

Article

Assessing Causes of Driver Job Dissatisfaction in the Flatbed Motor Carrier Industry

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Abstract: Trucking companies play a critical role in the U.S. economy but face many challenges. The trucking industry's greatest challenge may be the persistent driver turnover problem. Trucking companies regularly report turnover rates exceeding 100%. Each driver costs between \$2200–\$21,000 to replace and new drivers often impact carrier customer service and safety performance. The purpose of this article is to qualitatively explore the challenges drivers face with hopes of uncovering unique methods to improve job satisfaction and ameliorate turnover and retention issues. Results indicate that driver job satisfaction is related to compensation, management quality, equipment quality, home time, and wait time. Proactive managerial actions in the form of pre-planning loads are proposed as a method for carriers to resolve many driver concerns and possibly provide carriers with a competitive advantage in driver retention.

Keywords: trucking; drivers; driver turnover; driver retention



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1. Introduction

Trucking companies play a critical role in the U.S. economy. Often referred to as the universal connector due to their intermodal pickup and delivery services, in 2019 trucking companies generated almost \$800 billion in freight revenues and hauled nearly 12 billion tons of freight representing 72% of domestic tonnage [1].

Many challenges confront the trucking industry, the greatest of which may be a persistent problem with driver recruitment and turnover. Driver turnover has plagued the trucking industry since deregulation [2–4]. Stephenson and Fox [4] (p. 23) concluded their seminal driver turnover article by stating, “The industry cannot afford to wait any longer (to solve driver retention). Action should be taken now.” Yet almost 20 years after their article was published, companies regularly report turnover rates exceeding 100% [5].

Job satisfaction impacts driver retention [6]. The academic literature has identified many reasons drivers may not be satisfied with their jobs [3,7–11]. Drivers are not paid as well as they were before deregulation. Adjusted for inflation, drivers earn significantly less than they did prior to 1980 while facing long work hours under difficult conditions [12]. These difficult conditions include waiting extended lengths of uncompensated time to be loaded and unloaded, spending weeks away from home, and dealing with frustrating equipment breakdowns that erode earnings and workplace safety.

Lack of pay coupled with difficult working conditions culminate in a situation where half of truck drivers quit in their first three months on the job [13]. The average truck driver stays on the job for nine to twelve months [13] due in part to false or unrealistic expectations related to compensation and job demands.

The cost of driver turnover is burdensome to the drivers themselves, trucking companies, the broader supply chain, and society. Drivers bear the cost of lost income and emotional stress that comes with changing work environments [14]. Replacing a driver costs trucking companies between \$2200–\$21,000 [15,16], which includes hiring, training,

testing, and equipment utilization expenses. Other members of the supply chain are impacted as well. Turnover costs borne directly by the trucking industry are subsequently passed down to the broader supply chain in the form of higher costs or reduced delivery service quality [17]. Turnover also has a deleterious effect on trucking safety performance as companies have to recruit younger, less experienced drivers who are more likely to be involved in wrecks [17,18]. In this sense, driver turnover not only impacts trucking companies and supply chain partners but also societal health and well-being.

Consenza et al. [19] describe switching jobs as a natural tendency for drivers but evidence exists that many drivers are satisfied with their careers and remain committed even when presented with opportunities to change roles or industries [20]. Despite forty years of research, we still do not understand the truck driver and ways in which turnover can be ameliorated. This lack of understanding has led some authors to call for further qualitative research into driver turnover [6,9,21] and possible inimitable firm practices that trucking companies could employ to recruit and retain qualified drivers [17]. The purpose of this article is to qualitatively explore drivers' challenges with hopes of uncovering unique methods to improve job satisfaction and ameliorate turnover and retention issues.

The remainder of this paper is divided into five parts. First, we explore the literature related to driver turnover and justify our use of compensation, management quality, equipment quality, wait time and home time as important sources of driver discontent. Second, we explain the methodology used to uncover our results. Third, results are reported followed by discussion and future research. The article culminates with limitations and concluding remarks.

2. Literature Review

Truck drivers serve as logistics delivery personnel, which Bode et al. [22] (p. 101) define as "frontline employees who transport and deliver products from a supplier firm (shipper) to the customer firms (usually door-to-door)." Drivers face many challenges without adequate compensation resulting in poor job satisfaction and ultimate turnover. Table 1 draws from previous works and presents several definitions of turnover:

Table 1. Definitions of Turnover.

Definition	Author(s)
"The loss of a driver for any particular reason and can take the form of voluntary or involuntary. Voluntary turnover occurs when drivers intentionally leave the carrier whereas involuntary turnover occurs when drivers are permanently or temporarily forced to leave."	[19] (p. 59)
Collective Frontline Operator Turnover (CFOT) is "the aggregate levels of employee departures that occur within groups, work units, or organizations."	[18,23] (p. 353)
"The voluntary movement of drivers from one carrier to another."	[24] (p. 282)
"The total number of drivers who leave a company divided by the average number of drivers employed over the same one-year period."	[4] (p. 12)

We draw from each of these definitions and define turnover as the voluntary or involuntary departure of a driver from a carrier to another carrier or industry. Driver turnover occurs for many reasons. By their occupation, if not nature, truck drivers are always moving. Driver turnover may partly result from what Giselli [25] calls hobo syndrome; the consistent internal desire to change jobs. However, turnover was not a persistent problem before deregulation, which removed U.S. government barriers to entry for the trucking industry and allowed carriers freedom to set rates. Deregulation drastically increased competition in the industry and lowered firm profitability, but had the net result of reducing consumer prices. That driver turnover was not a problem before deregulation would imply other factors at play.

These factors may include role conflict and emotional exhaustion [21,26]. Role conflict is caused by the stress of reconciling competing objectives. Drivers face role conflict in

the form of complying with safety regulations vs. meeting operational requirements to deliver freight on schedule. Drivers must comply with federal hours of service regulations to prevent citations and ensure they are well-rested. However, customer pickup and delivery requirements may lead dispatchers to pressure drivers to violate hours of service limits. These competing objectives force drivers to make difficult safety-related decisions. Decreased safety performance and turnover have been shown to be part of a negative feedback loop wherein driver turnover creates demands to increase individual driver utilization beyond legal limits, which decreases safety, and subsequently increases driver turnover [20].

Emotional exhaustion is caused by long hours, interaction with other vehicles on the road, waiting to be loaded/unloaded, and tight schedules. [21,26]. Parking issues and hours of service regulations have also been shown to cause driver stress [21].

Competition for labor from other industries compounds the driver turnover problem. These industries frequently offer better compensation and quality of life [3,4,26]. Min and Lambert [3] highlight the competition for talent between trucking and construction. They report a 0.887 correlation between U.S. trucking and construction employment from 1967 to 1996, indicating that both hire from the same labor pool. However, they also find that construction pay outperformed trucking pay for the decade preceding their study. Jobs with better pay and lifestyle usually attract more applicants and influence employee retention.

Driving jobs also entail more barriers to entry than other industries. Commercial drivers cannot operate interstate routes before the age of 21, which prevents high school graduates from immediately entering the industry and leads them to pursue other careers. Further, drivers must undergo costly and lengthy training to obtain a Commercial Driver's License (CDL). Obtaining employment requires drivers to undergo further training or two years over the road experience along with a good safety record [3].

Drivers ultimately change careers or employers due to a lack of job satisfaction. Swartz et al. [17] (p. 188) define job satisfaction as "the attitudinal feelings individuals have about their work." Driver job satisfaction is impacted by many factors including compensation, management quality, equipment, wait time, and home time. The following discussion highlights previous literature related to these issues.

2.1. Compensation

Compensation has been consistently addressed in the driver turnover literature and recently came to the fore in several legal cases that may ultimately require drivers to be paid for all hours spent on the road [17]. Stephenson and Fox [4] find pay is the most important reason drivers stay with a firm. They find drivers may make more than other professions but not on a per hour basis. Williams et al. [27] conducted a qualitative study with 61 drivers and find the preponderance of respondents are frustrated by their pay, with two specifically mentioning the need for greater compensation relative to hours worked and demands of the job.

The turnover issue is particularly pronounced in the long-haul truckload (TL) segment of the industry whose drivers are generally paid by the mile [4,20]. It is common for carriers to compensate drivers for activities such as loading, unloading, detention, and tarping. However, these accessorial charges rarely equal the amount drivers earn by driving. Prockl and Sternberg [28] (p. 276) define driver time as, "time spent on activities carried out by the truck driver in commercial freight transport." They break down driver activities into nine categories, most of which are unpaid: driving, waiting, loading, unloading, break time, administrative duties, walking, handling, and service (including fueling).

Some trucking companies pay drivers a salary or a guaranteed minimum to compensate for all working hours and paycheck variability [11,29]. Taylor and Whicker [30] examine the use of regional dispatch models and advocate for short haul drivers to receive hourly pay instead of mileage-based compensation. Min and Lambert [3] find pay is the most important factor affecting driver recruitment and retention. Williams et al. [13] find pay is the most important variable drivers use when deciding whether to stay with a firm.

Johnson et al. [12] interviewed 104 long distance drivers and found pay and benefits should be improved to decrease turnover. Keller [31] found that pay is a major factor in driver retention. He posits that pay is associated with reduced driver turnover, increased driver performance, and improved driver–customer interactions, which may be because well-paid drivers are more concerned with protecting their jobs and therefore treat customers better. Taylor, Garver, and Williams [32] uncovered need-based driver segments among owner operators and proposed that different driver retention programs should be created for each segment. Pay was important for three of their four segments, but only a deciding factor for one. Interestingly, they found the importance of pay might be mitigated by other factors such as home time and managerial relationships.

Other authors have found nuance in their investigations of driver compensation. McElroy et al. [33] found that benefit packages affect driver attitudes over different stages of their career. LeMay et al. [34] found that new drivers are more satisfied with pay but no drivers were particularly happy. Min [11] found that starting salary is not correlated with turnover. Prockl et al. [6] found that pay does not engender job satisfaction, which would keep drivers from dropping out of the industry, but it does influence driver's satisfaction with their employers, which prevents turnover.

Pay is not everything but carriers ultimately recruit from the same driver pool. If driver supply is constant or declining while demand increases, payrolls must also increase [35].

2.2. Management Quality

The literature supports the important role managers play in reducing driver turnover. Drivers report directly to dispatchers. In larger companies, dispatchers work with a customer service representative (CSR) who interfaces with shippers and receivers to set up driver arrival times and resolve issues. Both dispatchers and CSRs report to the company's top management.

Poor management styles, poor communication, and a lack of responsiveness to driver needs have been shown to influence turnover. Richard et al. [24] posit that the importance of treating drivers with respect and involving them in decisions that affect them are at least as important as driver pay. They find drivers who work with highly rated dispatchers are less likely to turn over.

Keller and Ozment [10] specifically examine the role of dispatchers and find dispatcher responsiveness decreases driver turnover. Johnston and Kent [8] examine how dispatcher personality characteristics impact driver turnover. Dispatchers known for honesty, loyalty, and working collaboratively to productively achieve a goal are able to achieve lower driver turnover. Stephenson and Fox [4] explain the importance of managers communicating with drivers to understand their needs and then treating them respectfully. Williams et al. [13] measured the most important variables used by drivers when deciding to stay with a firm and find management quality, specifically dispatch, is important for driver retention.

Williams et al. [27] conducted a qualitative study with 61 drivers and found that many drivers do not feel their managers understand the life of a driver nor are they trained to help drivers manage stress. Prockl and Sternberg [28] concur and found that managers lack knowledge of the arduous jobs drivers must endure. Garver et al. [7] found that management quality positively impacts driver retention.

Drivers report directly to dispatchers but other managers are also important in reducing turnover [24]. Managers must set realistic expectations for miles, home time, and other job qualities when recruiting new drivers. Overselling during the driver recruiting process causes a disconnect between expectations and reality, which may ultimately increase driver turnover. Upper management plays a role in reducing turnover through strategic decisions, but also by maintaining open communication with drivers.

2.3. Equipment Quality

Stephenson and Fox [4] find drivers want good equipment and the literature shows that equipment plays a large role in driver turnover [7]. Drivers depend on their equipment

in many ways. Drivers live in their trucks, which include a sleeper berth and often workspaces, appliances to prepare meals and store food, and satellite TV for entertainment. However, not all class 8 commercial motor vehicles are created or maintained equally. Some companies employ older trucks with fewer amenities. All trucking companies depend on in-house or subcontracted maintenance providers to keep equipment on the road. A breakdown not only costs the company money for repairs and utilization but also costs the driver paid driving time.

Drivers interact with many types of equipment. While owner operators may only own and maintain a single trailer that remains with the same truck from load to load, larger carriers own thousands of trailers. Large company drivers are tasked with assessing the condition of each newly encountered trailer to determine whether it is roadworthy and regulatory compliant. Drivers often encounter safety issues requiring maintenance which, again, decreases their paid driving time and causes frustration. While equipment issues are part of the job, the culmination of their impact decreases driver job satisfaction and may lead to turnover. Min and Lambert [3] found that equipment is the second most important factor affecting driver recruitment and retention. Williams et al. [13] measured the most important variables used by drivers when deciding to stay with a firm and found that equipment is fourth most important. While the importance of equipment to driver turnover is intuitively clear, disagreement in the literature merits further investigation. Min [3] finds equipment quality does not prevent drivers from leaving their jobs. McElroy et al. [33] examined longitudinal changes in driver perspectives and found that equipment is not equally important to all drivers.

2.4. Wait Time

The literature broadly supports the negative impact of wait time on driver turnover. Prior to mandated electronic logging device (ELD) adoption across the trucking industry, J.B. Hunt [36] published a white paper highlighting the importance of reducing drivers' unproductive time. Shippers and receivers have historically depended on drivers to absorb product and labor availability issues that may slow loading and unloading processes. Drivers are often responsible for work during loading/unloading periods and therefore record this time as "on-duty." Federal hours of service regulations limit drive time subject to time spent on-duty and stipulate that drivers may not drive more than 11 h in a 14 h on-duty period, nor may they drive after spending 70 h on-duty in an 8 day period. Therefore, any activities that require drivers to be on-duty detract from the income generating time drivers could spend behind the wheel [36].

Trucking companies also bear some responsibility through their inefficient dispatch practices and inability to secure enough freight to keep drivers moving. Drivers also become frustrated while waiting for company maintenance personnel to service equipment. Even though drivers may not be on-duty at these times, they are forced to wait, which causes frustration and reduces compensation.

Stephenson and Fox [4] document that drivers become easily frustrated when they are required to wait at shippers or receivers. Frustration decreases job satisfaction and contributes to turnover. Johnson et al. [12] conducted a qualitative investigation of drivers' occupational perceptions and found that wait time is the fifth most mentioned issue among respondents. Min and Lambert [3] found that wait time is the sixth most important factor affecting driver recruitment and retention.

2.5. Home Time

Most of us like to return home after work. Home is a place to unwind, recoup, and enjoy the company of friends and family. A long-haul driver does not enjoy the luxuries of home as frequently as they may like. Johnson et al. [12] asked drivers their opinion of why turnover remains elevated and found home time and its effect on families to be the most frequently mentioned reason. Drivers seek schedules that allow them to be home regularly and predictably, but they may only return home a few times a month and

some stay on the road for three to four weeks at a time. Some trucking companies have switched to a regional dispatch model to accommodate intermodal operations and ensure drivers are able to get home more often [30]. Many trucking companies hire drivers who live in close proximity to dense freight lanes because that allows the company to get the driver home more frequently, which improves job satisfaction and reduces turnover [4]. Williams et al. [13] measured the most important variables used by drivers when deciding to stay with a firm and find home time is third most important. Min and Lambert [3] found that home time is the fourth most important factor affecting driver recruitment and retention. Keller [31] found that increased home time decreases driver turnover, improves driver performance, and increases driver customer performance. However, many drivers' home time requirements are not met [19] and turnover is often the end result.

3. Method

Qualitative methods are well-represented in the driver turnover literature [12,27,37]. Qualitative research is particularly useful for uncovering new insights or examining new theories. While the driver turnover literature is well-established, turnover's persistence requires a deeper dive into the challenges that may reduce driver job satisfaction.

To this end, several authors have called for further qualitative investigations into the driver turnover phenomenon [9] and its antecedents [6,21]. The current research draws on a driver survey conducted with the assistance of a large motor carrier in the southeast United States. The carrier requested anonymity as a condition for participation and will be referred to as Harkrider Trucking throughout this paper. Harkrider primarily provides TL quantity flatbed service as a common carrier but also offers dedicated service. U.S. trucking companies are commonly referred to by the types of equipment they employ. Flatbed trucking companies employ unenclosed trailers that facilitate the loading and unloading of freight from the top or sides. The use of a single respondent organization limits study generalizability but is common in the driver turnover literature [7,8,13,32,34] and allows access to a cohesive respondent pool. The choice of a large TL quantity flatbed carrier is also justified by past literature. Turnover is primarily a problem in TL operations [4,20]. Coffee et al. [20] document turnover's impact on the flatbed market. They examine the top skills advertised in trucking job postings and find flatbed truck operation is second only to possession of a CDL.

Links to an online survey were distributed with the carrier's assistance to 978 drivers. Drivers were guaranteed anonymity and Harkrider was not provided with information to match responses to drivers. 291 drivers responded to the survey for a response rate of 30%.

At the conclusion of the survey, drivers were asked to answer an open-ended question: "If you have any specific issues you would like Harkrider to address or be aware of, please describe these issues in the space below": 179 drivers responded to this open-ended question. This constitutes our sample ($n = 179$). Williams et al. [27] support the use of open-ended survey questions to collect qualitative data. They utilized open-ended survey questions to accommodate drivers who could not wait for face-to-face interviews.

Following a method similar to Goffnett et al. [38], we utilized a three-step process to analyze our open-ended response data. First, multiple researchers familiar with the driver turnover literature and the trucking industry examined driver responses. Researchers independently identified key driver challenges across all responses that coincide with previous literature. Researchers agreed that the challenges primarily involved eight common themes: compensation, management quality, wait time, equipment quality, home time, communication, safety, and regulations. Second, researchers independently examined each driver response and applied the aforementioned themes. Third, after each researcher had finished the theme application process, inter-rater results were assessed. Researchers achieved a 91% agreement rate and came to consensus where disagreements occurred.

Table 2 presents our eight themes and the number of times each was mentioned. Note that responses often included more than one theme and, therefore, the total number of

mentions in Table 2 exceeds the total number of respondents. We focus on the top five themes to constrain article length.

Table 2. Number of Mentions by Theme.

Theme	Times Mentioned	Percentage of Total Mentions
Compensation	71	26%
Management Quality	58	21%
Wait Time	42	15%
Equipment Quality	36	13%
Home Time	22	8%
Communication	22	8%
Safety	17	6%
Regulations	10	4%

4. Results

4.1. Compensation

Coffee et al. [20] find pay is the top factor for 76% of drivers when taking a job but one half of drivers say wages are not competitive. Harkrider is a service-focused carrier that strategically prioritizes service maximization over cost minimization [39]. Harkrider's wages would be considered very competitive for the trucking industry but they still faced excessively high driver turnover. Interestingly, and perhaps due to Harkrider's pay scale, respondents did not mention compensation in terms of rate per mile. However, they commonly had issues with their pay in the context of time spent waiting to be loaded/unloaded, delays caused by traffic congestion, and work-related duties beyond their driving responsibilities. Several example driver responses are presented below:

"Tarp and detention pay could be better. \$8.00 an hour after the first 3 h for detention when a driver can make \$20.00+ an hour while driving is not very good compensation when the driver has no control of how fast the shipper/consignee loads or unloads him/her."

"We need extra pay for going into New York City Area. It cuts into our miles for the week because it's so hard to get in and out of. The last company I drove for gave us an extra \$100 for going. The last time I went it took 2 days to make 3 drops and I averaged 28 miles an hour. I do like working for Harkrider, but with any business there is always room for improvement. I would like to see Harkrider do some kind of matching on retirement savings. Thank You."

"I was stuck at a shipper from Friday evening to Sunday noon. They kept telling me to stay in my truck and monitor the radio. I ended up getting detention pay for one day. No one ever told me I would only get one day detention no matter how long had to sit."

"We need to be paid at least minimum wage on detention. Detention pay should start after 1 h of waiting. Drivers should also get paid for all holidays."

Compensation was a factor in 26% of the responses with respondents indicating that different types of compensation are important. While mileage pay rates may be the primary component of drivers' income, there is clearly a need to increase driver pay for unproductive time. As previously discussed, this unproductive time includes loading/unloading activities but traffic congestion also decreases the number of miles a driver can travel in a given amount of time. Further, drivers may be asked to sit for a weekend because no freight is available. Carriers commonly provide drivers detention (or weekend) pay in these circumstances, but the pay does not fully compensate them for lost time behind the wheel.

4.2. Management Quality

Keller and Ozment [9,10] emphasize the importance of management quality, specifically dispatcher management quality, as a method of reducing turnover. For drivers, dispatchers represent the face of the trucking company and the primary person with whom drivers interact. Drivers also feel the impacts of top management decisions. Several example driver responses related to management quality are presented below:

“If not for my fleet manager and the respect that HE gives me, I would no longer be with Harkrider.”

“Stop treating us like a part number on the truck. Remind fleet managers and CSR management that we make Harkrider the money. Without us there is no Harkrider Transportation. CSRs and fleet managers leave us out for 2/4 weeks. They should put themselves in our place and see how they feel.”

“One thing Harkrider should do is change the title of its Fleet Managers to Fleet Team Leaders. Too many times I find my Fleet Manager trying to lead a fleet of trucks rather than lead a team of drivers to success. Anyone can tell a truck where to go, it is another thing to lead a team to succeed in customer service.”

“Fleet managers need to listen better instead of just saying “I understand” when some have never spent any time in a truck. They should all spend a week or so on a truck, to have the experience and a better understanding. Thank you . . . ”

“I thought Harkrider was all about the safety of its drivers and equipment, but in dealing with my fleet manager it seems to be all about getting the load picked up or delivered on time. Even if I’m having problems with my truck or road conditions due to weather he/she doesn’t want to hear it. Which puts pressure on me to do what I feel is unsafe.”

“When I hired on with Harkrider we were made promises of home time and steady work, now I don’t receive very much of either. I know we can do both because I have seen it. I love my years of working with “Owner X,” “Executive Y,” and most of the senior staff. I know them very well and they know me. I’ve never lied to them and I want us all to go back to the commitment that “Owner X” said to me and my orientation class in 1999. “We are here to make money, truly satisfy our customers, do it safely, and to do it with PRIDE!””

“The area of company loyalty (both ways) and the fact that even the senior drivers (former drivers of the year included) feel that this company no longer cares about the drivers. The letter sent out by the vice president of operations saying he wanted “one more load a week on our trucks” was considered to be a slap in the face to those of us busting our humps to get the loads we have delivered on time and to Harkrider standards. If he doesn’t get out of the office and into the field and present himself to the drivers, they will only balk at his attitude. Also many senior drivers openly badmouth the company around newer drivers and it confuses them about how we should work together. We have far too many FORMER drivers of the month (referencing former drivers that have moved into an office role) that think they are the last word and the be all end all of the company enforcement policy.”

Management quality was a factor in 21% of our survey responses. These responses largely support previous contributions to the turnover literature. Driver responses highlight the importance of dispatchers [10] and CSRs to job satisfaction. It is important for drivers to feel the company kept promises made during the recruiting process and treated them as a person, not just as a driver number [27]. Responses also support the notion that drivers feel misunderstood by managers who seemingly do not appreciate their job challenges [27,28].

Some drivers also clearly felt the conflict between safety and operational delivery requirements [26]. One driver frowned upon the relatively common practice of moving

successful drivers into office jobs as an attempt to capitalize on their operational knowledge and ability to relate to drivers. A clear interaction between management quality and other factors is also apparent. Drivers believe home time issues are the result of management decisions.

4.3. Wait Time

Miller et al. [18] highlight onerous wait times faced by drivers when loading and unloading. Wait times cut down on available time to drive and may cause drivers to violate HOS regulations to meet delivery schedules. Similar to aforementioned compensation issues, drivers are frequently frustrated with time spent sitting without detention pay. Drivers also mention that time spent loading/unloading is time they could spend at home. Shippers and receivers are not the only places drivers wait. One driver was frustrated at the time it takes to get equipment serviced by Harkrider maintenance personnel.

“Need to find a better way to get shippers and consignees to unload and load faster to use drivers hours more effectively. This would make the company and driver more money and also so that driver does not feel so rushed in pick-up or delivery. Also helps drivers home time if shipper and consignees would pick-up the pace.”

“Sometimes I sit all day waiting to load and then have to take a 10 h break. My time was not utilized to benefit myself or Harkrider. When I’m rolling we’re both making money and we’re happy about that.”

“Why does it take 6–8 h to get your truck serviced? We have to sit as much as 10 h without pay waiting for the truck to get a simple service.”

One interesting insight uncovered was a strong desire for more pre-plans. A pre-plan occurs when a dispatcher proactively assigns a load to a driver even though their current load has not been delivered. Pre-plans allow drivers the certainty of knowing what they are going to do next and that they will not have to sit, waiting on their next dispatch.

If it were possible, trucking companies would prefer to pre-plan every load on every driver. Unfortunately, it is not always feasible due to insufficient freight or inability to predict unloading times. Still, respondents expressed a strong preference for pre-plans, a proactive managerial action that helps ensure their success and satisfaction.

“Another area that could be looked at is load planning—would be nice to have a load planned on you when they know where you are going deliver to—instead of waiting till you send in your empty call and then they look for you a load—granted—sometimes I get a preplan but that is very seldom.”

“Need more planning on loads instead of waiting for us to get empty. Seems like they don’t care if they get us home or not or miles for that matter. Why can’t they plan my week out and back?”

“The only thing I would like to see is less time between loads. I know sometimes there is not a lot of freight in certain areas but when you drive two days to deliver a load and sit all day the third day that’s not good. The CSRs should be planning more ahead.”

“Harkrider should spend more time on planning freight. The CSR knows when we will be there sometimes two days in advance and the driver still has to wait hours for a load. Stopping this will not only help Harkrider but make drivers more efficient with his time and income.”

“I would like CSR’s and fleet managers to be more proactive than reactive. I’ve been doing this long enough to know what’s going to happen at certain shippers and receivers as to time spent there and when we unload.”

“CSRs not planning loads in advance and only dispatching 1 truck at a time. New laws (ELD regulations) require CSRs to be more efficient at their job. Have loads ready for dispatch when truck is empty. Drivers’ time would be better utilized.”

Wait time was a factor in 15% of the responses. Almost half of the wait time responses involved the desire for pre-plans. Drivers do not have visibility into the load planning variables faced by dispatchers and CSRs. These variables include the availability of freight in a given area, number of other empty trucks, unknown unloading times, and mileage or home time requirements for drivers in the area. For every area in which deliveries occur, dispatchers and CSRs have to match consignee unloading time variabilities, shipper pick up appointment times, driver hours of service availability as it affects ability to pick up a load and deliver it legally, driver home time needs, and driver mileage needs. This is a complex puzzle that often limits the ability to pre-plan drivers before they finish their current assignment. However, our responses indicate that carriers who pre-plan drivers may have the ability to increase driver job satisfaction by reducing the frustration associated with wait time and its subsequent impact on compensation.

4.4. Equipment Quality

Kemp et al. [26] emphasize the importance of providing drivers with safe and comfortable equipment to reduce turnover. Driver responses reinforce the importance of equipment from a comfort and safety perspective. Safety has been shown to be a determinant of driver turnover [40]. Drivers also highlight the impact of company maintenance personnel on their jobs. The impact of equipment on compensation is also apparent as drivers mention the role of fuel efficiency in their bonus compensation.

“Would like a new truck. I’ve never had a new one in three years and always get an older pile that takes months to straighten out. Would be nice to get one of those new ones where I would not need to freeze or sweat to get a better fuel bonus (by reducing idle time).”

“I would like to see other truck brands in our fleet to give drivers some variety. Also, having one of the oldest company trucks in the fleet has me wanting a newer truck, especially considering I run mostly in the north in winter without a bunk heater.”

“Leave trucks at factory specifications. Having a truck that runs 62 in a 70 zone is a safety hazard”

“Make sure the trailers are road worthy when they are left at a drop lot on a preload.”

“I would like to see more enforcement of requirements for drivers having to care for their equipment. I am frequently dismayed when asked to swap trailers, only to find the trailer (including tarps/straps/chains/etc.) I’m swapping for is in poor repair, and has not been properly maintained by the previous driver.”

“The service area is one area that Harkrider needs to work on—it is hard to get the correct info on what was done to your truck when you take it in for service. It is like they are trying to keep something secret from us. You can take in a clean truck but when you get it back it is dirty and greasy. The service techs do not clean up after themselves.”

“The shop is not fixing things the way they did 6 years ago. Not having stuff to fix tarps or giving us poor tarps instead of new ones.”

“When I take my truck to one of the yards to have work done, they will only fix what I have written on the inspection report even if something is obvious that I forgot to write down.”

“The mechanics don’t drive our trucks, we do. We know how they are supposed to be and we tell the mechanics and they ignore us”

“The condition of our equipment, although fairly new, is getting worse, specifically trailers, due to the inattention of our customers’ loaders. The conditions of tarps, binders, etc. are also diminishing. As far as the fuel bonus, I feel as if it is going to be non-existent in the near future, due to the higher fuel efficiency standards on newer model trucks, and the higher fuel consumption of these trucks. Also, senior drivers should have priority over new drivers when it comes to vehicle assignment.”

Equipment quality was a factor in 13% of the responses and clearly impacts drivers’ lives in a number of ways. First, equipment quality impacts compensation. Poor equipment “takes months to straighten out,” which could result in unproductive downtime. Further, companies frequently award drivers with fuel bonuses wherein achieving a predetermined level of fuel efficiency triggers increased compensation. Older equipment is less efficient and therefore makes it harder to achieve fuel bonuses. Second, equipment quality interacts with management quality. Respondents were clearly frustrated with shop personnel. Some drivers felt shop employees are lazy and otherwise not looking out for the driver’s best interest. Drivers also felt maintenance personnel do not understand the trucks as well as they do, similar to drivers who felt their managers do not appreciate everything they have to do on the road.

4.5. Home Time

Williams et al. [27] conduct a qualitative study with 61 drivers and find loneliness caused by time away from friends and loved ones is a significant cause of driver stress. Companies often promise a certain amount of home time during the recruiting process but operational realities negate their ability to meet those promises. Companies have to trade-off drivers’ desire to be home with the deadhead miles it would take to get them there. Harkrider and many other carriers frequently engage in Friday, mid-route load swaps to get drivers home but still sometimes fail to meet their home time obligations.

“When I picked Harkrider my most important requirement was home time. I enjoy working at Harkrider but I hired on at 98% home time and not the new program.”

“Home time is why I am at Harkrider and it’s not as good as it once was. That worries me”

“Personally, I would like more time to spend at home with my family.”

“Not getting home till Saturday on most weeks. Always sent in the other direction away from home on Friday to reload”

Home time was a factor in 8% of our responses but also interacts with other examined themes. While none of our respondents asked for less home time, drivers are not compensated while they are at home. This would imply that companies must seek to ensure drivers have a work life balance. Drivers must work enough to satisfy their financial needs and be home enough to satisfy their personal needs.

5. Discussion and Future Research

Truck drivers move 72% of all domestic tonnage [1] and their performance directly impacts the trucking industry, customer service, and society. Therefore, it is important to ensure an adequate driver labor pool and retain qualified drivers. Finding enough drivers became even more difficult in 2020 when an estimated 200,000 drivers left, failed to enter, or were forced out of the industry. Older drivers, which make up a large portion of the overall driver pool, left the industry due to personal safety concerns associated with COVID19 [29]. The pandemic also caused driver training schools to reduce student capacity [29], which impacted the industry’s ability to replace older drivers. Further, existing drivers were incentivized by government unemployment stimulus to stay home

instead of returning to work [41]. Additionally, the federal drug & alcohol clearinghouse temporarily or permanently disqualified approximately 56,000 drivers [42,43].

Driver turnover and retention research is critically important for these and other reasons documented in the literature. This article uncovers net-new insights that may be valuable in academic and managerial efforts to address driver turnover. First, our respondents placed a great deal of importance on compensation. Keller [31] (p. 58) states, "It is important that motor carriers and their customers understand that increases in driver pay are required to ensure minimal turnover and maximum external productivity and customer relations." However, our respondents did not ask for increased pay in terms of cents per mile or total miles driven. They instead discuss pay in terms of frustration and loss of income caused by uncompensated time. Employees expect to be compensated for their work but truck drivers are primarily compensated for driving and receive less—if anything—for other duties. However, other job duties consume a great deal of their time on the job. Companies such as Cargo Transporters [29] and Great Plains Transport [44] have taken steps to reduce paycheck variability and compensate drivers for all working hours. Managers are encouraged to explore the efficacy of such compensation models for their employees. Doing so may improve turnover and also mitigate liability associated with any future minimum wage litigation. Future research should consider driver pay per hour away from home when assessing the role of compensation in driver satisfaction.

Second, manager quality impacted respondents' job satisfaction. Drivers report directly to dispatchers and our findings support the importance of dispatchers to driver job satisfaction. Our respondents do not believe their managers understand drivers' job responsibilities. Managers should accompany drivers on "ride alongs" or even potentially earn their CDL to demonstrate that they understand the challenges drivers face. Managers may also wish to reconsider whether former drivers make the best managers as our respondents did not appreciate their management style. A great deal of past research has focused on managers' personalities and responsiveness. Future researchers should investigate the actual job-related knowledge drivers expect from their managers. Qualitative methods would be well-suited for such an investigation.

Third, wait time caused our respondents a great deal of frustration. Future researchers may wish to consider assessing the importance of proactive managerial actions such as pre-planning. Previous authors have documented the importance of managers responding to drivers' needs [9,10,31,45]. The importance of managers acting proactively to address driver problems before they occur is also important. Keller et al. [45] discuss the importance of proactively meeting employee needs in an internal relationship marketing context, but do not survey truck drivers. Kemp et al. [26] state that it is important to be responsive but also attentive to drivers' needs. Stephenson and Fox [4] advocate that companies open lines of communication, so companies are aware of driver problems and needs before problems occur. Swartz et al. [17] examine the influence of safety on drivers' intention to leave and put forth an example of managerial proactivity wherein a company informs drivers ahead of time that they will run out of hours instead of punishing them for not working beyond legal limits to finish a job. They posit that creation of such a proactive climate may be inimitable or at least difficult for other companies to imitate. Proactive actions such as pre-planning are extremely difficult for carriers to provide given the number of variables involved in assigning loads to meet driver and shipper needs. Researchers should consider whether the ability to effectively pre-plan loads is rare, valuable, inimitable, and non-substitutable, thereby engendering a competitive advantage in driver recruitment and retention [46].

Managers should make every effort to build dense lanes of traffic serving shippers and receivers who are conscious of, and attentive to, the impact that loading/unloading time variability has on carrier and driver effectiveness. Carriers are only able to pre-plan loads if they are confident a truck will be unloaded in time to meet the subsequent pick-up appointment. In that regard, it is critical to serve receivers known for fast and reliable unloading times.

Fourth, equipment quality was important to respondents on many levels. Drivers depend on their equipment to safely and effectively perform job functions. Defects may lead to roadway safety incidents, regulatory issues, customer service problems, and income reducing downtime. Equipment also helps recruit and retain younger drivers. Younger drivers expect vehicles to employ the latest technology and carriers that properly equip trucks may be better able to recruit a more youthful workforce. Researchers may wish to explore equipment-related nuances of import to drivers. For instance, our respondents were frustrated with company maintenance practices and personnel on many levels. The impact of company maintenance practices on driver job satisfaction should be explored.

Finally, our respondents valued home time. Home provides drivers with the opportunity to mentally recharge and comfortably take advantage of a 34-h restart. Home time is easier to provide when drivers live in close proximity to dense traffic lanes. Building dense traffic lanes with appropriate shippers was previously discussed as a way to proactively meet drivers needs through pre-plans. These dense lanes also allow carriers to route drivers home more frequently if drivers live nearby. Researchers should investigate carrier best practices in building dense traffic lanes and the impacts of dense lanes on driver retention.

6. Limitations and Conclusions

Our research is subject to certain limitations. First, our results may not be generalizable. We utilized qualitative data from a single carrier. Doing so allowed us access to a willing respondent pool and uncovered potentially new theoretical and managerial insights. Further, our work may not be generalizable beyond the United States. Readers interested in exploring the driver turnover issue from a European Union perspective are encouraged to consult Bode et al. [22]. However, future researchers will need to provide generalizability by extending our work to a larger sample.

Second, our data prevented us from testing proposed interactions between driver concerns. Researchers using quantitative data would be able to test the validity of our proposed relationships. For instance, how much home time is enough and what type of work life balance do drivers expect?

This work has provided potentially fruitful insights for further exploration into the driver turnover phenomenon. Our results support previous findings and extend them by uncovering the potential role of proactive managerial actions (pre-planning) in reducing turnover. The ability to pre-plan on a large scale requires dense lanes of traffic populated by consistent, driver conscious shippers and receivers. Such dense lanes would be the envy of most carriers and provide a competitive advantage in driver recruitment and retention to the carrier who is able to achieve it.

It is possible we will never completely alleviate driver turnover and retention issues, but every member of the supply chain can do better. Shippers, receivers, and carriers must work together to provide drivers respect, proper supervision, good equipment, time home with loved ones, and sufficient compensation relative to job requirements. This will take everyone working in concert but our drivers deserve such efforts.

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