Transportation Industry Update

In 2018, the transportation industry must navigate a confluence of opportunities and challenges—regulatory pressures, innovative disruptions and changing marketplaces—to capitalize on increasing demand for freight and tightening capacity.

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June 2018

As the U.S. economy and population continue to grow, so will the importance of the transportation industry. According to the American Trucking Associations (ATA), U.S. freight volume will grow 3.4 percent annually through 2023; 2017 saw a 3.8 percent increase. Because trucking will remain the dominant freight mode, already moving 10.73 billion tons of freight in 2017, that's a lot more freight to haul.

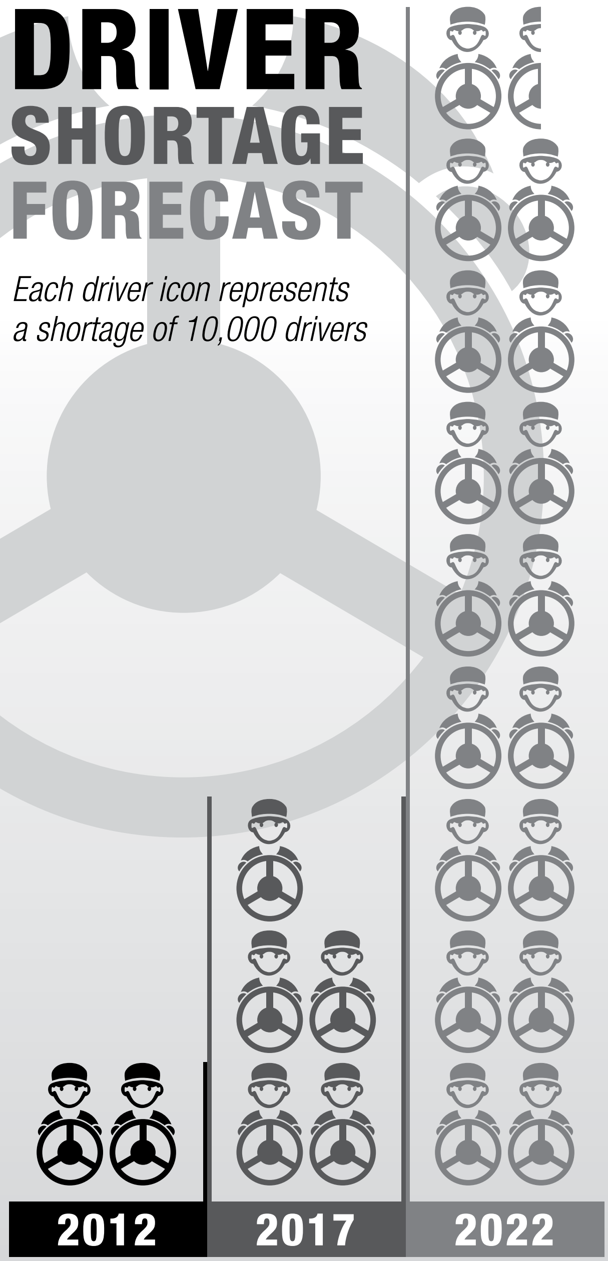
More drivers and more trucks will be necessary to move all the goods needed by the American public in the coming years. In fact, the ATA expects the number of Class 8 trucks in operation to increase 19 percent by 2028. The industry is up to the challenge, though capacity is already tightening due increased demand for freight services in the face of a growing driver shortage, regulatory pressures, and disruptors upending the industry. Tight capacity, however, also means that carriers may be able to increase rates for shippers.

DRIVER SHORTAGE

With the expected freight market growth and a portion of the current trucking workforce nearing retirement, the ATA estimates that the industry will need to hire nearly 1 million drivers and technicians in the next decade to meet demand. The shortage is currently estimated at around 50,000 drivers, and it could balloon to 174,000 drivers by 2026 if current economic growth trends continue. To fill these seats with qualified, safe drivers, the industry must make some changes.

Several underlying factors are contributing to the truck driver shortage, including competition within the industry and from other industries; driver qualifications and requirements; a low national unemployment rate (4.1 percent) means not many people are searching for jobs; trucking regulations that tighten capacity; and difficulty attracting young people to the industry since one cannot acquire a commercial driver's license (CDL) until age 21. Alarmingly, an American Transportation Research Institute (ATRI) study in 2014 found that 55.5 percent of truck drivers are age 45 and older, and less than 5 percent are in the 20 to 24 year old age bracket.

The ATA recently established a workforce development subcommittee that will work with federal and state officials to find solutions to these issues. The subcommittee is encouraging the development of robust apprenticeship programs to engage workers before they can officially qualify for a CDL at 21. Some efforts are even underway to change the federal age requirement for interstate truck drivers. Outreach to veterans and historically underrepresented communities like women—who currently make up only 7 percent of the commercial driving workforce—will be critical as well.



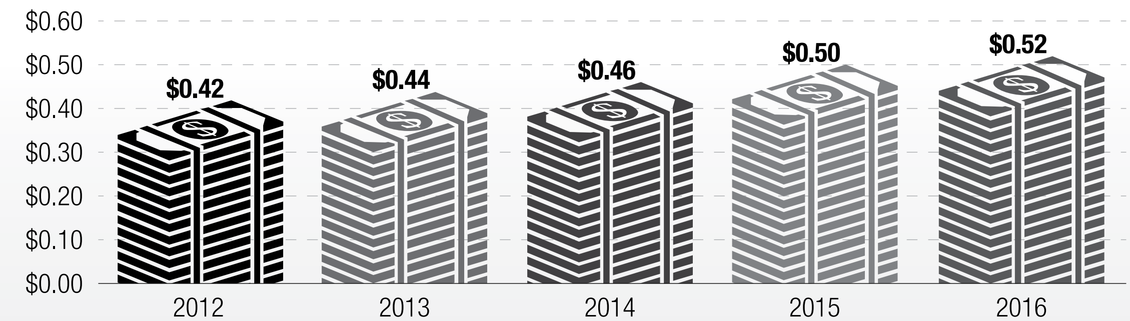
RATES AND DRIVER PAY

As the driver shortage intensifies, carriers are more frequently increasing pay or providing sign-on bonuses to attract new drivers and offering performance-based bonuses to retain existing drivers. In fact, wages have been increasing for several years; in 2016, driver wages and benefits topped carriers' cost-per-mile spending, according to data released in October 2017 by ATRI. Carrier costs on the whole climbed 1.5 cents a mile, per the report, with increases in spending on driver wages and benefits outpacing savings from lower fuel. In 2016, driver wages accounted for 33 percent of carriers' average marginal cost, while the share of fuel costs was 21 percent, down from 26 percent in 2015 and 34 percent in 2014. While for-hire driver pay is increasing slightly, it is well behind the pace of increases for private fleet drivers and nearly 40 percent less than growth in the minimum wage, according to the National Transportation Institute. Inflation has also outpaced driver pay increases.

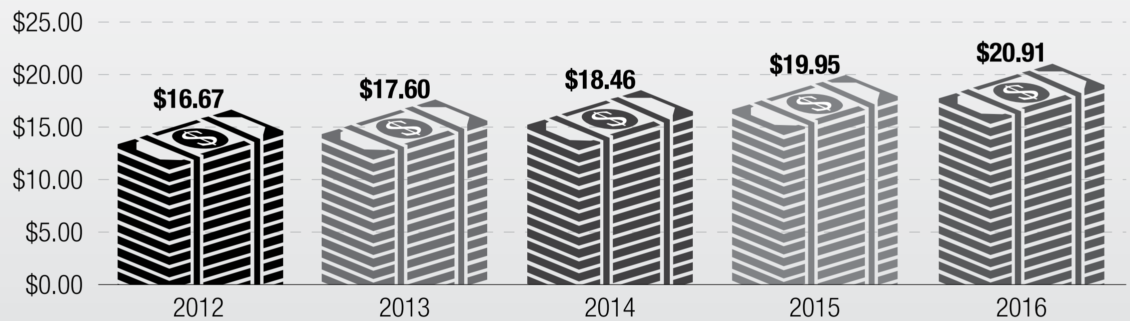
Often, before carriers can offer their drivers more pay and bonuses, they must secure rate increases from customers, both in contractual relationships and in the spot market. And they are doing so. The Cass truckload index, which tracks rates minus fuel surcharges, rose 8.2 percent year over year in April, the 13th monthly accelerating increase. And according to research firm FTR Associates, freight rates should be up 6 percent by fall of 2018—and could increase as much as 10 percent because of tightening capacity and strong freight demand fueled by a mostly positive economic outlook.

The tables below show the results of ATRI's "Analysis of the Operational Costs of Trucking" report.

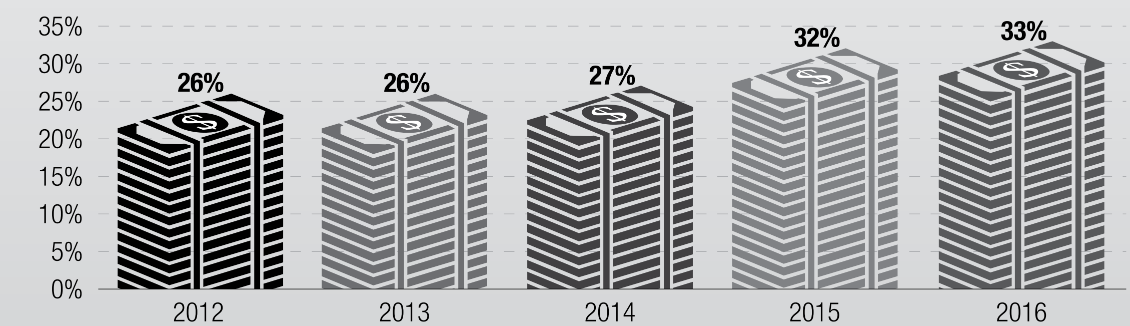
DRIVER WAGES COST PER MILE



DRIVER WAGES COST PER HOUR



SHARE OF TOTAL AVERAGE MARGINAL COST *(driver wages)*



REGULATIONS

President Trump's administration has been marked by a reduction in the number of proposed regulations actively being pursued by the Department of Transportation. This trend follows an executive order issued by President Trump in his second week in office stating that for every new regulation submitted to the Federal Register, government agencies must identify two regulations that should be repealed.

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Several regulations continue to move forward and are expected to have a significant impact on trucking productivity, including the electronic logging device (ELD) mandate, the creation of a drug and alcohol clearinghouse, and the development of entry-level driver training standards. The DOT has postponed work on a mandate to require speed limiters in all trucks; withdrawn a proposed requirement for truck drivers to receive sleep apnea testing; and canceled a proposal to develop a safety fitness determination system for carriers as part of Compliance, Safety, Accountability (CSA).

Electronic Logging Device Mandate

A Federal Motor Carrier Safety Administration (FMCSA) mandate requiring electronic logging devices for heavy-duty trucks went into effect December 18, 2017. The FMCSA issued an enforcement grace period through April 1 to help facilitate a smooth transition, but data collected during the soft enforcement period indicates that law enforcement is now more than ready to start assigning CSA points and issuing out-of-service citations for any violation of the ELD mandate. Estimates show that 25 to 30 percent of carriers, especially owner-operators and small fleets, have yet to comply.

The mandate, which impacts approximately 3 million commercial drivers, is expected to cause a 3 to 5 percent reduction in productivity due to tighter enforcement of hours-of-service limits, according to Stifel Financial Group. Additionally, 2 to 3 percent of carriers and drivers have been projected to leave the industry entirely because of their resistance to ELDs. While the impact of the mandate has yet to be quantified, ELDs are the largest hit to trucking productivity since 2013 changes to hours-of-service rules cut driving time with required breaks for commercial drivers. Still, the ELD mandate is largely accepted by the trucking industry because of the positive impact on safety and leveling the compliance playing field.

National Drug and Alcohol Clearinghouse

The national drug and alcohol clearinghouse final rule goes into effect in January 2020. The central database will house verified positive drug and alcohol tests, as well as names of drivers who refuse to be tested. Beginning in January 2020, carriers will be required to report positive test results and refusals to test into the database. Employers will also be required to access this database when looking to hire potential drivers—and to query the database annually for current drivers. This rule is intended to increase highway safety by ensuring that CDL holders who have tested positive or have refused to submit to testing have completed the DOT's return-to-duty process before driving, as well as ensure that employers are meeting their drug and alcohol testing responsibilities. Some expect the transparency of the clearinghouse to have a more severe impact on capacity than the ELD mandate because unsafe drivers will be terminated and have difficulty finding new jobs.

Entry-Level Driver Training Rule

The entry-level driver training rule, which goes into effect in February 2020, mandates certain minimum training requirements for those seeking to obtain a Class A or Class B commercial driver's license, or a hazardous materials, passenger, or school bus endorsement. Drivers must complete a prescribed program of knowledge-based instruction and behind-the-wheel instruction provided by an entity that is listed on FMCSA's Training Provider Registry. According to the FMCSA, "The comprehensive CDL training requirements, which emphasize safety and promote driving efficiency, will result in lives saved, reductions in fuel consumption and emissions, vehicle maintenance cost reductions, and industry-wide performance improvements."

Federal Aviation Administration Authorization Act

The top regulatory priority for the American Trucking Associations is to restore the strength of the Federal Aviation Administration Authorization Act of 1994 (F4A). As part of F4A, Congress broadly preempted states from regulating interstate motor carriers to ensure that the trucking industry would be shaped primarily by market forces under a nationally-uniform system of rules promoted at the federal level. The uniformity has resulted in a more productive, efficient, and safer trucking industry. Recently, however, F4A has been significantly eroded by states and courts that are refusing to faithfully implement the F4A provision. In these jurisdictions, plaintiffs' attorneys are using state regulation of trucking companies as the basis of expensive lawsuits related to meal and rest breaks and pay types. ATA is asking the government to assert itself to prevent a patchwork of state-level regulations on the trucking industry, and the provision is actively being considered in Congress.

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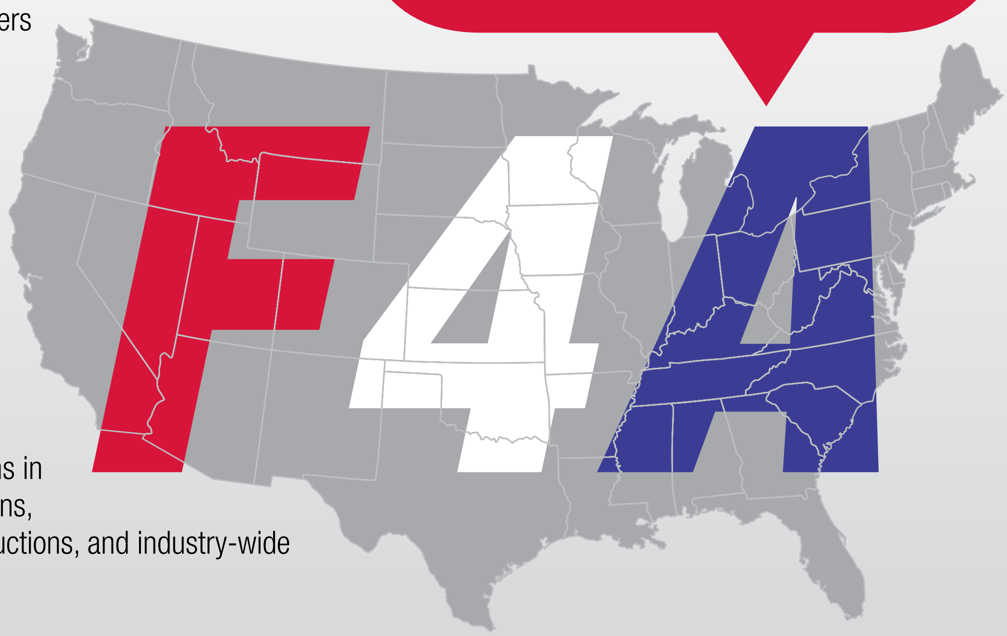


DISRUPTORS

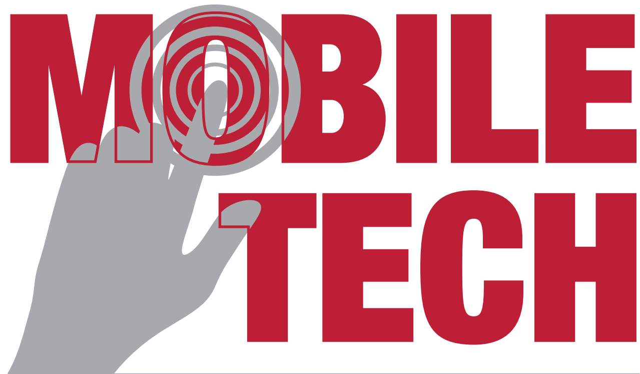
In addition to the driver shortage and regulations contributing to a capacity crunch, carriers are contending with a changing marketplace. The rapid growth of e-commerce has completely changed how and when and for what price consumers want to receive their goods. Trucking companies must ensure that they help their customers meet the expectations of the final consumer of the products. That includes providing transparency and visibility to where a product is and when. In addition, carriers must attract new drivers to haul the freight in the first place—and younger generations have high technology expectations.

Many start-ups and tenured companies alike are creating everything from freight quote marketplaces and self-driving trucks to fleet management solutions and mobile technology systems that can wholly transform—or disrupt—the way business has been done in the past. They're revolutionizing ways that trucks operate and interact with the central office, as well as how shipments are booked, paid for, and tracked.

Mobile Technology

Workers and customers now expect their business interactions to function like their personal interactions. Like all workers in other industries, truck drivers—particularly young truckers the industry is desperately trying to attract—are fluent in mobile tech use and expect high-functioning technology in the workplace. And shipper customers demand it. To remain competitive, trucking companies must adopt the latest mobile technologies, which can describe a system with mobile capabilities or that can push information to and from a mobile device.

While many trucking companies were early adopters of mobile technology, these legacy systems have become almost archaic after the rapid advancements in recent years. Unfortunately, many are strapped with "technical debt" from adopting early systems and have limited financial ability to move to the more advanced systems available. But to remain competitive, they must.



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The ELD mandate will help—or force—carriers to adopt new technology. Many platforms that met the ELD mandate requirements are available on smart phones or tablets instead of the dash-mounted computers that some carriers adopted for logging and compliance prior to the mandate. For a population that's accustomed to the ease of use offered by mobile technology for personal needs, dash-mounted computers with chunky keyboards or touch screens that require large buttons or styluses are a hassle.

What's more, drivers and office workers are often tasked with completing jobs or entering data in multiple and separate apps and programs. This context shifting is time consuming, inefficient, and frustrating. Modern mobile technology allows work to be completed within one unified, workflow-centric app that runs on common tablets and smart phones. The dynamic workflow capabilities within mobile technologies ensure that data is captured in a uniform way, enforcing consistent and common practices across the company. Plus, workflow and accurate data can eliminate major driver headaches—like delays from handling paperwork, inefficient scheduling, confusing procedures, and recording detention time, to name a few.

Autonomous Trucks

Innovations to trucks themselves have major potential to disrupt the trucking industry as we know it. Start-ups and the largest truck builders alike are investing billions of dollars to develop trucks capable of driving themselves down America's freeways. A number of companies are already testing self-driving trucks with a safety driver in the cab.

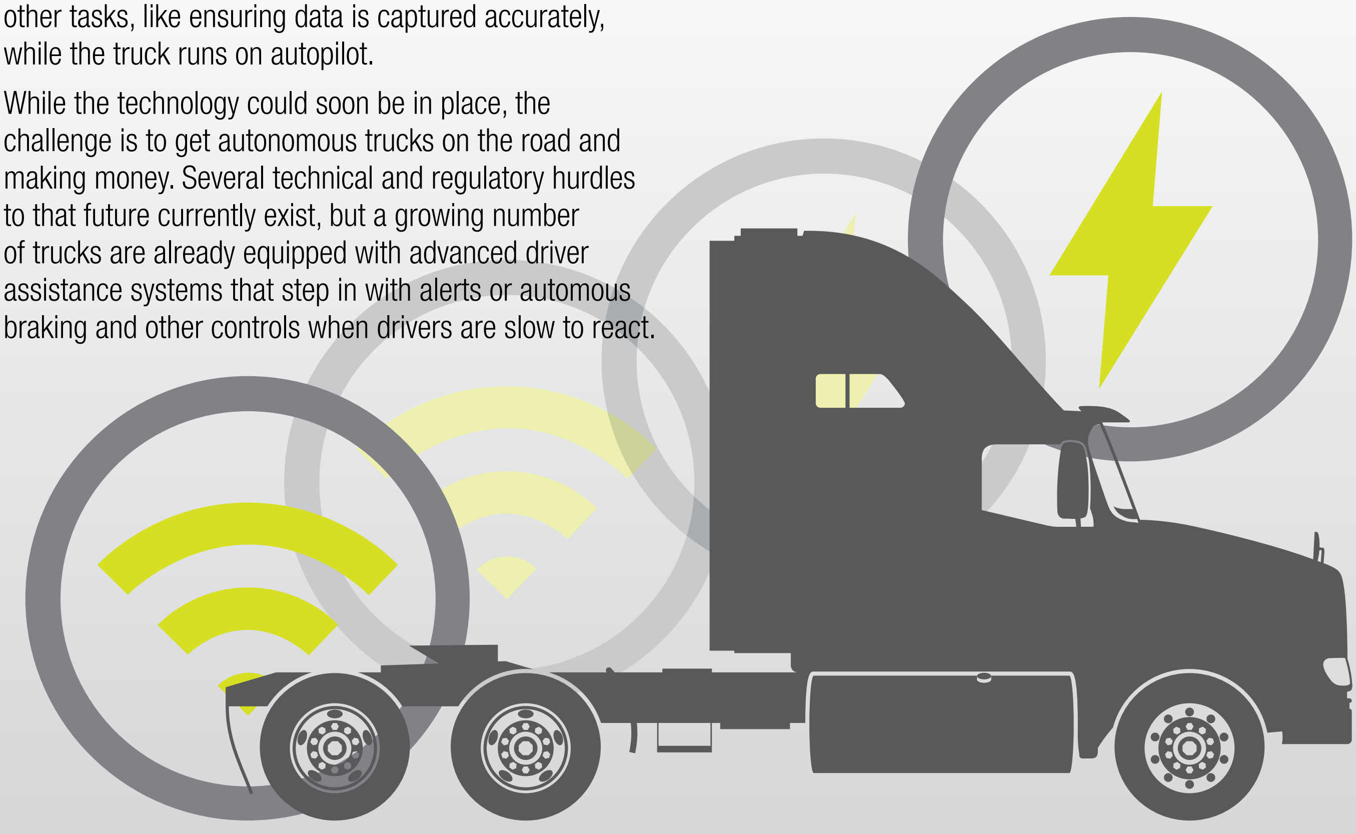
Self-driving trucks could help companies reduce labor costs by extending the number of hours trucks are in operation and potentially cutting the number of drivers needed for interstate driving. Plus, some believe autonomous trucks have the potential to be safer—and could therefore reduce insurance premiums—because accidents are largely caused by human error. The industry agrees, however, that drivers will still be critical to navigate city streets for the first and last miles of trips. In fact, self-driving tech developers are positioning the technology as a partner to drivers rather than a job killer—productivity increases, but the job becomes more attractive to drivers. From exit to exit, drivers can perform other tasks, like ensuring data is captured accurately, while the truck runs on autopilot.

While the technology could soon be in place, the challenge is to get autonomous trucks on the road and making money. Several technical and regulatory hurdles to that future currently exist, but a growing number of trucks are already equipped with advanced driver assistance systems that step in with alerts or automous braking and other controls when drivers are slow to react.

Electric Trucks

One of a trucking company's largest—and often most volatile—operating expenses is fuel, so Tesla's recent announcement about the launch of its wholly electrically powered tractor-trailer could be a game changer. A number of major carriers have already reserved Tesla semis, which cost $150,000 for a model with a 300-mile range per charge and $180,000 with a 500-mile range. Most diesel-powered tractors cost around $100,000, but Tesla predicts that the electric vehicle will pay for itself within two years thanks to savings in aerodynamics, reliability, and fuel. The vehicle boasts additional safety features, including wrap around windshields, cameras instead of rearview mirrors, and autonomous systems like automatic emergency braking, automatic lane keeping, and forward collision warning, according to Tesla.

A number of other companies are entering the electric truck space as well. The widespread adoption of electric trucks will depend on how they perform in real-world situations, the availability of battery recharging facilities, and the training of workers to service electric vehicles.



Driver Monitoring

One way the industry is moving to combat accidents is through the use of driver monitoring tools. The newly required electronic logging devices are a type of monitoring system, as they track and report speed, location, and driving status, not to mention where drivers stand within federal hours-of-service requirements. Trucks now widely come equipped with advanced driver assistance systems that use a combination of radar- and camera-based components, like following distance alerts and active braking, to intercede on the driver's behalf to eliminate or greatly decrease a collision's severity. Any event triggered by the technology is reported to employers.

But more intrusive technologies are also entering the marketplace and being adopted by trucking companies. Ball caps can measure brainwaves and give a fatigue rating, a critical factor for drivers as many accidents are caused in one way or another by the effects of fatigue. One company is developing a vest than can detect a driver's heart attack and stop the truck as a result. More common, road- and driver-facing dashboard cameras are used to record actions that can negatively affect safety—but also monitor slacking behavior or unauthorized stops, according to *Forbes*. Onboard video event recorder systems link into a truck's engine to record video clips before and after exception-based events such as speeding, forward collision warnings, harsh braking, lane departure alerts, and collisions. Those videos may then be accessed for driver coaching or for litigation in the case of an accident. Some driver facing cameras even monitor drivers' eyelids for signs of fatigue.

Drivers, who already feel closely monitored by regulators, employers, and their customers (who are demanding real-time data on loads to appease their own customers) are often bothered by the use of these additional monitoring technologies because their trucks serve as their offices—and homes for over-the-road drivers. Others like the idea of working for companies that value providing drivers the resources to stay safe and improve their skills. If the technology can help prevent accidents, provide coaching opportunities after near-misses, and save carriers money, more carriers will likely conclude that the intrusion is warranted.

2018

THE YEAR AHEAD

Certainly trucking companies face a host of challenges in the marketplace, but 2018 will see success for those able to capitalize on increasing demand for freight and tightening capacity while navigating regulatory pressures, innovative disruptions, and changing expectations of consumers.