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White Paper

Attracting and Retaining Younger Workers in Transportation Systems Management and Operations (TSMO)

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Highlights

- Attracting and retaining younger works is a broad issue that many industries are facing. With large populations of the Baby Boomer generation retiring at an accelerated pace since the pandemic in 2020 and incoming younger workers statistically staying at jobs about a third less, increasing recruiting activities will become necessary to keep up with anticipated job churn.

- Attracting younger workers into professional and para-professional jobs within transportation systems management and operations (TSMO), especially in the public sector is challenging for a variety of reasons. The record gap between public and private sector salaries is one of the most cited reasons public sector organizations have challenges recruiting younger workers, especially as student debt continues to be a significant issue.

- Organizations that have performed well at attracting younger workers have amplified issues such as work-life balance, flexibility in work schedule, student debt relief, training, and aligning organization culture with prevailing and relevant generational issues (e.g., climate change, equity).

IN THIS WHITE PAPER YOU WILL LEARN:

1. About the characteristics of younger workers.

2. A variety of strategies that Fortune 500 companies are using to attract younger workers.

3. How the strategies could be translated to attract younger workers to TSMO careers.

Introduction

Long term stability and sustainability of the TSMO programs across the country requires attracting and retaining a more diverse workforce. In order for transportation agencies to fully realize the benefits of TSMO, they need to consider a much broader range of skillsets compared to the more traditional hiring of civil engineers and planners. Skillsets such as advanced data analytics, artificial intelligence, operational technology troubleshooting with sophisticated electronics and communications are increasingly required to support transportation agency activities related to TSMO. Competition for talent is increasingly challenging, especially as the compensation gap between public and private sectors widens. Talent, especially those fortunate to possess advanced degrees are increasingly in demand outside the transportation space. Anecdotally, many civil engineering master's or Ph.D. students are drawn to other industries like finance, management consulting, logistics, or other technology start-ups.

This white paper identifies a variety of younger worker characteristics, identifies strategies for recruiting

and retaining younger workers, identifies best practices from a variety of Fortune 500 companies that could be adapted to public organizations, and then offers ideas on how transportation agencies could adapt to successfully recruit younger workers.

Younger Worker Characteristics

For the sake of this white paper, younger workers are defined as those in their late teens and through their twenties which translates roughly into Generation Z (born 1997-2012) and the tail end of the Millennial Generation (born 1981-1996). From a generational perspective of workforce, Table 1 shows the projected shift in workforce distribution between now and 2030 as the Baby Boomer generation retires and Generation Z enters the workforce.

Table 1. Workforce Distribution by Generation

Generation	2020	2025	2030
Traditionalists (1928−1945)	2%	0.5%	0%
Baby Boomers (1946−1964)	25%	15%	9%
Generation X (1965−1980)	33%	29%	27%
Millennial (1981−1996)	35%	44%	46%
Generation Z (1997 and 2010)	5%	11%	18%

There have been many studies on the differences between workforce generations. Several trends and statistics relative to TSMO and public sector employment related to younger workers include:

Professional Growth
- In-person training is expected with special emphasis on soft skills such as ethics/integrity, interpersonal relations, public speaking, and confidence
- Opportunity to learn skills for the purpose of career advancement
- Defining a pathway to promotion
- Work Life balance is increasingly important as it is tied to workplace mental health
- Routine awareness on technology and other trends impacting their industry is expected

Personal Preferences
- Fair treatment of all employees across all genders and races
- General expectation by over 40% that their employer will help pay down student loans
- More than half do not plan to work at their current job for more than three years.
- Approximately 60% want jobs that have a positive impact on the world
- Reflect and respect diversity
- Offer employer flexibility

- Display corporate social responsibility

- Concerned about humanity's impact on the environment

- Have a boss who is like a mentor

- Upper management must have good communication skills and be authentic

- Four out of five hope to work with innovative technologies and over none out of ten cite technology as the most important factor when choosing a job

- Texting and social media are preferred methods for communicating with four out of five believing it is is a useful tool in the workplace

Other Interesting Facts and Trends
- Almost 60% enrolled in post-secondary education

- The most popular majors among the members of Generation Z are science and social sciences

- Nearly all (98%) have a smartphone with over half using them for five or more hours daily

- Almost two-thirds say they will start a business and one in five plans to launch a tech company

- Generation Z is the most diverse group with just over half claiming to be non-Hispanic white

- Generation Z will be the most educated group compared to all previous generations

Strategies for Recruiting and Retaining Younger Workers

There are a number of strategies that can be used to recruit younger workers.
- *Brand and Culture* – The way the organization's brand is portrayed needs to align with values and guiding principles. With clear simplicity, candidates should be able to see the values in everything the organization does, whether it is the agency long-range plan or the way a new hire is onboarded.

- *Learning and Growth* – Promoting how the organization invests in its staff is attractive to younger workers. Younger workers are particularly interested in the types of on-the-job training that will be offered, recognizing there is usually a gap between theoretical education and practical application of skills. A clear connection on how training opens up advancement opportunities is also important to younger workers.

- *Meaning and Community* – Younger workers represent the most socially active generation ever and want their work to be meaningful. There is a strong relationship between the organization's culture and the work it does in coordination with the communities it serves. Social-good initiatives are a valuable source of pride for younger employees. Getting younger workers involved in projects and teams early in their career help to foster a workplace with a culture of inclusion.

- *Communication and Feedback* – It is a myth younger workers prefer to interact with technology like chatbots when searching for jobs. Interestingly, four out of five candidates prefer in-person discussions compared to online communications. The key is to provide the technology tools that expose the candidate to the organization, but rapidly connect with people to further discuss employment. Providing feedback is very different with younger workers because of the perpetual feedback loop that comes with always being around social media. Formal coaching, mentoring, and sponsorship along with more frequent feedback is essential to attracting younger workers.

- *Autonomy and Flexibility* – Younger workers really desire flexibility, autonomy, exposure to different work situations and work-life balance, all enabled through technology. One area transportation organizations need to reform is related to the many ways workers prefer to provide services. That means being flexible in the way people are hired, whether it is based on full-time, part-time, hourly, contract, or gig-based work.

Best Practices for Recruiting and Retaining Younger Workers

We can learn a lot from other industries on approaches to recruit and retain younger workers. Several best practices have been categorized into four topics including:
- Talent attraction
- Candidate qualifications
- Entry and hiring process
- Career retention and advancement

Talent Attraction
- In early 2022, the State of Maryland dropped a bachelor's degree requirement for many government jobs. A shift towards relevant experience, training, or community college education, will be given equal weight for many Maryland government positions in IT, administrative work, and customer service. The result is expected to open up a much broader pipeline to support critical jobs throughout the state.

- Boston Consulting Group partnered with diversity-oriented non-profits like Management Leadership for Tomorrow and expanded outreach to Historically Black Colleges and Universities to attract talent.

- Intel partnered with the American Indian Science and Engineering Society to provide financial support to students as well as offering a mentorship program to participants and internship opportunities.

- To ensure diversity in hiring, Microsoft hired a chief accessibility officer that devotes resources to recruiting and developing talent among differently abled people as well as underrepresented communities.

Candidate Qualifications
- Pinterest uses a strategy to reduce unconscious bias more active awareness measures. The company has every employee take unconscious bias training and it also requires one woman and one minority interview for each job.

- In May of 2022, the U.S. Office of Personnel Management (OPM) released guidance regarding the implementation of Executive Order 13932; Modernizing and Reforming the Assessment and Hiring of Federal Job Candidates. The guidance represents a major shift towards adoption of skills-based hiring practices. Historically, the hiring process relied heavily on education. The new approach helps hiring managers recognize and value skills regardless of where they were acquired, whether in a formal degree program, on the job, or self-taught.

Entry and Hiring Process

- Slack, part of Salesforce uses a program to screen job postings for potentially biased language. Interview biases have also been reduced by developing standard interview questions to cut back on bias "gut" feelings about candidate company fit.

- Several Fortune 500 companies have leveraged on-boarding as a community-building exercise that includes collaborative learning experiences involving live art and music that incorporates risk-taking, deep conversations, and collaborative problem solving.

Career Retention and Advancement

- Construction companies are leveraging technology to retain workers at all levels, whether it is using smart vests to improve safety, mobile applications for data collection, or virtual reality to look at plans, younger workers are very comfortable around and expect to use the latest tech to perform their jobs.

- Target and Walmart recently changed policy to offer free college tuition for their workers.

- Goldman Sachs is offering paid leave for pregnancy loss, expanding the amount of time employees can take for bereavement leave, introducing an unpaid sabbatical for longtime employees, increasing its retirement fund matching contributions for U.S. employees, and eliminating the one-year waiting period before matching employee contributions.

- To compete in the post-COVID world of remote work, Zillow and other companies are doing away with location-based pay and focusing more on skills, experience, output, and productivity over where employees sit.

- DoorDash has a career accelerator designed specifically for women of color. Participants, engage in a six-month group experience that includes coaching sessions with an external executive coach, career workshops, attendance at leadership meetings, and executive sponsor meetings. Within six months of completing the program, 38% of participants earned promotions, a significantly higher proportion compared to non-participants.

Translating Best Practices to TSMO

To recruit and retain young worker talent at both professional and paraprofessionals, there are many different activities transportation organizations can implement. Examples include:

- Reevaluate degree requirements for all types of TSMO jobs to verify whether some jobs could be filled based on on-the-job experience. Also, use opportunity to remove implicit bias is screening processes.

- Reform hiring processes to be more transparent of where the candidate is in the process. There is a general lack of understanding from younger workers on the nuances of public sector hiring that is typically much longer compared to the private sector.

- Align recruiting and branding materials with the organization's core principles and amplify topics that younger workers are interested or concerned about including climate change, mental health, work-life balance, and equity.

- Broaden summer working opportunities to get students interested in TSMO at both professional and paraprofessional levels.

- Accelerate offering jobs to internship and apprenticeship program participants to lock-in candidates earlier in the job hiring cycle.

- Reinvigorate training rotation programs that were popular in the 1980's where during the first 1-2 years, younger workers are exposed to a wide variety of organizational activities.

- Ensure soft skills are equally as important as technical skills through sustained training programs.

- Widen recruiting footprint to be more diverse and cover wider geographic area. For example, traditionally DOTs recruited heavily from local universities with civil engineering programs. DOTs should now go to different schools beyond engineering as well as outside typical geographical areas to recruit top talent.

- Shift towards benefits that are more important to younger workers. For example, younger workers are not as interested in the vesting time required to obtain matching funds for a retirement account, but rather how ill the employer help with student debt.

- Sponsor transportation-oriented technology challenges to attract future younger workers towards TSMO.

Summary

Younger workers hold the promise of a workforce that is more educated connected to technology than any other generation. Attracting younger workers towards a TSMO career is a challenge that transcends many domains. The competition for young worker talent will likely continue for many years as older workers retire at an accelerated rate. Now is the time to focus on establishing more diverse and formal workforce pipelines to ensure an adequate flow of workers into TSMO. Organizations that fail to adapt to the needs of younger workers will be challenged more than others in filling vacancies because they can go to other agencies or companies that have a culture that resonates with their values. There are many strategies that organizations can work on now that will have long-standing benefits in attracting young workers to TSMO. Some activities are relatively straight forward and can be completed within the organization. However, other issues like shifting the focus on fringe benefits to meet the needs of young workers will require broader coordination (e.g., state level human resources).

Resources

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