



# Recruiting, Retaining, and Promoting for Careers at Transportation Agencies

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*Developing viable solutions for successful recruitment, retention, and promotion through a state-of-the-practice review, interviews, and surveys*

Challenges exist in today’s workforce in terms of recruiting and retaining quality employees as well as attracting individuals from minority and underrepresented groups. Currently, the aging workforce along with the fact that newer generations of workers have much different ideals, beliefs, and expectations than previous generations, reveals recruitment and retention issues should be a primary concern for public agencies such as state departments of transportation (DOTs). In order to manage the dynamics of meeting today’s and future needs of transportation construction and maintenance demands, state DOTs need robust workforce management strategies and guidance that can attract, train, retain, and promote positions needed to construct and maintain the U.S. transportation infrastructure now and into the future. This study develops a decision-support tool focused on strategic guidance to attract, retain, and promote employment of individuals at public transportation agencies from current to future generations of workers, including minority and underrepresented individuals. Using the decision-support tool and guidance, the research team will conduct outreach efforts for workforce development and education to encourage consideration for employment at DOTs and implement the results of the study.

## Problem Statement

Work shortages are a growing concern in the construction industry. A national workforce survey noted that 74% of construction firms struggle to fill craft worker positions. As an example that is similar to the transportation industry, the Mississippi River Delta Basin area in southern Louisiana currently has \$80 billion worth of new industrial projects ongoing or in planning stages. Many of these projects have had to deal with increased schedule durations due to a lack of skilled craft workers, leading to loss of revenue.

Not only are tradespeople in demand, the reduction of construction management and engineering positions due to the Great Recession of 2008-2011 has only recently rebounded to

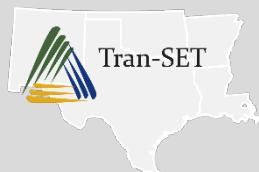
levels seen prior to the recession even with the current boom in the economy. Many project management positions are being left unfilled due to a lack of quality individuals to fill positions such as field engineers, project managers, site superintendents, estimators and design specialists. This means that many construction firms face an extraordinary demand for attracting and keeping quality management personnel, which is complicated for DOTs as typically public agencies cannot compete with the offers that private firms make.

The other challenge is the ability of DOTs to retain quality employees and avoid those individuals leaving for private entities. With the continuing competition for highly qualified and skilled individuals, state DOTs need to establish retention programs that highlight useful training and workshops, stable employment, flexibility in schedules, promotions, health and retirement benefits, career development, and recognition of excellent work. However, the difficulty that DOTs have in establishing retention programs is that many DOTs lack the proper funding and internal resources to create effective retention programs.

## Summary

This study investigates the current trends in workforce shortages and changes, in order to explore ideals and expectations of newer and future generations, and to review company loyalty along with current hiring and retention practices, so that strategic guidance can be developed based underrepresented individuals that want to work and continue to work at a transportation agency for many years. This study will provide solutions for workforce development strategies while acknowledging the limitations and barriers that are commonly seen at state DOTs, such as limited budgets and the inability to offer higher salaries than private firms. Specifically, the objectives of this study are:

- Determine the best practices employed by transportation agencies, other public agencies and organizations, and private firms that lead to



recruitment of qualified transportation agency employees;

- Assess current best practices that are used to retain qualified and experienced transportation agency employees;
- Identify potential institutional barriers that exist within transportation agencies that limit the recruitment and retention of high quality employees; and
- Develop outreach, educational, and workforce development hands-on activities to expose, and engage bright young minds from underrepresented groups to broader fields of transportation and the associated careers.

## Findings

Currently, the researchers have completed interviews with human resources (HR) staff from AR, LA, NM, OK, and TX DOTs - and data collection from a developed survey is almost complete. However, only analysis of the interview data has been completed to this point. The focus of the interviews was to speak with each DOT HR director as well as at least one other individual part of the HR support staff. The interviews were broken into three parts: (1) recruiting, (2) retaining, and (3) promoting of positions within the DOT.

In terms of recruiting, Table 1 shows the findings from the interviews. Some common themes were: (1) all DOTs noted difficulty in recruiting quality engineers, (2) four state DOTs offer tuition reimbursement to allow potential employees to further their education, and (3) three state DOTs purposefully recruit from historically-minority colleges and advertise positions to minorities and women.

**Table 1. Recruiting techniques.**

	Arkansas	Louisiana	New Mexico	Oklahoma	Texas
<b>Time to fill open positions</b>	30 to 90 days	Depends on the position	Average of 67 days	60 to 120 days	Depends on the position
<b>Positions difficult to fill</b>	Engineers; Maintenance; IT	Engineers; Equipment operators	Engineers; Surveyors; Maintenance	Engineers; Equipment operators; Mechanics; GIS/surveyors	Engineers; Supervisors; Inspectors
<b>Strategies / Incentives</b>	Assign a dollar value for the benefits package offered	Use of special entry-level pay rate; tuition assistance; flexible work schedule	Tuition assistance; Help obtain licenses/certifications	Tuition assistance; Flexible work schedule; internships for college students; Helps obtain licenses/certifications	Tuition assistance; work-life balance; wellness programs
<b>Policies for recruiting of minorities and females</b>	Recruits from minority colleges; internships for minorities/ women	Recruits from minority colleges	Follows federal equal employment opportunities guidelines	Follows federal equal employment opportunities guidelines	Advertise position in minority/ women magazines

In terms of retaining high quality staff: (1) difficulties in keeping quality maintenance staff as two states (OK and TX) mentioned that the DOTs have a hard time competing with other industries, (2) all DOTs mentioned difficulties in keeping

quality engineers and engineer technicians, and (3) all DOTs offer professional development.

The last section of the interviews focused on promotion aspects at the DOT. Table 2 summarizes the findings. Each of the state DOTs mentioned that most positions can be advertised internally before being externally broadcasted. In terms of being promoted, each DOT mentioned that promotions are performance-based, and the promotions available are based on the position and level that can be obtained for that position.

**Table 2. Promotion techniques.**

	Arkansas	Louisiana	New Mexico	Oklahoma	Texas
<b>Promotion process</b>	Advertise positions internally through website	Based on job classification: Advertise positions internally through website	Must post all union positions externally for 14 days	Each job position as a formal authorized level that a person can obtain based on performance	Formal job position posting program
<b>Strategies / Incentives</b>	Performance-based pay	Career progression/ succession program.	Promotions based on job and performance	Annual performance management program	Promotions are competitive, but offered internally first in some positions

## Impacts

The research team believes that it is discovering and developing several viable strategies for recruitment and retention of qualified DOT employees. The research team is working closely with all of the DOTs within the region so that the information collected and tools developed will be available and feasible to use. The final report of the project will include a set of recruiting and retention strategies that DOTs can use to hire and keep a variety of employee types. It is anticipated that these strategies will vary as what works for recruiting and retaining a civil engineer fresh out of college may not work for recruiting and retaining an experienced information technology specialist.

## Tran-SET

Tran-SET is Region 6's University Transportation Center. It is a collaborative partnership between 11 institutions (see below) across 5 states (AR, LA, NM, OK, and TX). Tran-SET is led by Louisiana State University. It was established in late November 2016 "to address the accelerated deterioration of transportation infrastructure through the development, evaluation, and implementation of cutting-edge technologies, novel materials, and innovative construction management processes".

## Learn More

For more information about Tran-SET, please visit our website, LinkedIn, Twitter, Facebook, and YouTube pages. Also, please feel free to contact Mr. Christopher Melson (Tran-SET Program Manager) directly at transet@lsu.edu.

