

Recruiting, Retaining, and Promoting for Careers at Transportation Agencies

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1 Introduction

A safe, efficient, and effective transportation system is essential for the growth and stability of the economy and the lifestyle of its inhabitants [1]. The effectiveness of the transportation infrastructure and service industry depends heavily on the ability to recruit and retain a highly skilled and qualified workforce. State departments of transportation (DOTs) currently face various challenges in recruiting and retaining the workforce necessary to function effectively [2]. Some of the reasons for these challenges include demographic changes in the workforce, competitive labor market, new technologies, and the overall demand on the transportation industry [3].

The difference between generations has become a driving concern to human resource professionals as they prepare to manage the rapid demographic shifts expected in the transportation construction workforce [4]. According to the Transportation Research Board's 275 Report [2], more than 50 percent of the state DOT workforce will be eligible to retire in the next 10 years, double the rate when compared to the entire U.S. workforce. As the retirement of the older generations increases, millennials are rapidly becoming the largest cohort within the transportation workforce [4]. The loss of experienced employees will result in core competency gaps needed for performance of certain job-related duties and responsibilities.

Recruitment and retention programs for professionals are essential to the success of a state DOT [2]. Given the aforementioned workforce challenges, this research examined Region 6 state DOTs current and future transportation workforce issues, evaluated employee recruiting and retention strategies, and identified recommended practices that can have the potential for success and implementation in other DOTs. Region 6 includes the states of Texas, New Mexico, Arkansas, Oklahoma, and Louisiana.

The purpose of the study was to examine the practices in recruiting, training, and retaining qualified employees at Region 6 state departments of transportation (DOTs). To address the concerns of recruiting and retaining high quality and highly valued employees, the following are the objectives for this study:

- Determine the best practices employed by transportation agencies that lead to recruitment of qualified transportation agency employees;
- Assess current best practices to retain qualified and experienced transportation agency employees; and
- Identify institutional barriers within transportation agencies that limit the recruitment and retention of high-quality employees.

2 Methodology

The research includes an in-depth literature review, interviews with DOT human resources staff, distribution of a comprehensive survey questionnaire to current Region 6 DOT employees, analysis of the data to determine common practices, and development of recruitment and retention recommendations that DOTs can utilize to hire quality personnel and retain them long term.

The literature review included collecting and reviewing pertinent journal articles, reports, DOT documents and previous research that reflects the practices used in transportation agencies relevant to recruiting, retaining, and promoting employees. The information found in the literature was coded into manageable content categories to perform a qualitative content analysis. The coding structure was based on four areas: (1) recruiting, (2) retaining, (3) promoting, and (4) training. The predefined set of categories in the coding scheme allowed the authors to focus on and code for specific themes and patterns. The content analysis was then completed using NVivo to analyze and find insights in the collected literature and documents. The results of the content analysis were used to develop a semi-structured questionnaire to conduct interviews with Region 6 DOT's HR departments.

The findings from the HR interviews, along with the content analysis and a developed annotated bibliography, provided information to create a survey questionnaire for current DOT employees to assess employee characteristics, perspectives, attitudes, and beliefs on recruitment and retention efforts at state DOTs in Region 6. The survey questionnaire consisted of 41 questions and included three main sections: (1) general overview, (2) hiring, retaining, and promoting, and (3) perception of your DOT.

Recruitment and retention recommendations were established from the data collected and analyzed. These

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recommendations can be used by DOTs to find and hire quality personnel and retain them long term. The recommendations will assist in overcoming potential barriers to recruiting, such as lower salary compensation than the private sector, and to retention, such as offering incentives and professional development to ensure employees want to stay employed at the DOT.

3 Findings

3.1 HR interviews

The most noticeable theme expressed by interviewees is that state DOTs are experiencing high turnover rates among the positions of engineers and maintenance professionals and difficulties retaining engineers and engineering technicians. DOT HR staff cited competitive labor-market conditions as a key contributor to the difficulty in recruiting and retaining employees for high demand positions. The constrained budget of public agencies restricts them from providing higher or similar salaries to those of the private sector. Each DOT interviewed used specific incentives and professional development plans to increase retention. Pay raises and bonuses are primarily based on performance, although Oklahoma and Texas offer longevity bonuses and raises. Other incentives used are an annual DOT recognition program in Louisiana, which uses a week in May each year to celebrate the DOT and their employees, and Oklahoma DOT's employee appreciation days, which recognize high functioning and high quality work.

3.2 Employee survey

A total of 1,109 complete responses represent the data set for the survey questionnaire. Survey responses were received from four of the five DOTs located in USDOT Region 6, which included Arkansas, New Mexico, Oklahoma, and Texas. The survey was designed to be completed by any DOT employee and for random sampling purposes; responses came from a variety of employees from different backgrounds and different perceptions of the DOT, producing a rich set of findings. Respondents were predominately male (67). Respondents are predominantly either new employees (33% have been at the DOT for 5 years or less) or employees nearing retirement (26% have been at the DOT for 20 or more years). This reflects the overall demographics of the current civilian workforce, where most employees are at the beginning of their career or nearing retirement age.

Employees were asked to evaluate their DOT's recruitment strategies. The top factors that initially drew them to employment with their DOT include retirement benefits, stable employment, health benefits, appealing job position, vacation/leave benefits, public employment, and professional development opportunities. When asked how they found out about DOT employment, the majority of respondents indicated they found out from someone they know that already works at the DOT, such as a family member, friend, or colleague. The second

highest response (20%) was that current DOT employees find out about employment through websites and social media. The third most common response (11%) was through a college or university.

An important incentive for employees is their DOT's ability to help them advance their careers with new skills and knowledge. Professional development opportunities include training programs, education assistance, internships and mentoring, conferences and workshops, and peer information exchanges. Of the four DOTs surveyed, the survey respondents agree that their DOTs do offer professional development opportunities. The findings show that technical skills training is a typical professional development opportunity afforded to current DOT employees. Online training and management and leadership training are also commonly used professional development tools at state DOTs.

To discover how current employees think about working at the DOT long term, the survey questionnaire inquired about the likelihood that a current employee would stay until they are eligible to retire. Seventy-seven percent of the respondents indicated that they would continue to work for the DOT until retirement. This shows that, although DOTs are dealing with turnover and loss of employees (mostly due to retirement), many DOT employees indicated a strong tendency to finish their professional careers with their state DOT. However, it is important to point out that a significant portion of the survey respondents are 40 years old or older (65%), meaning that many survey respondents are within 15 years of retirement eligibility for a state employee and are not motivated to move to another firm and start over at this point in their careers.

4 Conclusions

Throughout this research project, the objective was to identify the existing workforce issues and examine the recruitment and retention practices offered by the state DOT agencies from Region 6 to determine which methods have the potential for implementation in other transportation departments. As expected, state DOTs cannot compete with other businesses, especially those in the private sector, regarding salary offers and compensation. In addition, state DOTs must adapt to internal and external social, economic, and political factors. Transportation agencies face complex workforce issues that are exacerbated by the high levels of anticipated retirements and the need for new workforce skills to face advanced technologies. Trends indicate that about 34% of state employees are already eligible or could retire within the next five years. There were strong indications from the employees responding to the survey that better salary opportunities and promotion opportunities were the primary incentives when considering private-sector employment. The use of incentives, such as quantifying the total amount of benefits (e.g., retirement and healthcare benefits) along with salary promotes that the DOT pays similarly to private sector positions, just that more of their salary is tied up in a benefits package that private firms typically

do not offer. In addition, DOTs are using the internet and social media to spread the word about their DOT to entice new generations such as millennials to work for the DOT.

For future research, the findings for this study are a step towards a larger research project in affording specific strategies that can be formulated into a decision-support tool for DOTs to use in terms of recruiting and retaining quality employees. The decision-support tool will be dynamic and flow in various ways depending on the position being advertised and the person or persons that the DOT would like to hire and keep. DOTs are currently in need of a tool like this, which will help DOT human resources to be more effective and efficient in their job while bringing in employees that perform well and plan to stay employed with the DOT long term.

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