is off-the-shelf training provided by Skillsoft. TxDOT also has over 200 internally developed courses, as well as a second catalog of training courses specific to the transportation industry from the American Association of State Highway Transportation Officials (AASHTO). These online offerings are frequently used as formal training resources to augment classroom training.

The following 4 pages show an exemplar of a training record for one of our field employees that has been reformatted from data extracted from our learning management system, which is a State system of record. Coupled with our existing training catalog, we believe this is enough information for an education provider to make a prior learning assessment for credit and a recommendation for an academic degree program.



Training History - SAMPLE

Course Code	Course Name	Completion Date	Status
ETH101	TxDOT Ethics Policy	8/17/2017	Completed
EL8474	Securing the Human (Cybersecurity at TxDOT)	6/26/2017	Completed
EL2017	Records Retention and Litigation Hold	6/26/2017	Completed
MNT210	Equip Preventive Maintenance	4/25/2017	Denied
TRF521	Flaggers in Work Zone	4/6/2017	Completed
MNT192	Skid-Steer Operator	3/8/2017	Completed
DEV205	Equal Employment Opportunity	12/27/2016	Completed
SFH902	Defensive Driving	12/27/2016	Completed
MNT192	Skid-Steer Operator	11/9/2016	Completed
MNT812	Winter Weather Operations	11/9/2016	Denied
ETH101	TxDOT Ethics Policy	9/19/2016	Completed
EL8474	Securing the Human (Cybersecurity at TxDOT)	8/22/2016	Completed
EL2017	Records Retention and Litigation Hold	8/1/2016	Completed
ETH101	TxDOT Ethics Policy	8/1/2016	Completed
	Dozer Operator	7/13/2016	Planned
MNT134	Maintainer Operator Advanced	6/16/2016	Completed
MNT112	Wildland Fire Workshop	5/24/2016	Denied
MNT181	Bucket Truck & Crane	4/28/2016	Completed
MNT134	Maintainer Operator Advanced	4/13/2016	Dropped
MNT134	Maintainer Operator Advanced	3/16/2016	Dropped
TRF515	Installation and Maintenance of Signs	1/29/2016	Completed
MNT155	Backhoe Operator	12/17/2015	Completed
SFH110	Confined Space Safety	11/5/2015	Completed
MNT130	Maintainer Operator Basic	10/22/2015	Completed
PLN210	Plan Work Zone Trf Control	10/9/2015	Dropped
TRF302	Signal Tech Training - Basic	9/23/2015	Completed



Training History - SAMPLE

Course Code	Course Name	Completion Date	Status
ENV433	Storm Water ENV Req During CON	7/15/2015	Completed
EL8474	Securing the Human (Cybersecurity at TxDOT)	7/15/2015	Completed
ENV414	Environmental Mgt System	7/15/2015	Completed
EL2017	Records Retention & Litigation Hold	6/16/2015	Completed
ICP102	TxDOT Ethics Policy Refresher	6/16/2015	Completed
MNT172	Equipment Load & Tie Down	6/2/2015	Completed
MNT215	Intro to Heavy Equipment	6/1/2015	Completed
DEV283	Violence Prevention- Employees	3/24/2015	Completed
EL1022	Forklift Safety Awareness Prereq	3/12/2015	Completed
SFH420	Hazardous Communication	2/23/2015	Completed
ICP102	TxDOT Ethics Policy Refresher	2/19/2015	Completed
DEV205	Equal Employment Opportunity	2/19/2015	Completed
SFH502	Forklift Train-the-Trainer	2/10/2015	Completed
DEV037	PeopleSoft Navigation Overview	9/22/2014	Completed
DEV086	HCM Employee Time Reporting	9/22/2014	Completed
EL6002	Fuel Focus for Users	6/17/2014	Completed
EL6004	Key Valet for Users	6/17/2014	Completed
SFH401	Focus on Safety IV	4/24/2014	Completed
EL1430	Haz Materials Awareness Trng	4/22/2014	Completed
SFH853	First Aid/CPR	4/22/2014	Completed
EL2017	Records Retention & Litigation Hold	4/22/2014	Completed
EL1059	AED Orientation	4/22/2014	Completed
SFH398	Intro to Occupational Safety & Health	2/5/2014	Completed
SFH903	Smith System Driver Training	2/4/2014	Completed
SFH902	Defensive Driving	1/9/2014	Completed
ICP102	TxDOT Ethics Policy Refresher	1/7/2014	Completed



Training History - SAMPLE

Course Code	Course Name	Completion Date	Status
MNT215	Intro to Heavy Equipment	8/29/2013	Completed
MNT702	Seal Coat Inspection & Applications	8/20/2013	Completed
EL2016	HR Policy Manual Release	6/10/2013	Completed
EL2015	Rev2013 Ethics Pol Rev&Empl Af	4/3/2013	Completed ELearning
ICP102	TxDOT Ethics Policy Refresher	2/6/2013	Completed
DEV205	Equal Employment Opportunity	2/6/2013	Completed
TRF525	Work Zone Trf Ctrl Refresh	12/4/2012	Completed
MNT191	Metal Flat Wheel Roller Operat	5/1/2012	Completed
MNT600	Welding, General Shop	3/8/2012	Completed
MNT190	Pneumatic Roller	2/28/2012	Completed
ICP102	TxDOT Ethics Policy Refresher	2/8/2012	Completed
MNT400	Homeland Security Training	1/9/2012	Completed
MNT301	Dump Truck Driver 10-12 Yd	1/6/2012	Completed
SFH401	Focus on Safety IV	10/17/2011	Completed
MNT160	Loader Operator	10/4/2011	Completed
SFH398	Intro to Occ Safety & Health	10/4/2011	Completed ELearning
MNT172	Equipment Load & Tie Down	9/8/2011	Completed
SFH310	Bloodborne Pathogens	8/25/2011	Completed ELearning
TRF515	Install & Maint Of Signs	5/18/2011	Completed
TRF520	Work Zone Traffic Control	4/14/2011	Completed
32PVMT	Equipment Preventative Maint	2/24/2011	Completed
SFH500	Forklift Operator	2/24/2011	Completed
	NEO ADA - Non-Supervisors	2/23/2011	Completed
DEV225	New Employee Orientation	2/23/2011	Completed
DEV282	Violence Prevention	2/23/2011	Completed
DEV201	NEO Cultural Diversity - TxDOT	2/23/2011	Completed



Training History - SAMPLE

Course Code	Course Name	Completion Date	Status
DEV202	NEO Sexual Harassment & Griev	2/23/2011	Completed
ICP101	NEO TxDOT Ethics Policy	2/23/2011	Completed
DEV260	NEO - Substance Abuse	2/23/2011	Completed
DEV200	New Employee Orientation	2/23/2011	Completed
DEV204	ADA - Non-Supervisors	2/23/2011	Completed
DEV199	NEO - Online Course	2/22/2011	Completed ELearning
SFH902	Defensive Driving	2/3/2011	Completed
SFH420	Hazardous Communication	2/2/2011	Completed
32SNEO	Safety NEO	2/2/2011	Completed
32T521	Flaggers in the Workzone	2/2/2011	Completed
DEV261	Sub Abuse - Commercial Drivers	2/1/2011	Completed
DEV262	Sub Abuse - Safety Sensitive	2/1/2011	Completed
NIM100	Incident Command System, Intro	7/14/2006	Completed
NIM700	National Incident Mgmt System	7/8/2006	Completed
MNT172	Equipment Load & Tie Down		Not Completed