TRANSPORTATION REGULATIONS AND THE DRIVER SHORTAGE
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Introduction

If you ask freight and transportation professionals what their biggest concerns are for 2018, you would probably get many responses saying the driver shortage and the ELD mandate. LTX has written many articles on these topics, and there is continuing demand for more information and analysis on these subjects. That is why we decided to put together this e-book for our subscribers, to address many of the issues regarding the driver shortage and ELD mandate as well as analyze the possible link between the two.

What is the Driver Shortage and What is Causing it?

When industry professionals throw around the term “driver shortage”, they are referring to the lack of candidates for truck driving positions that can pass quality, competency, and sobriety screening. Throughout the past decade, the trucking industry has struggled with a shortage of truck drivers. The driver shortage affects the entire economy, as over 68% of all freight is moved on U.S. highways. And with the shortage increasing driver pay, it can have a significant impact on supplier costs and therefore consumer pricing. It can also increase shipping delays and shortage at stores. Let’s examine some of the biggest reasons behind the shortage:

1. Demographics – Age and Gender

One of the largest issues influencing the driver shortage is the demographic of the current workforce, primarily age, and gender. The trucking industry relies heavily on male employees, 45 years of age or older.

According to the Bureau of Labor Statistics, the average age of a commercial truck driver in the U.S. is 55 years old. With an alarming amount of these drivers retiring within the next 10-20 years, we are quickly approaching a dangerous cliff. A cliff that, if fallen off, will hit the industry hard if new, younger workers aren’t hired into the industry. This has proved to be difficult, though, as the Federal requirement states you must be 21 years old to hold an Interstate Commercial Divers License. This leaves a 3-year post-high school gap, where possible employees become distracted by new employment opportunities.

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Another major demographic issue is that the industry is only tapping into a little over half of the workforce population. Women make up 47% of the nation’s workforce but only account for 6% of commercial truck drivers. The problem here is changing the stereotype that the trucking industry is a macho job, for macho men. To better convince women that they are welcome, carriers need to make it clear that women are not only wanted but needed in the truck driver career pool. This broadcast for women to enter the trucking industry can take the form of additional benefits, such as increased family time and maternity leave.

2. The Truck Driver Lifestyle

The next topic that’s important to address is the lifestyle of a truck driver. For many, this lifestyle isn’t ideal and steers people away from even considering a career as a truck driver. Most drivers, when new to the industry, are assigned to routes that keep them on the road for extended periods of time, returning home only a few times a month. Adapting to living in a truck, and showering at rest areas can be difficult.

Being on the road non-stop also limits the driver’s options when it comes to nutrition. No one can binge on fast food and gas station snacks without some health consequences. Not to mention, combine that kind of eating with the sedentary lifestyle of a truck driver and the pounds will keep packing on. This high calorie, high sugar diet can lead to major health problems such as diabetes, high blood pressure, and digestive issues.

Sleep deprivation is another chronic problem truck drivers face. With the pressure to get their freight to its destination as quickly as possible, drivers often skip sleep breaks. This not only affects the driver physically but mentally as well. Mental fogginess, poor judgment, and forgetfulness are all side effects which can make drivers more prone to accidents.

3. How to Solve the Truck Driver Shortage

Due to the complexity of the driver shortage, there is no one solution. Below are a few marketplace responses and potential policy solutions that could reduce the driver shortage:

- Increase Driver Pay – Just as we are experiencing now with gas prices, the natural market reaction when there is a shortage of a good or service is to increase the price. In this scenario, that price would be truck driver wages.
- Decrease Time on the Road – Increasing time at home and decreasing time on the road, can take so many of those “lifestyle” issues out of the equation. With the LTL hub and spoke system and increased distribution centers, this makes LTL more desirable by decreasing the average length-of-haul and keeping our truckers more localized.
- Lower Regulated Driving Age – The 18-20-year-old group has the highest rate of unemployment of any age bracket. Having the age minimum of a commercial truck driver set at 21 eliminates a large pool of competent workers from filling open positions.
- Target Minorities, Women and Veterans – To effectively address the driver shortage, trucking companies should look for ways to entice more women, minorities, and veterans. Minorities and Women are an overwhelmingly under-represented group within the trucking industry. Veterans is another source of “low-hanging fruit” as many are looking to transition into fulfilling careers.
- Autonomous Trucking – With the advanced technology autonomous trucking brings, along with the benefits of reducing daily driving stress and boredom, it’s sure to attract young, tech-savvy drivers to the industry.
- Utilizing Less than Truckload Shipping – On the Road (OTR) and full-truckload (FTL) shipping methods are where the majority of the driver shortage takes place, as these methods require a lot of time on the road and that hard truck driver lifestyle. LTL and parcel driver’s, on the other hand, come home every night.

Currently, we have a driver shortage of 48,000 and when aligning these numbers with freight forecasts, we could have a shortage of 330,000 drivers by 2024. If carriers start thinking more strategically about untapped workforce pools and continue to offer comprehensive benefit packages with competitive pay, we can fix this problem. Another option is to shift your shipping strategies away from FTL and onto less than truckload shipping, where drivers are given shorter, more localized routes, allowing them to come home each night.
We discussed above the potential for autonomous trucking to act as a solution for the driver shortage, however it is also possible that the rise of self-driving vehicles will further widen the gulf in trucking candidates. Many of the giants within the freight industry are more aggressively pursuing autonomous trucking strategies for their supply chains. This trend may act as a signal to potential driver candidates to stay away from the industry. Why take a job when you may be replaced by a robot in a few years? This could place greater pressure on smaller to mid-size carriers who could not afford the price of implementing self-driving trucks and must therefore continue to rely on human drivers. Associated costs and increases in driver wages may price many carriers out of the market. The trucking industry is still highly fragmented, but the driver shortage and autonomous vehicles may push it towards increasing consolidation. So, what does this shift towards automation indicate for the future of the transportation industry? Many groups have concluded that the implementation of autonomous vehicles will result in a loss of 300,000 jobs per year with a result of nearly halving the transportation industry’s current workforce from 10 million to 6 million.

**Autonomous Vehicles Today**

While the consensus is that mainstream vehicle automation is still decades away, it has not stopped many major companies from positioning themselves to benefit from this technological shift. Uber has recently launched Uber Freight and has tapped a self-driving expert in Lior Ron to head the branch. Likewise, Ford has replaced their CEO with Jim Hackett an expert in autonomous vehicles. At the same time, self-driving vehicles continue to be tested in cities such as Pittsburg and Boston.

**The Case for Optimism: Creative Destruction**

At first glance, these numbers seem incredibly daunting. Technology that is disruptive enough to render nearly half of the transportation industry's workforce obsolete seems both dangerous and unfair. Many transportation companies will buy into this fear and fight for governmental controls against automation. Much like how traditional taxi companies have resisted the marketplace disruptor Uber. However, companies that embrace automation as an inevitable shift within the marketplace can set themselves up for massive benefits and increased market-share. This mindset requires an adherence to the concept of creative destruction.

Creative destruction is the idea that product and processes are constantly being innovated; replacing outdated operations/technology with new ones. Companies that can embrace creative destruction have an easier time of situating themselves on the forefront of a new industry-disruptive trend which translates into greater value creation for the company. Companies who are taking note of the rise of vehicle automation may be wise to begin enacting measures to position themselves ahead of this technological shift within the transportation industry. Those who do not may see themselves left behind in a rapidly innovating marketplace.
The “capacity crunch” buzzword first surfaced in 2014 as fears about the industry being close to a tipping point emerged. These fears were brought on by many factors including competition, government regulations, inexperienced drivers and rising operational expenses. Despite the feared doomsday scenario, three years later only a small percentage of freight and logistics service providers complained about being affected by the capacity crunch. This can be gleaned from the 2017 State of the North American Supply Chain Survey by Averitt, which states that only 1 in 10 of the respondents admitted encountering challenges regarding capacity.

**Stringent Regulations and Impact on FTL**

As most of you are aware, the regulation regarding the use of electronic logging devices or ELDs for truckers is now fully implemented. In addition to the hours-of-service (HOS) adjustment, this new regulation will undoubtedly increase the burden on capacity, as drivers won’t be able to put in extra hours on the road. We will discuss more on the ELD mandate in following sections of this e-book. It is believed that FTL is much more vulnerable to the capacity crunch as opposed to LTL, which can fall under the exemptions if the logistics provider meets the criteria.

For instance, they don’t exceed the 100-mile limit or if the drivers only logs 11 hours of total time behind the wheel. That immediately puts FTL outside of the purview of the exemptions as their trips regularly extend beyond the 100-mile radius. If capacity crunch is going to happen, FTL would be the hardest hit.

**Most Common Reasons Cited for Capacity Crunch**

The number one reason is complaints from carriers about the growing cost of returning an empty container after a delivery is made. This backhaul costs money in terms of labor and gas, with no ROI, and the knee-jerk reaction is to cut down on the trips or wait until there’s a delivery for the return miles.

**Will the Driver Shortage affect 2018 Capacity? Is Full Truckload at Risk?**
Some additional causes include:

- Turnover rates of truckers (to include retirement, termination, and resignation)
- Aging infrastructure and fleet resulting in more breakdowns and bigger operational costs
- Natural and man-made disasters, which can result in delivery delays
- Free shipping offerings (here’s looking at you, Amazon)

Freight Volume Will Tighten Capacity

The alarming trend is that freight volume is growing much faster than the trucking industry can sustain. According to the American Trucking Associations (ATA), freight volume will grow an average of 3.4 percent annually through 2023. In contrast, the trucks freight volume would fall to 67.1% by 2028 from the current 70.7%.

The ATA has warned that a deficit will be experienced by the industry a few years from now if logistics companies, shippers, and carriers do not expand the total volume capacity. This means that FTL and LTL—along with air, parcel, and rail—should be working together to fill the projected disruption.

Already, as a survey by Averitt shows, more truckers have confessed to a delay in delivery in 2016 against the figures in 2015 due to the tightening capacity. With the market continuing to grow at a respectable clip, and freight demand following likewise, will capacity tighten even further?
The ELD Mandate: Will More Regulation Overburden Freight?

What Is An ELD?

Electronic Logging Devices monitor drivers’ stats like speed, mileage, hours, driving habits, and location. It connects to the truck’s engine to determine when and how the truck is in motion. It will pinpoint a truck’s location within 1 mile—10 miles if they are off duty. It also records the status of the driver, whether they are driving, sleeping or off. These devices then format the information for the trucking company to simplify inspections, audits, and data analysis.

To Whom Does the ELD Mandate Apply?

Every company, no matter the size, will be targeted for compliance if:

- Trucks are made after the year 2000
- Trucks are driven more than 150-mile radius from point of origin
- Company keeps more than 8 logbook records per month

Trucking companies that meet the above criteria should start focusing on compliance now. There will be hefty penalties for those companies that don’t comply. Plus, mandated ELD’s will help you start saving money on fuel, man-hours, and paperwork.

How the New ELD Mandate Will Affect the Trucking Industry?

According to American Trucking Associations, the ELD mandate will affect over 3 million truck drivers all over the United States. This is a call to all carriers to be prepared for this massive change in the industry. Many companies have already registered ELDs with the FMCSA. As the compliance date nears, it is expected for that number to increase.

Many changes have happened in the trucking industry over the past few years. For example, in 2011, the Food Safety Modernization Act (commonly known as the FSMA) implemented strict rules and requirements for shippers, logistics professionals, and carriers to prevent and reduce food-borne diseases. Of course, the trucking industry has complied with any changes that have been implemented. The biggest change that has happened was in December 2015 when the Federal Motor Carrier
Safety Administration (FMCSA) passed the final Electronic Logging Device (ELD) mandate rule.

Many trucking industry and independent drivers have been opposing the rule by calling it a financial burden that will force many participants out of the industry. However, despite the opposition, the compliance date has come and gone where every carrier and driver must have installed an ELD by December 18, 2017.

Impacts of ELD Mandate to Trucking Industry

There will be a radical transformation of the trucking industry because of the ELD mandate. Unfortunately, it is not exactly clear how much effect it will have. There are three areas that will more than likely be affected:

- **Cost**
- **Productivity**
- **Safety**

**Cost**

According to FMCSA, ELDs will save approximately $1.6 billion per year because of less paperwork. Additionally, savings will also be found due to reduced fuel costs, decreased truck downtime and reduced crash rates.

Most of the devices will have a cost of $495 per truck, which looks like a very expensive initial cost, but once you factor in the savings they bring this can be recouped quite quickly.

**Productivity**

The FMCSA has previously estimated that the ELD mandate will save around $2.44 billion, which is a result of the amount of time drivers will save since they will not be dealing with paper logs. However, other sources do not agree with that estimate; they estimate that the trucking industry will lose 3-5% of its total production, while smaller carriers will incur 6-10% loss in their overall productivity.

**Safety**

Safety is a huge factor that is forcing the implementation of the ELD mandate. Drivers will have less fatigue while driving and give more accurate logs in their Hours of Service (HOS) with this mandate. An analysis done by the FMCSA shows that the device will prevent about 20 fatal accidents and 434 injuries annually.

**Purposes of the Introduction of ELD Mandate**

The purpose of these logging devices is to strengthen compliance of truck drivers to adhere to their hours of service requirements. This, in turn, will reduce driver fatigue, which leads to accidents or unsafe roads. Additionally, the device will monitor the location of the truck and the driver, miles they have traveled and every movement the vehicle makes. This new technology will be very information in the trucking industry.

The ELD is a device that will be synchronized with the vehicle’s engine and will record the driving time automatically. This will simplify the amount of work that drivers must do because they will no longer need to use the paper logs to keep track of working hours. In layman’s terms, the ELD mandate will transform how truck drivers work and the carrier’s enforcement of protocol. As with anything, there are some that believe the mandate will have an adverse effect on the trucking industry.

The Differences Between the Canadian and U.S. ELD Mandate

Canada is also in the process of completing their own ELD mandate. The long-awaited Canadian Mandate has undergone a 6 year development period. They are also being created because the two countries share a border and a lot of trucking and trade crosses that border. In this section we will look at the differences between the Canadian and United States ELD Mandate.

**Canadian Mandate**

The Canadian mandate will take most of the provisions that come from the United States mandate. The Canadian mandate is designed to create synergies with the U.S version. The overall goal being to create a standardized set of regulations and compliance procedures that can simplify/streamline cross-border commerce.

However, the Canadian mandate will differ from its United States counterpart in a few ways. Some of the areas that the Canadian mandate differs from the United States mandate are in Personal Conveyance, Data Transfer and Enforcement, and Location and Identity Data Sources. Let’s look at each.

**Personal Conveyance**

One of the biggest differences between the United States mandate and the Canadian mandate is the limit of personal conveyance time or distance. Personal conveyance is when the driver is commuting to a personal destination, such as home, a restaurant, for a motel. It should also be noted that the driver can not be carrying any freight during his/her personal conveyance. If they are driving a tractor trailer, this means not even pulling the trailer.
The United States puts no limit on the amount of time or distance for personal conveyance whereas the Canadian mandate will put a limit of 75 kilometers in 24 hours. If the driver exceeds this limit, then the ELD system should be changed from ‘personal conveyance’ to ‘driving’.

**Data Transfer and Enforcement**

The sharing of data will also be different than the U.S. Mandate. The United States mandate does not currently have any requirements for the ELD to measure rule sets. The Canadian mandate on the other hand, requires that drivers must be able to display their driving information to enforcement officials. Canada measures these through cycles, such as Cycle 1 or Cycle 2. This will put ELD vendors on notice to make changes to their products so that data can be sent to Canadian enforcement and DOT inspectors.

The United States mandate does require carriers to send enforcement highly detailed files and reports of eight-day log data though. The Canadian Mandate will not require carriers to do this, but instead, they will be required to transfer or share the 14-day log data in PDF form. The files will be smaller and non-editable. Canadian fleets will still need the ELD display screen with all details for enforcement.

**Location and Identity Data Sources**

The United States mandate requires suppliers to get a location for several “events” during shipping, such as duty status, yard moves, personal conveyance, and unassigned vehicles moves. The Federal Government notes that manufacturers of ELDs use the Geographic Names Information System (GNIS) of all the data-based locations and identities in the United States.

However, the Canadian mandate will require that the government supply vendors with the final file to get distance and direction. This will mean that Canadian suppliers will need to provide the location file to import products to capture locations. This will mean less work for the vendor. Because the Canadian ELD mandate is so similar to the version in the United States, ELD vendors will have already added the locations for the required “events”.

**Things That Won’t Change**

A few things that will stay the same are the Hours of Service regulations. How drive time is recorded and reported will not be affected by the mandate.

**What Does This Mean?**

Although the mandate has already taken effect in the United States, the Canadian mandate should be coming down the pipeline soon. These mandates will not change Hours of Service regulations, just the way HOS are recorded and collected. Proponents claim that the addition of these two mandates will serve to make Hours of Service data collection standardized, make collection easy, and help with enforcement. Some would consider this a step forward to a safer, more efficient trucking industry, while others may think it is an unnecessary burden. All the uncertainty surrounding the ELD mandate is fueling rumors and myths. We will address some of the more prevalent in the next section.
8 Common ELD (Electronic Logging Device) Mandate Myths

Myth 1: ELD’s Are Expensive

When ELD’s were first in use 20 years ago, they were on the pricier side. But still, trucking companies took a chance on them because of the cost-benefit on fuel, insurance premiums, man-hours, and more. Now, technology has progressed, and these devices are more advanced and highly affordable—while providing, even more, cost benefits. The average cost for an ELD is $500 per vehicle or a monthly subscription of $30 per month.

In fact, ELD’s save money. The FMCSA estimates a yearly savings of $705, with 15% less vehicle downtime and 20 man-hours per vehicle per year. ELD’s also improve vehicle utilization by 13%.

With paper logs, drivers must round their shifts to the nearest 15 minutes. ELD’s can track logged hours down to the second. Those few minutes per driver add up throughout the year and can create significant savings for trucking companies—especially smaller or independent businesses.

Moreover, the FMCSA that nearly 10% of annual fuel bills are spent on idle rigs. For every $70,000 spent on gas, ELD’s can save nearly $6,000 per truck. That’s nearly a 9% cost savings per year just by installing an ELD.

Generally, ELD’s save money on:

- Fuel
- Insurance premiums
- Violations and penalties
- Crash rate risks
- Man-hours
- Paperwork

Myth 2: ELD’s Are Complicated to Use

Some drivers complain that ELD systems make it harder to drive, but this is entirely unfounded. In fact, ELD’s are the simplest and easiest way to log driving. Drivers simply log their status when they go on-duty, sleeping, or off-duty. They shouldn’t even look at the ELD log while they’re on the road, removing any safety concerns as well.

Myth 3: ELD’s Don’t Improve Safety

ELD’s can help improve safety by cutting down the hours of service violations. They will not turn off your engine to stop a collision, but they log driving behaviors to make drivers more aware of unsafe practices.
It can take drivers off the road who have been behind the wheel for too long, and it can boost awareness about braking acceleration, and speed.

In fact, those rigs equipped with ELD’s have shown a 5% reduction in preventable crashes and 12% reduction in all crash rates according to the FMCSA report. This equates to an estimated prevention of 30 fatalities and 562 injuries per year.

**Myth 4: ELD’s Shut Down Trucks**

There have been accusations of ELD’s shutting down trucks when there’s a violation. Because ELD’s are connected to the truck engine, some ELD’s do have the technology to stop the engine. However, it’s important to note that the new federal ELD mandate will not require an ELD to have this capability. That means that drivers can protest and file a complaint against any shutdown technology.

**Myth 5: ELD’s Are Always Watching**

Truckers can often feel they are being monitored always with a tracking location, but that’s not the purpose of ELDs. Despite common conceptions, ELD’s don’t automatically report violations. Only employees looking at the logs will know the location of the vehicle—and only for cost analysis and safety purposes.

When a truck driver is logged as off-duty, it will only pinpoint the truck’s location within 10 miles (as opposed to the typical 1-mile on-duty). If a driver is on personal time, he or she doesn’t have to worry about “being watched.”

**Myth 6: ELD’s Report to the Government**

In a similar vein, the government does not have access to truck location or ELD information. ELD’s are not the trucking version of Big Brother. Although ELD’s log violations (and some even warn a trucker before a violation is committed), these violations do not go directly to the state. Only authorized members of the company looking at the logs can access ELD data.

However, ELD data can easily and quickly be released to the government for roadside inspections and other instances when paperwork is requested. This makes the process simpler and more efficient, so drivers can get back on the road quickly.

**Myth 7: ELD’s Are Only for Large Companies**

Every trucking operation that meets the criteria is mandated to follow the ELD regulations. But that doesn’t mean this mandate will hurt smaller companies. Everyone can benefit from ELD’s by saving money on fines, fuel, paperwork, man-hours, crash risks, and more. In fact, ELD’s may even be more necessary for smaller businesses that need save every penny when possible.

**Myth 8: ELD’s Aren’t Better than Smartphones**

With today’s smartphone technology, some drivers assume their phone GPS can function like an ELD. However, smartphone tech can’t connect to a truck’s engine to track things like excessive braking and acceleration. It also doesn’t connect directly to the company server for data formatting and tracking.

Besides, the FMCSA won’t accept smartphone data as an alternate for the federal ELD mandate. However, some ELD technologies use a mobile app that’s synced to the ELD in the vehicle. This makes it easy for drivers to update status, perform inspection reports, log hours, and check their stats right from their phones.

The FMCSA conducted years of research before implementing their ELD mandate. They have assured that these new regulations will benefit individual businesses and the industry. They claim that ELD’s save money, improve safety, and increase efficiency for drivers and loggers. With advanced data collection, they say that the mandated ELD devices will help make trucking operations more productive, efficient, and successful. Hopefully these promises will provide assurance to the freight industry and the mandate will be a success for the industry as the whole.

The deadline for implementing the ELD mandate has passed, if you have installed ELDs, we highly recommend that you take the steps necessary to ensure full compliance. It is possible for an appeal to be made to the court concerning this mandate, but the possibility of that being successful is slim. Communicate with your potential customers on how your fleet will be complying with these new regulations. If your fleet adapts to the ELD mandate successfully, you will have no worries about fines that are given to those not complying.

The FMSCA website has a good Frequently Asked Questions section that is a great place to get more familiar with ELDs.
Conclusion: Will Regulations Fuel Driver Shortage?

As we discussed above, industry experts seem split on the long-term effects the ELD mandate will have, especially regarding the driver shortage. Some believe that the regulation will overburden small to mid-size carriers and ultimately price them out of the market. These experts claim that this consolidation may result in capacity crunches that will affect the long-term health of the industry. Others are far more optimistic. This faction claims that the regulations will boost overall quality, driver health and safety. The benefits will far outweigh any compliance or overregulation issues. Only time will tell, which theory is correct. In the meantime, one of the best ways to prepare for an uncertain future is to partner with a reputable 3PL such as LTX. With over 100 years of combined industry experience, LTX has the knowledge, technology and expertise to take your supply chain to the next level. If you enjoyed this e-book, we will have another one out soon on Last Mile and White Glove Delivery. If you have any questions, then please contact us below today!
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