

TRUCK DRIVER SHORTAGE ANALYSIS

2015



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BACKGROUND

Over the past 15 years, the trucking industry has periodically struggled with a shortage of truck drivers.¹ The first shortage during this period was documented in a 2005 report. At that time, the shortage was roughly 20,000. During the last recession starting in 2008, the driver shortage was eliminated as industry volumes plummeted, resulting in fewer drivers needed. However, as industry volumes began to recover in 2011, the shortage slowly returned. The driver market continued to tighten and the shortage skyrocketed to 38,000 by 2014.

There are many reasons for the current driver shortage, but one of the largest factors is the relatively high average age of the existing workforce. The current average driver age in the OTR (Over-the-Road) TL (Truckload) industry is 49. In addition, the industry has historically struggled to attract all segments of the population as just 5.8% of truck drivers are women. This share has been essentially unchanged over time. Conversely, today 38.6% of drivers are minorities, which has jumped 12 percentage points from 26.6% in 2001.

Today, motor carriers² struggle to find enough qualified drivers, which makes the shortage “feel” much worse than the numbers in this report. Many carriers, despite being short drivers, are highly selective in hiring drivers because they have made safety and professionalism high priorities.

The effects of the driver shortage can be felt throughout the economy, as 68.9% of all freight tonnage is moved on the nation’s highways. Specifically, according to the American Transportation Research Institute (ATRI), 34% of trucking’s operational costs per mile is driver pay,³ which, with the recent drop in fuel prices, is quickly putting driver pay as the largest operational cost. And as driver pay increases due to the shortage, it has a significant impact on fleets. Additionally, as volumes increase, the existing driver pool is only more strained.

“I’ve been in the business 34 years, and I’ve never seen the driver situation like it is today...Typically, if we have freight, we can expand. We can’t grow now because of drivers. For the second year in a row, we are projecting zero growth.”

-Dave Rusch, CEO of CRST International in Cedar Rapids, Iowa

“A significant amount of freight is being turned down...We’ve looked at acquisitions because we can’t grow organically.”

-Robert Ragan, Chief Financial Officer, Melton Truck Lines in Tulsa, Okla.

Source: *Transport Topics*, July 14, 2014

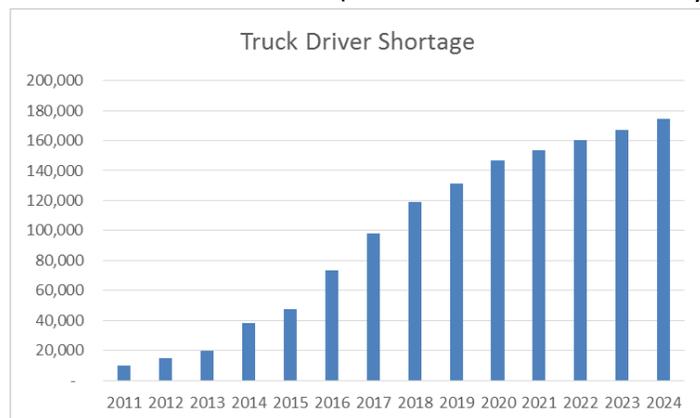
¹ In this report, the term “truck drivers” refers to Class 8 tractor-trailer drivers, a subset of the more than 3 million truck drivers in the U.S.

² Throughout this report, the terms “motor carrier”, “carrier”, “trucking company”, and “fleet” are used interchangeably.

³ ATRI, An Analysis of the Operational Costs of Trucking (www.atri-online.org)

KEY FINDINGS

- In 2014, the trucking industry was short 38,000 drivers. The shortage is expected to reach nearly 48,000 by the end of 2015.
- If the current trend holds, the shortage may balloon to almost 175,000 by 2024.
- This analysis does not consider the impact of specific regulations, such as the implementation of electronic logging devices for truck driver hours-of-service recording. Instead, it simply demonstrates the difference between expected supply of drivers (using demographic and population data) and the demand for drivers (which accounts for industry growth and replacing aging drivers).
- The truck driver shortage probably seems much worse to motor carriers than the current figures suggest because of a **quality versus quantity issue**. Many carriers have strict hiring criteria based on driving history, experience and other factors. As a result, despite receiving applications for employment, motor carriers are finding few eligible candidates, which is a quality issue. In 2012, 88% of fleets said that most applicants were simply not qualified.⁴ The cost of lowering hiring standards can be significant in the long run when accounting for increased insurance premiums and accidents. This analysis does not take into account the quality of applicants.
- The truck driver shortage and driver turnover rates, which are running high in the for-hire truckload industry, are not the same. Turnover is a reflection of demand for drivers, with higher rates generally indicating strong demand for drivers. The vast majority of driver turnover is churn in the industry – drivers going from one carrier to another. As demand for drivers increases, trucking companies try to take drivers from other carriers by offering sign-on bonuses, newer trucks, and better routes. However, the shortage is calculated in a completely different manner and churn in the industry is not included in the shortage calculation.
- Over the next decade, the trucking industry will need to hire a total 890,000 new drivers, or an average of 89,000 per year. Replacing retiring truck drivers will be by far the largest factor, accounting for nearly half of new driver hires (45%). The second largest factor will be industry growth, accounting for 33% of new driver hires.



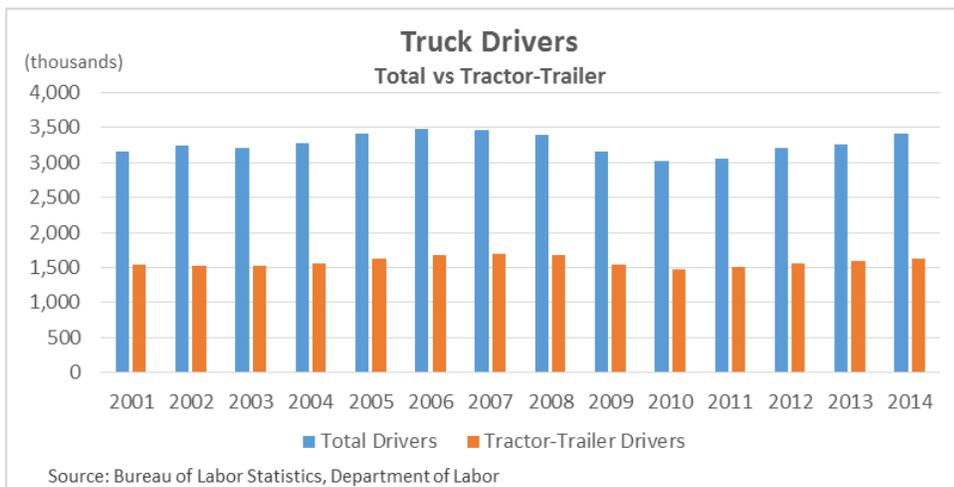
⁴ ATA Benchmarking Guide for Driver Recruitment & Retention

METHODOLOGY

The difficulty in calculating the driver shortage is one cannot simply survey motor carriers for the number of drivers⁵ that they need and sum them up because this would lead to a much inflated number. Today, nearly all motor carriers would hire additional drivers to meet increased demand from customers, if they could. The problem is that many trucking companies are competing for the same freight.

Here is an example highlighting this point: Motor Carrier A could add 10 new drivers to haul extra freight that Shipper X has but cannot due to lack of driver capacity. As a result, Shipper X asks Carrier B to haul the freight instead. Since Carrier B cannot haul it as well, they too are looking for 10 additional drivers. If you survey Carriers A and B, you could project that the shortage is 20 drivers. However, if either Carrier A or Carrier B finds those 10 drivers, the demand for the other 10 goes away. Thus, the real shortage is 10 drivers.

Therefore, we do not survey motor carriers when estimating the driver shortage. Instead, we use demographic driver data, population growth by age data, tractor counts, and projected economic and industry growth information to model and forecast the truck driver shortage.



One of the most important steps in this process is to determine what data should be included for truck drivers and commercial trucks. While some local delivery companies might have difficulty in finding truck drivers, the

bulk of the driver shortage is for over-the-road (i.e., non-local) drivers operating heavy-duty tractor-trailers (i.e., Class 8 tractors).⁶ Therefore, this analysis is for drivers of tractor-trailers.

⁵ This analysis includes both employee drivers and independent contractors. However, data limitations prevent us from separating out these two types.

⁶ Of the 7.1 million people employed throughout the economy in jobs related to trucking activity, 3.4 million were truck drivers in 2014. There are over 10 million CDL (Commercial Driver's License) holders in the U.S., but most are not current drivers and not all are truck drivers. There are between 2.5 million and 3 million trucks on the road today that require a driver to have some sort of CDL. Of those trucks, 1.6 million are tractor-trailers. Of those tractor-trailers, no more than 800,000 are used in OTR (i.e., non-local) operations.

Calculating the driver shortage generally requires two steps: first, determining current demand for drivers of Class 8 tractors in order to project that demand in the future based on expected industry growth and then calculating and forecasting the supply of truck drivers. Here, we utilize Census Bureau data on the industry employment, civilian labor force numbers, and demographic data regarding age and gender. The Census Bureau projects growth in civilian labor force by age and gender.

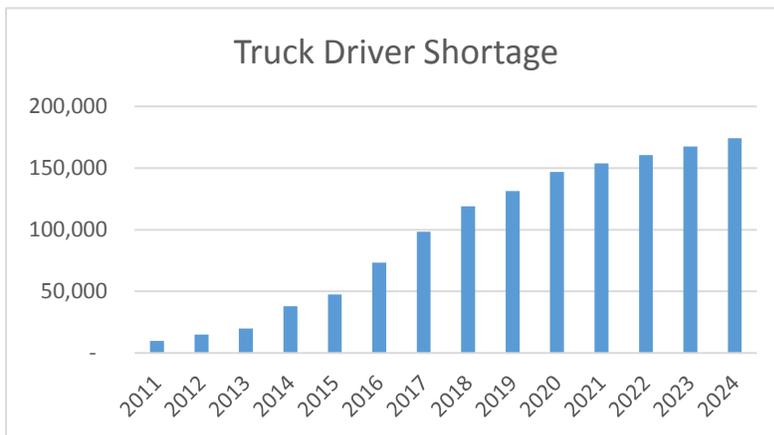
After calculating both the demand and supply of drivers, we match up the two to determine the surplus, or most often, shortage of drivers. It is important to note that this analysis assumes no changes in regulations, including changes in the age requirement for driving an interstate tractor-trailer, which is currently 21 years old. Changes to regulations, including age requirements or productivity changing regulations, like truck driver hours-of-service rules, would impact this analysis.

TRUCK DRIVER SHORTAGE

In this analysis, we focus only on drivers of Class 8 tractor-trailers. This is where the bulk of the truck driver shortage prevails. Even within this category, the vast majority of the shortage is within the over-the-road, or non-local, for-hire truckload sector. The other main carrier types operating this type of equipment are for-hire less-than-truckload carriers and private fleets (i.e., a retailer or manufacturer that operates a fleet of trucks to support their main business). LTL and private fleet drivers are generally paid more and are home more often. So while these two sectors are also beginning to struggle with driver recruitment and retention (more so than in the past), their challenges pale in comparison with the truckload sector. Therefore, while the driver shortage numbers below are for the entire industry, the vast majority of that shortage is in the for-hire truckload sector.

In 2014, the shortage of truck drivers was roughly 38,000. In 2015, we expect the shortage to increase to 47,500, the highest level ever recorded.

Looking ahead to 2016, if the economy picks up slightly, like we expect, the shortage could quickly jump by 26,000 to 73,500. If nothing changes in the trend line by 2024, the shortage could be as high as 174,500. We are not saying that the shortage will reach that level; instead, this is more of a warning to the industry and the broader supply chain of what could happen if things don't change.



If the trend stays on course, there will likely be severe supply chain disruptions resulting in significant shipping delays, higher inventory carrying costs, and perhaps shortages at stores. Because trucks account for 68.8% of all tonnage moved in the U.S., it is highly unlikely that the driver shortage could be reduced in any significant manner through modal

shift (i.e., shifting a large amount of freight from the highway to the rails or another mode).

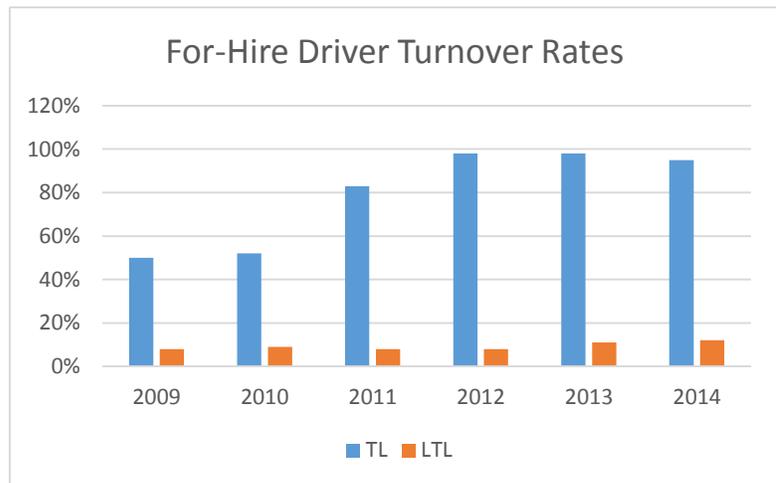
Many factors, both positive and negative, could impact the shortage in the years ahead. For example, government regulations often reduce industry productivity and thus cause an increase in the shortage. In other words, declines in productivity mean that the industry needs more trucks and drivers to haul the same amount of freight. However, if the federal government were to lower the age requirement for interstate drivers from the current 21 years old, it could help reduce the driver shortage. None of these potential changes to regulations are factored into the shortage numbers.

The other important caveat to the truck driver shortage is a quantity versus quality issue. The shortage probably feels much worse to most trucking companies because of their hiring standards. Because of many companies' strong focus on safety, many otherwise eligible candidates are disqualified as a result of poor driving history or other related factors. Additionally, for companies that are not self-insured, insurance companies require drivers to have two to three years of driving experience before they are willing to underwrite them.

Also, driver turnover and the driver shortage are not the same. Truck driver turnover often runs at elevated rates when drivers are in high demand because the drivers know they can jump from motor carrier to motor carrier. This is industry churn and it is very different than the shortage of drivers and calculated using a completely different method.

Over the past few years, for-hire truckload driver turnover rates have been over 90%, with the vast majority of this turnover being churn in the industry. Sometimes, truckload carrier hiring activities add to industry churn. According to ATA's *2014 Driver Compensation Study*, roughly 50% of for-hire truckload carriers were offering a sign-on bonus with the median bonus amount of \$1,500.⁷ It is likely that the percentage of truckload carriers offering a sign-on bonus is higher today than in 2014 and the median amount of the bonus is higher as well.

LTL carriers and private fleets generally have much lower turnover rates as the drivers in those sectors are home more frequently and generally paid more. In 2014, LTL carriers had a turnover rate of 12%, while private fleets reported a turnover rate of just 8%.⁸



⁷ ATA's 2014 Driver Compensation Report

⁸ Ibid.

CAUSES OF THE TRUCK DRIVER SHORTAGE

There are many causes of the truck driver shortage. Outlined below are some of the primary reasons the industry is suffering from a truck driver shortage.

- **Demographics, Age:** The median age of over-the-road truck driver is 49,⁹ compared with just 42 for all U.S. workers.^{10 11} Some sectors within the trucking industry have an even higher median age. For example, private fleet drivers have a median age of 52 years old.¹² Additionally, the current age requirement to drive a tractor-trailer across interstate lines is 21. This means that interstate motor carriers miss out on the population between 18 and 21. Often, these individuals obtain employment in construction or the service industry as they can start their careers at a younger age.¹³
- **Demographics, Gender:** Females make up 47% of all U.S. workers, yet only comprise 6% of all truck drivers, according to the U.S. Department of Labor. The share of female drivers has remained stagnant between 4.5% and 6% since 2000. This is a large, untapped portion of the population.
- **Lifestyle:** When new to the industry, many drivers are assigned routes that put them on the road for extended periods of time before they return home, typically a week or two. Therefore, it is not just a career, but a lifestyle that does not fit with everyone's desires or needs. Eventually, many drivers move into regional or local driving positions with tenure.
- **More Job Alternatives Available:** A couple of years ago, the trucking industry was one of the few industries hiring people. Today, the job market has improved and there are more job alternatives available for current drivers and would-be truck drivers. For example, according to the U.S. Department of Labor, the construction industry has increased payrolls by 113,000 in 2015, through August, after increasing employment by 338,000 in 2014. Most construction jobs are local and don't require travel as extensive as truck driving. Additionally, these alternative jobs often carry much less responsibility and regulatory guidelines to adhere to.

⁹ ATA's 2014 Driver Compensation Study

¹⁰ U.S. Department of Labor

¹¹ The American Transportation Research Institute (ATRI) completed a study regarding truck driver ages. That study is available at www.atri-online.org

¹² ATA's 2014 Driver Compensation Study

¹³ ATA is calling for lowering of the minimum age requirement through a graduated commercial driver's license program. See the press release here: <http://www.trucking.org/article.aspx?uid=c88d0752-d5c8-46cd-95bb-e0d3e12bcaa4>

- **Regulations:** Most of the time, regulations, like changes to truck driver hours-of-service, reduce industry productivity. Reductions in productivity exacerbate the driver shortage as it requires more trucks, and thus more drivers, to move the same amount of freight.

COURSE OF ACTION

Because there is no one cause of the driver shortage, there is no one solution. Below is a brief list of market reactions and possible policy solutions to relieve the driver shortage.

- **Driver Pay Increases:** The natural market reaction to any shortage is the price of the good rises. In this case, price is driver wages, which are beginning to increase significantly. Most fleets instituted large pay increases in the summer of 2014 with many repeating the increases again in 2015. Sign-on bonuses are used throughout the industry as well. Expect driver pay to continue rising as long as the driver shortage continues. Good benefits are also part of a total compensation package in the industry.
- **More At-Home Time:** Potential drivers are often hesitant to take a job that requires so much time away from home, especially at first. The increased prevalence of retail distribution centers and use of the hub and spoke system have drastically reduced the average length-of-haul across the industry; this reduction in travel distances could and should translate to less time on the road for drivers. However, the industry can only reduce length-of-haul and increase at-home time so much.
- **Lower Driving Age:** Interstate driving currently has an age minimum of 21. The 18-20 year old segment has the highest rate of unemployment of any age group, yet this is an entire segment that the industry cannot access (with the exception of local routes, which is generally reserved for seniority). Additionally, potential drivers are likely to have found another career path (that they are already 3 years into) by the time they reach 21.
- **Improved Driver Image:** The public perception of a truck driver has unfortunately a tendency to be negative. *Trucking Moves America Forward*¹⁴, of which ATA is a founding member, is an example of a positive image initiative and will hopefully highlight a demanding but rewarding career for potential drivers.
- **Former Military:** ATA supports efforts to ease the driver shortage by facilitating the transition of military veterans into fulfilling careers in the trucking industry. In support of this, the industry recently committed to hiring 100,000 veterans over the next two years.¹⁵
- **Better Treatment by the Supply Chain:** Compounding the already difficult lifestyle, drivers often complain of mistreatment at shipping and receiving facilities. Complaints range from restricting access to restrooms to having to wait extended periods of time before the trailer is loaded or unloaded. Improving the experience for drivers at drop-off and pickup locations would provide for a more attractive career choice. All companies in the supply

¹⁴ www.truckingmovesamerica.com

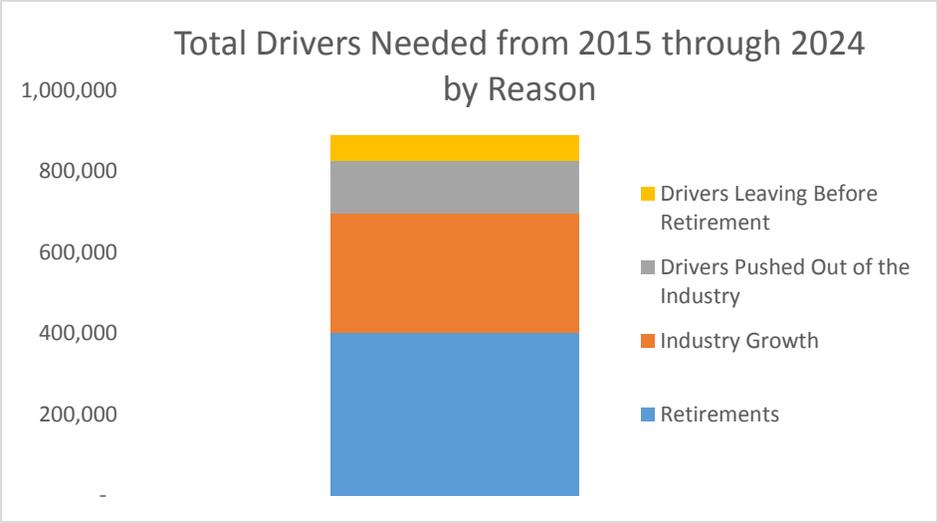
¹⁵ [ATA Commits to Hiring 100,000 Veterans as Part of Hiring Our Heroes Initiative](#)

chain, including trucking companies, shippers, and receivers, need to treat drivers with the respect that they deserve.

- **Autonomous Trucks:** Autonomous commercial trucks could eventually have a positive impact on the driver shortage, but we are still years away from truly driverless Class 8 trucks running on the highway as a normal part of the industry. Today, even though the technology is available, there are numerous limiting factors that prevent it from being used by carriers. Eventually, well beyond the dates of this report, one could envision an environment when the longer, line-haul portion of truck freight movements are completed by autonomous trucks and local pick-up and delivery routes are completed by drivers. However, motor carriers should not count on this being an option for some time.

TRUCK DRIVERS NEEDED IN THE FUTURE

As part of this analysis, we considered how many new drivers are needed in the industry over the next 10 years. When considering both industry growth and replacing drivers leaving their jobs either from retirements or other reasons, the industry will need nearly 890,000 new drivers over the coming decade, or 88,970 per year on average.



Retirement and industry growth contribute to the bulk of future driver demand. With an aging population of current drivers, retirement accounts for 45% of future need. The second largest factor is industry growth at 33% or nearly 300,000 drivers

through 2024. Drivers also leave the industry prior to retirement. In some cases, they find that the lifestyle just isn't for them and they pursue other opportunities that allow them to return home every night, like construction jobs. In other cases, the driver does not choose to leave the industry, but is dismissed because of a driving incident or other disqualification. These two groups combined make up nearly 22% of the annual demand for drivers.

