

Hours of Service



Defining the Issue

Issued by the Federal Motor Carrier Safety Administration (FMCSA), Hours of Service (HOS) regulations govern the working hours of any individual can operate a commercial motor vehicle in the United States. Commercial motor vehicles (CMV) include all commercial trucks (10,001 lbs. or greater) and buses (with more than 8 passengers) and/or trucks transporting hazardous materials in a quantity requiring placarding.

These regulations were first adopted in 1938 (by the Interstate Commerce Commission) and have been adapted and modified over time. The purpose of these regulations is to reduce driver fatigue which leads to accidents. Three main factors which contribute to driver fatigue include:

- Circadian rhythm (sleep patterns)
- Sleep deprivation
- Cumulative fatigue effects

Hours of Service (HOS) are enforced by Department of Transportation officers in each state. As of December 2015, hours of service regulations limit driving time to 11 hours, with a maximum on-duty time of 14 hours. Off-duty time minimum must be 10 hours within a minimum duty cycle of 21 hours. A maximum of 8 hours may be worked before a 30 minute rest break. A 34 hour restart provision is required per consecutive seven day period.

Driver hours are recorded in a log book, which must identify any change in duty status, by location. Drivers are required to keep a log page for each of the previous seven consecutive days. There are exceptions to these rules which allow for special circumstances or operating territories. It is estimated that a large percentage of log books contain some errors which has led the industry to adopt electronic logging devices (ELDs).

Legislative Background



Federal Motor Carrier Safety Administration (FMCSA) regulations are found in part 395 and contain subparts which stipulate the following provisions: (395.1) Scope, (395.2) Definitions, (395.3) Maximum driver time for cargo vehicles (395.5) Maximum drive times for buses, (395.8) Records of duty status, (395.13) off-duty status, (395.15) automated recording devices.

Florida Statute 316.302 contains the intrastate hours of service regulation. These state regulations are less restrictive and allow extended driving times under certain conditions. Florida forfeits a portion of the Motor Carrier Safety Assistance Program funding because of these exceptions.



Hours of Service

Intrastate HOS Rules

Driver may drive 12 hours after 10 consecutive hours off duty.

Driver may not drive after 16th hour after coming on duty following 10 consecutive hours off duty.

Driver may not drive after 70/80 hours on duty in 7/8 consecutive days. 34 consecutive hours off constitutes end of 7/8 day period.

Drivers who do not exceed 150 air mile radius and no placarded hazardous materials are exempt from maintaining a log book. Drivers not released from duty within 12 hours must document driving time.

Source: <http://flhsmv.gov/Fhp/CVE/HOS.htm>

Industry Impact

The FMCSA estimates that the restart provisions will primarily impact 15% of the 1.6 million truck drivers with the most intensive driving schedules. The agency estimates the benefits of the new safety rules will result in saving 19 lives and will prevent approximately 1,400 crashes and 560 injuries annually.

Companies and drivers that commit egregious violations of the rule could face the maximum penalties for each offense. Trucking companies that allow drivers to exceed the 11-hour driving limit by 3 or more hours could be fined \$11,000 per offense, and the drivers themselves could face civil penalties of up to \$2,750 for each offense.

Carrier Response

Due to the loss of driver productivity, carriers have responded with rate increases in the range of 3-9% depending upon type of carriers service (long haul, short haul, intercity or dedicated/contract rates). Carriers were not able to pass rate increases to all customers and have moved 3-4 % of their business to intermodal rail where service exists.

Florida by the Numbers

In fiscal year 2015, FDOT completed 67,000 inspections, and 18,000 violations were found. The #1 violation in Florida was log book reporting violations. This includes instances of drivers not having their log book, or improperly recording their hours of service.

Defining the Issue

Compliance, Safety, Accountability (CSA) is a program developed by the Federal Motor Carrier Safety Administration (FMCSA). It is a data driven program used to monitor motor carrier compliance. There are three core components of the program:

- The Safety Measurement System (SMS),
- The Safety Interventions Process, and
- the proposed Safety Fitness Determination (SFD).

The SMS system analyzes data collected from roadside inspections, including all violations, investigation and crash reports for the last two years to prioritize carriers for interventions. Data collected is organized into seven Behavior Analysis and Safety Improvement Categories (BASICs):

- Unsafe Driving, Crash Indicator,
- Hours-of-Service Compliance,
- Vehicle Maintenance,
- Controlled Substances/Alcohol,
- Hazardous Materials Compliance and
- Driver Fitness.

The SMS system calculates a quantifiable measure of a motor carrier's performance and ranks each carrier based on their BASIC measure (higher scores indicate worse performance). The SMS system has been considered effective in helping identify high crash-risk carriers for interventions.

The second core component focuses on intervention, which is an enforcement action that may be taken when a carrier's safety performance data indicate a potential safety risk. An FMCSA intervention evaluates why safety problems occur, recommends remedies, encourages corrective action, and when necessary, invokes strong penalties for carriers failing to comply. The third component is the proposed safety fitness determination process which would replace the current safety rating process. The SFD would allow FMCSA to remove unsafe carriers from the nation's highways.

Legislative Background



- Federal Motor Carrier Safety Regulation 49 CFR parts 392 and 397 cover speeding, reckless driving, improper lane change and inattention.
- Hours-of-Service and records of duty status are covered in parts 392 and 391.
- Driver fitness is covered in parts 383 and 396.
- Hazardous Materials Compliance is covered in part 397.
- The Fixing America's Surface Transportation (FAST) Act of 2015 has removed carrier specific CSA results from public display.

Industry Impact

“CSA literally has changed the way carriers do business,” says Dave Heller, director of safety and policy for the Truckload Carriers Association. “It has put safety to the forefront, much more than it ever has been before.”

Two years after the initial implementation of CSA in 2011 the majority of carriers surveyed stay on top of their CSA data and use it to improve safety. The FMCSA Administrator cites a 167% increase in website traffic and an 8% decline in equipment violations at roadside inspections and a 10% drop in driver violations per inspection.

Carrier Response

Carriers have objected that the CSA SMS program does not have a strong enough predictive relationship between carrier scores and crash incidents. Most carriers lack sufficient safety performance data to ensure that FMCSA can reliably compare them with other carriers. These carriers are concerned that lack of data can lead to inaccurate profiles. Carriers have advocated that the SMS data driven process should be improved to allow FMCSA to focus intervention efforts and resources where they will have the greatest impact.

Florida by the Numbers

In fiscal year 2015, Florida completed 67,000 driver inspections and identified 18,000 violations. The top four violations included:

- Log violations,
- Traffic control violations (stop signs, speeding, red lights)
- Hand held device distractions, and
- Driver record of duty status violation.

Florida tracks annual crash statistics in the Florida Integrated Report Exchange System. Data from 2013-2015 is highlighted below:

Category	2013	2014	2015	% Change 2013-2014	% Change 2014-2015	Total Change
Commercial Vehicle Crashes	32,091	34,438	37,353	7% increase	8% increase	5,262
Commercial Vehicle	34,840	37,348	40,282	7% increase	8% increase	5,442

Source: Florida Integrated Report Exchange System, 2013-2015

Driver Shortage



Defining the Issue

A critical concern raised by the American Trucking Association is the lack of qualified and certified tractor trailer drivers. Class 8 (heavy) tractor trailer drivers operate trucks with gross vehicle weight exceeding 26,000 pounds. They move freight along intercity routes, and can be away from home for a few days or for weeks at a time. This job requires endurance and many drivers have 11 hour shifts per day. Class 8 truck drivers

are subject to drug testing and health screening to ensure safety. Most heavy truck drivers have a high school diploma and have attended professional truck driving school. A heavy truck driver must have a commercial driver's license (CDL). A heavy truck driver must be 21 years old to apply for an interstate CDL. 18-21 years olds can hold a CDL for the purpose of intrastate trucking.

In 2014 (according to Bureau of Transportation Statistics), median pay was \$39,520 per year or approximately (\$19.00/Hour). There were 1,797,700 heavy truck jobs in 2014. Outlook for heavy truck driving jobs from 2014-24 is estimated to grow by 5% (average growth). More than 98,800 drivers will be needed to fill the projected job openings over this period of time.

Legislative Background

Commercial truck classification is determined by the vehicle weight. The Department of Transportation's Federal Highway Administration (FHWA) has established three weight classifications. Class 7-8 trucks are considered heavy duty.

The Federal Motor Carrier Safety Administration (FMCSA) specifies the requirements for Commercial vehicle driver's licenses in part 383. In this statute medical, residency, knowledge and skill requirements are identified. The FMCSA has developed and issued standards for State testing and licensing of CDL holders. States issue CDL's after the applicant passes knowledge and skill tests. CDL's are required for drivers who operate certain classes of vehicles in interstate, intrastate or foreign commerce.

There are three classes of CDL licenses.

- Class A CDL's are required to operate a combinations of vehicles which in combination weigh over 26,001 lbs.
- Class B CDL licenses are required for a single vehicle exceeding 26,001 lbs. or any vehicle towing a vehicle with GVW that exceeds 10,000 lbs.
- A Class C, CDL license is for any single vehicle or combination vehicle designated to transport 16 or more passengers, including the driver, or any vehicle transportation hazardous materials.

Endorsements maybe required for drivers operating specialized types of commercial vehicles such as double/triple trailers, passenger or tank vehicles, hazardous materials or school buses. Restriction codes maybe included based upon the mechanical type of equipment or medical variance for the driver. CDL applicants may be disqualified for prior felony, driving violations or medical conditions.



Industry Impact

The primary causes of truck driver shortages include demographics, gender, lifestyle, increasing regulations and alternative jobs available. In 2014, the estimated shortage of qualified heavy truck drivers was 38,000 drivers. The shortage is expected to reach 48,000 drivers by 2015 according to the American Trucking Association. The current average long haul over the road heavy truck driver is 49 years old. Only 5.8% of heavy truck drivers are women, and 38.6% of heavy truck drivers are minorities. The percentage of minority truck drivers is growing, but not enough to offset the shortage. Truck driver turnover is high due to the demanding nature of the job and time away from home.

According to the American Transportation institute (ATRI), 34% of the operational cost of trucking consists of driver pay. The impacts of a driver shortage could be significant since it is estimated that 68.9% of all freight tonnage moves at least some portion of the transportation journey by truck. Driver shortages vary by types of trucking services performed and may grow or decline based on economic growth.

Carrier Response

In order to attract drivers during a driver shortage, many carriers increase wages and improve other work-life benefits such as preferred days off and provide newer model tractors. The shortage is a complex issue driven by various factors. Due to a highly fragmented industry, rate increases are often passed along to shippers and contribute to driver shortage difficulties. Many carriers are focused on hiring returning military veterans with experience. Others are advocating that the minimum driver age be reduced to 18 to attract a work force just graduating from high school.

Florida by the Numbers

Florida employs over 70,000 heavy truck drivers with a (2014) average wage of \$36,700. Florida has more truck drivers than truck driving jobs. A location quotient of 1.0 means that jobs equal demand. With a location quotient of .76, Florida has more drivers than jobs which could be a location advantage for prospective industry attraction. With some of the lowest truck wages in the nation, truck transportation in Florida is more economical than Georgia or Alabama. The five location quotient leading states are listed below.

State	Employment	Employment per Thousand Jobs	Location Quotient	Hourly Mean Wage	Annual Mean Wage
Texas	165,650	14.75	1.23	\$20.02	\$41,640
California	127,330	8.42	0.70	\$20.86	\$43,380
Pennsylvania	72,590	12.84	1.07	\$20.80	\$43,260
Florida	70,320	9.17	0.76	\$17.64	\$36,700
Illinois	66,890	11.60	0.96	\$21.90	\$45,550

Source: Bureau of Labor Statistics, May 2014
<http://www.bls.gov/oes/current/oes533032.htm>

Driver Retention



Defining the Issue

The Federal Motor Carrier Safety Administration (FMCSA) estimates that there are approximately 5.6 million drivers holding Commercial Driver's Licenses (CDL). The cost to hire and train a heavy truckload driver is approximately \$5,000 per individual.

Truck driver turnover for large truckload carriers averaged 90-95% in 2014, and can often be above 100%. Only about 1/3 of the drivers stay for 2-5 years or more, with many quitting within 1-3 months.

This high turnover rate equates to a trucking company having to hire a second driver for each driver employed, just to maintain the same driver count annually and ensure a pool of qualified drivers. Smaller truckload carriers have a slightly better driver retention rate of 80-90%.

Legislative Background



The Federal Motor Carrier Safety Administration's (FMCSA) Pre-employment Screening Program (PSP) helps carriers make more informed hiring decisions by providing a commercial driver's five-year crash and three-year inspection history.

While pre-employment screening is not mandatory, research results suggest that the use of this program results in better safety records.

Industry Impact

Carriers began using the Federal Motor Carrier Safety Administration's (FMCSA) Pre-employment Screening Program (PSP) program in May of 2010:

- Within the first year of use between 20,000-50,000 searches were being made per month.
- During the second year of use, 60,000-70,000 inquires per month were being made by hiring carriers to confirm driver applications were accurate.

Driver use of the system has been low with less than 2000 inquires per month, made primarily to confirm data accuracy. Carriers reported that after implementation of the PSP program company crash rates were reduced by 8% and driver out of service scores by 17%.

Carrier Response

Due to the high cost of employment turnover, many trucking companies are reviewing compensation packages and work structures. Time-at-home is a top reason drivers leave the trucking industry. There are three components to time-at-home which include:

- frequency of home time,
- duration, and
- predictability.

Many carriers are looking at new dispatching models to improve time-at-home.

Driver compensation is another reason for driver turnover. Most carriers are paid per mile which can create stress during off-peak seasonal work fluctuations, to address this cash flow issue, some companies are exploring minimum pay programs.

Many drivers seek a positive employee-employer relationship, which is difficult when the employee is on the road and out of the office most of the time. To improve these relationships many carriers are creating retention managers who focus on a group of drivers. Some carriers are developing personality tests to measure a prospective applicant's response to stress, uncertainty and independence. These tests help ensure applicants are good matches for work assignments.

Florida by the Numbers

There are 36 schools in Florida that offer commercial driving courses. The average class size is 19 students. The average course runs 8-12 weeks to earn a commercial driver's license. To earn a Class B or Class C license the program is often shorter.

The first few weeks of the program include preparation for the Florida written driving exam which focuses on driving laws in the state. The second portion of the program involves building upon and improving driving skills.

There are trucking academy programs, county schools, technical institutes and education centers. The average cost of tuition for one of these programs is \$2,893. Many programs qualify for federal financial aid. By filling out FAFSA forms you can find out what federal loans and grants you are eligible for. The average scholarship award in Florida is \$1,264 the average study loan amount is \$3,596.

Once training is completed a series of tests must be completed at the Florida Department of Highway Safety and Motor Vehicles. Depending on the class of driving licenses various tests must be completed. Typically prospective drivers must demonstrate pre-trip, basic skills and driving skills.

In Florida, truck drivers earn between \$22,300 per year and \$54,700 annually. The average driver income in 2012 was \$34,500. Wages vary based upon time spent on the road, driver experience, seniority and type of equipment operated.

Truck Parking



Defining the Issue

Truck Parking has been identified by states and the trucking industry as an issue which directly affects safety on the roadways. Several national studies conducted between 1996 and 2003 established the fact that truck parking shortages were occurring and affecting highway safety. As a result, the U.S. Department of Transportation and many State Departments of Transportation have completed and are working on a variety of studies and projects to measure and remedy the nationwide shortage of truck parking.

In one of the most recent efforts completed pursuant to requirements of the Moving Ahead for Progress in the 21st Century (MAP-21) Act, the Federal Highway Administration (FHWA) conducted a nationwide truck parking survey. Commonly known as the Jason's Law Truck Parking Survey, the survey revealed some key findings. These include:

- Finding available and safe truck parking at night is a significant problem
- Adverse weather conditions have a significant impact on truck parking capacity
- States lack resources to fund parking projects
- Planning and zoning is a challenge for truck parking development
- Demand for truck parking is most acute on major freight corridors and in metropolitan areas
- Delivery needs and schedules tend to drive a high nighttime demand for truck spaces
- FMCSA hours-of-service regulations influence route planning and parking decisions

The primary source of truck parking is provided by private, commercial truck stops. These account for more than 88% of the 308,000 truck parking spaces in the U.S. Truck freight volumes are expected to increase by over 40% by 2045. This will increase the demand for truck parking on an already stressed resource.

Trucks primarily pickup products and deliver in metropolitan areas. Metro areas provide the labor force to produce goods and commodities and have the dense population which consumes large quantities of products. As such, the demand for commercial truck parking is high in close proximity to large metro areas.

Legislative Background



The Fixing America's Surface Transportation (FAST) Act signed into law December of 2015 builds upon the truck parking focus and provisions of Jason's Law and MAP-21.

The FAST Act places a major emphasis on freight planning and investing in freight projects. Key provisions of the Act are the creation of the National Multimodal Freight Network (NMFN), a new National Highway Freight Program (NHFP), and direction to states for improvements to the National Highway Freight Network (NHFN).

Truck parking facilities are included as eligible projects under the NHFP funding program. The Act also provides that Surface Transportation Block Grant Program (STPBG) funds may be used for truck parking facilities as well.

Industry Impact

The shortage of truck parking has a variety of negative consequences for individual truck drivers and the industry as a whole. For many drivers the inability to find appropriate parking leads them to continue driving past hours of service limits and or searching for parking in unsecured or unsafe areas. The lack of safe parking may be one more issue that leads drivers to leave or never join the industry as a career choice.

Commercial truck parking has traditionally faced reluctance due to real and perceived adverse impacts. These include air quality and excessive noise and lights due to idling, interchange congestion due to high volumes of trucks getting off/on major freight routes to fuel and park, safety and security (driver safety and cargo security), and social and crime issues that seem to gravitate into truck parking locations. As such, local agencies are reluctant to accept new truck parking locations and to allow expansion of existing sites.

Some possible policy solutions include:

- Encourage and incentivize private commercial truck stops to increase truck parking spaces
- Deployment of Intelligent Transportation Systems (ITS) solutions, i.e. information on truck parking availability to commercial drivers
- Encourage shippers and receivers to provide truck parking for pick-ups/deliveries
- Encourage businesses to expand shipping and receiving hours
- Encourage logistics parks and distribution center parks to provide a common truck parking
- Partner with businesses that experience encroachment in parking lots, i.e. large retail stores (Walmart, Target, etc.) to provide solutions for truck parking
- Develop a metric to measure commercial truck parking

Carrier Response

Industry associations are actively involved in the discussion and the National Coalition on Truck Parking. This coalition includes U.S. and State DOT representatives as well as the American Trucking Association, the Owner-Operator Independent Drivers Association, the national association representing truck stops (NATSO), the Commercial Vehicle Safety Alliance and others. The coalition was formed with the goal of identifying immediate, near term and long term solutions to the parking shortage.

FDOT Response

Florida DOT has completed studies to identify the extent of the parking shortage throughout the state and projects providing additional parking.

FDOT has begun the development of a Truck Parking Availability System to provide information to truck drivers on the availability of parking spaces at facilities throughout the state. When complete the system is envisioned to include public areas (rest areas, welcome centers, weight stations) and off system private facilities (private truck stops, gas stations). The system will cover Florida's four primary interstate corridors, I-4, I-10, I-75, and I-95. Information regarding parking availability will be delivered to drivers in a variety of ways, including roadside dynamic messaging and the state's traveler information system Florida 511.



Source: www.SeeFloridaGo.com

Defining the Issue

An Electronic Logging Device (ELD) is an electronic solution that enables professional truck drivers and commercial motor carriers to track hours of service (Record of Duty Status) easily. The new ELD rule will include technical and performance specifications that will define features and functions of these devices. ELD specifications typically include:

- Connect to the truck's engine to record if the truck is in motion
- Allow the driver to log in and select On-duty, Off-duty, or On-Duty Not Driving; drive segments must be automatically selected based on vehicle movement
- Graphically display a Record of Duty Status, so a driver can quickly see hours in a day
- Provide data in a format that's standardized and can be transmitted to law enforcement in a number of prescribed ways, such as wireless web services, USB, or Bluetooth 2.0
- Be provider-certified that the device meets the proper specifications
- Be listed on an FMCSA website

Electronic logging devices range from an annualized price of \$165 to \$832, with the most popular device used today priced at \$495/truck. With the finalized rules, ELDs are expected to drop to \$200 per unit without any additional options.

Carriers must retain up to eight supporting documents for every 24-hour period a driver using ELDs is on duty. Those documents must be retained for six months, and drivers must submit supporting documents to the motor carrier no later than 13 days after receiving them.

Those supporting documents must include:

- Driver name or carrier-assigned identification number, either on the document or on another document enabling the carrier to link the document to the driver, or the vehicle unit number if that number can be linked to the driver;
- Date;
- Location (including name of nearest city, town, or village); and
- Time.

Supporting documents may come from the following five categories:

- Bills of lading, itineraries, schedules, or equivalent documents that indicate the origin and destination of each trip;
- Dispatch records, trip records, or equivalent documents;
- Expense receipts;
- Electronic mobile communication records, reflecting communications transmitted through a fleet management system (FMS); and
- Payroll records, settlement sheets, or equivalent documents that indicates payment to a driver.



Electronic Logging Device

Legislative Background



On December 10, 2015 FMCSR 49 CFR Parts 385, 386, 390 and 395 effectively mandate the use of electronic logging devices within two years (December 2017 anticipated).

The minimum performance and design standards for hours-of-service electronic logging devices (ELC's); requirements for the mandatory use of these devices by drivers currently required to prepare Hours of Service records of duty status.

The mandate exempts drivers of trucks built before model year 2000, based on concerns over the lack of electronic feasibility to incorporate ELDs with older engines. Drivers currently using legacy on-board systems (Automatic On-Board Recording Devices or AOBDRs) will be given until December 2019 to transition to ELDs.

Industry Impact

It is estimated that drivers will gain up to an extra 20 minutes per day since they will no longer have to spend time filling out paper logs. Electronic log devices will help drivers quickly assess remaining on-duty driving time, allowing for more efficient scheduling. Vehicle inspection reports made electronically will also save time. Electronic Logging devices will improve driver's ability to comply with Hours of Service rules, increase miles per gallon by monitoring motor speed, fewer speeding incidents, measurement of unproductive engine idling, a decrease in out-of-route miles and will help curb fuel spending.

According to eldfacts.com "The FMCSA believes the total annual cost of ELD adoption will be \$975 million, which includes all equipment for carriers and commercial truck inspectors, as well as inspector and driver training. To be fair to the business changes ELDs can impact, another \$604 million was budgeted for "extra drivers and CMVs needed to ensure that no driver exceeds HOS limits."

All in, the net benefits of ELDs outweigh the costs with expected paperwork savings of over \$1.6 billion annually, plus crash reduction costs of \$395 million.

Carrier Response

Industry supplies of electronic logs have been in use over the past few years as larger truckload companies have adopted what appeared to be an inevitable circumstance. One carrier identified a significant learning curve which could place compliant drivers at risk of violation due to simple coding issues. Software providers are working to perfect devices and training to ensure a seamless transition two years from now.

Larger carriers report productivity improvements because electronic log books can feed other reporting systems within the company, smaller carriers have concerns over the burdensome implementation of technology, especially carriers with less than five trucks.

Defining the Issue

Truck Driver health is an issue fast becoming a serious threat to the long haul trucking industry. Truck drivers face more health issues and challenges than the general public. There are a variety of factors contributing to the health conditions of truck drivers. First and foremost the sedentary nature of truck driving offers little opportunity for exercise during working hours.

In addition, many interstate routes find drivers traveling in “food deserts” or areas lacking in healthy food alternatives. Most truck stops and travel centers contain typical pre-packaged and processed food. This food is often sugar-laden, fatty, and high in calories. While truck stops are increasingly offering healthier alternatives, the typical food still dominates.

Long hours behind the wheel, the stress and anxiety of driving in all weather conditions, irregular schedules, and poor sleep patterns also contribute to negative health patterns.

There has historically been limited information on illness and injury in this population, which prompted the survey by the National Institute for Occupational Safety (NIOSH). The survey was conducted in 2010, with 1,670 long-haul truck drivers at 32 locations across the country. The data collected from this survey was being used to establish a picture of the health conditions, risk factors, and work practices for U.S. long-haul truck drivers, giving the trucking industry and researchers valuable information to guide health and safety efforts. The completed study was published in January of 2014 in the American Journal of Industrial Medicine.

Notable physical health findings of the study include:

- 69% of drivers surveyed were obese and 54% of drivers smoked (each statistic is twice the national adult average).
- 88% of long-haul truck drivers reported having at least one risk factor (hypertension, smoking, and obesity) for chronic disease, compared to only 54% of the general U.S. adult working population.

Long-haul truck drivers also suffer from stress and other mental health concerns. Many of the same factors impacting physical health, irregular schedules, long hours, and lack of sleep also impact mental health. The additional stressors of regulatory compliance, delivery deadlines, and driving in adverse weather conditions contribute to higher than average levels of mental stress and the accompanying health consequences. The NIOSH study reported that long-haul truck drivers face unrealistic deadlines that may contribute to risky behaviors and put them at greater risk of injury.

Legislative Background



Motor Carrier drivers are required to complete a Commercial Driver Medical Examination (CDME) to become medically certified in accordance with Section 391.43 of the Federal Motor Carrier Safety Regulations. The results of the CDME determined whether a driver qualifies for unrestricted certification (2yrs), shortened certification (1yrs), or does not meet the medical requirements.

The purpose of the history and physical examination is to detect the presence of physical, mental, or organic conditions of such a character and extent as to affect the driver's ability to operate a commercial motor vehicle safely.

Disqualifying Conditions in Commercial Driver Medical Examination (CDME)

Corrected vision in one eye worse than 20/40	Color vision deficiencies	Insulin-dependent or uncontrolled diabetes mellitus	Anticonvulsion medication for treatment of seizures or epilepsy	Untreated respiratory dysfunction	Supplemental oxygen use	Current alcoholism
Horizontal field of vision less than 70°	Unable to hear a forced whisper at 5 ft	Epilepsy	Blood pressure above 180/110	Implanted defibrillator	Unstable mental conditions and psychoses	Use of schedule 1 drugs or methadone

Source: <https://www.fmcsa.dot.gov/regulations/title49/section/391.43>

Industry Impact

Truck drivers serve a vital role in our nation's economy, ensuring the safe and timely delivery of goods across the U.S. Gaining a better understanding of how to improve the lives of truckers both on the road and at home is vital to ensuring their continued service. Failure to do so will serve to exacerbate the related and growing problem of driver shortages.

Carrier Response

In the US and Canada, more carriers are beginning to offer health and wellness programs for their drivers. As the driver population ages, progressive carriers realize they need to help their drivers stay healthy.

Asked why companies should take an interest in the health of their workers, Dave Dietrick, vice-president of human resources with Erb Group said simply: "It's the right thing to do. We have to be involved. We have to provide programs for them to become healthier."¹

Florida by the Numbers

Nearly 75 percent of drivers perceived their delivery schedules as too tight, which NIOSH said could be an incentive for them to be unsafe. Surveyed drivers reported "sometimes" or "often" taking the following risky behaviors:

- Driving when tired, in poor weather conditions or in heavy traffic (47% sometimes, 25% often)
- Violating hours-of-service rules (27% sometimes, 10% often)
- Speeding (26% sometimes, 5% often)

In following national health trends, healthier eating options increasing along the interstates in Florida. One example are the service plazas located on the Florida Turnpikes Mainline. Of the 8 service plazas, 3 now have Nature's Table Cafés, a fast food restaurant offering healthy dining options².

Sources:

¹ "For the health of it", June 17, 2013, www.trucknews.com

² Nature's Table Café. www.naturestable.com

Defining the Issue

Many analysts consider the motor carrier industry to be one of the leading economic indicators of the nation's economic health as the economy and freight movement generally follow a similar pace. Slower than expected economic growth, particularly in the manufacturing and retail sectors may provide a barometer for freight movement demand in 2016 that is lower than previous forecasts.

Successful economic development and economic competitiveness depends upon agile, reliable, and cost effective goods movement. Many factors impact the choices businesses make concerning their modal decisions including:

- the distances between destinations,
- specialized handling requirements,
- storage needs,
- speed to market factors,
- costs, and
- reliability.

With nearly 70% of goods moved by truck, motor carriers, the infrastructure they travel over, and other factors affecting their operation continues to be a crucial component of the nation's economic prosperity and future growth. Shifting populations and housing needs may have a dramatic impact on the economy and subsequent freight demands in the future. The U.S. experienced a 4.1% increase in population during 2010-2015, with the southern region realizing the highest population growth in Florida, Georgia, South Carolina, and Tennessee¹.

Florida's economy depends on agile, responsible, and efficient motor carriers that deliver raw materials and components to manufacturers and processors, ship finished goods to customers across the country and around the world, and move agricultural products to every corner of the state and into every global market. The transportation infrastructure that supports these freight movements requires the right investments to ensure transportation capacity, travel times, and costs continue to support Florida's economic competitiveness, quality jobs, and widely shared prosperity for Florida's citizens.

Industry Impact

Florida's economic base is becoming increasingly more diverse creating high quality jobs in technology fields, life sciences, manufacturing and engineering, regional and national headquarters, and higher paying sectors of the financial services industry.

The Florida economy depends on a world-class goods movement network, motor carriers are a key component of that successful system. Growth in E-commerce is changing consumer demands for goods delivery and fueling new distribution projects. Some retailers are using their stores as distribution and fulfillment centers to supply goods for in-store sales and customers placing orders on line. If the goal for retailers depends on how quickly goods are delivered to customers, this will influence the demand for more flexible and highly responsive distribution networks, how motor carriers will serve those distribution networks, and needs for logistics and warehouse space.

Land availability, population growth, and connections to intermodal facilities are helping to drive the logistics and distribution sector in Florida as well as other states around the country.

FDOT Response

The Florida Department of Transportation (FDOT) Office of Maintenance is releasing a fully automated version of the Permit Application System (PAS), which will allow haulers to self-issue 90% of trip permits, anytime and without requiring interaction with the Permit Office.

Florida by the Numbers

The motor carrier industry moves more than two-thirds of all the freight tonnage in the U.S. According to the American Trucking Association, that demand for goods movement requires “3 million heavy-duty trucks and over 3 million truck drivers”². The nation’s major metro areas are significant hubs for motor carrier activity driven by concentrations of population, employment, and intermodal infrastructure. The increase in freight volumes in metro areas combined with the constrained funding to maintain and improve the freight infrastructure, particularly the roadway network, has resulted in increased congestion; delays in travel time; safety concerns; improvements needed for connections to other modes such as air, ports, rail, and waterways; increasing the cost of goods movement.

The motor carrier industry is essential to freight dependent industries and employment. The table below compares the U.S. employment concentrations in several significant freight dependent business clusters with employment concentrations in Florida.

Percentage of Employment in Select Freight Dependent Industry Sectors		
Industry Sectors	U.S.	Florida
Agriculture, forestry	1.07%	1.16%
Mining	0.73%	0.06%
Construction	5.29%	5.90%
Manufacturing	10.52%	4.92%
Wholesale & Retail Trade	18.31%	20.35%
Transportation & Warehousing	3.80%	3.37%
Accommodations & Food Service	10.84%	13.01%
Total Employment in Sectors	50.56%	48.77%

Source: Florida Department of Economic Opportunity, Current Employment Statistics, November 2015

Florida’s population grew by almost 1.5 million people from 2010 to 2015, reaching a total population of 20,217,272¹. Job growth in the state reach nearly 1 million new jobs during this period, however the Florida Chamber of Commerce estimates the need for an additional 2 million jobs by 2030 for the state to maintain their 5% unemployment rate.

Sources:

¹ U.S. Census, December 2015, www.census.gov

² American Trucking Association, www.trucking.org/News_and_Information_Reports_Industry_Data.aspx

Infrastructure/ Congestion/ Funding



Defining the Issue

Trucking itself is characterized by speed, flexibility, and versatility, and regularly performs the final leg for freight transported by air, rail, or water. Within the United States, there are approximately 4.1 million miles of public roadways which must be properly maintained and improved to ensure efficient movement of freight by the trucking industry.

However, these very same roadways are also shared by non-freight related traffic. Congestion along roadways lead to not only deterioration of roadway infrastructure over time but also longer driving times, increased safety risks, reduced reliability, and increased transportation costs.

In addition, the cost to maintain and improve roadways is expensive and reliant on public funding from federal, state, and local sources. A concern is that increased logistics costs are passed on to consumers, and the increased business costs and transportation inefficiency will degrade Florida's ability to compete in the regional, national, and global marketplaces.

Legislative Background



The Fixing America's Surface Transportation (FAST) Act signed into law December of 2015 includes provisions relating to ITS and Data. Key provisions of the Act are the creation of the National Multimodal Freight Network (NMFN), a new National Highway Freight Program (NHFP), and direction to states for improvements to the National Highway Freight Network (NHFN).

The FAST Act provides funding for fiscal years 2016 through 2020, permitting \$305 billion from both the Highway Trust Fund and General Fund.

On the state side, in 2003, the Florida Legislature and the Governor established Florida's Strategic Intermodal System, or SIS. The SIS is a designated system composed of facilities and services of statewide and interregional significance.

The purpose of the SIS was to allow the state to make investment decisions strategically to ensure the traffic, both freight and non-freight related, can move effectively and efficiently.

In addition to the SIS, the Florida Legislature passed the freight-focused House Bill 599 in 2012, authorizing the Florida Department of Transportation to develop the Freight Mobility and Trade Plan. The purpose of this state freight plan was to define goals and prioritize investments for all transportation modes involved in freight movements including roadways.



Infrastructure/ Congestion/ Funding

Industry Impact

The American Transportation Research Institute (ATRI) has identified that the industry is impacted by congestion along public roadways. In 2013, impacts from congestion cost the trucking industry \$9.2 billion. The negative impacts of congestion, failing roadway infrastructure, and the need for a long-term transportation funding solution will continue to bring significant costs to the trucking industry moving into the future.

Response

In 2015, ATRI conducted research regarding critical issues impacting the trucking industry. Their research identified three potential strategies:

- Advocate for long-term highway funding through an increase in the fuel tax or other user fees, and prevent additional diversion of revenue to non-highway projects;
- Utilize the congressionally-mandated National Freight Policy and National Freight Network as tools to ensure adequate investment in critical highway infrastructure; and,
- Create a new funding program to focus federal resources on truck bottlenecks on major freight routes.

The ability of current fuel tax revenues to fund transportation improvements has been declining primarily due to increased construction and materials cost and, to a lesser extent, improvements in fuel economy and stagnant fuel tax rates. However, research has demonstrated that the existing fuel tax is an efficient form of taxation, and as such many in the industry support increasing the fuel tax as a stable source of funding.

The FAST Act has further developed national freight policy, well as expanded the network to include other transportation modes as the National Multimodal Freight Network. This new network designation expands the amount of highways designated 41,000 miles. The FAST Act also includes two freight-focused funding programs including the Nationally Significant Freight and Highway Projects program.

Florida by the Numbers

Florida's trucking industry is heavily dependent on the highway system. Florida has 121,759 centerline miles of public roadways, with 12,076 of those miles included in the State Highway System and over 4,365 miles designated as the highway portion of the Strategic Intermodal System (SIS). These highways link the majority of Florida's SIS hubs such as airports, spaceports, seaports, rail terminals, and other intermodal/freight facilities.

In 2011, the trucking industry was the predominate forms of freight travel in Florida, carrying 81% of the state's freight cargo in weight, and 75% of value. This trend is forecasted to continue into 2040.

Sources:

¹ *Freight Mobility and Trade Plan, FDOT, 2014*

Driver Distraction



Defining the Issue

The issue of distracted drivers is not exclusive to automobiles. Driver distraction is a critical concern to motor carrier operators, and especially long haul tractor trailer drivers. The use of technology in all vehicles is increasing, while there is no common definition in the research community, forms of distracted driving include:

- Visual distractions (i.e. looking away from the roadway)
- Auditory distraction (i.e. response to a ringing phone)
- Biomechanical distraction (i.e. manually adjusting the radio volume)
- Cognitive distraction (i.e. lost in thought) and
- Combinations of distractions such as eating or searching for a phone.

To combat the increase of distracted drivers, the Federal Motor Carrier Safety Administration is promoting the phase "No Call, No Text, No Ticket" as a friendly reminder to avoid driver distraction.

Legislative Background

The Federal Motor Carrier Safety Administration (FMCSA) prohibits texting by commercial motor vehicle (CMV) drivers while operating in interstate commerce and imposes sanctions, including civil penalties and disqualification from operating CMVs in interstate commerce, for drivers who fail to comply with this rule.

Additionally, motor carriers are prohibited from requiring or allowing their drivers to engage in texting while driving. FMCSA amends its commercial driver's license (CDL) regulations to add to the list of disqualifying offenses a conviction under State or local traffic laws or ordinances that prohibit texting by CDL drivers while operating a CMV, including school bus drivers.

This rulemaking increases safety on the Nation's highways by reducing the prevalence of or preventing certain truck- and bus-related crashes, fatalities, and injuries associated with distracted driving. The rule can be found at 75 FR 59118.

Federal fines and penalties for texting while driving can result in driver disqualification. Penalties can be up to \$2,750 for drivers and up to \$11,000 for employers who allow or require drivers to use hand-held communication devices for texting while driving.

In 2013, the State of Florida passed a "Florida Ban on Texting While Driving Law" in statute 316.305, which addresses the prohibition of wireless communications devices. This law is only enforceable as a secondary action. The "Put it down Proclamation" was initiated in Florida to promote safe driving.



Industry Impact

Research commissioned by the Federal Motor Carrier Safety Administration (FMCSA) shows the odds of being involved in a safety-critical event (crash, near-crash, unexpected lane change) are 23.2 times greater than for commercial motor vehicle drivers who text while driving versus drivers who do not text while driving.

Texting drivers took their eyes off the forward roadway for an average of 4.6 seconds which at 55 miles per hour, equates to a vehicle traveling 371 feet before a driver reaction. In circumstances where a crash happens, violations negatively impact Safety Measurement System (SMS) results.

Carrier Response

To fight distracted driving, cellular carriers are devising ways to block incoming calls and texts when a phone is in a moving car. T-Mobile is leading the way with its new DriveSmart service. The company's DriveSmart service automatically disables a phone in a moving car by sensing switches between cell towers. When a vehicle has been moving for 10 seconds, calls are silently sent to voicemail. Text messages are answered with an automatic response, explaining that the recipient is driving. Other cell carriers could soon follow T-Mobile's lead. According to the New York Times, Sprint, Nextel and AT&T are exploring the technology, and Verizon Wireless has been working to offer a service similar to DriveSmart. In recent months, mobile app developers have introduced related products such as SafeCell, PhoneGuard and Drive Safely.

FDOT Response

The Florida Department of Transportation (FDOT), in a public-private partnership with GEICO Insurance, unveiled a statewide safety campaign in June of 2015 to tackle the problem of distracted driving on Florida's roads. As part of a national effort to encourage drivers to pull into a safe location to use their phone for calling, texting and accessing mobile apps, Florida has designated 64 Rest Areas, Welcome Centers and Turnpike Service Plazas throughout the state as "Safe Phone Zones," more than any other state.

Also, the FDOT Office of Maintenance is requesting federal funding to move forward with GPS maps for routing overweight vehicles instead of paper maps.



Source: FDOT Office of Maintenance, 2016

<http://www.dot.state.fl.us/statemaintenanceoffice/restareas.shtm>

Empty Backhaul



Defining the Issue

In the trucking industry, backhaul is the return movement of a truck from its original destination to its original point of origin. When the truck is not hauling cargo during this movement, it is considered an empty backhaul. The Florida Chamber Foundation's Trade and Logistics Study¹ identified an imbalance of trade flows as one of five challenges facing Florida.

Historically, Florida has been the place where truckers brought consumer goods to the final destination thanks to the state's ever-growing consumer market. However, with a relatively small manufacturing sector coupled with the state's distance from other major U.S. consumer markets and production centers, those same truckers which bring goods to this state often return either partially loaded or completely empty. The issue of empty backhaul has been associated mostly with Florida's trucking and rail industries, but it also impacts all other freight movements along other modes.

Legislative Background



During the passage of House Bill 599 in 2012, the Florida Legislature acknowledged that empty backhaul was a significant issue for Florida. Section 334.044(33)(a), Florida Statutes (F.S.), required that the Florida Freight Mobility and Trade Plan include "investments that capitalize on the empty backhaul trucking and rail market in the state".

Objective 3 of the Florida Freight Mobility and Trade Plan (FMTP) Policy Element focuses on minimizing costs along the supply chain. Of the five strategies which have been established to achieve this objective, Strategy 3.5 focuses on "support manufacturing and assembly that reduces empty backhauling". The sub-strategies associated with Strategy 3.5 support the development of ILCs as well as coordination with freight forwarders.

Industry Impact

The issue of empty backhaul is prevalent enough that it has ranked fifth amongst the top ten outbound freight commodities for rail in 2014². Empty backhaul tends to increase supply chain costs, as trucking and rail carriers need to pass along the cost of empty backhaul to shippers and customers.

Response

The response to this issue has been to invest in infrastructure that will support industries that will create more outbound freight and thus reduce empty backhaul movements. Statewide prioritization of freight-related projects within Florida are guided by the objectives and strategies identified in the Policy Element of the Florida Freight Mobility and Trade Plan (FMTP).

These objectives and strategies were used to develop the prioritization criteria and scoring for freight-related projects. Empty Backhaul is one of the prioritization criteria in which projects are assessed to identify their ability to reduce the number of empty backhaul movements.

In addition, the Florida Legislature has also pushed for the development of Intermodal Logistics Centers (ILCs) and growth of the manufacturing industries in the state. For example, one of the key legislative directives was the creation of an ILC Infrastructure Support Program and allocation of \$5 million annually toward funding at ILC facilities that meet certain criteria.

Finally, another area of focus is the development of public- and private-sector partnerships to support freight-generating economic development, including site selection and development, cross-modal connection, land use protection, and marketing.

Florida by the Numbers

In 2011, 146 million tons of freight was imported into Florida while only 85 million tons left the state. Forecasts for the year 2040 show a similar pattern with almost 208 million tons of freight being imported into the state while exports amount to around 173 million tons². However, unlike in 2011, 2040 forecasts do suggest that the value of exports will be higher than imports with an increase of around \$47 million².

Sources:

¹ Florida Chamber Foundation, *Florida: Made for Trade. Florida Trade Logistics Study 2.0, 2013*

<http://www.flchamber.com/wp-content/uploads/MadeForTrade-FINAL-Single-1.pdf>

² FDOT, *Florida Freight Mobility and Trade Plan: Investment Element, 2014*

Defining the Issue

Throughout history, the primary fuel of choice for motor vehicles has changed. Changes occur due to a host of factors. These include availability, new technology, regulations and costs. Alternative fuels are growing in availability and use as businesses and public agencies realize the benefits realized with their use. A variety of alternatives to diesel are being investigated for use in heavy trucks. These include cleaner diesel alternatives such as:

- bio diesel,
- algae based diesel,
- dimethyl ether,
- hybrid,
- electric technology,
- hydrogen fuel cells,
- natural gas, and
- propane.

Bio diesel is produced from a variety of fats and oils. It can be used in compression-ignition (diesel) engines with little or no modifications. Biodiesel is simple to use, biodegradable, nontoxic, and essentially free of sulfur and aromatics. One of the most common sources is soybean oil. Biodiesel reduced CO₂ emissions by 78% compared to petroleum diesel¹.

Hydrogen Fuel cells are also being developed for use in heavy trucks. A hydrogen fuel cell directly converts the chemical energy in hydrogen to electricity powering an electric motor. Hydrogen electric engine trucks have more horsepower and double the torque of clean diesel and LNG trucks with zero emissions. The trucks are also quieter creating much less noise pollution².

Another alternative fuel growing in popularity is compressed or liquefied natural gas (CNG/LNG). Natural gas is plentiful in North America and one of the cleanest burning hydrocarbons. Natural gas emits virtually no particulates when used as a transportation fuel and produces 25% less CO₂ emissions than oil and 50% less CO₂ emissions than coal.

Natural gas is fast becoming a popular alternative fuel for private and public fleets. It is used in 1 in 4 American transit buses and is increasingly seeing use in school bus fleets, delivery vehicles, and Over-the-road-Trucks. It is particularly appealing for commercial fleets due to its potential to reduce fuel expenses by up to 50% compared to traditional gasoline, lowered maintenance costs and ease of training for mechanics and maintenance personnel.

Legislative Background



The Fixing America's Surface Transportation (FAST) Act signed into law December of 2015 included a provision to address one of the drawbacks of converting heavy trucks to use natural gas, the added weight of the LNG equipment. The modifications needed for a diesel truck to use natural gas could add up to 2,000 lbs. of weight to the truck. This additional weight lessens the amount of freight the truck can carry while maintaining weight standards. The FAST Act exempts the weight attributable to the natural gas propulsion system from the total vehicle weight calculations.

Industry Impact

Alternative Fuels have the potential to drastically impact the motor carrier industry as they impact trucks, the very heart of the industry. It remains to be seen whether one of the alternatives listed above or a yet discovered technology will become the fuel of choice for the industry. Motor carriers will need to closely monitor alternative fuel advancements in order to make informed business decisions, as they become available.

Carrier Response

Almost all of the major Heavy Truck manufacturers and large transport fleet owners are actively investigating fuel alternatives and watching advancements in technology. As with most business decisions the primary factor determining employment of new technology is cost.

In order for a motor carrier to adopt new fuels and technology they must be able to realize cost savings or other benefits sufficient to overcome the initial cost of purchasing new or retrofitting existing equipment. The current price of diesel is a large part of this decision making process.

When Diesel prices are lower there is less incentive for motor carriers to adopt alternatives. Conversely, increases in diesel prices or new regulations may also serve to speed up the adoption of alternative fuels.

Florida by the Numbers

In 2011, Florida was home to two natural gas fueling stations. That number has now grown to 30, with more planned or under construction³.

The state also has a Natural Gas Fuel Fleet Vehicle Rebate program administered by the Department of Agriculture and Consumer Services. The program provides a rebate of up to \$25,000 for the cost of converting a vehicle to natural gas. Each applicant is eligible to receive up to \$250,000 per fiscal year on a first come first served basis.

Florida is also withholding state tax on natural gas until 2018 when the tax will be equal to that of a gallon of diesel (currently 21 cents)⁴.

Sources:

¹ Biodiesel Facts, www.biodiesel.org

² TTSI Logistics, <http://ttsilogistics.com/sustainability/hydrogen.html>

³ Florida Natural Gas Association, <http://floridagas.org>

⁴ Florida Department of Agriculture and Consumer Services, www.freshfromflorida.com



Source: TTSI Logistics, www.ttsilogistics.com

Regulatory Consistency/ Harmonization



Defining the Issue


The U.S. Department of Transportation (USDOT) Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA) impose rules and regulations on the trucking industry for consistency across the country. Published in June 2015, the USDOT provided a report to Congress: **Comprehensive Truck Size and Weight Limits Study, Technical Reports Summary** in an effort to document the impacts on bridges, pavements, costs, modal shift potential, safety, enforcement and compliance.

States may regulate the movement of trucks not contrary to federal law. Several issues illuminate both supportive and competitive tools used by Florida and its neighboring states of Alabama, Georgia, Louisiana, Mississippi, and South Carolina. Key issue areas include:

- permitting of overweight and oversized trucks (both the process and differences among adjacent states),
- state motor fuel taxes (not adjusted to address inflation or compensate for improved efficiency of vehicles, and often revenue generated is used for non-transportation needs),
- insurance costs for drivers, owner-operators, and trucking companies, and
- commercial driver's licenses (CDL)

The Florida Department of Transportation (FDOT) Office of Maintenance is participating with the American Association of State Highway and Transportation Officials (AASHTO) and other government entities to address harmonization for a variety of permit conditions including time of travel, type/number of escorts, holiday travel, permit amendments, etc.

Legislative Background

A photograph of the United States Capitol building in Washington, D.C., showing its iconic white dome and neoclassical architecture. The building is set against a blue sky with some clouds. The image is partially overlaid by a dark red semi-transparent box containing text.

Permitting of overweight and oversized trucks is complex highway issue impacting other modes especially trucking and seaports. Trucks carrying a "non-divisible" load such as a sealed container or a heavy generator may be issued an overweight permit by a state for weights above the federally mandated minimum/maximum 80,000-pound gross vehicle weight (GVW) limit for travel on the National System of Interstate and Defense Highways and for those roads providing reasonable access to the System¹.

The Fixing America's Surface Transportation (FAST) Act was signed in December of 2015, and included a provision to exempt the weight attributable to the natural gas propulsion system from the total vehicle weight calculations, up to a maximum of 82,000 -pound GVW on the Interstate System.

In Florida, a truck carrying a "non-divisible" load on these federal highways may apply for a permit to carry up to 100,000 pounds GVW². By comparison, no "divisible" load such as aggregate may exceed 80,000 pounds GVW.

States and local governments also may set truck weight limits for roads under their jurisdictions. In 2010, Florida increased the maximum weight for trucks carrying divisible loads such as break-bulk and bulk cargoes on non-interstate roads including the Florida Turnpike from the legal limit of 80,000 pounds GVW³ to a permitted limit of 88,000 pounds GVW. The permitted limit for non-divisible truckloads, or containers, remains the same on state highways at the 100,000-pound GVW maximum.



Regulatory Consistency/ Harmonization

Industry Impact

Differences in state regulations and motor fuel taxes is a significant issue to the trucking industry and its users. The inconsistencies can lead to loopholes, confusion, and inefficiency. The table below illustrates the different taxes impacting motor carriers that travel in or through the southeast U.S.

State	Gasoline	Diesel	Gasoline Total (State + Federal Excise at \$.184/Gal)	Diesel Total (State + Federal Excise at \$.244/Gal)
Alabama	20.87	21.85	39.27	46.25
Florida	36.42	33.67	54.82	58.07
Georgia	32.62	36.18	51.02	60.58
Louisiana	20.01	20.01	38.41	44.41
Mississippi	18.79	18.40	37.19	42.80
South Carolina	16.75	16.75	35.15	41.15

Source: American Petroleum Institute, October 2015

Insurance costs for drivers, owner-operators, and trucking companies means large trucking companies provide the only or best potential opportunities for younger drivers, as well as others looking for entry level jobs in the trucking industry, as they often choose to self-insure. Neither Florida or any neighboring state has supported an insurance subsidy to encourage greater entry level opportunities to counter the shortage of drivers.

Commercial Driver's Licenses (CDL) are issued by the states for those 21 years of age or older for engaging in interstate trucking. Alabama, Florida, Georgia, Louisiana, Mississippi, and South Carolina have provisions for those who are qualified and between 18-20 years old to engage in intrastate movements of certain commercial vehicles with specific weights and sizes. If an opportunity to engage in short haul intrastate trips is encouraged, choosing truck driving as a career may be easier to offset the shortage of truck drivers.

Carrier Response

A major concern is that the varied truck weight and size limits, costs of permits, enforcement, and penalties for permit violations in Alabama, Mississippi and Georgia as compared to Florida may create a competitive disadvantage for moving freight to and from a Florida seaport, or even simply exporting goods to other states. This causes transportation costs to be higher due to carriers shipping less weight/cargo per truck. Also noted was the disparity between non-divisible container and divisible bulk load weight limits. Comments included consolidation of more cargo on fewer trucks could reduce traffic, improve commuter travel, reduce transport costs, boost fuel efficiency and improve air quality. Fuel prices, insurance costs and availability, inconsistency of police reports of accidents provided by the states to the federal agencies, and enforcement of safety concerns were also mentioned.

Sources:

¹ 23 Code of Federal Regulations (CFR) Part 658.17

² CH 14-26.01311(6), F.A.C

³ s.316.535(5), F.S.

Truck Size & Weight



Defining the Issue

Commercial vehicles are generally defined as those vehicles that either:

- has a gross vehicle weight rating of 10,000 pounds or greater,
- transports more than 15 passengers including the driver, or
- transports hazardous waste¹.

Federal and state regulations enforce standards regarding size (i.e. height, length, and width) and gross weight of these vehicles. These regulations were put into place for the purpose of preserving the integrity of highways for mobility, productivity, and safety of both freight and non-freight related travel.

Commercial vehicles used by the trucking industry must follow these standards to ensure no costly disruption to freight movement. The trucking industry is segmented by various trucking modes, which are differentiated by cargo weight, cargo type, and ownership.

Trucks come in many sizes and designs to accommodate the cargo being carried. However, some trucks used for freight movements do not fit into the standards established. Trucks that do not adhere to the size or weight standards in place for the state they are traversing are considered to be "oversized" and/or "overweight". In order for these trucks to complete their journey, they must obtain special permits.

Pursuant to Rule 14-26, Florida Administrative Code, the Florida Department of Transportation (FDOT) dispurses oversize/overweight permits for a fee. Fees are dependent on several factors including: trip duration, size of the vehicle, weight, and distance to be traveled.

Legislative Background



The Commercial Vehicle Size and Weight Program is administered through the Federal Highway Administration's (FHWA's) Office of Freight Management and Operations. Federal standards for commercial vehicles are focused on the vehicle's length, width, and weight, found under Code of Federal Regulations (CFR), 23 CFR Part 658.

These standards impacts those commercial vehicles using what is considered to be the National Network. For the purposes of the Commercial Vehicle Size and Weight Program, the National Network consists of the Interstate Highway System and other highways as certified by the states to the FHWA of which are identified under 23 CFR Part 658, Appendix A². States may impose additional standards for commercial vehicles as long as they are consistent with those established by the federal government.

Chapter 316, Florida Statutes, contain the standards that commercial vehicles must adhere to while traveling within Florida including maximum size and weight limitations.

These standards are enforced by the Florida Highway Patrol, through the Office of Commercial Vehicle Enforcement (CVE) under their weight enforcement program. The primary purpose of this program is to protect the state highway system, including its system of bridges, from damage due to vehicles which are considered to be oversized and/or overweight.

Type	Size or Weight Limitation Exceeded
Oversized	Maximum width of vehicle or vehicle combination and load exceeds 102 inches on less than 12 foot wide travel lane
	Maximum height of vehicle or vehicle combination and load exceeds 13 feet and 6 inches or 14 feet for automobile transporters
	Maximum length: <ul style="list-style-type: none"> ■ Single-unit vehicle exceeds 40 feet ■ Truck Tractor with semi-trailer which exceeds 48 feet with a kingpin distance which exceeds 41 feet ■ Straight Truck with trailer when the combination exceeds 68 feet ■ Truck Tractors hauling automobiles with semi-trailer exceeding 50 feet ■ Front end overhang exceeds 3 feet
Overweight	Gross weight of vehicle or vehicle combination and load exceeds those limits established under Section 316.535, Florida Statutes

Source: Florida Highway Patrol, 2013

Industry Impact

If a truck is identified to be overweight, the penalty is \$.05 per pound in excess of the applicable legal limit. For oversized, penalties can reach up to \$1,000. The truck is also required to either correct these issues before travel can recommence or obtain an overweight/oversize permit.

If truck has obtained an overweight/oversize permit but then violates the conditions of the permit, additional penalties based on weight and size as mentioned above will be once more assessed. In addition, there are 11 types of violations that, if violated, will strip the truck of its special permit with the truck and potentially the driver being placed out of service¹. For this reason, consistent enforcement is key.

This is costly to truck carriers and often adversely impacts other modes that are dependent on truck travel such as airports, rail terminals, and seaports. These costs can place Florida at a competitive disadvantage in comparison to other states that may have a more simplified approach to special permitting, penalties, and violations³.

Florida by the Numbers

The CVE weight enforcement program has 20 fixed weigh station locations and mobile enforcement with portable scales throughout Florida. The Florida Highway Patrol reports that in 2011 more than 14,000 vehicles and over 5,000 drivers were placed out of service for violations.

Sources:

¹ Florida Highway Patrol, *Commercial Motor Vehicle Manual*, 2013
<http://www.flhsmv.gov/fhp/cve/2013TruckingManual.pdf>

² Federal Highway Administration, *Federal Size Regulations for Commercial Motor Vehicles*, 2004
http://www.ops.fhwa.dot.gov/freight/publications/size_regs_final_rpt/size_regs_final_rpt.pdf

³ Georgia Department of Transportation, *Oversize Permits*, 2016
<http://www.dot.ga.gov/PS/Permits/OversizePermits#tab-2>

Technology Implementation



Defining the Issue

Innovation and technological advancements impact almost every area of society. This includes freight movement and the trucking industry. Advancements in technology will change the manner of how motor carriers operate in the future. A variety of advancements are already in development and testing. These include:

- automated vehicles,
- truck platooning, and
- electronic truck parking notifications.

These technologies have the potential to increase the efficiency and capability of motor carrier operations, but are not without concerns and may require further testing and potential changes in state policy.

Automated vehicle technology is increasingly being discussed in media and society. Apple, Google and Tesla are frequently mentioned in the news as they develop and test these technologies on public roadways. While these companies are receiving the bulk of attention, the trucking industry is quietly investigating the technologies application for freight movement.

An autonomous vehicle (AV) is any vehicle equipped with advanced sensors (radar, LIDAR, cameras, etc.) and computing abilities to perceive its surroundings and activate steering, braking, and acceleration without operator input. With issues such as a driver shortage, hours of service regulations, and safety it is only natural that motor carriers are interested in autonomous vehicle technology.

Truck platooning is a concept made possible by autonomous vehicle technology. The trucking industry is interested in the possibility of going from single trucks to convoys of trucks. These convoys would consist of one human driver in a lead truck followed by two or more autonomous trucks. The technology, which is being developed (and in some instances, deployed) for use right now, consists of a lead truck operated by a human driver followed in close formation by a small fleet of driverless vehicles "tethered" by a series of sensors.

The concept has been successfully tested in both Europe and Japan, and has demonstrated the potential for fuel savings due to the aerodynamic efficiencies gained by the trucks drafting with each other. Remaining questions about the technology include concerns about the safety and liability of truck platoons, how other vehicles will merge and interact with platoons and the potential for additional wear on roads and bridges with such a large concentration of weight. The Florida Department of Transportation (FDOT) Office of Maintenance is reviewing the impacts of truck platooning as it pertains to bridges.

While autonomous vehicles and truck platooning may be years off, technological advancements are being deployed today to address the truck parking shortage faced by the industry. These systems include sensors that track or measure parking availability at rest areas and transmit the information to dynamic message signs or mobile applications available to truck drivers. Examples of this technology in use include projects in Florida, Minnesota, Maryland and California.



Source: www.freightlinerinspiration.com

Legislative Background



In 2013, the National Highway Traffic Safety Administration announced a new policy allowing the testing, licensing, and regulation of autonomous vehicles. To date, four states, Nevada, California, Florida, and Michigan have enacted legislation permitting the use of autonomous vehicles. In 2012, Florida HB 1207 was signed into law. The bill provides a framework for autonomous vehicles in Florida. Specifically, the bill:

- Defines “autonomous technology” and “autonomous vehicle”
- Provides legislative intent regarding vehicles with autonomous technology
- Authorizes the operation of autonomous vehicles
- Provides requirements for autonomous vehicles
- Provides guidelines for testing autonomous vehicles
- Provides a framework for liability for autonomous vehicles
- Requires the Department of Highway Safety and Motor Vehicles to submit a report

Industry Impact

The implementation of the technological advancements described in this paper has the potential to drastically alter the trucking industry. Advancements in automated vehicles and the deployment of truck platoons has the potential to mitigate impacts of a driver shortage, decrease accidents and increase efficiency of freight movement. Full utilization of this technology will require additional testing, changes in regulations and policy as well as public outreach and education.

FDOT Response

The Florida Department of Transportation (FDOT) is engaged in an active effort to study and research the potential that automated vehicles may have and has established the Florida Automated Vehicles (FAV) Initiative. One study being conducted under this initiative is the AV/CV/ITS Freight Applications Pilot Study. The goal of this project is to demonstrate that AV technologies can offer increased safety and efficiency for freight operations. FDOT proposes that travel time reliability can be improved within the region surrounding the Miami International Airport by deploying AV technologies on a limited number of drayage operators’ fleet vehicles that agree to partner on the project. The project is comprised of three phases as follows:

- PHASE 1 — Connected vehicle (CV) technologies will be deployed to allow fleet operators and FDOT to better understand vehicle progression throughout delivery corridors and where bottlenecks occur at traffic signals
- PHASE 2 — Utilizing the same installed CV devices from Phase 1, the next phase will connect the freight vehicles to traffic signals through the back-end systems at the Miami-Dade County Traffic Management Center
- PHASE 3 — During non-peak congestion hours (potentially 12 to 5 a.m.), traffic signal priority will be granted to study vehicles in the pilot to improve delivery performance by providing the freight vehicle with a green signal

Defining the Issue

When thinking of freight transportation, long distances usually come to mind. This holds true with large trucks as well. The image most people associate with a semi-truck is of one on the interstate completing a long haul route. For motor carrier operators however, success often depends on getting to the locations where they pick up and drop off their cargo. These segments of freight movement that occur on roadways between intra-regional highways and freight transportation hubs are known as the “last mile” in freight movements.

Most of these last mile trips occur in urban areas on the local roadway network designed and intended to support a multitude of transportation and land uses. These and other factors pose unique opportunities and challenges when planning for the last mile of freight movements.

Some motor carriers specialize in providing local or regional service within a single urban area or market. Nearly all economic activity in urban areas depends on the movement and delivery of goods through freight carriers and much of the visible freight activity in urban areas is the movement of deliveries destined for local businesses and homes.

Challenges associated with urban freight include balancing the demands placed on local roads by the variety of users with the needs of freight shippers constantly seeking to maximize efficiency and minimize costs.

Other issues associated with urban freight delivery include air and noise pollution generated by heavy trucks, lack of parking in delivery areas, and peak hour congestion. Potential strategies to counter these issues include:

- scheduling off peak hour deliveries,
- variation in delivery vehicles,
- consolidation of less than truckload (LTL) loads, and
- land use strategies such as creating freight villages or multiple small distribution centers located throughout an urban area.

For long haul motor carriers the last mile is equally as important as for intra urban carriers. When adequate connections are not available between the arterials and freight hubs, bottlenecks occur.

In recent years particular attention has been brought towards the issue of freight bottlenecks and the impact they have on freight movement. Examples include a local road used by heavy trucks to travel between the interstate and a port. The design and function of that local road and its intersections can greatly impact the trucks and their operation.



Last Mile Connectivity

Legislative Background



The Fixing America's Surface Transportation (FAST) Act signed into law December of 2015 builds upon the freight planning provisions of the Moving Ahead for Progress in the 21st Century Act (MAP-21). The FAST Act places a major emphasis on freight planning and investing in freight projects.

Key provisions of the Act are the creation of the National Multimodal Freight Network (NMFN), a new National Highway Freight Program (NHFP), and direction to states for improvements to the National Highway Freight Network (NHFN).

States are required to create a State Freight Plan within two years in order to use NHFP funding. These plans must be coordinated with the performance based planning process, include a freight investment plan and identify a list of priority projects. Last mile connector projects would be included in this effort.

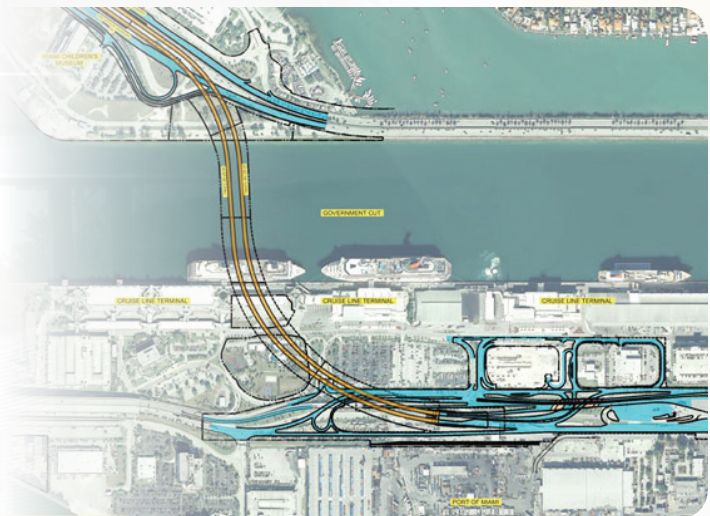
The Act also identifies eligible project categories for funding under the NHFP. These include, rail-highway grade separation, geometric design improvements, additional road capacity for highway freight bottlenecks, any project that improves the flow of freight on the NHFN.

FDOT Response

The Florida Department of Transportation (FDOT) recently created a new five year program for identifying and funding last mile connector projects on the National Highway System and Florida's Strategic Intermodal System. The program identifies bottlenecks and other locations throughout the state in need of safety, operational or capacity improvements. Projects are identified by the FDOT Districts and then submitted to the central office for potential inclusion into the program. In the last three years, the department has funded over \$80 Million in freight connector projects.

The Port of Miami Tunnel is an excellent example of a project built to improve connectivity between freight modes. The Port of Miami Tunnel opened to traffic in August of 2015 and allows truck traffic to exit directly off Interstate 395 and onto the port, bypassing congested local streets. The tunnel services an estimated 16,000 vehicles each weekday that previously used downtown streets to access the port. Of these 16,000 vehicles, up to 28%, or 4,480 are estimated to be trucks.

FDOT has also noted the need to improve off-system connections between local freight hot spots and the Strategic Intermodal System (SIS).



Source: portofmiamitunnel.com

Defining the Issue

There are a variety of challenges amidst an ever changing environment of economic trends, regulations, and technological advancements. The production and availability of appropriate data is fundamental to the ability to address these challenges. In addition, access to real time data is an integral tool giving logistics operators the information needed to maximize efficiencies in operations. Improvements in data are being implemented across the nation in a variety of ways. The use and implementation of Intelligent Transportation Systems (ITS) is a key strategy State Departments of Transportation are using to acquire, process, and distribute data on the transportation system.

The growth of high-speed networks, proliferation of mobile devices, advances in sensors, video and analytics are all trends are creating a dynamic and growing market for ITS. Nationwide, transportation officials are writing strategic plans with ITS to assist in planning for population growth, emergencies, extreme weather and the upgrade and maintenance of aging roads, bridges and highways. ITS solutions are strategically positioned to offer cost savings by helping state and local governments improve transportation systems, parking facilities and fleet operations and by improving the safety of our nation's transportation infrastructure system. ITS makes it possible to provide real time data to the driving public and relay information on:

- road conditions,
- parking availability,
- construction detours,
- accidents, and
- alternative routes.

One of the primary tools used in Florida to provide traffic and roadway data to roadway users is the Florida 511 system. Florida 511, is the State's travel information system that provides real time traffic information via telephone, a website or mobile application. The system provides information on roadway conditions such as:

- commuter travel times,
- construction,
- lane closures,
- crashes,
- congestion
- and severe weather affecting traffic.

The use of ITS and data is also being used to help remedy the shortage in truck parking across the country. These systems use a network of cameras or sensors to monitor parking availability at truck stops, automatically identifying available spaces in real time. This information is then provided to drivers and carriers about parking availability via websites, mobile applications, in-cab messaging, and variable message displays a few miles ahead of the rest area on the highway.

ITS data is also being used in various planning aspects to better support the movement of freight.



**FLORIDA'S SOURCE
FOR TRAFFIC INFO**



Home - Traffic - My Florida 511 - Construction Info - Emergency Info

Legislative Background



The Fixing America's Surface Transportation (FAST) Act signed into law December of 2015 includes provisions relating to ITS and Data. Key provisions of the Act are the creation of the National Multimodal Freight Network (NMFN), a new National Highway Freight Program (NHFP), and direction to states for improvements to the National Highway Freight Network (NHFN).

ITS, real-time information systems, and data collection and analysis are all eligible project categories under the NHFP funding program. The Act also creates the Advanced Transportation and Congestion Management Technologies Deployment Initiative funded at \$60 million per year. This program provides grants to eligible entities for developing model deployment sites for large scale installation and operation of advanced transportation technologies focused on improvements in safety, efficiency, system performance, and infrastructure return on investment.

Industry Impact

Technical advancements in data and automation have the potential to drastically change the landscape of the freight industry. New information and communication technologies are improving data collection and allowing logistics companies and freight planners the ability to analyze freight routes, travel times, demand, and infrastructure capacity as never before. Public agencies are also working to collect, process and publish data facilitating efficient freight movement.

FDOT Response

Florida DOT has completed studies to identify the extent of the parking shortage throughout the state and projects providing additional parking. FDOT has begun the development of a Truck Parking Availability System to provide information to truck drivers on the availability of parking spaces at facilities throughout the state. When complete, the system is envisioned to include public areas (rest areas, welcome centers, weight stations) and off system private facilities (private truck stops, gas stations). The system will cover I-4, I-10, I-75, and I-95. Information regarding parking availability will be delivered to drivers via roadside dynamic messaging and the state's traveler information system Florida 511.

Two projects were recently completed by FDOT in Pasco County on I-75 rebuilding two rest areas with additional truck parking spaces than before. When combined the two projects added 59 truck parking spaces to the area at a cost of \$25.1 Million.

The FDOT Transportation Statistics Office produces the Multimodal Mobility Performance Measures Source Book to describe the performance of Florida's transportation system, and are working on freight travel demand model outputs to better understand goods movement impacts in Florida.



Source: University of Minnesota Center for Transportation Studies