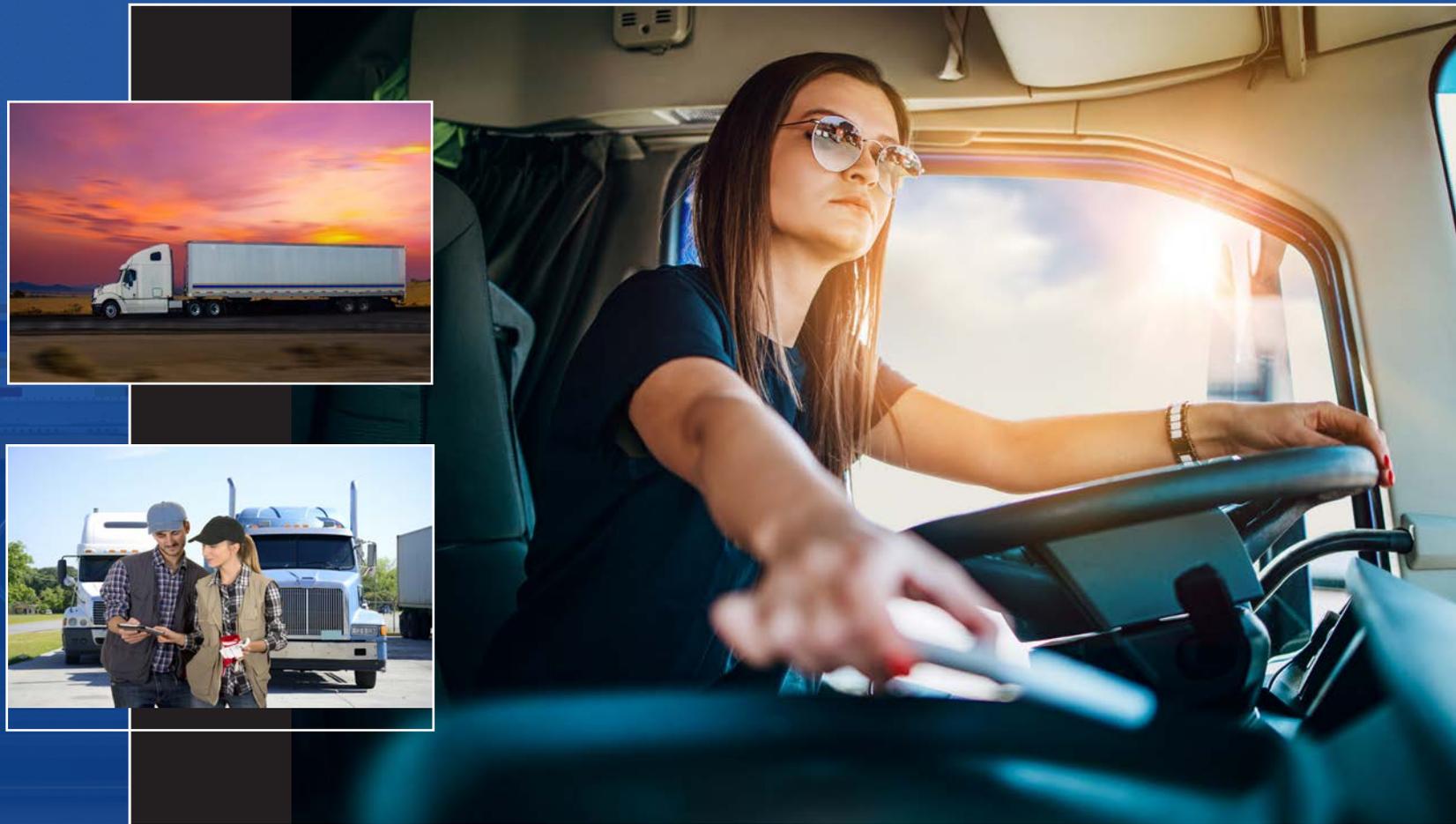


Integrating Younger Adults into Trucking Careers

July 2022



Prepared by the American Transportation Research Institute



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Alex Leslie, Ph.D.
Research Analyst
American Transportation Research Institute
Minneapolis, MN

Danielle Crowover
Research Analyst
American Transportation Research Institute
Atlanta, GA



2110 Powers Ferry Road, Suite 470
Atlanta, GA 30339
TruckingResearch.org

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ACRONYMS

| | |
|-------|---|
| ART | America's Road Team |
| ATA | American Trucking Associations |
| ATRI | American Transportation Research Institute |
| BLS | Bureau of Labor Statistics |
| CDL | Commercial Driver's License |
| CMV | Commercial Motor Vehicle |
| DOL | Department of Labor |
| ELDT | Entry-Level Driver Training |
| FFA | Future Farmers of America |
| FMCSA | Federal Motor Carrier Safety Administration |
| HOS | Hours-of-Service |
| IFTA | International Fuel Tax Agreement |
| IIJA | Infrastructure Investment and Jobs Act |
| JROTC | Junior Reserve Officers' Training Corps |
| LTL | Less-than-Truckload |
| MVR | Motor Vehicle Record |
| NTA | Nebraska Trucking Association |
| RAC | Research Advisory Committee |
| ROTC | Reserve Officers' Training Corps |
| SDAP | Safe Driver Apprenticeship Program |
| TMC | Technology and Maintenance Council |
| VICA | Vocational Industrial Clubs of America |

INTRODUCTION

Workforce changes are one of the foremost issues facing the trucking industry. Truck drivers, for example, are retiring annually by the tens of thousands and frequently churning in and out of different industry sectors; many other trucking industry positions are experiencing a dearth of applications as well. In 2021, the truck driver shortage hit a record high of over 80,000 drivers.¹ But the shortages are not ubiquitous across the industry: the long-haul for-hire truckload sector is experiencing the worst driver shortage. Current trends predict the truck driver shortage will surpass 160,000 by 2030. The American Trucking Associations (ATA) estimates that by the end of the decade, the industry will need to hire nearly 1,000,000 drivers in order to meet industry growth and replace drivers as they retire or exit the industry.²

Diesel technicians are also in high demand. As of 2020, there were 275,400 employed diesel technicians with a projected opening of 28,100 additional positions per year.³ The U.S. Bureau of Labor Statistics estimates that 67,000 more trained technicians and 75,000 more diesel engine specialists will be needed to keep up with demand by the end of this year.⁴ In addition, unfortunately, the trucking industry is competing with other major industry sectors for these same technicians.

Currently, 18- to 20-year-olds who hold a commercial driver's license (CDL) can only operate a commercial motor vehicle in intrastate commerce. These federal restrictions have been a critical limiting factor for motor carriers. Many individuals that might consider a job in trucking choose to start a career in another trade due to the three- or four-year gap between high school graduation and the legal age for interstate driving (21). Though it is possible for carriers to employ 18- to 20-year-old truck drivers for intrastate operations, these intrastate trips represent only a fraction of national supply chain operations.

Recognizing that younger drivers are an untapped source of labor talent for the trucking industry, Congress incorporated the Drive Safe Act as part of the Infrastructure Investment and Jobs Act (IIJA) passed in November 2021.⁵ The IIJA creates a new national field test allowing 18- to 20-year-olds to operate in interstate freight commerce through the Safe Driver Apprenticeship Pilot Program (SDAP). The Federal Motor Carrier Safety Administration (FMCSA) published a summary of the prerequisites for participating carriers, program structure, apprentices, and experienced mentor drivers in early 2022.⁶ All new commercial motor vehicle (CMV) drivers wishing to obtain a CDL, young and old, will also be subject to the updated training regulations in the FMCSA's new Entry-Level Driver Training (ELDT) rule, which became effective February 7, 2022.⁷

¹ Bob Costello, "Driver Shortage Update 2021," American Trucking Associations (Oct. 25, 2021).

² Ibid.

³ "Diesel Service Technicians and Mechanics," U.S. Bureau of Labor Statistics, <https://www.bls.gov/ooh/installation-maintenance-and-repair/diesel-service-technicians-and-mechanics.htm>.

⁴ Corrie White, "Flatbed carrier invests in vocational schools to combat labor shortage." *Freight Waves* (Jan. 26, 2022), <https://www.freightwaves.com/news/flatbed-carrier-invests-in-vocational-schools-to-combat-labor-shortage>

⁵ U.S. Congress, House, *Infrastructure Investment and Jobs Act, H.R.3684*, 117th Congress (Nov. 15, 2021), <https://www.congress.gov/bill/117th-congress/house-bill/3684>.

⁶ "Safe Driver Apprenticeship Pilot Program To Allow Persons Ages 18, 19, and 20 To Operate Commercial Motor Vehicles in Interstate Commerce," National Archives, Federal Register (Jan. 14, 2022), <https://www.federalregister.gov/d/2022-00733>.

⁷ "Entry-Level Driver Training: What You Need to Know About ELDT," American Trucking Associations, <https://www.trucking.org/news-insights/entry-level-driver-training-what-you-need-know-about-eldt>.

In response to these workforce challenges and opportunities, the American Transportation Research Institute (ATRI) Research Advisory Committee (RAC) identified the issue of integrating younger adults into the trucking industry as a top research priority in 2021.⁸ The RAC tasked ATRI staff with identifying “industry best practices” for training and retaining younger employees and younger truck drivers as well as possible recruitment strategies, including the development of high school trucking clubs.

This study focuses on younger truck drivers because the driver shortage is the most acute. It does also address younger employees in other areas of the industry due to shortages in other positions, such as diesel technicians, and because carriers can recruit and convert younger employees internally from non-driving positions to driving positions. The phrase “younger drivers” is used when referring specifically to drivers while the phrase “younger employees” is used when referring to employees in trucking more broadly. In this report, the phrases “younger employees” and “younger drivers” refer to individuals from 18 to 25 years old. In most instances, this research analysis could apply equally to individuals through the age of 30.

This research expands on ATRI’s ongoing efforts to evaluate the safety and utilization of younger drivers in the trucking industry. In 2018, ATRI published its latest *Predicting Truck Crash Involvement* report, which addresses crash risk differentials among age cohorts.⁹ ATRI is currently testing a customized Younger Driver Assessment Tool that employs a variety of psychological inventories in order to identify younger drivers possessing the characteristics of safe veteran drivers.¹⁰ The RAC has also selected the efficacy of driver training on safety outcomes and driver retention as a 2022 research priority.

BACKGROUND

In response to both organic industry growth and churning employment, motor carriers are under continuous pressure to hire more and more drivers and technicians. There are many complex externalities in play in trucking, including remnants of COVID-19, trade and supply chain disruptions, and general labor shortages. In spite of these issues, freight demand continues to grow. Trucking currently represents 72.5 percent of tonnage carried by all modes of domestic freight transportation, including manufactured and retail goods according to ATA.¹¹ Trucks moved 10.23 billion tons of freight in 2020. As a year-to-date benchmark, trucking’s tonnage is currently up 2.3 percent compared to 2021.¹² To meet this strong demand, the industry will need to expand its driver workforce.¹³

⁸ ATRI’s Research Advisory Committee RAC is comprised of industry stakeholders representing motor carriers, trucking industry suppliers, federal government agencies, labor and driver groups, law enforcement, and academia. The RAC is charged with annually recommending a research agenda for the Institute.

⁹ Caroline Boris and Dan Murray, *Predicting Truck Crash Involvement: 2018 Update*, American Transportation Research Institute (July 2018).

¹⁰ Rebecca Brewster, Dan Murray, Monica M. Luciana, “Developing a Younger Driver Assessment Tool Technical Memorandum: Phase 1 Beta Test Results,” American Transportation Research Institute (Aug. 2021).

¹¹ “ATA Truck Tonnage Index Fell 2% in April,” American Trucking Associations (May 24, 2022), <https://www.trucking.org/news-insights/ata-truck-tonnage-index-fell-2-april>.

¹² Ibid.

¹³ Ibid.

Demographic Trends in the American Workforce and Trucking Industry

American workforce participation habits are changing. Figure 1 shows that workforce participation declined slightly for all age groups over the last twenty years.¹⁴ While 16- to 54-year-olds have largely returned to 2018 levels of workforce participation or higher, workforce participation remains several percentage points lower for the population as a whole – indicating that individuals 55 and older have been leaving the workforce at a greater rate. If this trend continues, it could place even more pressure on industries like trucking that have a comparatively older workforce.

Figure 1: Workforce Participation by Age Group

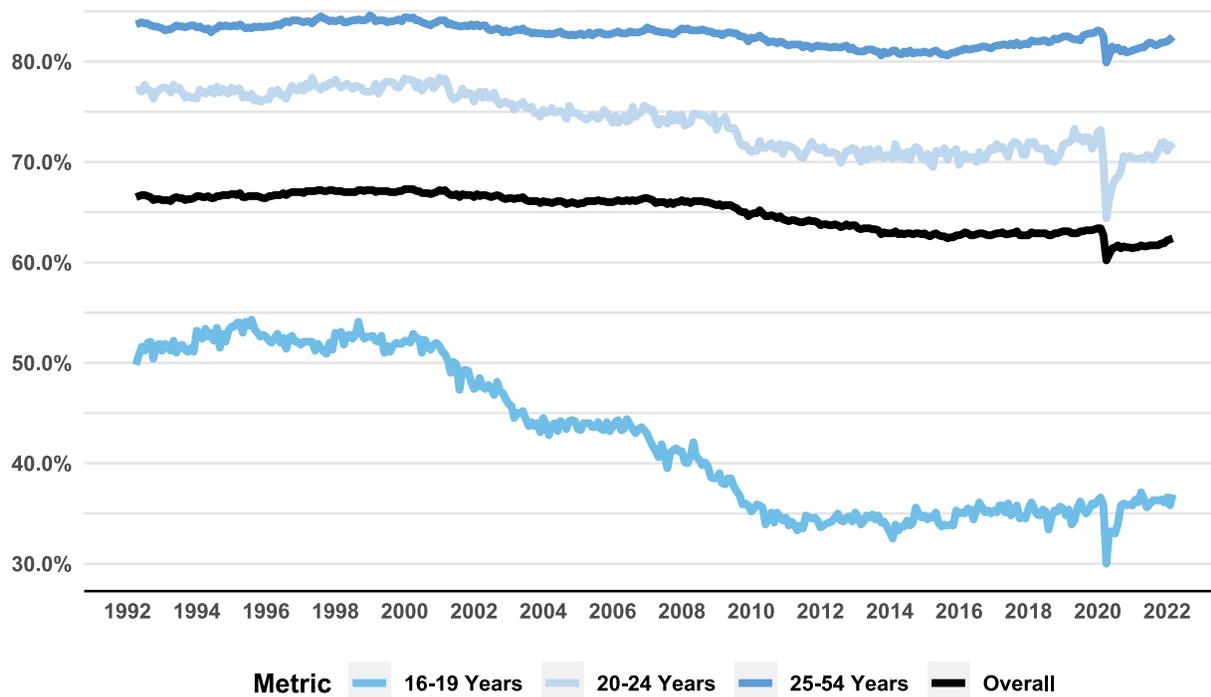


Figure 1 illustrates another major challenge faced by the trucking industry in recent years: the steady decline, starting in the early-2000s, in the percentage of 16- to 19-year-olds participating in the workforce. This decline has made it much more difficult for carriers to hire younger adults for part-time work in positions that historically served as recruitment pipelines for full-time positions.

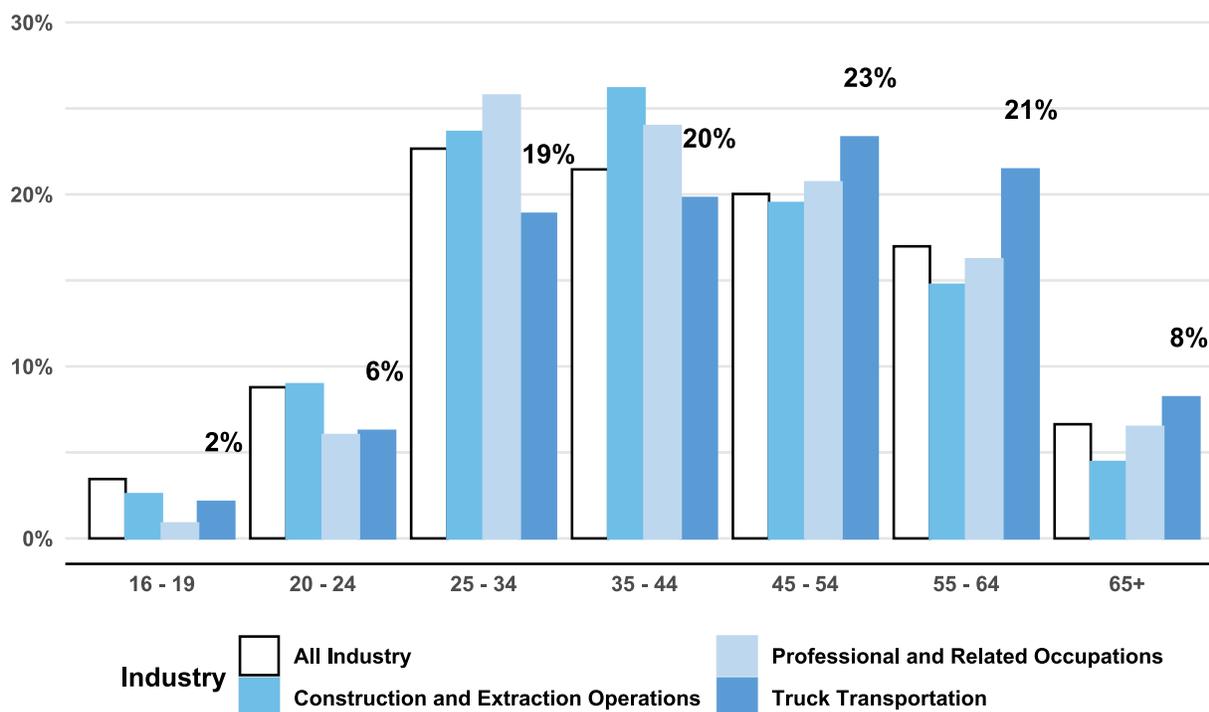
Individuals aged 20 to 24 were the hardest hit by COVID-19 layoffs, as reflected in the severe dip in Figure 1 during early 2020. Companies or industries that laid off younger employees during the pandemic will need to regain their trust, as many Millennials and Gen Zs are skeptical about the state of the economy and about employers’ ability to foster their careers.¹⁵

¹⁴ Labor Force Participation Rate, Federal Reserve Economic Data, <https://fred.stlouisfed.org/series/CIVPART>.

¹⁵ “A Call for Accountability and Action: The Deloitte Global 2021 Millennial and Gen Z Survey,” Deloitte (2021), 13;

Trucking industry employment in the U.S. has an even sharper age demographic skew. As of 2021, the U.S. Bureau of Labor Statistics (BLS) data reports that the industry’s driver workforce is comprised primarily of individuals over 45 years of age (52%), while just six percent of the workforce is 20 to 24 years of age (Figure 2).¹⁶ The median age of over-the-road truck drivers is 46, higher than the median age of 42 for all U.S. workers.¹⁷ As Figure 2 shows, the trucking industry is also experiencing competition from other industries in a tight labor market.¹⁸ The number of delivery van drivers has steadily risen 14 percent between 2019 and 2020, drawing directly on the pool of individuals that might otherwise drive trucks.¹⁹

Figure 2: Workforce Participation by Age Group in Selected Industries



The labor shortage in the trucking industry is also exacerbated by an additional 81,052 drivers listed as “prohibited driving status” in the FMCSA Drug & Alcohol Clearinghouse due to a positive drug screen.²⁰ As of December 2021, 61,084 of those drivers had not begun the return-

¹⁶ “Labor Force Statistics from the Current Population Survey”, U.S. Bureau of Labor Statistics 2021, <https://www.bls.gov/cps/cpsaat11b.htm>.

¹⁷ Bob Costello and Alan Karickhoff, “Truck Driver Shortage Analysis 2019”, American Trucking Associations (July 2019), <https://www.trucking.org/sites/default/files/2020-01/ATAs%20Driver%20Shortage%20Report%202019%20with%20cover.pdf>.

¹⁸ Cristina Commendatore, “How to appeal to a changing truck driver demographic,” *FleetOwner* (March 3, 2022), <https://www.fleetowner.com/operations/drivers/article/21235036/how-to-appeal-to-a-changing-truck-driver-demographic>.

¹⁹ “Cities with the most delivery drivers per capita,” *Montana Standard* (April 21, 2022), https://mtstandard.com/lifestyles/cities-with-the-most-delivery-drivers-per-capita/collection_46045497-6d5b-555a-998c-22bd5c29a6ad.html#1.

²⁰ Eric Miller, “Driver Drug Violations Increased by 10% in 2021 Over Prior Year,” *Transport Topics* (Feb. 9, 2022), <https://www.ttnews.com/articles/driver-drug-violations-increased-10-2021-over-prior-year>.

to-duty process, in part because they are able to obtain employment in other industries that do not require negative drug tests.²¹ ATRI is currently researching this issue and the broader impacts of marijuana decriminalization in an update to its 2019 report, *Marijuana Legalization and Impaired Driving: Solutions for Protecting our Roadways*.

Finally, the racial and gender demographics of the labor force are changing as well. In 2020, 42.3 percent of drivers in the trucking industry belonged to a racial minority, an increase of 30 percent from just 10 years ago.²² There are still several barriers to attracting and retaining these drivers, however. First, there are disproportionately few racial minority drivers in management, owner, or mentor roles in the industry, which can hinder career consistency or discourage individuals looking for growth potential.²³ Second, non-white and women drivers report needing to take additional safety precautions on the job that can discourage them from entering or remaining in the industry.²⁴

The small number of women drivers has long been a concern in the industry. Women have made up more than 46 percent of the overall U.S. labor force since 1994, yet they still only comprise 7.8 percent of truck drivers, though this figure has also been increasing over the past decade.²⁵ This long-running lag behind national labor trends represents untapped potential for women drivers.²⁶

Millennials and Gen Zs recognize the reality of changing demographics in the labor force. As a result, they are more concerned than previous generations about diversity and inclusion trends in the workplace. This is not simply an abstract or idealistic interest: they see diversity and inclusion as a key part of maintaining an adaptive, creative, and growing company.²⁷ Workplace diversity comes in many different forms, including race and gender as well as age and background experience. Understanding Millennial and Gen Z work preferences and characteristics is an important step to improving recruitment among these age groups.

Millennial and Gen Z Work Characteristics

Many business intelligence and hiring organizations have undertaken studies on Millennial and Gen Z preferences for personal work style, workplace environment, management interactions, and corporate identity. While generational differences are often overstated – and individuals of all kinds can be found in every generation – today’s young adults as a group do differ from their parents’ generation when it comes to work.

All employees want their work to be valued, well compensated, and a contribution to a successful company, regardless of their age. Where generational differences arise is in the specific ways that individuals feel valued, seek compensation and measure success. For

²¹ Ibid.

²² *American Trucking Trends 2021*, American Trucking Associations (2021).

²³ Jim Stinson, “Trucking, like the nation, examines itself for racial bias,” *TransportDive* (June 18, 2020), <https://www.transportdive.com/news/diversity-racism-trucking-fleets-drivers/579569/>.

²⁴ Cristina Commendatore, “Diversity and inclusion in trucking,” *American Trucker* (Nov. 9, 2020), <https://www.fleetowner.com/news/people/article/21146991/diversity-and-inclusion-a-business-model-for-trucking>.

²⁵ *American Trucking Trends 2021*, American Trucking Associations (2021).

²⁶ “Women in the Labor Force,” Women’s Bureau, U.S. Department of Labor, <https://www.dol.gov/agencies/wb/data/facts-over-time/women-in-the-labor-force>.

²⁷ “A Call for Accountability and Action: The Deloitte Global 2021 Millennial and Gen Z Survey,” Deloitte (2021), <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/2021-deloitte-global-millennial-survey-report.pdf>.

employers, the key is to seek middle ground where Millennial and Gen Z employee preferences build on a company's existing strengths or offer a new approach to its challenges.

Table 1: Generations in the American Workforce²⁸

| Generational Cohort | Birth Year Range | Age Range Today (2022) |
|---------------------|------------------|------------------------|
| Silent Generation | 1928 – 1945 | 77 – 94 |
| Baby Boomers | 1946 – 1964 | 58 – 76 |
| Generation X | 1965 – 1980 | 42 – 57 |
| Millennials | 1981 – 1996 | 26 – 41 |
| Generation Z | 1997 – 2012 | 12 – 25 |

Millennials are often defined as individuals born between 1981 and 1996, namely, between the ages of 25 and 41 in the year 2022. They remember a time before the internet was ubiquitous and before the September 11 attacks; many are now raising families and seeking to buy houses. Most are no longer new to the workplace, and some have begun to enter leadership positions. Gen Zs are often defined as individuals born between 1997 and 2012, though the endpoint often remains undecided until the subsequent generation is defined. They grew up with formative experiences such as the War on Terror, the 2008 Great Recession, and the COVID-19 pandemic; the first wave of Gen Zs only just began joining the labor force in the late 2010s.

Millennials continue to report low job loyalty, according to recent research by Deloitte, though Gen Zs likely have higher job loyalty than their precursors.²⁹ This is important because both generations believe that flexibility and adaptability are the most important qualities for a successful business, followed by creativity and tech savviness. Millennials and Gen Zs want flexibility in part because they are confident that it will make them better employees and make their employers better companies – especially after the upheavals of the COVID-19 pandemic. If they believe that inflexibility is limiting their company's growth as well as their own, they pride themselves on having the adaptability to look elsewhere. This tendency can be beneficial for employers in that employees who aren't a good fit will be more likely to leave of their own accord, but it also places greater pressure on employers to prove themselves to employees.

Millennials attach high importance to feeling engaged and challenged at work, as shown by Gallup research. Only 29 percent of Millennials reported feeling engaged at work, but this was not due to laziness or entitlement: they were also more likely to want to be engaged.³⁰ Millennials and Gen Zs are more likely to see life and work connected. This fact has several consequences for employers. On the one hand, younger adults in these generations have higher expectations for the meaningfulness of their work, and they may be unengaged workers when they feel a lack of meaningfulness in their job. On the other hand, they are highly committed and productive workers when motivated. Gallup found that the top five qualities

²⁸ Michael Dimock, "Defining generations: Where Millennials end and Generation Z begins," Pew Research Center (Jan. 17, 2019), <https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>.

²⁹ "A Call for Accountability and Action: The Deloitte Global 2021 Millennial and Gen Z Survey," Deloitte (2021), <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/2021-deloitte-global-millennial-survey-report.pdf>.

³⁰ "How Millennials Want to Work and Live," Gallup (2016), <https://www.gallup.com/workplace/238073/millennials-work-live.aspx>.

Millennials seek in a job are opportunities to learn and grow, opportunities for advancement, interest in their work, quality of manager, and quality of management.³¹

Millennials and Gen Zs prefer a “coaching” feedback model, in which managers or supervisors provide more frequent, preemptive, and specific communication about their job performance (rather than waiting for year-end reviews or a serious incident). They prefer being treated as equal members of a team with communication that goes both ways – namely, supervisors willing to act on employee suggestions and concerns. When managers meet with employees regularly to set evolving performance goals, Millennial workplace engagement jumps from 29 percent to 72 percent.³² Ernest & Young noted a similar trend among Gen Zs, who prioritize transparency and workplace culture.³³ This is in part because both generations believe that being good at their job is an important source of meaning. Gallup found that 87 percent of Millennials consider professional growth and development a critical part of their work life, compared to only 69 percent of older generations.³⁴

Millennials and Gen Zs are also more likely to believe that the meaningfulness of their work is important to job satisfaction. Ernst & Young found that 69 percent of Gen Zs want to enjoy their work – the generation’s highest-reported work priority – but they are also driven: their second most common work priority was being the best at what they do, at 40 percent of respondents.³⁵ Nearly 66 percent of Gen Zs say that it is very or extremely important that employers have a genuine commitment to shared values.³⁶ Similarly, 71 percent of Millennials “who strongly agree that they know what their organization stands for and what makes it different from its competitors say they plan to stay with their company for at least one year.”³⁷ The trucking industry can offer an opportunity for younger adults to find this fulfillment, and new legislation has made driving careers more accessible to them.

Younger Driver Safety: An Overview

One of the primary goals of the SDAP is to obtain reliable data in order to determine the safety performance of 18- to 20-year-old drivers. Safety assessments of younger drivers are not a primary research objective of this report. However, because it is a heightened concern for younger drivers, this section summarizes some recent research on the subject.

Carriers interviewed by ATRI for this research stated that their 21- to 25-year-old drivers have thus far proved no less safe than their drivers overall. This fact was anecdotally attributed to significant expansion of and improvements in training programs over the past decade. Though it reflects a small population over a brief timeframe, all carriers interviewed by ATRI were confident enough in the safety of these younger drivers to continue expanding their apprenticeship and/or recruitment programs.

ATRI’s most recent Crash Predictor Model (2018) does show that younger drivers had a statistically significant relationship with several roadway events that are predictive of future crash risk. These included seat belt violations, driving too fast for conditions convictions,

³¹ Ibid.

³² “How Millennials Want to Work and Live,” Gallup (2016).

³³ “Is Gen Z the spark we need to see the light?” Ernst & Young (2021).

³⁴ “How Millennials Want to Work and Live,” Gallup (2016).

³⁵ “Is Gen Z the spark we need to see the light?” Ernst & Young (2021).

³⁶ Ibid.

³⁷ “How Millennials Want to Work and Live,” Gallup (2016).

speeding convictions (but not speeding violations), and reckless driving convictions (but not negligent driving violations).³⁸ That said, “age did not have a statistically significant relationship with events that had the largest impact on future crash risk – reckless driving violations ... and failure to yield right of way violations.”³⁹ Younger drivers are only a greater risk in certain aspects of driving, and they are not a greater risk in the most crash-critical aspects of driving. As such, carriers could improve their younger driver safety by implementing additional training in these identified areas.

Twenty- to 24-year-old truck drivers were more likely than older drivers to receive speeding and negligence convictions, but they were less likely than older drivers to receive speeding and negligence violations – which are much more common over all age groups. This disparity of outcomes by age may also suggest that enforcement officials are more likely to treat younger driver offenses more seriously. Furthermore, every violation or conviction that was more common among 20- to 24-year-old drivers than among older drivers was also more common among 25- to 34-year-old drivers than among older drivers. This similarity across all drivers from age 20 to age 34 suggests the significance of inexperience more broadly on unsafe driving.

Younger driver safety could also be improved by better distinguishing between individuals with higher versus lower risk. ATRI is currently developing a Younger Driver Assessment Tool to identify safe drivers between 18 and 25 years of age based on personality traits, behavioral attributes, and driving history.⁴⁰ In fact, there was a stronger association between older age of obtaining a CDL and more violations, “consistent with the observation that fewer years of employment as a commercial truck driver were also associated with more MVR violations.”⁴¹ In other words, inexperience may be the greater underlying cause of risk regardless of age.

In a larger study focused specifically on the issue of separating the effects of youth from the effects of inexperience, researchers with the National Surface Transportation Safety Center for Excellence found in 2020 that drivers with less than one year of experience had higher crash rates regardless of their age.⁴² They further concluded that older drivers with less than one year of experience had higher preventable crash rates than younger drivers with less than one year of experience. Once fully vetted, ATRI’s Younger Driver Assessment Tool has the potential to mitigate crashes and violations caused by youth rather than by lack of commercial driving experience.

³⁸ Caroline Boris and Dan Murray, *Predicting Truck Crash Involvement: 2018 Update*, American Transportation Research Institute (July 2018).

³⁹ *Ibid.*

⁴⁰ Rebecca Brewster, Dan Murray, Monica M. Luciana, “Developing a Younger Driver Assessment Tool Technical Memorandum: Phase 1 Beta Test Results,” American Transportation Research Institute (Aug. 2021).

⁴¹ *Ibid.*

⁴² Naomi Dunn, Susan Soccolich, and Jeffrey Hickman, “Commercial Motor Vehicle Driver Risk Based on Age and Driving Experience,” National Surface Transportation Safety Center for Excellence (April 2020).

RESEARCH METHODOLOGY

The objective of this research was to identify best practices for recruiting, training and retaining younger employees in order to take advantage of new opportunities offered by the SDAP. To do so, ATRI conducted the following key tasks:

1. In order to identify broader trends in motor carriers' utilization of younger drivers, ATRI developed and conducted a motor carrier survey (Appendix A). The carrier survey had two objectives:
 - a. Identify carriers' willingness to participate in the SDAP and factors preventing participation; and
 - b. Determine the prevalence of younger employee-focused initiatives.

The survey was sent to motor carriers in ATRI's contact list and disseminated through industry trade press. Thirty-one percent of respondents had 100 or more drivers, and 69 percent had fewer than 100 drivers.

2. ATRI staff also identified nine carriers of various sizes and sectors with apprenticeship programs to interview in order to understand current initiatives to address the ongoing shortage of drivers, technicians, and other positions within the industry. The interview outline can be found in Appendix B. Interview questions covered topics such as specific recruitment practices for younger drivers, in-house training and coaching programs, and common complaints among younger employees.
3. The efficacy of carrier best practices was then determined by comparing and corroborating the carrier strategies with younger employee perspectives on industry employment experiences. To do so, ATRI conducted interviews with younger truck drivers currently employed by the interviewed fleets. The younger driver interviews were kept completely confidential with no attribution of individual comments to ensure that candid perspectives were obtained. All younger driver respondents were between 21 and 30 years old, and the majority were employed by Less-than-Truckload (LTL) carriers with an apprenticeship program in place. The LTL sector has spearheaded younger driver recruitment and apprenticeship initiatives, and for this reason, ATRI focused on driver feedback in that sector to identify best practices that can be utilized across the industry.

Younger drivers were asked questions concerning their personal relationships with the trucking industry: how they were introduced to trucking as a career; how they talk about their career with their peers; and if they felt involved in their company's culture. Questions also addressed driver opinions on the effectiveness of their apprenticeship program and aspects where they felt there was room for improvement. Younger drivers were interviewed by phone or through an online form. Interview questions can be found in Appendix C.

4. ATRI supplemented this younger driver feedback with high school student perspectives from a recent study conducted by the Nebraska Trucking Association (NTA) in

collaboration with ATRI.⁴³ This study used a focus group of 66 students from across the state of Nebraska, and it provides insight into the appeal of truck driving and trucking recruitment among younger adults who have not yet entered the industry.

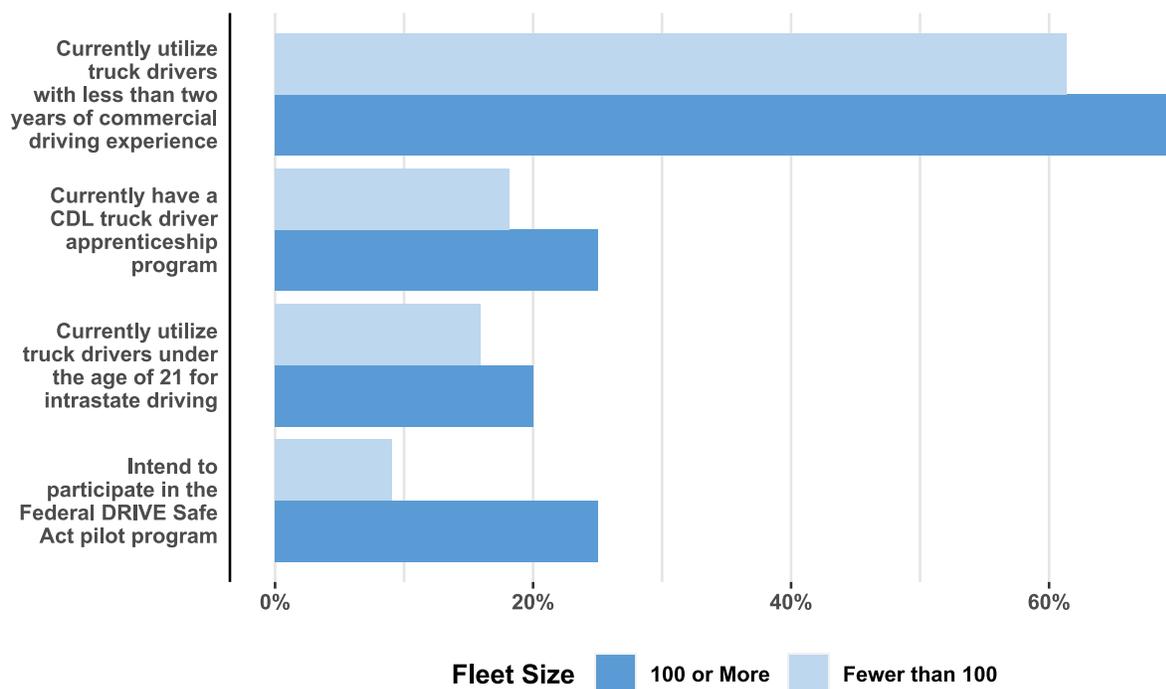
RESULTS

Carrier Attitudes on Younger Driver Utilization

ATRI developed a motor carrier survey to determine the prevalence of younger employee-focused initiatives, industry readiness to hire younger employees, and industry attitudes toward participating in the SDAP. The survey generated responses from roughly 100 carriers. These findings provide a broad-level view of current practices and barriers to hiring younger adults.

While many in the industry support the expansion of interstate CMV driving for individuals under the age of 21, many carriers are not yet prepared to hire younger drivers. A common policy among carriers prevents the hiring of any drivers with less than two years of CMV experience, automatically excluding any younger drivers entering the industry (in addition to older individuals entering the industry for the first time). However, among survey respondents, 70 percent of fleets with 100 or more drivers and 61 percent of fleets with fewer than 100 drivers currently utilize drivers with less than two years of CMV experience (Figure 3).

Figure 3: Younger Driver Utilization



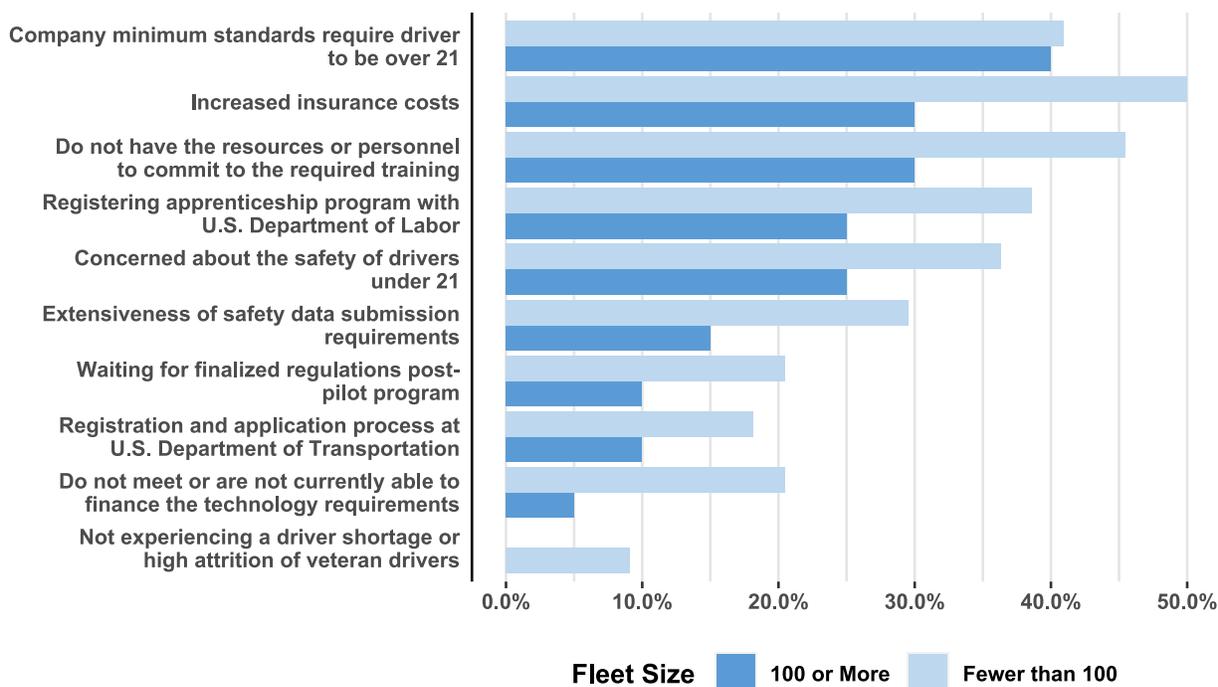
As shown in Figure 3, larger fleets lead in the next two measures of younger driver utilization (apprenticeship program and utilizing drivers under 21), but their figures are still relatively low.

⁴³ Dave Zelnio, Kelsey Medeiros, and Erin Speltz, “Reaching Our Youth Research: A study of high school-aged students’ career aspirations and their feedback on advertisements promoting trucking careers,” Nebraska Trucking Association.

Among the fleets surveyed by ATRI, 25 percent of large fleets and 18 percent of small fleets currently have a driver apprenticeship program for training younger drivers. However, only 20 percent of large fleet participants and 15 percent of small fleet participants currently utilize any drivers under the age of 21 in some capacity. Many successful younger driver apprenticeship programs involve Class B or intrastate driving, as described in the Training section. As such, carriers may wish to consider these opportunities even if interstate driving is expanded to drivers under 21 through a change in the regulations.

A majority of survey respondent fleets do not intend to participate in the SDAP. As Figure 3 shows, 91 percent of fleets with fewer than 100 drivers do not intend to participate in the SDAP, compared to 75 percent of fleets with 100 or more. To better understand the reasons behind this low level of interest, ATRI asked respondents to identify which factors have a significant impact on their decision not to participate in the SDAP. Figure 4 illustrates the leading concerns of small and large carriers.

Figure 4: Barriers to SDAP Participation



While some carriers in Figure 4 expressed concern about the safety of drivers under 21 – 36 percent of small fleets and 25 percent of large fleets – other non-safety issues are more common. The most frequently reported factor that has a significant impact on carriers’ decision not to participate in the SDAP is official company policy requiring drivers to be older than 21. These policies, however, reflect other practical concerns. Increased insurance costs represent a significant barrier to participating in the SDAP and eventually hiring younger drivers: 50 percent of small fleets and 30 percent of large fleets cited this as a significant factor in their decision.

Roughly 38 percent of small carriers and 25 percent of large carriers are concerned about the requirement to register an apprenticeship program with the U.S. Department of Labor (DOL),

but other logistical aspects of the program such as the apprenticeship program application process and safety data submission requirements had much less of an influence on the decision not to participate. A majority of fleets both large and small did not consider the program’s safety technology requirements a significant factor in their decision, a fact reflective of growing safety technology adoption.

Government and industry association officials can address some of these concerns by simplifying or providing additional guidance on processes such as DOL apprenticeship program registration, the SDAP application, and FMCSA’s data submission requirements. Other concerns, like insurance costs and technology costs, depend on a carrier’s need and willingness to invest in younger drivers. These costs can be significant, so carriers should take steps to understand younger drivers’ work perspectives and best practices for integrating younger employees in order to optimize outcomes.

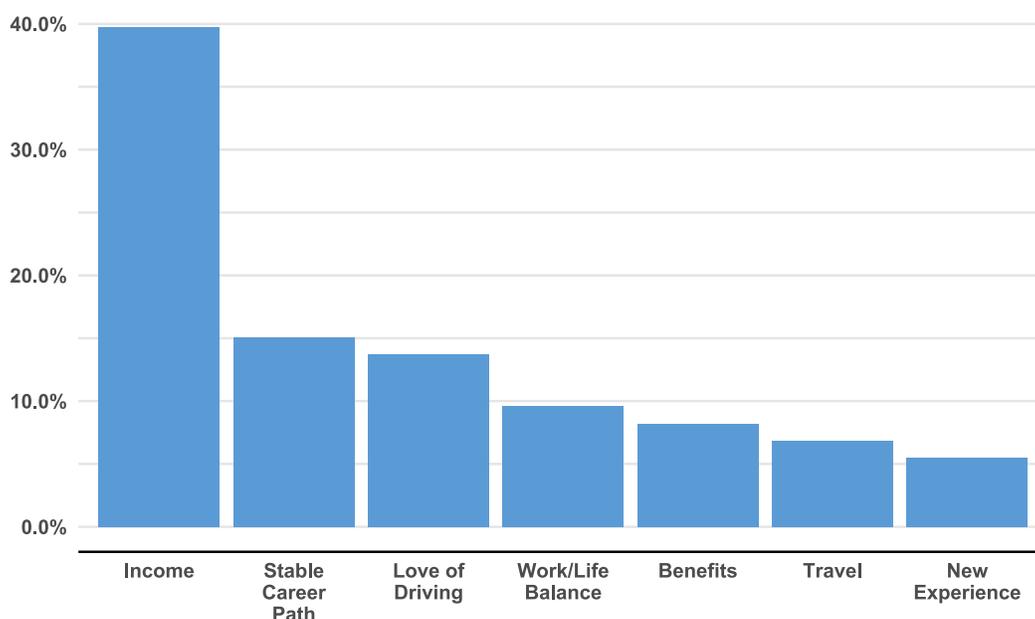
Younger Drivers’ Work Perspectives

In order to identify younger drivers’ top priorities and concerns, ATRI interviewed drivers aged 21 to 30 who are currently enrolled in or recently completed an apprenticeship program. Though driving is a unique career that often appeals to individuals with particular interests, the interviews highlighted the fact that younger employees in the trucking industry have much in common with the work preferences and priorities of other Millennials and Gen Zs described in the Background section.

Role of Pay

Pay is important to Millennials and Gen Zs entering the trucking industry: 40 percent said nothing was more important when it came to choosing a career in trucking.

Figure 5: Top Factors Motivating Younger Drivers to Choose Trucking



Nonetheless, younger drivers often insisted that other factors were equally or more important. In order to quantify the relative importance of pay, ATRI asked younger drivers which factors were equally or more important than pay. Love of driving or a sense of personal fulfillment as a driver was mentioned as equally or more important as money by 14 percent of younger drivers. Others – 15 percent – shared that it was more important that they could develop skills and grow in a career path that was more than “just a job.” Numerous younger drivers said that while pay was their primary motivation to enter the industry, love of the job overtook it as their primary reason for remaining. In fact, some expressed disappointment that some drivers enter the industry purely for money rather than for the job itself.

Eight percent said that carrier benefits, such as 401k and health insurance, were more critical in their career choice. Like their generational peers overall, younger drivers with consistent hours or weekends off considered it an essential part of their job satisfaction while younger drivers without consistent hours or weekends off considered it one of the less attractive aspects of their job. Even though many carriers are unable to offer flexibility to younger drivers, ten percent of younger drivers said that work/life balance was equally or more important than income.

Company Culture

A majority of younger drivers – 84 percent – consider company culture important. Many younger drivers said that they dislike cutthroat environments and prefer collaborative environments where managers, dispatchers, and other drivers see themselves as part of the same team. Younger drivers identified five concrete practices for building this kind of community-driven company culture:

- Promoting supportive managers;
- Making sure employees understand each other’s roles first-hand;
- Encouraging managers and coworkers to show each other leeway as needed;
- Encouraging employees to ask and share their own unique strategies for success; and
- Establishing opportunities for casual social interaction among employees (such as in the mornings before shifts begin).

Like most others in their generation, Millennial and Gen Z truck drivers appreciate managers or supervisors with whom they can develop a professional relationship of mutual respect. Younger drivers that are happy with their career often consider the supportive feedback of peers and supervisors as one of their favorite parts of the industry.

General Best Practices for Implementing Younger Employee Programs

When adopting new younger employee recruitment, training, or retention practices, carriers should play to their existing strengths. Carrier testimony suggests that strong commitments to a set number of strategies yields better results than lukewarm commitment to a larger number of strategies. Instead, carriers should carefully consider the kind of company culture they want to cultivate, and implement specific strategies for recruitment, training, and retention that promote that culture.

Carrier size has both benefits and liabilities when it comes to recruitment, training, and retention. For example, large carriers face practicality issues when it comes to one-on-one outreach. A carrier with 100 or more terminals cannot visit every high school, community center, or technical college in the vicinity of each location, though they may be able to effectively

focus on schools in locations where truck driver need is particularly high. Smaller carriers, by virtue of operating in fewer locations, can focus on developing meaningful long-term relationships with schools or other groups in their area; they may also benefit from stronger ties to local organizations. Small carriers, however, are less likely than large carriers to have the resources for dedicated recruitment programs or personnel.

Carriers are most successful with younger employees when they coordinate recruitment, training, and retention efforts. Targeted recruitment practices help ensure that hired employees are well suited for training and more likely to remain in the industry and/or with the carrier. Conversely, one of the strongest recruitment initiatives for carriers is promoting their training program's strengths and retention benefits in hiring ads and at the start of employment. As such, the strategies described in the following three sections on recruitment, training, and retention have some overlap and are best considered together in the context of implementation.

Younger Employee Recruitment

Key Findings:

- *Underscore Driving as a Skilled Career Path*
- *Utilize Familial/Interpersonal Connections*
- *Approach Outreach as a Two-Way Street*
- *Improve Transparency*
- *Publicize Younger Drivers*
- *Use Targeted Recruitment*

The importance of “critical skills” in the trucking industry was one of the most significant concerns raised by ATRI’s younger driver interviewees. Younger drivers’ concerns fell into two categories; many individuals felt both.

1. Before entering the industry, younger drivers feared that they did not possess or could not learn the necessary skills to be a safe and successful driver.
2. After completing training and spending some time on the job, younger drivers felt that their skill and their capacity for further growth were two of, if not the most, fulfilling parts of their job.

In recruiting, therefore, it is critical that carriers carefully depict CMV driving as an accessible trade that is also skilled and varied work. This balanced approach pertains to safety and driving technology systems as well. Technology utilization was one of the major attractions for ATRI’s younger driver interviewees as well as the NTA high school focus group study, so it should be strongly emphasized in recruitment.⁴⁴ In light of concerns about critical skills, however, technology use should be emphasized as supporting a driver’s skillset – as enhancing driving skills – rather than as making their job easier or replacing driving responsibilities.⁴⁵

⁴⁴ Dave Zelnio, Kelsey Medeiros, and Erin Speltz, “Reaching Our Youth Research: A study of high school-aged students’ career aspirations and their feedback on advertisements promoting trucking careers,” Nebraska Trucking Association.

⁴⁵ Josh Fisher, “Understanding Gen Z could be key to unlocking staff shortages,” *FleetOwner* (Oct. 22, 2021), <https://www.fleetowner.com/operations/article/21179173/understanding-gen-z-could-be-key-to-unlocking-staff-shortages>.

Another key principle for successful recruitment among younger adults is to promote trucking as a career path, not as a single unchanging “job.” Of course, this requires carriers to establish and support career pathways to begin with, as discussed later in the Retention section. Emphasizing trucking as a career path addresses some of the biggest concerns among Millennial and Gen Z jobseekers in general, and recently hired truck drivers in particular. Younger adults want a skilled trade that they can master but whereby they can continue to grow over the long run, and they want the ability to develop it in multiple directions as their own lives continue to grow and develop. Independence is consistently one of the top-rated reasons why individuals become truck drivers: though it is a higher priority for owner-operators and independent contractors, almost 60 percent of company drivers also consider independence extremely important.⁴⁶ For younger drivers, the option to choose how their career develops or changes within the industry is a key aspect of independence.

Work flexibility is another rising concern among prospective Millennial and Gen Z trucking industry employees; this issue will be discussed in the retention section as well.

While career fulfillment and development opportunities are important, wages and starting pay in particular remain a critical factor in appealing to younger prospective employees. Forty percent of younger drivers said that pay was the most important consideration when starting their career in trucking. Of the carriers interviewed for this research, those with higher starting pay experienced less difficulty securing drivers.

Table 2 shows carriers’ rankings of the most effective practices for recruiting younger drivers over the past two years. Among both small and large fleets, direct referrals through existing employees and social media advertisement were ranked highest by far. While both small and large fleets tend to engage with technical or community colleges, small fleets attached more importance to high school outreach than large fleets did. Additionally, large fleets have begun to see more payoff in recruitment initiatives focused on women drivers.

Table 2: Most Effective Younger Driver Recruitment Practices

| Recruitment Practice | Small Fleet Ranking | Large Fleet Ranking |
|---|---------------------|---------------------|
| Direct connections with existing employees and family friends | 1 | 2 |
| Social media | 2 | 1 |
| Technical or community college outreach | 3 | 3 |
| In-house driving school | 4 | 5 |
| High school outreach | 5 | 6 |
| Initiatives focusing on non-white truck drivers | 6 | 7 |
| Initiatives focusing on women truck drivers | 7 | 4 |

⁴⁶ Rebecca M. Brewster, *Owner Operators / Independent Contractors in the Supply Chain*, American Transportation Research Institute (Dec. 2021).

School Outreach

Experience shows that the most effective high school recruitment begins not with students but with teachers or administrators. High school career fairs provide a convenient opportunity for carriers to interact with students, but more strategic engagement that provides more direct or in-depth engagement often requires more tailored planning. Recruitment materials may never reach students if carriers do not first win the support of guidance or career counselors. Visiting technical education or automotive classes provides access to the students most likely to be interested in driver or technician careers. To do so, carriers will need to meet with instructors or counselors first to establish a relationship, secure permission, and develop an approved approach.

Community or technical college recruitment is more common than high school outreach among carriers, especially those with higher experience or age requirements for drivers. That said, many of the same best practices for high school recruitment apply to community or technical college recruitment as well.

Some carriers offer tuition reimbursements for commercial driving schools or technical colleges as a recruitment and retention tool in exchange for an agreement to drive for that carrier for a period ranging from six months to two years. This benefit may be especially enticing to younger adults who are weighing their ability to cover tuition payments. For some, it may even be a practical necessity: younger employees interviewed by ATRI often described the cost of training as a barrier or dissuasion to entering the trucking industry. Carriers offering these tuition reimbursement arrangements, as with any apprenticeship program, should be as transparent as possible about the requirements for repayment.

Carriers should identify nearby schools that already have strong technical education departments or aligned practices. Attributes of strong technical education departments at high schools include high enrollment and a variety of course offerings (even if those offerings do not include an automotive course). At the technical college or private driving school level, carriers should consider the breadth of driver training programs: do they include extensive on-road experience or cover vital non-driving responsibilities? They should also consider whether diesel technician programs are focused on the appropriate equipment types and maintenance protocols. Carriers should consult with their own younger employees' experiences when determining with which schools to build these relationships.

The NTA focus group found that trucking recruitment campaigns that emphasize the downsides of other career paths – such as working in a cubicle or paying high tuition for a bachelor's degree – had the lowest appeal with high school audiences. While these negative comparisons may resonate with younger adults who have already decided to enter the trucking industry, they do not expand the interest pool and may even limit it. Carriers should focus on the strengths of a career in trucking on its own merits rather than portraying other careers in a negative light.

Offering part-time work for high school and technical college students is another way to familiarize younger adults with the trucking industry, especially for carriers looking to improve their hiring of technicians. For these positions to function effectively as recruitment on-ramps to full-time employment, some carriers have begun pairing part-time younger adult employees with senior mentors. Carriers have also begun identifying full-time positions for part-time employees to transition into upon graduation or certification to demonstrate their commitment proactively.

Independent Partner Organizations

In both high school and technical college contexts, carriers can increase their reach and reduce their own in-house recruitment activities by collaborating with independent organizations that promote skilled trades. Partnerships or sponsorships with these groups have the benefit of requiring fewer dedicated resources than carrier-specific recruitment initiatives; naturally, this convenience comes with the tradeoff that these groups are not exclusive to any single employer.

The Be Pro Be Proud program addresses declining interest in twelve professional trades – including truck drivers and diesel technicians – through publicity campaigns and school visits.⁴⁷ Founded as Arkansas Be Pro Be Proud in 2016, it has since spawned Georgia and South Carolina programs. Its primary outreach consists of a “mobile workshop,” a tractor-trailer that includes hands-on and virtual reality activities to give 8th through 12th grade students exposure to the experience of working a trade. It has had almost 100,000 visitors at over 500 locations. Other initiatives include a website and a magazine (founded in 2018) that each contain industry facts and figures, worker testimonials and profiles, and training and job ads.

Carriers interviewed by ATRI that worked with Be Pro Be Proud reported positive experiences, which suggests that additional or similar programs in other states may be worth founding as well. While programs like Be Pro Be Proud help raise awareness for careers in skilled trades in general, it is worth noting that they also directly juxtapose trucking with other industries that have historically competed with trucking in the job market. Truck driver wages fall in the lower half of average annual wages published on each of the three current Be Pro Be Proud state websites.

America's Road Team (ART) Captains, an initiative of the American Trucking Associations, are a group of professional truck drivers who possess excellent driving skills and are passionate about spreading highway safety awareness.⁴⁸ Acting as ambassadors between the trucking industry and the larger public, ART Captains participate in a variety of industry, community, club and school events. ART captains educate younger drivers at school events through ATA's “Share the Road” Program. Through “Share the Road,” ART Captains educate elementary, middle and high school students about the breadth of the trucking industry and the importance of safety within the industry. School visits are often accompanied by a Class 8 truck, allowing students to get a hands-on experience within the cab and see first-hand the limited scope of a truck's blind spot. Students are particularly engaged when experiencing the inside of a cab for the first time, as they are often surprised and impressed with the incorporated technology.

In recent years, high school-level courses have emerged as one possibility for instilling interest in the trucking industry. Patterson High School in California has a one-year “Introduction to Truck Driving” course taught by Dave Dein as part of a Business and Logistics Department. The department also includes courses in “Logistics and Distribution,” “Supply Chain & Logistics Management,” “Safe Forklift Operation,” and “Supply Chain Technician.”⁴⁹ Open only to 12th graders, “Introduction to Truck Driving” involves a minimum of 30 out-of-class hours and is

⁴⁷ For more information, visit <https://www.beprobeproud.org/professions/>.

⁴⁸ “America's Road Team,” American Trucking Associations, <https://www.trucking.org/americas-road-team>.

⁴⁹ Patterson High School, “Patterson High School Course Catalog 2021-2022,” https://pattersonhigh.patterson.k12.ca.us/UserFiles/Servers/Server_18172391/Image/Course%20Catalog%202021-2022_Final.pdf.

partnered with a carrier, Morning Star Trucking, for behind-the-wheel training. Other schools are making similar efforts. At Juan Rodriguez Cabrillo High School in Long Beach, CA, 25 percent of students participate in an Academy of Global Logistics program that introduces students to the wide variety of careers in the industry.⁵⁰

Building on these efforts, Dein and others formed the organization Next Gen Trucking to help promote similar opportunities at other high schools. To start a new program, they require a partnership between an interested high school and a local technical college or private driving school in order to facilitate the hands-on training component.⁵¹ One strength that Next Gen Trucking emphasizes is that trucking is a much more social industry than the solitary stereotype suggests: while specifics vary by operation type, drivers interact with customers, technicians, dock workers, and/or other drivers, and these social interactions can become regular working relationships.

Carrier Promotional Materials

There is a severe information gap concerning on-ramps for younger adults to enter the industry. Younger drivers and driver apprentices often reported that, before starting their job, they did not know that they could become drivers at their age or thought that CDL training would take much more time or be more difficult. They also often did not realize how modern or technologically advanced trucking is and how many non-driving skills or knowledge they would develop.

Carriers should produce recruitment materials that provide a clear outline of how younger adults can expect their training and early career to progress. While personal interactions with prospective younger employees are valuable, establishing official programs and creating public documentation ensures transparency and inspires trust – in addition to functioning as effective marketing materials.

Educational or promotional resources directed toward younger adults can be effective without an advertising campaign. Younger adults who search online for the name of a carrier and a phrase like “younger truck driver opportunities” or “truck driver apprenticeship” should be able to find a company web page with accessible, well-presented information.

Many younger drivers told ATRI that more initial information or transparency would have helped them join their current carrier sooner. Their specific suggestions included:

- Making job postings more explicit about expectations or requirements (especially with regard to CDLs); and
- Posting “day in the life of” videos or other content to help convey a sense of what a career in trucking is like.

Millennials and Gen Zs generally prefer this greater degree of transparency in order to make an informed decision about whether a job could be fulfilling for them, especially in a job market with abundant options. As Figure 6 shows, 20 percent of younger drivers said that doing so would improve carrier recruitment among their peers.

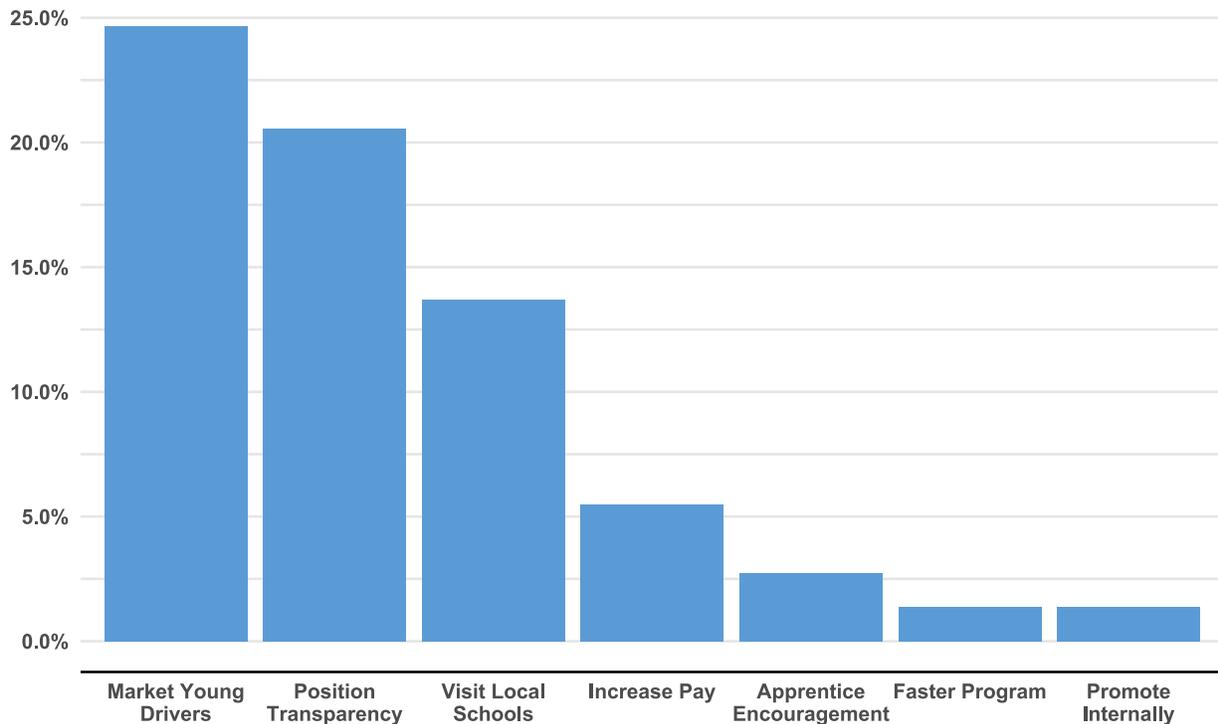
⁵⁰ Dan Ronan, “High School Prepares Students for Transportation Careers,” *Transport Topics* (May 31, 2022), <https://www.ttnews.com/articles/high-school-prepares-students-transportation-careers>.

⁵¹ For more information, visit <https://www.nextgentrucking.org/>.

Several elements can make educational and promotional materials more compelling:

- A standard timeline for younger employee training, apprenticeship, or promotion provides a clear account of trucking as a career path with achievable future goals.
- A succinct yet inclusive list of the variety of skills that younger employees will gain or use is also valuable, especially given that many younger drivers reported that they did not realize how many non-driving tasks would be part of their daily work. In fact, as Figure 6 shows, improving transparency about job skills and responsibilities was one of younger drivers' most frequently suggested ways to improve younger adult outreach.
- Finally, strong visual design – using images, bold colors, or striking layout – makes materials stand out and draws people in, especially visually-minded individuals. Many younger drivers and high school students were pleasantly surprised at how technologically advanced the trucking industry is; strong, effective visual design helps convey this fact.

Figure 6: Top Younger Driver Suggestions for Improving Younger Adult Recruitment



Nearly 25 percent of younger drivers interviewed by ATRI shared that trucking companies should improve the industry's reputation among younger adults by putting more younger adults into non-recruitment advertisements and official company materials in general. As Figure 6 shows, this was their most frequent suggestion. The more that carriers showcase their younger talent, the more people will think of trucking as an industry that welcomes and values younger employees.

Diversity Initiatives

As the American workforce becomes more diverse, diverse workplaces help expand the pool of potential employees and improve retention. Recruitment initiatives focused on bringing more women or racial minorities into the trucking industry are presently limited, but carrier interviews attest that interest in this area is growing. One of the most practical ways to promote diversity is to strive for terminals or service centers that reflect the demographics of the surrounding community.

Carrier diversity initiatives can take many forms and largely depend on the demographics of the communities they serve. Some carriers perform outreach with local community centers or groups, some of which may already be involved in local sustainable jobs programs. Other carriers provide recruitment materials translated into another language, such as Spanish or Somali, which can be helpful even for bilingual younger adults whose first language is not English. Some carriers have implemented upper-level training and focus groups to help company leadership manage employees of all backgrounds to their fullest potential as well as productively address any differences in understanding between employees. As one carrier executive and some drivers noted, diversity in leadership is another part of cultivating a company culture where all current and prospective employees feel represented.

As with other forms of recruitment, carriers can also support existing third-party organizations that encourage diversity in the industry. For example, some recent initiatives aim to build truck driver resources; for example truck stop maps for Black-, Hispanic-, or Punjabi-operated truck stops to help build connections between drivers from these communities.⁵² The Women in Trucking Association offers mentorship programs, advocates same-gender training, and provides other resources to make the industry more accessible to women drivers.⁵³ Carrier support for similar efforts could generate greater publicity and impact.

One challenge that carriers face when attempting targeted recruitment is that it requires sustained investment in personnel and resources. One approach is to assign additional recruitment responsibilities to an Equity and Inclusion executive role; another approach is to assign additional diversity-oriented responsibilities to an HR recruiter role.

Interpersonal Connections

Referrals play an outsized role in bringing younger employees into the trucking industry. Of the younger drivers interviewed for this research, 73 percent were introduced to trucking by an adult relative in their parents' generation: a father, mother, uncle, or aunt. Similarly, the NTA focus group found that familial words were several of the top word associations with trucking among high school students.⁵⁴ This trend represents a call to action. Carriers must strive to keep satisfaction high among current and veteran drivers in order to sustain this key influence on younger prospective drivers. To this end, 13 percent of carriers in ATRI's 2022 *Operational*

⁵² Jaweed Kaleem, "Sikh drivers are transforming U.S. trucking. Take a ride along the Punjabi American highway," *Los Angeles Times* (June 27, 2019), <https://www.latimes.com/nation/la-na-col1-sikh-truckers-20190627-htmlstory.html>; D'Juan Hopewell, "Truck Driver Launches Website To Help Travelers Find Black Owned Restaurants" (Sept. 18, 2019), <https://webuyblack.com/blog/truck-driver-launches-website-to-help-travelers-find-black-owned-restaurants/>.

⁵³ For more information, visit <https://www.womenintruck.org/>.

⁵⁴ Dave Zelnio, Kelsey Medeiros, and Erin Speltz, "Reaching Our Youth Research: A study of high school-aged students' career aspirations and their feedback on advertisements promoting trucking careers," Nebraska Trucking Association.

Costs of Trucking offer referral bonuses to drivers.⁵⁵ The prevalence of second- and third-generation drivers is also further motivation for hiring younger adults: any decline in one generation's drivers will lead to fewer drivers in the next generation.

Younger employees in the trucking industry are themselves an important potential source of referrals. In ATRI's younger driver interviews, those with high job satisfaction reported that they spoke to their friends about their work and that their friends were often interested or supportive. Similarly, the NTA focus group found that 28 percent of high school students were influenced by friends in their career choice process.⁵⁶

Carriers and younger employees both agree that early-career employees – employees who have been with a carrier for several years but are still in their late 20s or 30s – have the most appeal with younger prospective drivers and technicians. These individuals are best suited to speak to younger prospective employees' unique questions and interests, and carriers can help form a sense of community by facilitating supportive relationships between younger employees.

Social Media and Other New Approaches

Many younger drivers told ATRI that carriers should post job ads on social media platforms in order to better disseminate their opportunities. Carriers should be aware that the dominant modes of interaction and the demographics of each social media platform differ. Pew research demonstrates that 71 percent of 18- to 29-year-olds use Instagram, 70 percent use Facebook, 65 percent use Snapchat, 48 percent use TikTok, and 42 percent use Twitter.⁵⁷ These social media platforms can be valuable spaces for recruitment advertisement; more broadly, supporting or sponsoring drivers' content on these platforms can help amplify industry image.

Videogames represent another potential avenue for reaching younger adults. The ATA Technology and Maintenance Council (TMC) developed a free game, SuperTech, available for mobile devices on Google Play and Apple Store. Players repair tire, brake and engine issues as they progress from an apprentice to a repair shop owner over 15 levels. In-game links to the TechForce Foundation connect players with career and scholarship opportunities. Though it currently only has 100-500 downloads, the game is still new and has the potential to be used as part of other outreach activities.⁵⁸ American Truck Simulator, a PC and Xbox game, has over 2 million copies sold. It features a 1:20 scale map of the western U.S. with select highways and cities; players deliver loads and can upgrade their truck or hire drivers. This simulator is similar to the American Training Systems simulator used in instructional contexts.⁵⁹

For more information on recruitment practices in peer industries see Appendix D.

⁵⁵ Alex Leslie and Dan Murray, *An Analysis of the Operational Costs of Trucking: 2022 Update*, American Transportation Research Institute, forthcoming.

⁵⁶ Dave Zelnio, Kelsey Medeiros, and Erin Speltz, "Reaching Our Youth Research: A study of high school-aged students' career aspirations and their feedback on advertisements promoting trucking careers," Nebraska Trucking Association.

⁵⁷ Brooke Auxier and Monica Anderson, "Social Media Use in 2021," Pew Research Center (April 7, 2021), <https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/>.

⁵⁸ For more information, visit <https://tmc.trucking.org/blog/tmc-releases-augmented-reality-game-attract-new-technicians>.

⁵⁹ For more information, visit https://store.steampowered.com/app/270880/American_Truck_Simulator/.

Younger Employee Training

Key Findings:

- *Maximize Breadth of Experience*
- *Allow More Time and Variety Behind the Wheel*
- *Improve Instructor Training*
- *Utilize Multiple Mentors per Driver*
- *Implement Continual Feedback*

For younger employee recruitment to be successful, carriers need to have positions that these individuals can secure after high school, and that provide a transparent, trustworthy path to prepare them for truck driving roles in the future.

Obtaining a CDL independently can be a costly activity for younger adults who do not have an income while attending a CDL school. In 2022, earning a CDL at a driving school cost roughly \$3,000 to \$7,000.⁶⁰ Additionally, truck driving schools offer programs which require the student to pay upfront costs. Truck driving schools do not pay for certain aspects of the training such as housing, meals, and transportation to and from training. Students may take out a loan to participate in the driving program, but this may increase financial hardship until they are able to drive commercially.

To address this issue, many carriers offer paid apprenticeship programs in which younger employees receive training while also working. Other carriers compensate younger prospective truck drivers for the costs of private driving school.

Current apprenticeship programs in the industry consist of up to three broad parts. First, some carriers use pre-driving or dock-to-driver programs for younger adults under the age of 21. The second part of apprenticeships is a CMV driver training program, typically open to younger adults aged 21 or older. Third, carriers have been expanding their ongoing training or coaching programs to promote continued driver development. These continuing training programs will be discussed in the Retention section.

Pre-Driving and Dock-to-Driver Programs

The exact components of a pre-driving or dock-to-driver program vary considerably based on each carrier's operating type, facilities and specific needs. Successful programs share some commonalities, such as giving apprentices experience with a variety of tasks and roles across the freight process. One benefit of this approach is that it ensures younger drivers understand the full breadth of the carrier's operations, which can help them do their work better as drivers as well as strengthen their sense of company culture. Another benefit is that it instills a sense of progress or development. Younger employees who want to be truck drivers do not want to feel "stuck" on the dock or driving local routes, for example, and learning new skills helps counteract this feeling.

There are some key differences between LTL dock-to-driver programs and pre-driving programs at truckload or specialized carriers. Training in dock-to-driver programs often covers a wider variety of roles. Since these roles are paid and essential, training is thus often stretched out

⁶⁰ "How Much Does It Cost To Become a Truck Driver?" PRIME Inc., <https://www.primeinc.com/trucking-blogs/cost-to-become-a-truck-driver/>.

over a longer period of time depending on an apprentices' age at the start of a program. Pre-driving programs at truckload or specialized carriers are shorter; they may take place before driver training or concurrent with driving depending on an apprentices' age or specific needs.

Most LTL carriers that hire 18- to 20-year-olds with an interest in driving start these employees on dock shifts. Some carriers intersperse freight regulation and paperwork training during this time, in advance of driving. Other carriers include forklift certification and operation, and a few even provide maintenance training. Every additional skill taught in training demonstrates to younger employees that their carrier is invested in them.

Some carriers with pre-driving or dock-to-driver programs promote apprentices to working as yard "hostlers" – so that they learn to back into docks, drop, hook, and scale in the terminal. While most common among LTL carriers, some truckload and specialized carriers also include yard work as part of their apprenticeships. This role allows younger employees to become skilled at some of the more difficult driving maneuvers in a supervised environment and to get behind the wheel earlier. This additional, advance experience has payoffs. Several carriers stated that drivers were safer and more confident as a result of previously working as a hostler during dock-to-driver programs.

Ride-alongs may begin well before driving instruction depending on a carrier's personnel needs. For drivers under 21, first-hand observation – of both driving and non-driving activities on the road – can help reduce issues or delays once they are able to begin driver training.

Some carriers, across all sectors, offer training in areas like conflict resolution or budgeting – especially for over-the-road drivers. These additional skills, while not directly essential to their work as truck drivers, empower drivers to manage situations that may arise on the job with confidence and professionalism. Younger drivers reported that these forms of practical non-driving training were some of the most helpful and enjoyable aspects of their apprenticeships.

Driver Training Programs

The driver training component of an apprenticeship can take place in several institutional contexts. Carriers may operate their own dedicated driving schools, partner with truck driving schools, or run training programs at carrier terminals. Currently, there are two models for apprenticeship training: apprenticeships in which driver training culminates in the CDL, and apprenticeships in which driver training takes place after the CDL. There are strengths to both approaches. A gradual approach to build driving skills prior to the CDL allows for the benefit of intermixing driving and non-driving responsibilities while also ensuring younger drivers are better prepared for the exam. Taking the CDL exam prior to an apprenticeship enables drivers to become eligible for more driving roles sooner. Importantly, the SDAP requires that all 18- to 20-year-old drivers obtain their CDL prior to their apprenticeship driving.

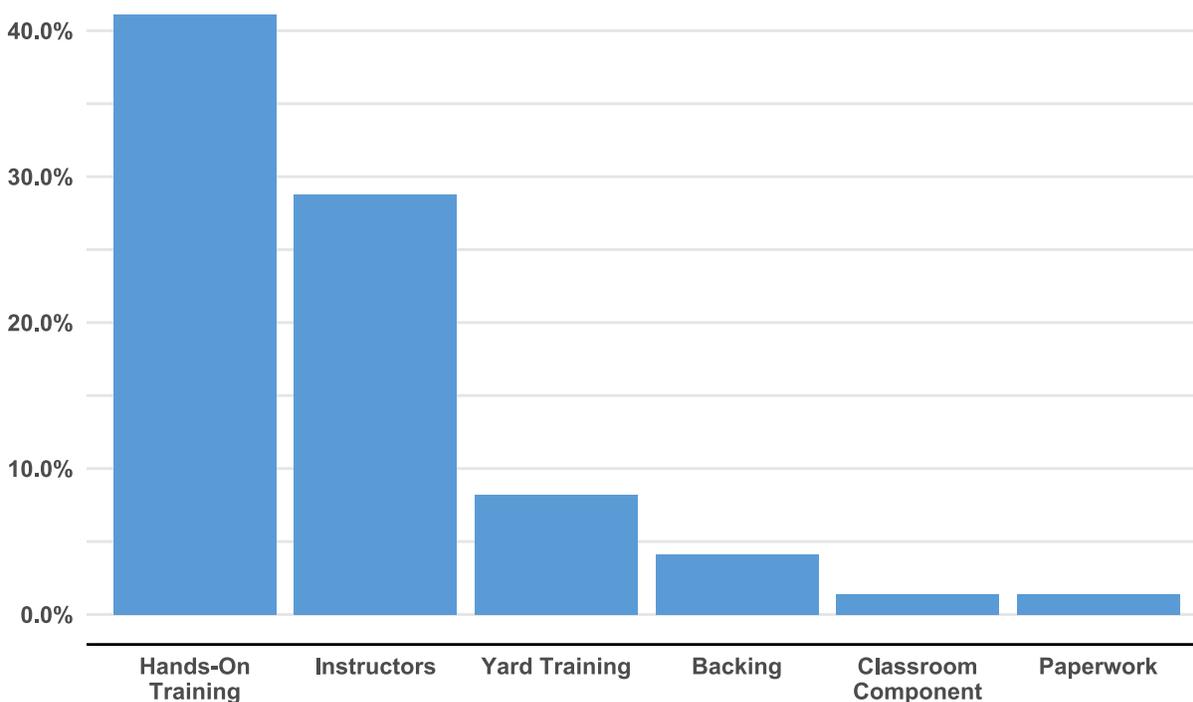
Driver training programs typically include a classroom portion followed by a behind-the-wheel driving portion, though they may partially overlap. Classroom training covers compliance, safety regulations, load securement, geography, map reading, Hours-of-Service (HOS), load planning, and company culture. Younger drivers told ATRI that classroom sessions can sometimes feel like an information overload. They felt more confident when carriers made training materials accessible for later review. Carriers can also improve mastery by intermixing classroom and hands-on training so that students remain engaged and have the chance to apply real-world lessons.

Drivers did not necessarily dislike classroom training, but they did share that dated materials (such as older videos) could dissuade some trainees from completing the program by giving the false impression that the industry is outdated (Figure 8). Some carriers have been shifting from classroom training into digital or simulation settings. Based on younger driver preferences, however, these new techniques should not be used to replace road time.

Similar to dock-to-driver programs, in-vehicle training often begins with trainees observing or shadowing a veteran driver before they begin driving in order to build familiarity. Some LTL carriers that do not use dock-to-driver programs still assign yard hostler responsibilities to driver trainees in order to build maneuvering skills, and some truckload carriers assign additional urban driving for the same purpose. Several younger drivers interviewed by ATRI in fact expressed a desire for additional practice time on backing or operating in the yard for this purpose – especially prior to the CDL test – and 12 percent said that backing or yard training were the most helpful aspect of their entire training program (Figure 7).

Some carriers utilize a graduated training or employment model, in which new drivers begin driving smaller trucks in local operations and gradually advance to larger truck-trailer combinations. Carriers with straight truck or last mile operations reported increased safety and success when younger drivers began learning operations in these smaller trucks first.

Figure 7: Younger Driver Perspectives on Most Helpful Aspects of Training



Mentored behind-the-wheel training, whether it happens before or after a driver receives a CDL, is the core of any apprenticeship. Over the last decade carriers have expanded this component; most carriers interviewed by ATRI that have apprenticeship programs already meet the hours requirement stipulated by the SDAP as outlined earlier. Younger drivers generally agreed that on-the-job or live-traffic training was significantly more effective than classroom or driving

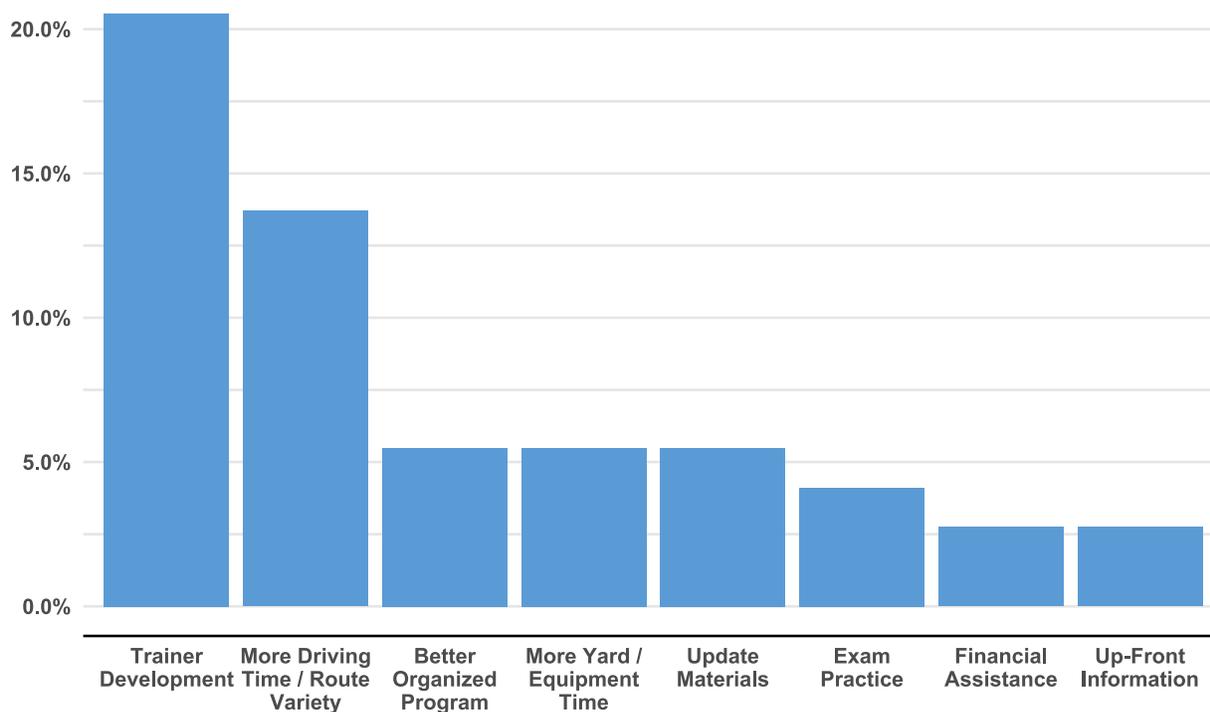
courses for most instructional purposes. As Figure 7 shows, 41 percent considered time on the road as the single most important aspect of the training program. As one driver said, training is best when it matches “the experience of what the job duties actually are, which include driving and non-driving stuff mixed together, as opposed to the school method of going around cones.” Many drivers similarly expressed a preference for a greater variety or difficulty of routes in their behind-the-wheel training.

Mentorship and Feedback

Committed driver trainers and mentors are the second most important aspect of successful training programs. Whereas trainers work directly and extensively with apprentices only during their training program, mentors fill a supplementary role in the training process and may continue working with younger drivers after they complete their apprenticeship. Since trainers and mentors spend significant amounts of time with apprentices, it is crucial that they are personable and instruct apprentices in a manner consistent with the apprenticeship program as a whole. Carriers interviewed by ATRI also agreed that former apprentices make the best trainers and mentors, because of their recent experience as apprentices gives them familiarity with the program and because their relative youth helps them connect with younger trainees.

Instruction was also one of the areas that younger drivers most frequently highlighted for improvement. As shown in Figure 8, 20 percent of younger drivers believe that training could be improved by providing better instruction for trainers themselves. In addition, 14 percent of drivers recommended more driving time and variety, five percent recommended updating training materials, and five percent recommended improvements to program organization.

Figure 8: Top Younger Driver Suggestions for Improving Driver Training



Younger drivers interviewed expressed a strong preference for multiple trainers or mentors; as one explained, it is “important to have drivers train with multiple trainers as it provides different routes and perspectives.” Ideally, apprentices would have a younger trainer/mentor and an older trainer/mentor, in order to reap the benefits of both fresh and veteran experiences.

Carrier feedback on driver performance is one key area in which best practices for working with younger drivers differ from best practices for working with their older peers. Feedback should take place in two formats: coaching and evaluation. Coaching is a continual process of short, frequent and more personal meetings. This feedback format allows trainers or mentors to praise successes, curb any bad habits early and allow apprentices to clarify any uncertainties as they arise. Evaluations are more comprehensive and retrospective; they allow carriers and apprentices to set clear expectations. Though Millennials and Gen Zs prefer coaching more than did their parents’ generations, both feedback formats play important roles in creating optimal drivers and building company culture.

Drivers found it helpful when they could continue seeking advice from the same trainers or mentors after the completion of their training program. Carriers can support younger drivers by facilitating this continued relationship, whether by scheduling mentor check-in meetings or encouraging other forms of continued communication.

Registration with the Department of Labor

The DOL Registered Apprenticeship Program provides carriers with additional options for recruiting and training younger employees. To register an apprenticeship, employers must design and document their program to meet one of three sets of standards for structured on-the-job training, classroom instruction, and progressively rising pay.⁶¹

Registering an apprenticeship with the DOL has several benefits. Most importantly, registration is a prerequisite for participation in the SDAP. It also makes carriers eligible for federal resources and state tax credits, in addition to providing apprenticeship graduates with a federally endorsed credential. Apprentices must be full-time paid employees, though one important benefit of a registered apprenticeship is that it allows carriers to offer apprentices starting wages at a fraction of a skilled worker’s wage.

There are also barriers to registering an apprenticeship with the DOL. Apprenticeship costs include trainer pay, training equipment, and under-productive apprentice wages. Registering an apprenticeship program involves the added hurdle of completing required documentation and paperwork to demonstrate that the program meets federal minimum standards. As shown in Figure 4, 38 percent of carriers with fewer than 100 drivers and 25 percent of carriers with 100 or more drivers surveyed by ATRI consider the requirement to register an apprenticeship program with the DOL to be a barrier to participation in the SDAP.

⁶¹ “A Quick-Start Toolkit: Building Registered Apprenticeship Programs,” U.S. Department of Labor, https://www.doleta.gov/oa/employers/apprenticeship_toolkit.pdf.

Younger Employee Retention

Key Findings:

- *Support Continuing Employee Development*
- *Cultivate a Company Culture that Matters*
- *Prioritize Consistency and Flexibility in Scheduling*
- *Improve Compensation*

Driver turnover has been a long-running concern for fleets, as drivers churn between employers at increasingly high rates. According to ATA, turnover at large truckload fleets by the end of 2020 was 92 percent.⁶² As a result, in 2021 driver retention ranked as the second most critical issue within the trucking industry in ATRI’s Top Industry Issues report.⁶³ In response, carriers are focused on younger employee retention strategies such as providing career support, promoting good company culture, expanding flexibility, and increasing financial support. Each method for retention varies in practice for individual carriers, yet there are common themes exhibited among carriers that experience higher retention rates. These commonalities are discussed below.

Table 3 shows carriers’ rankings of the most effective practices for retaining younger drivers over the past two years. Increased pay was the top-cited item for both large and small fleets. Small fleets ranked expanded benefits, such as health or 401k, as the next most important. Large fleets ranked expanded benefits as comparatively less important, but this may be because large fleets may already offer expanded benefit offerings compared to small fleets.⁶⁴ More regular or flexible hours was a top-three retention priority for both small and large fleet employees, reflecting the importance of lifestyle and schedule concerns among Millennial and Gen Z drivers. Carriers found that revamping feedback practices and additional education is helpful but less effective than other practices at improving younger driver retention, though these practices may have other benefits (such as safety).

Table 3: Most Effective Younger Driver Retention Practices

| Retention Practice | Small Fleet Ranking | Large Fleet Ranking |
|--|---------------------|---------------------|
| Increased pay | 1 | 1 |
| Expanded benefits, health, 401k | 2 | 4 |
| More regular or flexible hours | 3 | 2 |
| More choice of route including greater home time for drivers | 4 | 5 |
| More vacation, sick days, or leave | 5 | 3 |
| Reassessed management, feedback, or coaching practices | 6 | 6 |
| Additional training or education on the job or via tuition reimbursement | 7 | 7 |

⁶² “Turnover Remained Unchanged at Large Truckload Fleets in Fourth Quarter,” American Trucking Associations (March 29, 2021).

⁶³ “Critical Issues in the Trucking Industry,” American Transportation Research Institute (Oct. 2021).

⁶⁴ Alex Leslie and Dan Murray, *An Analysis of the Operational Costs of Trucking: 2021 Update*, American Transportation Research Institute (Nov. 2021).

Continuing Development

Carriers with an in-house apprenticeship program have found that the graduates are more likely to stay with the company. By providing an in-house apprenticeship program, carriers are able to influence younger driver driving style or techniques from the beginning and correct any early-developing bad habits. In-house apprenticeship programs allow carriers to provide positive feedback to younger drivers as they develop their driving skills. Keeping younger employees confident in their skills is important for both safety and to maintain constructive relationships with their younger drivers. Younger drivers are more likely to remain with carriers that support their growth and instill lasting confidence in their skills.

Carriers can improve retention by fostering positive communications between younger drivers that have recently completed an apprenticeship and younger drivers that have been on the job for a few years. Younger driver mentors are best suited to respond to younger employees' unique questions and interests because younger drivers are likely to see them as peers and because they have recently experienced the challenges and rewards of learning to drive a commercial motor vehicle. The opportunity to become a mentor can also be a strong retention incentive for younger drivers because it affirms their skills and instills a sense of fulfillment.

Experienced drivers can also provide invaluable coaching to younger drivers as they participate within the apprenticeship program and continue on as company drivers. Carriers that support the development of relationships between younger drivers and veteran drivers are likely to experience improved retention rates. As previously mentioned, younger employees highly value ongoing feedback and validation from multiple perspectives, which veteran drivers are well suited to provide.

To facilitate communication and the development of relationships between younger and veteran drivers, carriers should develop opportunities for the groups to interact. Younger drivers mentioned their desire for casual opportunities to converse with their colleagues, such as a break room, where conversation can naturally occur before and after shifts.

Company Culture

Carriers that exhibit good company culture are likely to have lower turnover rates. The Cambridge Dictionary defines organizational culture as “the types of attitudes and agreed ways of working shared by the employees of a company or organization.”⁶⁵ Harvard Business Review writes that company culture is shared through group experiences and manifests in collective behaviors, physical environments and expectations.⁶⁶ Carriers define their company culture through the values and goals that they set, and they are more likely to attract and retain younger employees who share those values and goals.⁶⁷ Younger drivers noted they feel a

⁶⁵ “Organizational culture,” *Cambridge Dictionary*,

<https://dictionary.cambridge.org/us/dictionary/english/organizational-culture>.

⁶⁶ Boris Groysberg, Jeremiah Lee, Jesse Price, and J. Yo-Jud Cheng, “The Leader’s Guide to Corporate Culture,” *Harvard Business Review* (Jan.-Feb. 2018), <https://hbr.org/2018/01/the-leaders-guide-to-corporate-culture>.

⁶⁷ Liz Kislak, “What Do Newer Generations Of Employees Want, And Can Your Business Adjust?” *Forbes* (January 28, 2022), <https://www.forbes.com/sites/lizkislak/2022/01/28/what-do-newer-generations-of-employees-want-and-can-your-business-adjust/?sh=607292842ee0>.

strong sense of fulfillment being able to bring goods to people who rely on them, and that they felt they were truly making a difference for their community as a truck driver.⁶⁸

Many carriers reported that they are conducting more frequent surveys in order to understand younger employees' satisfaction or concerns with current company practices. Employees appreciate being able to have their voices heard, although it is crucial that they can respond honestly without fear of reprisal.

Carriers are also bridging the communication gap between employees and management by conducting in-person management check-ins. Having management, particularly senior level staff, meet and listen to younger employees' concerns demonstrates that a carrier places value in employees' opinions. Conducting surveys or management check-ins also informs employees of the company's current situation and direction. It also allows carriers to emphasize employees' critical role in the carrier's future. This is especially relevant for employees at the start of their career. Younger employees who feel trusted, informed, and invested are more likely to remain with their carrier.

Scheduling Consistency and Flexibility

Younger drivers interviewed by ATRI also spoke on the importance of flexibility within their company. As noted earlier, recent Deloitte research found that Millennial and Gen Z employees ranked by a wide margin flexibility and adaptability as the most important business quality for success.⁶⁹ Carriers that provide their drivers with a flexible schedule may find their retention rates higher than carriers that do not allow for flexibility.

Adaptability is important for carriers seeking to retain younger employees as they move through different stages in life. As shown in Figure 5, ten percent of younger drivers said that work/life balance, such as spending time with their families or having a reliable and set schedule, was as important as or more important than compensation. Some carriers have begun increasing adaptability by allowing their drivers to determine their own routes that best suit their lifestyle. Several interviewed carriers have begun increasing adaptability by providing more consistent hours for younger drivers starting families. Having a set schedule takes the stress of the unexpected away from younger drivers, although each carrier's ability to deliver flexibility or consistency will vary by size and operation type. Because many younger drivers mentioned hearing about trucking through a family member (63%), promoting a positive experience for younger drivers and their families is an important asset the trucking industry needs to maintain in order to attract and retain additional generations of drivers.

Greater scheduling flexibility can even improve productivity. For example, one carrier reassigned the majority of employees from the third shift to other more popular shifts and saw improvements in productivity as well as employee satisfaction.

Some LTL carriers have introduced a "combo" role as an alternative to traditional driving or dock-working jobs. Combo roles generally function as their title implies: they are a combination of dock shifts and driving shifts. Working both the loading dock and driving a truck allows

⁶⁸ Dave Zelnio, Kelsey Medeiros, and Erin Speltz, "Reaching Our Youth Research: A study of high school-aged students' career aspirations and their feedback on advertisements promoting trucking careers," Nebraska Trucking Association.

⁶⁹ "A Call for Accountability and Action: The Deloitte Global 2021 Millennial and Gen Z Survey," Deloitte (2021), <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/2021-deloitte-global-millennial-survey-report.pdf>.

younger employees to experience a greater variety of responsibilities as well as greater flexibility in their schedule.

Large carriers are also leveraging their size to enable younger employees to move between positions over their career. Upward promotion has long been a strategy for maintaining company culture and keeping driver perspectives at the center of managerial decision-making. Many carriers, though, have begun exploring outward or lateral promotion for employees who want career development or new job experiences but who don't necessarily want to be a manager. These may include movement between long-haul, line-haul, pickup and delivery, local driving, yard or dock work, training, dispatching, or other auxiliary positions depending on a carrier's need and structure. Employees who change roles over their career can benefit carrier operations by sharing perspectives across units.

Compensation

Driver Compensation was ranked third overall in ATRI's 2021 Top Industry Issues report.⁷⁰ Driver pay has consecutively ranked as a Top-10 issue in the report for three years with one in three drivers ranking compensation as one of their top three industry concerns. Financial support is important for retaining not only veteran drivers but younger employees as well. Truck driving appears attractive for younger people in particular who are looking to generate a higher income immediately after graduating high school or a vocational school. More than one in three (34%) younger drivers noted that pay was the most important factor in their decision to enter the industry.

Some carriers have implemented a paid-progression track for truck drivers who complete apprenticeship programs in order to further bolster retention. If younger employees know their income will increase by a certain amount over the next few years, they are more likely to stay with the carrier because they have a clear blueprint of their financial future. The younger drivers interviewed by ATRI repeatedly brought up the desirability of a transparent, stable compensation structure.

Younger drivers may be more inclined than their predecessors to pick a position with a carrier that provides substantial benefits in addition to pay. Younger drivers noted the importance of benefits when looking to work for a specific carrier; they were in search of carriers that would support their families in addition to themselves. Benefits, by definition, are retention strategies for carriers to provide stability and reward loyalty.

ATRI's 2021 *Operational Costs of Trucking* report determined that benefits costs per-mile have declined between 2019 and 2020.⁷¹ Based on younger driver feedback, carriers that de-emphasize benefits risk damaging their retention rates. ATRI's *Operational Costs of Trucking* also showed that the average starting bonus declined in 2020, and that carriers are beginning to use safety and retention bonuses more.⁷² Carriers that strengthen their benefits packages, bonuses for safe or loyal drivers, and employee development are likely to incentivize their younger drivers to stay long-term in order to access their full benefits potential.

⁷⁰ "Critical Issues in the Trucking Industry," American Transportation Research Institute (Oct. 2021).

⁷¹ Dan Murry and Alex Leslie, *Operational Costs of Trucking*, American Transportation Research Institute (Nov. 2021).

⁷² Alex Leslie and Dan Murray, *An Analysis of the Operational Costs of Trucking: 2021 Update*, American Transportation Research Institute (Nov. 2021).

For more information on retention practices in peer industries see Appendix D.

High School Club Framework

One possible strategy for enhancing trucking industry recruitment and reputation among younger adults is to promote a trucking or freight logistics club for high school students. This would generally be a new endeavor for trucking, and it would require significant initiative and collaboration among industry stakeholders to create a framework capable of appealing to high school students. Several existing clubs are considered as potential models, followed by a discussion of possible initiatives and key takeaways.

Successful High School Career Clubs

Future Farmers of America (FFA) consists of local student-run chapters at the high school level that bring together students from agricultural backgrounds and students who are interested in careers in agriculture. Members compete for agricultural proficiency and agriscience awards, practice ecological restoration, food charity, animal husbandry, and engage in community-building and leadership activities. Founded in 1928, FFA also includes an ongoing affiliation model for graduates. There are over 660,000 FFA members nationally, making it the largest career/technical student extracurricular organization in the country. It is based in high schools, but it also has significant grounding in communities and overlaps with similar organizations like 4-H (whose members span from children to elderly retirees).⁷³

FFA's model would be difficult to replicate in any other industry because it relies considerably on the fact that many members come from agricultural backgrounds or have access to agricultural occupations. An agricultural machinery club would be the closest trucking industry equivalent to the widespread accessibility of agricultural and environmental activities, but this is much less directly related to truck driving as a trade. The strength of FFA does reiterate the importance of utilizing familial connections in the trucking industry, as discussed in the Recruitment section.

Junior and Reserve Officers' Training Corps (JROTC and ROTC) are the official preparation programs for the United States Armed Forces. JROTC, the high school-level program, focuses on instilling patriotism, discipline, and good citizenship. Unlike the larger ROTC, it is taught by retired service members and is not technically an officer training program. Instead, JROTC acts as a foundation and pipeline for ROTC. JROTC does include some of the basic components of ROTC, however, such as fitness training and drill, and it encourages members to join the military or ROTC in college. It has over 550,000 members nationally.⁷⁴

JROTC and ROTC have an extensive footprint thanks to major Department of Defense funding; this financial support sets them apart from any other industry. Nonetheless, the focus on transferrable skills in JROTC, where actual military training is impossible, is instructive for industries like trucking where high school students are too young to directly engage in primary trade activities.

SkillsUSA (formerly Vocational Industrial Clubs of America or VICA) is a national skill and trade organization club that consists of local student-run chapters at the high school level. These clubs organize career fairs, invite financial or entrepreneurial speakers, attend the organization's national leadership conference, take tours of various industry facilities, workshop resumes or

⁷³ More information on FFA can be found at <https://www.ffa.org/start-an-ffa-chapter/>.

⁷⁴ More information on JROTC can be found at http://www.usarmyjrotc.com/general/program_overview.php.

mock job interviews, and use trade skills for community service projects. SkillsUSA has over 370,000 members nationally. It is easy to start a club, and ongoing affiliation serves as a loose cross-industries professional network.⁷⁵ Though originally focused more exclusively on trade and blue-collar professions, it has expanded in recent decades to include other careers.

One of SkillsUSA's career clusters is "Transportation Distribution and Logistics." This category primarily includes skills oriented toward vehicle manufacture and repair, such as diesel equipment technology, collision repair technology, and power equipment technology. While some motor carriers sponsor this career cluster already, most sponsors are equipment manufacturers. There is space, however, for new skills in this cluster, because it is defined as "planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance."⁷⁶

SkillsUSA's breadth is both its strength and its limit, at least from the perspective of any single industry such as the trucking industry. It empowers students by emphasizing the importance of skilled trades, but it attracts students by not requiring them to pick any single trade focus. As such, SkillsUSA has only limited use as a model for a trucking-specific club. Identifying and cooperating with clubs like SkillsUSA could be a useful strategy, however, especially for carriers looking to develop relationships with new schools.

Auto clubs exist at a number of high schools, though these are less common than the previous three clubs and do not have a national affiliate organization to coordinate them. Auto clubs often work with technical education or shop departments at their schools in order to get access to parts and facilities; often, they are direct extensions of shop classes and supervised by the same teacher.

Paths Forward for Trucking

There are three possible avenues for the trucking industry to pursue in light of the existing club landscape and what makes those clubs successful.

One possible option for promoting the trucking industry at the high-school level is to work with SkillsUSA clubs rather than create an entirely new club. The benefit of this option is that it would utilize a widespread existing organization, thus requiring the least amount of industry investment and initiative. The downside is that the existing SkillsUSA would determine the nature of any industry collaboration; in such a partnership, trucking would be only one among dozens of trades and industries. While the size and reach of SkillsUSA would be an asset to recruitment, the large number of other sponsored trades would to some degree limit its effectiveness for recruitment.

A second option is to collaborate with existing auto clubs and promote the creation of new auto clubs at receptive high schools where they do not yet exist. An additional initiative in this area would be to organize an overarching national auto club for local auto clubs to affiliate with and participate in. The trucking industry could promote additional auto club activities oriented toward students interested in professional driving to complement repair- and maintenance-related activities. The benefit of this option is that it more directly targets the trucking industries'

⁷⁵ More information about SkillsUSA can be found at <https://www.skillsusa.org/programs/high-school/>.

⁷⁶ All SkillsUSA career clusters, including Transportation Distribution and Logistics, can be found at <https://www.skillsusa.org/about/career-clusters/>.

desired audience than SkillsUSA, which could result in a better return-on-investment and promote more club activities of interest to future drivers and diesel technicians.

The third option is to create an entirely new trucking or freight logistics club. The benefit of this option is that it would have a trucking-specific focus and that carriers could have a more active role in shaping the club's foundations – though high schools would ultimately have decision-making authority. This approach would require significant cooperation among carriers, perhaps through a trade organization, and significant financial expense. Though many high school clubs ideally achieve degrees of financial independence, they often require initial outside funding for necessary materials.

The strengths of FFA, JROTC, and SkillsUSA highlight three challenge areas for founding a high school trucking club. These challenge areas include club focus or student appeal, breadth of programming, and organizational model.

1. A trucking club would need to broaden its appeal beyond just high school students who want to drive trucks – while still making sure that all members have enough shared interests to keep the club together. Without broader appeal, clubs would not have enough members to function or enough variety of activities to attract ongoing participation. This balance between a club's unifying focus and its logistical needs is critical to successful operation across different high schools with varying student bodies.

Trucking clubs should include activities oriented toward future diesel technicians in addition to drivers. Doing so will appeal to future drivers' interest in vehicles and mechanics as well as attract individuals oriented toward technical positions. Such a framework would essentially be a diesel-inclusive auto club. The broader framework of a supply chain club may attract more students with interests in other aspects of the industry as well, but this framework could risk losing some of its appeal with students strictly interested in driving. Another potential way to pool student interests would be to include heavy equipment operation as part of the club's focus.

2. A trucking club would also need to hold regular activities at the local chapter-level that are specifically related to the trucking industry, that any 15- to 18-year-old can participate in, and that require little to no money. Partnerships with local businesses should play a role in some of these activities, but clubs function best when students are in charge and organize most events under teacher supervision. Community service should play a role in some activities as well. Though student decision-making at the local level should be encouraged to expand on possible activities, a handbook should outline possible choices to help clubs get started.

Younger adults from the age of 16 to 18 are only allowed to operate commercial vehicles under limited circumstances, such as the transportation of agricultural commodities or "occasional personal use."⁷⁷ As such, club driving activities would be limited to planning and executing something like the "Meals on Wheels" charity program, in which volunteers deliver meals to homebound individuals. Key non-driving activities could include vehicle maintenance, construction, or customization. In many high schools, low

⁷⁷ "Farm, Ranch, and Agricultural Transportation Exemption Reference Guide," Federal Motor Carrier Safety Administration, https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/regulations/hours-service/elids/396526/agricultural-reference-guide_0.pdf.

funding or the absence of technical education infrastructure is a critical limitation. Naturally, the club would serve as a contact point for internship and part-time employment opportunities. If construed as a broader supply chain club, activities based on logistics or sourcing could also be used.

3. State and national umbrella organizations would also be essential to facilitate an annual conference. These annual events serve as an important function for successful high school clubs: they attract students, provide a goal to build toward over the school year, and promote a sense of community across schools.

An enhanced trade fair that shows off trucks, new technology, and carrier representatives would be a solid foundation for an annual state- or nation-wide event. This event should also have student-involved and student-led elements (beyond elections of state or national club officers), which may include competitive events. A high school truck driving competition for students enrolled in CDL training, such as that held in Maine, can be held in the spring when many students are 18 (and when most high school club organizations already hold competitions).⁷⁸ It would also be possible to hold maintenance-based competitions.

The success of each these three options is tied to the fate of the SDAP. Setting aside the legality of 18- to 20-year-old drivers, however, carriers will need to work together if they wish to pursue high school club engagement. Once cooperation is established, carriers would need to determine the level of time and financial investment they are willing to make. Each of the three options – supporting SkillsUSA, collaborating with auto clubs, and creating a trucking club – offers potentially greater benefits at higher costs.

⁷⁸ Deborah Lockridge, “High School Students to Compete Alongside the Best Truck Drivers in Maine,” *Truckinginfo* (May 3, 2016), <https://www.truckinginfo.com/159690/high-school-students-to-compete-alongside-the-best-truck-drivers-in-maine>.

CONCLUSIONS

It is imperative that the trucking industry attract younger employees to ensure long-term viability. Millennials and Gen Zs differ from previous generations in their optimal work environments and practices. ATRI’s research identified strategies for promoting younger employee recruitment, training, and retention that have proven successful for carriers and employees alike. Table 4 outlines these key findings.

Table 4: Key Findings

| Focus Area | Best Practices |
|---|--|
| <p style="text-align: center;">Younger Employee Recruitment</p> | <ul style="list-style-type: none"> • While younger drivers are motivated by pay, it is not the only factor. Sixty percent of younger driver interviewees said that another factor was equally or more important. The most common responses were a stable career path, love of driving, and a schedule that allows for work/life balance. • Younger drivers asserted that greater transparency would help attract younger drivers. Their suggestions included making job postings more explicit about expectations or requirements and posting “day in the life” videos or other content to help convey a sense of what a job in trucking is like. • Eighty-four percent of younger drivers consider company culture important. • Younger drivers identified concrete practices for building community-centered company cultures: promoting supportive managers, making sure employees understand each other’s roles first-hand, encouraging managers and coworkers to show each other leeway as needed, encouraging employees to ask and share their own unique strategies for success, and establishing opportunities for casual social interaction among employees. • Seventy-three percent of younger drivers were introduced to trucking through a family member in the industry. |
| <p style="text-align: center;">Younger Employee Training</p> | <ul style="list-style-type: none"> • Twenty percent of younger drivers believe that training could be improved by providing better instruction for trainers themselves. In addition, 14 percent of drivers recommended more driving time and variety. These were younger drivers’ top recommendations. • Younger drivers want more time behind the wheel and more mentors in order to gain the experience and perspectives necessary to do their job well. • Training programs that include duties beyond driving – such as conflict resolution, loading, yard work, budgeting, and other aspects of the freight process – can improve recruitment, retention, and driver success by equipping younger drivers with a wider range of skills to face unexpected challenges and more fully integrating them into the company culture. |

| Focus Area | Best Practices |
|---|--|
| <p style="text-align: center;">Younger Employee Retention</p> | <ul style="list-style-type: none"> • Carriers with an apprenticeship program found that graduates had higher retention rates than non-graduates. Younger drivers who graduated from apprenticeship programs feel confident that their carrier is invested in the continued development of their skills as drivers. • Both small and large fleets ranked raising compensation as the most effective retention strategy for their younger drivers. Younger drivers also communicated they were attracted to the industry by the income potential over the span of a stable career rather than just in the short-term. • Younger and experienced drivers alike appreciate opportunities to learn from each other. Carriers can promote these relationships by establishing mentorships and opportunities for driver interaction. • Environments where younger drivers feel comfortable to communicate their concerns regularly either via direct communication with a superior or a company-wide survey increases engagement among younger drivers. • Younger drivers appreciate schedule flexibility and consistency. Opportunities for regular home time or hybrid positions can appeal to individuals who otherwise might not have joined the industry. |

Appendix A: Motor Carrier Survey

The American Transportation Research Institute (ATRI), the trucking industry’s not-for-profit research organization, is studying the role of younger employees in the industry. ATRI’s Research Advisory Committee (RAC) identified this research as a top industry priority to better understand how carriers are utilizing young employees and responding to the DRIVE-Safe Act. This survey seeks motor carrier input on employment, training, and retention practices for young adults in the trucking industry, with a particular focus on young adults working as CDL truck drivers.

All survey responses will be kept completely confidential. Personal, organizational, and/or financial information reported to ATRI is never released for public use under any circumstances. The final report will only present findings from this survey in an aggregated, anonymized format.

If you have questions about this research, please contact Alex Leslie at aleslie@trucking.org or 651-641-6162 x2.

Demographic Information

1. Please enter your contact information below. Occasionally ATRI will follow up with respondents to clarify answers. Your information will be kept strictly confidential.

| | |
|--------------|---------------|
| Name | Job Title |
| Company Name | Phone / Email |

2. What was your fleet’s total IFTA mileage in 2021? (Include owner-operator miles reported for IFTA purposes)
3. How many truck drivers do you use?
 - a. Employee/company truck drivers: _____
 - b. Independent contractors, owner-operators and leased truck drivers: _____
4. How many trucks are in your fleet?

| | |
|-----------------|--|
| Truck-Tractors | |
| Straight Trucks | |
| Other | |

5. What is your primary for-hire business operation type (check one)?

| | |
|---|---|
| <input type="checkbox"/> Truckload Dry Van | <input type="checkbox"/> Express / Parcel Service |
| <input type="checkbox"/> Less-Than-Truckload | <input type="checkbox"/> Intermodal Containers |
| <input type="checkbox"/> Refrigerated Van | <input type="checkbox"/> Automotive Transportation |
| <input type="checkbox"/> Tanker – Non-Hazmat | <input type="checkbox"/> Tanker – Hazmat |
| <input type="checkbox"/> Flatbed | <input type="checkbox"/> Household Goods Mover |
| <input type="checkbox"/> Specialized – Oversize/Overweight | <input type="checkbox"/> Other (please specify): _____ |

6. Based on your fleet's IFTA miles, what percentage of your truck drivers' trips were in the following categories in 2021? (total must sum to 100%)

| | |
|---|-------------|
| Local pickups and deliveries (less than 100 miles) | |
| Regional pickups and deliveries (100 – 500 miles) | |
| Inter-regional pickups and deliveries (500 – 1,000 miles) | |
| National (greater than 1,000 miles) | |
| Total | 100% |

Younger Drivers

7. What percentage of your truck drivers are under the age of 30?
8. Do you currently utilize truck drivers with less than two years of commercial driving experience? Y/N
9. Do you currently utilize truck drivers under the age of 21 (i.e., for intrastate driving)? Y/N
 - a. If yes, what type of truck(s) do the under 21 year old drivers drive? Mark all that apply.
 - ___ Straight truck
 - ___ Day cab
 - ___ Sleeper cab
 - b. If yes, what type of route(s) do the under 21 year old drivers run? Mark all that apply.
 - ___ Dedicated
 - ___ Non-dedicated
 - ___ Local / last mile
 - ___ Statewide

- c. If yes, did you have any difficulty securing insurance coverage for drivers under 21 years old, including having to obtain special riders or additional underwriting?
10. Do you intend to participate in the Federal DRIVE-Safe Act pilot program, which will allow a test group of CDL truck drivers under the age of 21 to operate across state lines?
Y/N

- a. If not, why? Mark all reasons that have a *significant* impact on your decision.
- Concerned about safety of drivers under 21
 - Company minimum standards require driver to be over 21
 - Increased insurance costs
 - Not experiencing a driver shortage or high attrition of veteran drivers
 - Do not have the resources or personnel to commit to the required training
 - Do not meet or are not currently able to finance technology requirements
 - Registration and application process at U.S. Department of Transportation
 - Have concerns about requirement to also create a registered apprenticeship program through the U.S. Department of Labor
 - Extensiveness of safety data submission requirements
 - Waiting for finalized regulations post-pilot program
 - Other: _____

11. Do you currently have a CDL truck driver apprenticeship program? Y/N

- a. If yes, are its current requirements less than, equal to, or greater than those stipulated by the DRIVE-Safe Act? Yes/No/Not Sure
- b. If yes, what year did your apprenticeship program start?
- c. If yes, how many CDL truck drivers have completed the apprenticeship program in the past year?
- d. If yes, is your apprenticeship program currently registered with the U.S. Department of Labor or a state apprenticeship agency? Y/N
- e. If yes, what does your apprenticeship program include? Mark all that apply.
- Dock work/forklift operation
 - Moving trailers in the yard
 - Hazardous materials handling
 - Maintenance or technician training
 - Ride-alongs with experienced truck drivers
 - Non-essential employee development, e.g., conflict resolution training
 - Other: _____

Younger Employees

12. Which recruitment initiatives have been most effective for targeting employees under the age of 25? Please rank each method used, with 1 signifying the most effective. Do not rank any methods that were not initiated or expanded in the past two years.

- High School outreach
- Technical or community college outreach
- Social media
- Initiatives focusing on women truck drivers
- Initiatives focusing on non-white truck drivers
- In-house driving school
- Direct connections with existing employees (family, friends)
- Other

13. Which measures to improve employee satisfaction have been most appealing to employees under the age of 25? Please rank each measure taken, with 1 signifying the greatest appeal. Do not rank any measures that were not initiated or expanded in the past two years.

- Increased pay
- Expanded benefits (health, 401k, etc.)
- More vacation, sick days, or leave
- More regular / flexible hours
- More choice of route, including greater home time for drivers
- Reassessed management, feedback, or coaching practices
- Additional training or education, on the job or via tuition reimbursement
- Other

Appendix B: Carrier Interview Outline

Thank you for taking the time to speak with ATRI on the issue of how to best integrate young adults into the trucking industry. ATRI, as you know, is the not-for-profit research arm of the trucking industry. Our Research Advisory Committee identified this issue as one of this year's top priorities to address the ongoing shortage of drivers, technicians, and other skilled trade positions within the industry. To this end, we're researching current initiatives at the fleet level to recruit, train, and retain young adults in order to identify best practices.

I'll start by asking for a general outline of your organization's efforts in these areas. Then I'll follow up on your response with two sets of questions: one on young drivers specifically and one on young employees more broadly. All responses to this survey will be anonymized without attribution. That said, would you be willing to give permission for this interview to be recorded strictly for internal accuracy purposes?

First, could you describe at length what your organization is doing to recruit, train, and retain young employees in general and drivers in particular?

1. Young Drivers

- 1.1. Which specific approaches / aspects of this program have been most effective in recruiting and retaining young drivers? Which of these or any previous approaches were least effective?
- 1.2. What specialized or additional training beyond the CDL do you provide for drivers under 21?
- 1.3. How do you work within the interstate CDL restriction for drivers under 21 while still providing training/driving opportunities for those drivers?
- 1.4. What steps do you take to retain young drivers, and how do these differ from steps taken to retain drivers in general?
- 1.5. What are the most common complaints and requests from young drivers?
- 1.6. Would you be willing to share anonymized safety performance data on your younger drivers, under a signed confidentiality agreement?

2. Young Employees

- 2.1. Are you experiencing shortages in any non-driver roles and, if so, do you have any recruitment initiatives targeting young employees for these roles?
- 2.2. What opportunities do you offer for advancement in salary and responsibilities or for moving between jobs within the company?
- 2.3. What do you do to bring young employees into the company culture, especially given the age gap between them and many of their coworkers in the industry?
- 2.4. How have your veteran drivers and technicians reacted to your hiring of younger drivers and technicians?
- 2.5. Does gender or racial diversity play a role in your efforts to recruit and retain young drivers and employees?
- 2.6. What has been your biggest surprise about the younger employee experience in recent years? What about your biggest disappointment?
- 2.7. What are the barriers that keep younger employees from working or staying with the company?

Appendix C: Younger Driver Interview

The American Transportation Research Institute (ATRI), the trucking industry’s not-for-profit research organization, is studying how the industry can increase the number of young people in trucking careers as drivers, technicians, and dock and office personnel. As part of that analysis, we welcome your input on why you chose the trucking industry for your career, how you feel about the training you received and how you might improve it, and what you think the industry should do to attract more young people. Please answer with as much detail as you are able. Your responses will be confidential and will not be shared with your employer.

| | |
|--------------|---------------|
| Name | Job Title |
| Company Name | Phone / Email |

Section 1.

1. When were you first exposed to the trucking industry as a career opportunity?
2. What helped you decide to pursue trucking as a career?
3. Was income potential an important deciding factor for you to enter the industry? Was anything more important than income potential?
4. Were there any barriers preventing you from entering the industry?
5. Are there any members of your family who are also in trucking?
6. How do you describe your career choice to your friends? What do they think of it?
7. Did your opinion of the industry change once you entered it?
8. Do you feel like you are part of a company or industry community? Is this important to you?
9. Would you recommend trucking to a friend if they were interested in it?
10. If you’re a truck driver, do you drive exclusively in one state or do you cross state lines?

Section 2.

1. Do you think that your fleet is actively making an effort to engage younger drivers and bring them into the workforce?
2. Did you go through an apprentice program within your company to become a driver, or did you begin driving right away?
3. What age were you when you started the program, and how many years ago did you start it?
4. What are your relationships like with veteran drivers? (How they treat you and vice versa)
5. What aspects of the program were most helpful to you for becoming a driver?
6. What aspects of the program were most helpful to you for becoming part of the company culture?
7. What do you think would improve the training process in the program?
8. What do you think would improve the program’s appeal or your company’s outreach to young potential drivers?
9. Do you feel as though diversity is well represented among young drivers in your fleet?

Appendix D: Recruitment and Retention Practices in Peer Industries

This appendix explores the recruitment, training, and retention of skilled Millennial and Gen Z employees in peer industries. Manufacturing, construction, and rail encounter many of the same challenges and benefits working with younger machinists, heavy equipment operators, and rail operators as the trucking industry encounters with younger drivers and technicians. As such, these industries are a useful benchmark for comparing practices.

Training younger individuals for manufacturing, construction, and rail involves both privately owned and company-sponsored apprenticeship programs. Time-to-completion for on-the-job training programs vary: manufacturing apprenticeship programs are generally four years to completion, heavy machinery equipment operators licenses can be obtained within three weeks, rail operators can complete a program in two years, or between 4 to 8 weeks if offered while on-the job.⁷⁹

Recruiting Methods

Like younger drivers in the trucking industry, recruiting and retaining younger machinists is a top priority for the manufacturing industry. To attract younger employees, one manufacturing company decided to create a welcoming environment that would appeal to the younger generations: “We had to make sure we were creating a culture that was collaborative, engaging and respectful in doing the little things that support and build a community.”⁸⁰ In order to appeal to the occupational importance of purpose for younger adults, the manufacturer wanted to address the “why” to ensure their employees understand how their position relates to the company’s overall success.

In addition to generating a positive company culture, manufacturing companies are also recruiting younger machinists through private recruiting companies. Using a private recruiting company allows the manufacturer to obtain local specialized talent that is tailored to their company. An advantage of using a private recruiting company resides in the employer not needing to screen the current talent in question for proper requirements. A disadvantage is the employer may only be exposed to specific individuals who already have experience.

Manufacturing is also engaging high schools directly to recruit younger individuals. They are focused on renewing the perception of their industry among students: “We are not the old manufacturing; we have innovated solutions and work with cutting-edge technologies to produce high-efficiency products.”⁸¹ Similar to ATA’s Interstate One trailer, American Welding Society brings their 53-ft. trailer to events on the road 18 weeks throughout the year in order to attract new attention to the welding industry.⁸² By allowing younger adults to participate in activities

⁷⁹ Christopher Muller, “Railroad Training Programs, School & Education,” RailServe, https://www.railserve.com/Training_Programs/; Matthew Detzler, “4 Tips for Building an Effective Machining Apprenticeship Program,” Production Machining, (Jan. 4, 2022), <https://www.productionmachining.com/articles/4-tips-for-building-an-effective-apprenticeship-program->; “How to Get your Heavy Machinery License??” Heavy Equipment Colleges of America (Aug. 6, 2020), <https://heavyequipmentcollege.com/how-to-get-heavy-machinery-license>.

⁸⁰ Julie Sullivan. “Q&A: How To Recruit, Train and Retain Top Machine and Manufacturing Talent,” MSC, <https://www.mscdirect.com/betterMRO/metalworking/qa-how-recruit-train-and-retain-top-machining-and-manufacturing-talent>.

⁸¹ Kelly L Faloon, “Recruiting the Next Generation of Welders,” HPAC Engineering (May 30, 2018), <https://www.hpac.com/training/article/20929519/recruiting-the-next-generation-of-welders>.

⁸² Ibid.

within the trailer, manufacturers are shedding light on welding as more of an art career than a science in order to appeal to a broader audience.

Like manufacturing, the construction industry is in contact with technical schools to recruit younger adults new to the industry. Construction has private recruiting opportunities directly through training schools. To meet staffing requirements, one company increased their compensation and re-invented their company culture.

Some railroads are looking to diversify their talent as a recruitment method. To obtain a diverse group of new younger employees, the railroads have developed partnerships with a wide variety of organizations that represent marginalized individuals. The partnerships enabled the railroads to reach a wider potential talent pool with several audiences including younger adults. Around 13 percent of their workforce is now a result of the partnerships that were formed with the organizations.⁸³

Similar to trucking, a majority of rail focus group participants reported they were introduced to rail as a career opportunity through friends or family. In addition to diversifying employment eligibility, rail is looking to broaden their visibility as a career online. In order to increase visibility, rail is working to increase their visibility on job listing websites by focusing on their online marketing, branding and promotion of their industry.⁸⁴ They are aiming to create a strong presence on social media and introduce rail to students at a younger age through STEM-related classes.

Retention Strategies

Manufacturing leaders are focusing on informing employees about their overall contribution to society as a retention strategy. Like truck drivers and diesel technicians, machinists are likely to enjoy their positions more if they understand how they are directly contributing to society in the larger picture. Additionally, manufacturing leaders report having higher retention as a result of creating and maintaining employee development plans and clear career paths. Providing cross-training opportunities for broad and challenging assignments and generating a supporting organizational culture with competitive benefits are also successful retention strategies used within manufacturing.⁸⁵

Seasoned heavy equipment operator retention is paramount to the construction industry. Skilled operators use 10 to 12 percent less fuel every day than an unskilled one.⁸⁶ Construction companies that advertise a high starting pay and great company culture may still encounter difficulty with retention. To address retention beyond compensation and company culture, one construction company implemented a three-fold strategy.

⁸³ Kelly Forrest, "Recruitment in rail: What are the practical actions that will achieve an inclusive strategy?" Global Railway Review (March 9, 2019), <https://www.globalrailwayreview.com/article/78679/recruitment-rail-inclusive-diverse-strategy/>.

⁸⁴ "A Guide to Building and Retaining Workforce Capacity for the Railroad Industry," NCRPP, *National Academies of Sciences, Engineering, and Medicine* (2015), <https://nap.nationalacademies.org/catalog/21904/a-guide-to-building-and-retaining-workforce-capacity-for-the-railroad-industry>.

⁸⁵ "Manufacturing Engagement and Retention Study," Manufacturing Institute, American Psychological Association, https://www.themanufacturinginstitute.org/wp-content/uploads/2021/07/APA-Study_final.pdf.

⁸⁶ "Strategies for Attracting and Retaining Skilled Operators" Caterpillar, <https://s7d2.scene7.com/is/content/Caterpillar/C10307180>.

The first part of the three-fold strategy involves investing in training. The Association for Talent Development (formerly the American Society for Training and Development) notes that training is one of the most effective ways to attract talent, promote employee loyalty, and improve retention. The second component of the strategy involves investing in the latest fleet equipment. Younger and seasoned employees will benefit from new equipment to work in, as new technology generally increase employee comfort, safety, and productivity. The final component of the strategy is to attract younger employees with new technology. Like the trucking industry, using the comfort of familiar technology within the workplace is a retention strategy used by construction.

The rail industry has experienced high attrition among the craft professions.⁸⁷ Similar to trucking, new rail operator hires may leave during the training period or during the first five years due to various reasons (e.g. work schedule issues, labor-management animosity, and pay related issues). A literature review conducted by the National Cooperative Rail Research Program (NCRPP) determined several retention strategies to address industry turnover. The first strategy concerns realistic job previews. The function of a realistic job preview is to provide the applicants for a specific position with an accurate description of all job components.⁸⁸ Informing applicants of all possible work scenario challenges and benefits will aid in determining which of the applicants are dedicated to the position's responsibilities. Incorporating the realistic job preview beyond the interview phase and into all aspects of the recruiting process will increase effectiveness of attracting the right individuals.

The second strategy suggested by the NCRPP is to support strong employee engagement. Employees that are committed to their position as well as their coworkers are likely to reduce voluntary turnover. Even if company loyalty may change, loyalty to coworkers often does not. Supporting relationships between employees will aid companies looking to reduce turnover. Rail has often used engagement surveys to measure current job satisfaction, organizational commitment, and organizational citizenship behaviors.⁸⁹

An additional retention strategy used by the rail industry is to hire from within. The idea of hiring within is to set off a chain reaction in which the next highest potential subordinate is promoted within until an entry-level position is left vacant. Recruiting at an entry-level is associated with less risk and a larger applicant pool. In addition to less risk, recruiting from within displays a company's commitment to their employees. Employees who feel valued are likely to have higher morale and remain within their company.⁹⁰

⁸⁷ "A Guide to Building and Retaining Workforce Capacity for the Railroad Industry." NCRPP, National Academies of Sciences, Engineering, and Medicine (2015), <https://nap.nationalacademies.org/catalog/21904/a-guide-to-building-and-retaining-workforce-capacity-for-the-railroad-industry>.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ "5 Advantages of Internal Recruitment: Why You Should Promote From Within," Sprockets (Jan. 12, 2022), <https://sprockets.ai/promoting-from-within-vs-hiring-outside/>.



Atlanta, GA • Minneapolis, MN • New York, NY • Sacramento, CA

(770) 432-0628

ATRI@Trucking.org

TruckingResearch.org