



the Quill

a quarterly publication on safety & risk management

What's Inside?

- + Three things you need to know about telematics hacking
- + Techniques for educating new drivers
- + The surprising dangers of cell phone distractions

IS THERE REALLY A DRIVER SHORTAGE?

Retaining productive and safe drivers through engagement

TOPICS THAT REVOLVE AROUND  YOU



This issue of *The Quill* covers a variety of important topics for you as a safety professional. One important article covers avoiding DOT documentation violations. While it may seem simple, there are strict rules in place as to when drivers are Off Duty versus On-Duty, Not Driving. Check out page 15 to read about the differences in these activities.

An interesting topic that is not often talked about is also included in this issue—distracted walking. This is something drivers need to be especially aware of since pedestrians may not be aware of their surroundings, including traffic. The problem is getting so out of hand that some states are considering fines for texting in dangerous walking situations. Read more about this emerging issue on page 5.

Finally, we have an educational article about trucking telematics hacking. This article covers different ways telematics can be hijacked to perform illegal operations. Although you may not have heard terms such as “jamming” and “spoofing,” they are very real threats and can affect drivers. Find out more about these terms, and other information on telematics hacking, on page 13.

I hope you enjoy this issue of *The Quill*. As always, feel free to contact me at thequill@protectiveinsurance.com or 800-644-5501 x2692 if you have any topics you would like to see in upcoming issues.

Yours in safety,

Dennis Shinault, CDS
Director of Loss Prevention & Safety Services

IN THIS ISSUE

- **News & Notes Pg. 2**
- **Proper use of material handling devices: Powered industrial trucks Pg. 3**
- **The surprising dangers of cell phone distractions: Distracted walking Pg. 5**
- **Techniques for educating new drivers Pg. 7**
- **Deepening your drivers' roots: How to strengthen your workforce through engagement Pg. 10**
- **Telematics hacking: Three things you need to know Pg. 13**
- **Keep time on your side: Avoid common DOT documentation violations Pg. 15**



You can view every past issue of *The Quill* online at protectiveinsurance.com/the-quill. To request additional hard copies of a particular issue, email your name, company and address to thequill@protectiveinsurance.com.

What does The Quill mean?



The founders of Protective's parent company, Baldwin & Lyons, Inc., chose the quill as a symbol to represent their property and casualty insurance company. It was a fitting choice. The quill was the dominant writing instrument for more than 1,000 years, longer than any other; perhaps because of its fine stroke and great flexibility. Likewise, for over 85 years, the company has maintained a stable presence in the property and casualty insurance market and is a recognized leader in the transportation industry. With an intense focus on results, the company has grown and diversified.



State by state

An update on developments affecting your operation

INDOT pilots innovative tracking technology

The Indiana Department of Transportation (INDOT) is establishing a new pilot project to track unpermitted overweight vehicles that can cause significant damage to highways and bridges. INDOT will install license plate tracking technology along a northern Indiana interstate to monitor vehicles traveling overnight. The technology includes a camera that works together with weight sensors within the asphalt. By implementing this new system, INDOT hopes to prevent deterioration issues such as last summer's long-term bridge closure on I-65. Pending the success of this project, other states may choose to adopt similar tracking technology.

Boyle Transportation named one of the 2016 Best Fleets to Drive For

Boyle Transportation has been recognized by the Truckload Carriers Association (TCA) and CarriersEdge as one of the top 20 trucking companies providing the best workplace experience for employees and drivers in North America. To be included on the list, a company must be nominated by one of its drivers or owner-operators and evaluated based on corporate policies and programs, compensation, benefits, career advancement opportunities and more. Congratulations to Boyle Transportation for achieving this honor!

J.J. Keller offers discount on safety supplies to Protective customers

Protective has partnered with J.J. Keller to provide our customers with a 10% discount on safety and regulatory compliance products. Visit jjkeller.com/sagamore-protective to save on safety resources including signs, forms, log books, posters, wall charts, books and more!



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**CLAIMS +
SAFETY
SEMINAR
2016**

Save the date for annual Claims + Safety Seminar

Mark your calendar for the 2016 Claims + Safety Seminar on Oct. 17 – 18, 2016, in Indianapolis, Ind. This two-day event provides attendees an opportunity to hear from industry experts on a variety of topics geared toward improving fleet operations. An optional OSHA 10-Hour General Industry Training course will follow on Oct. 18 – 19.



After reading this issue of **The Quill**, we want to hear from you! Do you have a useful resource for educating your drivers that our readers should know about? Are there topics you'd like to see covered in future issues? Send your feedback and ideas to thequill@protectiveinsurance.com.



PROPER USE OF MATERIAL HANDLING DEVICES

POWERED INDUSTRIAL TRUCKS



OSHA regulations are often overlooked in the transportation industry due to regulatory compliance predominantly focusing on Department of Transportation (DOT) Standards. However, OSHA states, "The Department of Transportation (DOT) preempts OSHA's jurisdiction over the interstate trucking industry while traveling public roads." The key words in that statement are "while traveling public roads." OSHA clarifies its regulations in the transportation industry by stating, "OSHA regulations govern the safety and health of workers and the responsibilities of employers to ensure their safety at the warehouse, dock, construction site, and in other places truckers go to deliver and pick up loads throughout the country. While OSHA does not regulate self-employed truckers, it does regulate workplaces to which the truckers deliver goods and the workers which receive those goods."

A common oversight seen in the transportation industry is the lack of regulatory compliance with OSHA standard 1910.178 "Powered Industrial Trucks." Through fiscal year 2015, Powered Industrial Trucks ranked No. 6 in OSHA's top 10 most frequently cited standards by Federal OSHA. According to OSHA, "Powered industrial trucks, commonly called forklifts or lift trucks, are used in many industries, primarily to move materials. They can also be used to raise, lower, or remove large objects or a number of smaller objects on pallets or in boxes, crates or other containers. Powered industrial trucks

can either be ridden by the operator or controlled by a walking operator."

What does OSHA standard 1910.178 require of employers? The standard requires employers to develop and implement a Powered Industrial Truck (PIT) training program that is based on the general principals of safe PIT operation, the types of PITs that are utilized in the workplace, the hazards created by the use of the PIT and all general safety requirements of the OSHA standard.

PIT operators must be trained on how to do their jobs properly and safely as demonstrated by a workplace evaluation. Operators must be provided formal and practical training, and employers must certify that each operator has received the training and evaluate their performance once every three years. Before a worker is allowed to operate a PIT, it is the employer's responsibility to evaluate the worker's performance and determine that he or she is competent to operate a PIT safely. Refresher training is required if an operator exhibits a deficiency in the safe operation of the PIT. Training shall consist of a combination of formal instruction, practical training and evaluation of the PIT operator's performance.

The training program must ensure that all PIT operators receive initial training on the following topics, with the



exception of topics that the employer can demonstrate do not pertain to safe operation within their workplace.

Truck-related topics:

- Operating instructions, warnings and precautions for the types of PIT the operator will be authorized to operate
- Differences between a PIT and an automobile
- PIT controls and instrumentation: where they are located, what they do and how they work
- Engine or motor operation
- Steering and maneuvering
- Visibility (including visibility restrictions)
- Fork and attachment adaptation, operation and use limitations
- PIT capacity
- PIT stability
- Any PIT inspection and maintenance that the operator will be required to perform
- Refueling and/or charging and recharging batteries
- Operating limitations

Workplace-related topics:

- Surface condition where the PIT will be operated
- Composition of loads to be carried and load stability
- Load manipulation, stacking and unstacking
- Pedestrian traffic in areas where the PIT will be operated
- Narrow aisles and other restricted places where the PIT will be operated
- Hazardous locations where the PIT will be operated
- Ramps and other sloped surfaces that could affect the PIT's stability
- Closed environments and other areas with insufficient ventilation
- Other unique or potentially hazardous environmental conditions

Refresher training and evaluation:

Refresher training and evaluation shall be provided every three years or when:

- The operator has been observed to operate the PIT in an unsafe manner
- The operator has been involved in an accident or near-miss incident
- The operator has received an evaluation that reveals unsafe operation of the PIT

- The operator is assigned to operate a different type of PIT
- A condition in the workplace changes in a manner that could affect safe operation of the PIT

Certification must include:

- Operator name
- Training date
- Evaluation date
- Name of person(s) performing training and/or evaluation

For more information on Powered Industrial Truck training, refer to www.osha.gov or contact your Protective Loss Prevention & Safety Services representative. ■

SPECIAL NOTICE:

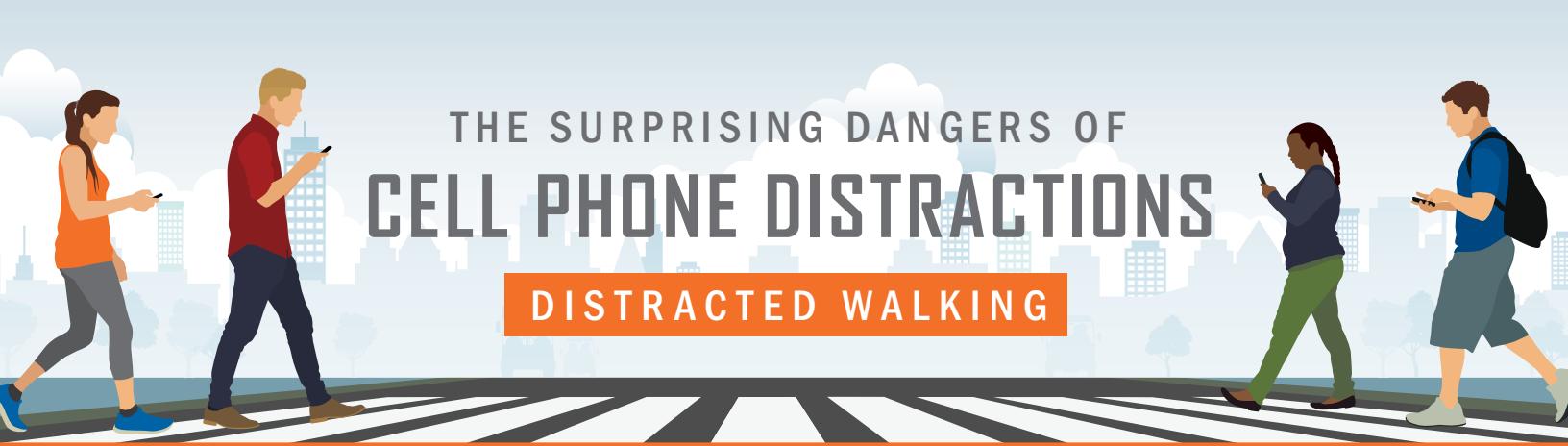
OSHA Fines to Increase in 2016

For the first time in roughly 25 years, OSHA fines are set to increase per a provision in the recent Bipartisan Budget Act of 2015. Maximum penalty levels for OSHA violations were last increased in 1990, and since that year OSHA has been prohibited from adjusting penalties to align with inflation. The recently signed congressional budget deal contained an amendment that nullified that exemption.

OSHA has now been directed to issue an interim final rule that will adjust penalties to account for current inflation levels. Due to the lengthy gap since the last adjustment, the initial adjustment could result in a nearly 80% increase in penalty amounts. This means the penalty for a willful violation would increase from \$70,000 to \$127,000.

The increase in penalties will be calculated based on the change in the consumer price index since the date the current penalty was set. Increases are capped at 150% of the penalty's current amount, meaning for example that a \$10,000 penalty cannot be increased by more than \$15,000.

OSHA must make the adjustments before Aug. 1, 2016. Going forward, OSHA is now required to adjust penalty amounts for inflation on an annual basis. ■



THE SURPRISING DANGERS OF CELL PHONE DISTRACTIONS

DISTRACTED WALKING

IN OUR WORLD OF INSTANT GRATIFICATION,

it's becoming more and more prevalent for us to be distracted by our cell phones or other electronic devices. Many people no longer keep cell phones in their pockets or purses. Most people hold their phones in their hands to get their news as soon as possible. Did you know that 91% of the U.S. population now owns a cell phone? Per a report from Digital Trends in June 2015, Americans spend 4.7 hours a day on their smartphones. The average American is awake for just over 15 hours a day, which means we spend about a third of our time each day on our phones, and we are likely not sitting or standing still in a safe place for that entire duration.

A professor at William Paterson University conducted a study of more than 21,000 pedestrians at five of the most dangerous intersections in Manhattan and found that nearly half of pedestrians crossing on a "DON'T WALK" signal and about one-third crossing on a "WALK" signal were distracted. These pedestrians were wearing headphones, talking and/or looking down at an electronic device. The American Academy of Orthopedic Surgeons (AAOS) refers to these distracted pedestrians as "Digital Deadwalkers." Per the AAOS, more and more pedestrians fall down stairs, trip over curbs or other objects and step into traffic each year, causing injury and even death.

According to health and safety publication EHS Today, distracted walking injuries involving cell phones accounted for an estimated 11,101 injuries between 2000 and 2011, making it a "significant safety threat." The trend is so alarming that it was included for the first time in the annual National Safety Council statistical report "Injury Facts," which tracks the leading causes of unintentional injuries and deaths. In 2010, more than 4,000 pedestrians were killed and another 70,000 were injured in traffic crashes, with distraction potentially playing a contributing role. According to the National Highway Traffic Safety Administration, pedestrian injuries reached 78,000 in 2012, the highest number since 2001. Taking these facts into consideration, motor carriers should train drivers to be aware of distracted pedestrians and how to gain their attention to avoid striking them.

In an effort to reduce the number of injuries and deaths associated with distracted walking, a few states have experimented with imposing fines for texting in dangerous walking situations. In New York City, speed limits have been lowered in part to make traffic less dangerous for pedestrians.

A Stony Brook University study in 2011 documented the effect of texting on navigation while walking. The study found that it is significantly more dangerous to

DISTRACTED WALKING INJURIES INVOLVING CELL PHONES ACCOUNTED FOR AN ESTIMATED 11,101 INJURIES BETWEEN 2000 AND 2011.

text than to talk on a cell phone, leading to a 61% rate of navigation errors. Typing (texting) or reading a text alters a pedestrian's gait, speed and walking pattern.

Here are a few safety tips from the AAOS to help keep you safe and alert while walking:

1. If you must use headphones or other electronic devices, keep the volume at a low level so you can still hear the sounds of traffic and your surroundings.
2. While you walk, focus on the people, objects and obstacles around you.
3. Do not jaywalk. Cross the street carefully at designated crosswalks, paying attention to the pedestrian traffic flow and the vehicles or bicycles in or near the road.

4. If you need to do something that could distract you (i.e., speaking to a child or the person next to you, taking/making a phone call or sending an email/text), do so in a safe area away from the pedestrian traffic flow.

Never assume that others nearby are aware of you, even if you are walking with a large group of people. If you have the right-of-way while crossing a street, do not assume that drivers, cyclists or even other pedestrians walking next to you are aware of you. **Look up and pay attention—they may be distracted themselves.** While FOMO (fear of missing out) is very real for some people who feel a constant need to be digitally connected, do not forget that there is a whole world of physical activity happening around you. Do not allow distractions to compromise your safety. ■



CLAIMS CORNER



CLAIMS CASE STUDY

+ FACTS

A commercial driver was stopped at a stop sign, waiting to turn right onto a one-way street. The driver looked right when he stopped, then watched traffic approach from his left and inched forward multiple times before making a turn. A jogger approached from the vehicle's right side and was not seen by the driver. As the driver released his brake and depressed the gas pedal to begin his turn, the jogger attempted to run in front of the vehicle, striking the right fender and right door. The jogger sustained multiple injuries, including a fractured ankle that required initial surgery to insert hardware and a follow-up surgery to remove the hardware. The jogger and her husband brought claims for damages.

+ COST

Submitted Medical Bills	\$60,000
Legal Defense Costs	\$145,000
Projected Settlement Value (Inclusive of Bills)	\$125,000 to \$150,000
Total (Anticipated) Claim Cost	\$295,000

The driver of the commercial vehicle believed he would be clear to the right because traffic was only coming from his left. However, he could have potentially avoided the collision by taking the time to look again to his right for pedestrians. This action would have given him a better chance of seeing the inattentive jogger heading toward his vehicle.



TECHNIQUES FOR EDUCATING NEW DRIVERS

LOADING DEMAND IS HIGH and driver availability is low. During the difficult search for qualified drivers, some motor carriers are considering modifying their driver experience requirements to accept applicants with limited or no experience. In light of this trend, we're kicking off the "Driver Training Academy," a three-part series on the topic of driver onboarding and education. This first lesson will cover techniques for training drivers who are just beginning their trucking careers.

A WORD OF CAUTION

Before altering your standards to accept inexperienced drivers, be sure to consult with your legal counsel to determine if doing so will raise any legal concerns or increase the potential for punitive damages in the event of a loss. Also consider how a reduction in driver experience may affect your perceived safety and compliance status or the level of confidence your customers have in you. Evaluate whether your staffing needs could be addressed by improving retention rather than training new drivers.

If you plan to hire less experienced drivers, follow the best practices in this article to establish a sound training program. Keep in mind that trainee drivers should continue to meet your minimum age and all other driver eligibility requirements with the exception of your minimum driving experience level.

TRUCK DRIVER TRAINING SCHOOLS

There are a couple of different ways to approach hiring a new driver from a truck driver training school. Some companies pre-hire trainees based on their qualifications and direct them to the school that best fulfills the needs of the company and the student. This approach often yields more success for motor carriers versus hiring students as they graduate.

Truck driver training school selection is important. Some schools take the profession very seriously and have comprehensive classroom, laboratory, range and road training programs, while others provide only the basics for students to pass their state CDL road exam. Protective recommends that schools provide a minimum of 24 hours of behind-the-wheel (BTW) training on public highways in addition to any range time they offer.

Use test scores to evaluate students' progress as well as the performance and curriculum of your program and the trainer.

Thoroughly evaluate the schools you are considering. The Professional Truck Driver Institute has information you can download that will help you evaluate a school's curriculum and performance. Contact motor carriers that have used the school and get a firsthand report of their satisfaction level with student hires.

Be aware that in early March 2016, FMCSA released a Notice of Proposed Rule Making (NPRM) proposing a set of comprehensive national prerequisite training standards. These standards would apply to entry-level commercial truck and bus operators seeking to obtain their initial CDL, upgrade or reinstate their CDL or apply for a hazardous materials, passenger or school bus endorsement. Class A applicants would be required to have a minimum of 30 hours of BTW training including 10 hours minimum on a practice driving range. Class B applicants would be required to have a minimum of 15 hours BTW including seven hours minimum on a practice driving range. This training can only be provided by an entity that meets FMCSA criteria and is listed on FMCSA's proposed Training Provider Registry. There is currently no proposed minimum number of hours for classroom training.

We encourage you to review this NPRM. When finalized, the regulation will be adopted into the Protective Minimum Loss Prevention Standards.

IN-HOUSE DRIVER TRAINING PROGRAMS

In lieu of sending drivers to truck driver training schools, some motor carriers may choose to train students on their own. Before starting a student driver training program, clearly define the program's purpose and explain how the training, monitoring and coaching will maintain or improve your drivers' performance level.

Ideally, a potential student should be employed by your company for at least three months and receive a recommendation from his or her supervisor prior to beginning driver training. To conduct in-house training you will need a dedicated trainer(s), classroom, range and behind-the-wheel training time. Anytime a student is behind the wheel, a trainer must be with the truck to observe and provide guidance. (Guidelines for trainer selection will be provided in a future article from the Driver Training Academy.)

The training process should include a series of written and performance-based tests to evaluate students' progress. Review the test results and provide guidance as needed to help students learn. Also use the test scores to evaluate the performance and curriculum of your program and the trainer. If a student is not progressing as quickly as you expected, do not immediately place the blame on the student—consider the effectiveness of your training program and the performance of your trainer.

Provide a defensive driver training program such as the Professional Truck Driver Course structured by the



National Safety Council and the Smith System of Safe Driving, or create a formal in-house program that aligns with the format of these systems. Your state CDL manual also has a great deal of information to help drivers perform safely. Place emphasis on speed and space management, turning, lane changes, overhead clearances, stopping distances and distracted driving at a minimum. Regardless of the program you choose, ensure it is well documented and that the instructors

themselves have received the necessary training and/or certification.

Classroom training for new drivers should be more in-depth than your orientation for seasoned drivers and cover, at a minimum, the basic topics listed below. Provide additional detailed training on any other topics that apply to your driver force and company operations. ■



MINIMUM TOPICS FOR CLASSROOM TRAINING

- Driver work environment and expectations at your company
- Company operations
- Hours of service, including ELDs where applicable
- Pre- and post-trip vehicle inspections, including vehicle weight
- Roadside inspections
- Driver responsibilities as they pertain to:
 - DOT, OSHA and other regulatory agencies related to truck operations
 - Company standards
 - Vehicle maneuvering, operations and maintenance
- Shifting techniques
- Shipping papers and working with shippers and consignees
- Trip planning and map reading
- Vehicle loading techniques including weight distribution and load securement
- Personal and vehicle/load security
- Driver fatigue and distracted driving
- Hazardous materials
 - Even if your company does not transport hazmats, provide introductory training so the driver will learn to recognize hazmat loads if he or she encounters them
- Worker injury prevention and driver wellness
- Drug and alcohol awareness
- Adverse driving conditions including steep grades
- Collision reporting and investigations

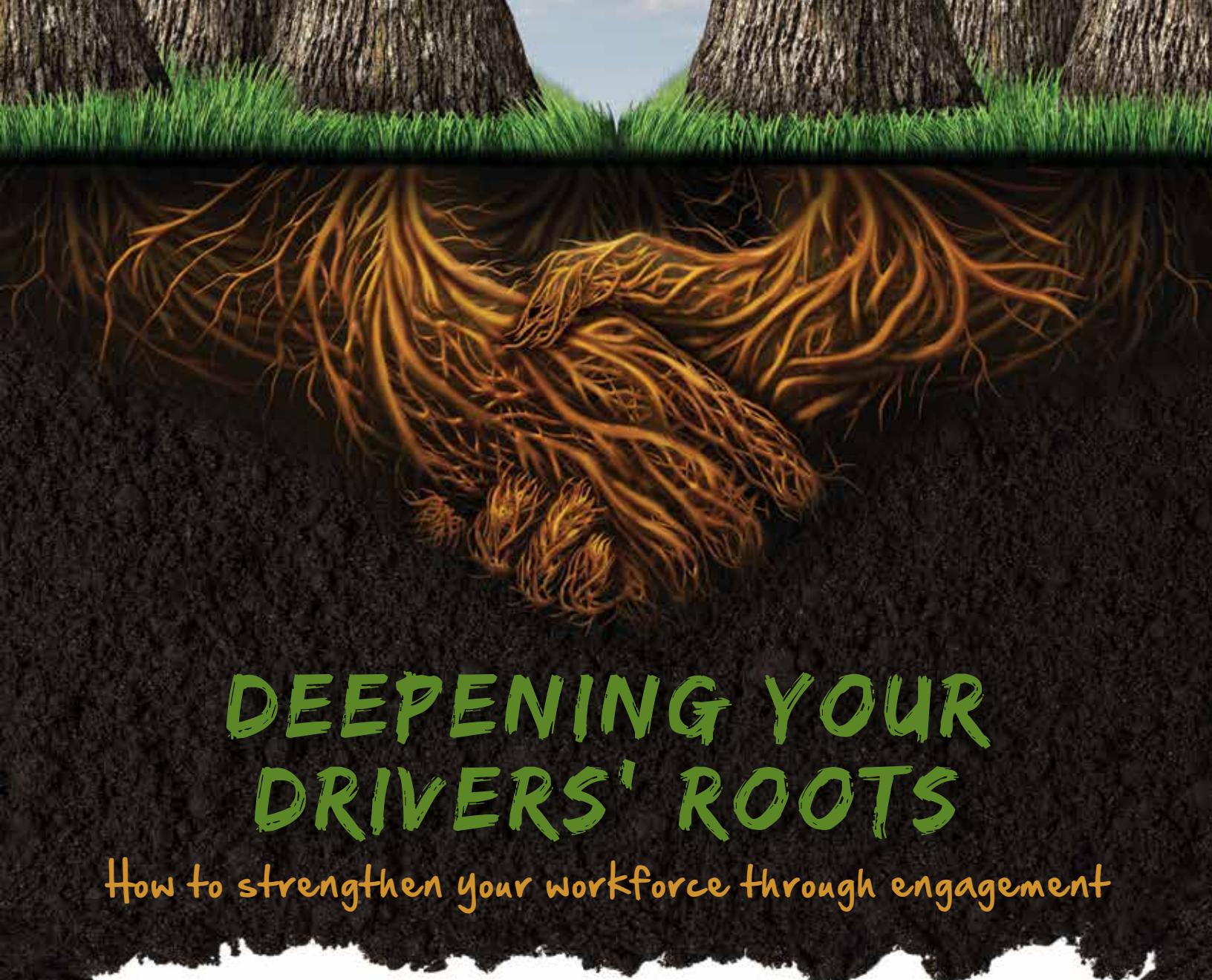
LEARN MORE

IN THE SUMMER ISSUE: DRIVER FINISHING PROGRAMS

Whether your student drivers come from a truck driving school or you choose to train them from the start on your own, you still need to have a driver finishing program to cover the final details of being a professional truck driver and give students practical experience with your operation. Part II in our Summer issue will provide best practices for creating a driver finishing program.

REQUEST FREE RESOURCES

For additional resources on the topic of student driver training, visit our Loss Prevention & Safety Resource Library at protectiveinsurance.com/resourcelibrary.



DEEPENING YOUR DRIVERS' ROOTS

How to strengthen your workforce through engagement

Ask anyone involved in the transportation industry today what their biggest challenge is and they will respond, "the driver shortage." Countless companies say they have more business than drivers, and trucks sit empty waiting for someone to take the wheel.

Generally speaking, there is not a shortage of people willing to fill out an application. The driver shortage more accurately refers to the decreasing supply of qualified applicants as defined by our traditional standards. Think of your current workforce. If you could retain every one of your already qualified employed drivers, you would only need to hire based on growth or diversification needs. If that was indeed possible, would you still say that you have shortage of drivers? Probably not.

Perhaps the real problem is not a shortage of applicants, but motor carriers' ability—or inability—to retain productive and safe drivers. In other words, what we really have is a shortage of engaged drivers, ones who will stay with a company long-term.

Engagement can mean different things to different people, but it generally entails trust, respect, acknowledgement and a sense of belonging. None of these important aspects of engagement can be present without communication. Unfortunately, due to the remote nature of the workforce, communicating with and engaging drivers is extremely challenging. However, an engaged driver will be more efficient, effective, productive and safe. Most of all, they will be loyal and dedicated. Engaged drivers are enthusiastic and genuinely care about the overall success of the team and the company.

Some industry professionals argue that within a relatively comparable pay and benefits field, the single most attractive feature of a company is its brand image. It's the culture your brand reflects that makes workers want to stay. Think about your last job and why you left. It's unlikely that your decision was due to one single event or merely the opportunity to increase your pay. The decision to leave was based on numerous experiences and ultimately your sense of engagement.

Research indicates that improving driver engagement may be more successful at improving turnover than pay and bonuses. Let's explore engagement strategies in more detail.

Don't assume you know what's important to your drivers.

Consider conducting an engagement survey of your employees to better understand their internal motivations and what makes them happy and proud to work for your company. Just listening can help gain employees' respect, but you must act on their feedback to earn trust.

"You must communicate what you learned and the action taken as a result of the survey," says Kelly Anderson, an industry-leading recruiting and retention consultant and President of Impact Training Solutions. "If drivers perceive you did nothing with their input, they will be less likely to participate in future surveys and you are worse off than if you had not done the survey." It's true that productivity can increase simply because

workers perceive you care, but don't forget that some of the smallest changes can reap the largest rewards.

Demonstrate respect, honesty and empathy to all employees and contractors.

If cliques or circles exist within your company that make a driver feel like a second-class worker, the driver is more likely to leave, even if the culture of exclusion was completely unintentional. Similarly, if contractors or part-time workers are treated or communicated with differently than full-time employees, they will notice and feel less affinity for the company.

Invest in your recruitment process.

Your retention effort actually starts during the recruiting process. Mark Tinney, President of JOBehaviors, a company that specializes in helping companies hire and retain successful workers, believes engagement starts with matching the person with the right behaviors for the job. In other words, if a person's expectations and/or behavior are different from the reality of the job, they will likely perform poorly and ultimately leave. JOBehaviors offers pre-hire behavioral assessment tools that use an intensive job analysis to help select top performers who love what they do for a living. For example, for truck drivers, JOBehaviors looks at questions including: Will the worker be likely to come to work well rested, maintain self-control in difficult or stressful situations, and look ahead to anticipate problems? Will the worker take responsibility for his or her equipment and overall image as a truck driver?



**DRIVING CAN BE
A LONELY JOB.
Making drivers
feel like part of the
team will help foster
engagement.**

AN ENGAGED DRIVER WILL BE MORE EFFICIENT, EFFECTIVE, PRODUCTIVE AND SAFE. MOST OF ALL, THEY WILL BE LOYAL AND DEDICATED.

A recent 10-year study by Omnitrac reported that 90% of all serious collisions are committed by the bottom 50% of drivers. Tinney believes that a behavioral assessment gives you the tools to sidestep hires that pose the greatest threat to safety, retention and profitability.

"Carriers can only solve their driver shortage by consistently selecting drivers who bring the above behaviors to the table. The best way to eliminate the driver shortage is to hire the best drivers in the candidate pool and avoid those drivers who will ultimately disrupt your company and then leave," says Tinney.

Not every hire is a step forward. Many candidates who look great on paper and interview well can actually take your company five steps back. Pre-hire behavioral assessments offer an instant, objective and predictive first step in the process to ensure every hire is a step in the right direction.

Cultivate a sense of belonging and teamwork during onboarding.

According to Kelly Anderson, about 75% of turnover occurs within the first 90 days of employment. "Immediately demonstrating professionalism and respect up front will lead to trusted relationships," says Anderson.

Take the time to review written policies and procedures with the new driver while assuring them they are an important part of the team and their success is critical to the company's success overall. HireRight, a background screening firm, found in its 2015 benchmarking survey that the top two techniques used by respondents to help retain new employees were longer orientation/training periods (41%) and appointing driver liaisons/mentors (32%).

"The problem with most retention efforts is they're reactive," Anderson continues. "Once a driver says they're going to quit, it's too late. Carriers must use proactive retention techniques that start before orientation and continue through the life of employment." Anderson's company offers a new driver survey service in which

drivers are contacted during their first 90 days of employment. Drivers with concerns are escalated to someone at their company who can address the problem. As a result, most companies using this service lower their turnover by approximately 27%.

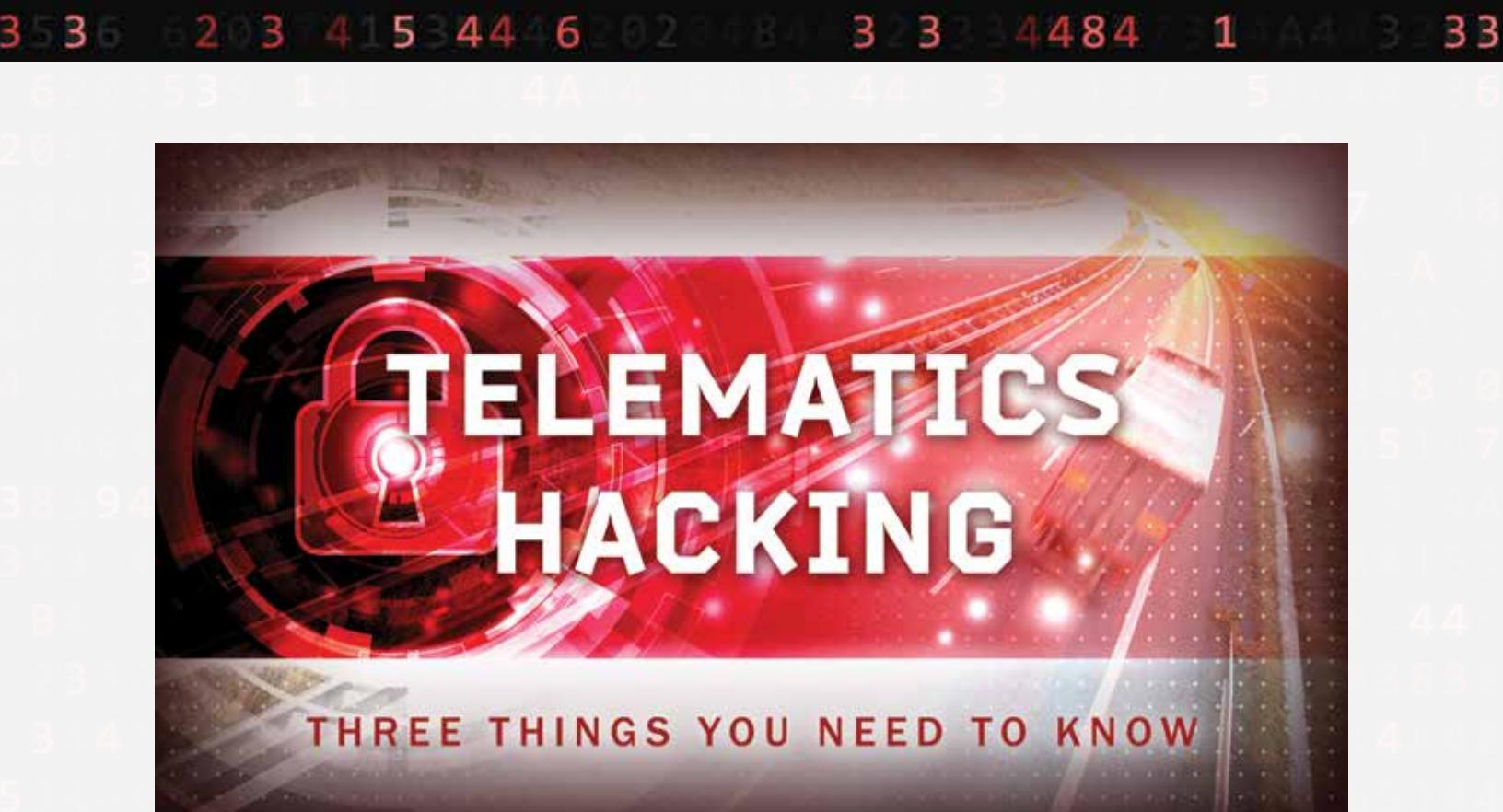
Don't forget to expose new drivers to other departments and even upper management. Driving can be a lonely job and making drivers feel like part of the team will help foster engagement.

Communication, communication, communication.

Communication is the most important strategy for developing driver engagement. All efforts will fail if not communicated properly and regularly, and if a driver feels alone in the cab, it's already too late. The most efficient and effective communication methods for reaching drivers are email, text or dispatch messaging. Social media communication can also be effective, however your company should ensure it has an official social media monitoring plan and response process. One or two negative interactions on social media can significantly affect your company's image, so develop a plan for how any negative comments will be addressed.

Instead of only sending out information to your drivers, consider asking occasional questions as well to keep drivers feeling connected. Update drivers on the overall success and direction of the company, not just what applies to them on the road. And remember, the most engaging conduit to the company is conversation with a human being. In today's world of text-based communication, humans still have inherently positive responses to a voice over the phone or a face-to-face interaction, so ensure that drivers have the opportunity to periodically connect with company representatives in person.

Cultivating a positive and engaging company culture will not only create satisfied workers, but advocates for your company. An engaged driver fights the driver shortage on two fronts: he or she is likely to remain a loyal worker and will also be your most effective recruiter for new drivers. ■



JAMMING AND SPOOFING MAY BE YOUR GREATEST THREATS

If you haven't heard the terms "jamming" and "spoofing" in relation to trucking telematics before, you are not alone, for both are highly rare forms of telematics hacking in the U.S.

Yet Guy Buesnel, product manager for the positioning & navigation business unit at Spirent Communications, warns that such activity has occurred in overseas freight markets and could eventually make their way here to the U.S.

"GPS jamming is very prevalent right now, and the jamming equipment is easily procured and very inexpensive," he told *Fleet Owner*. "We know that criminals are starting to use jammers to carry out crimes. For example, in Italy gangs have been targeting shipments of scrap metal. They hijack a truck, force the driver to pull over, hold the driver captive and then use a GPS jammer so the cargo can't be tracked as they drive off with it."

One of the more "insidious effects" of GPS jamming in Buesnel's estimation is that as a jammer gets

closer to a receiver, the receiver might start outputting hazardously misleading information such as incorrect information on position and time.

"Without understating how your receiver behaves with jamming and spoofing attacks, you're taking a really big risk in trusting the data it outputs," he explained. Spoofing, however, is "a little trickier" to conduct, Buesnel said, because spoofing is actually about "faking" a GPS signal.

"So far there hasn't been an instance where someone has spoofed by faking a satellite signal," he explained. "However, we know spoofing is going to be a real threat because criminals are already getting into application software and faking GPS coordinates."

For fleets, Buesnel thinks spoofing is going to become a real threat to navigation, positioning, and timing systems.

"In order to cope with this, you need to know how robust your equipment is today and to be prepared," he emphasized. "And you can only do that if you assess your risks and then test your equipment against current and future trends."

ONE OF THE MORE INSIDIOUS EFFECTS OF JAMMING IS THAT A DRIVER'S GPS RECEIVER MIGHT START OUTPUTTING HAZARDOUSLY MISLEADING INFORMATION SUCH AS INCORRECT INFORMATION ON POSITION AND TIME.

That includes closely monitoring how a trucking company's information technology (IT) network is constructed as well.

"With fleet networks, often the focus is on the trucking and delivery aspects, and all too often the IT components—servers, routers, firewalls, etc.—aren't necessarily taken as seriously," Buesnel noted.

"But people can get into the networks and start messing with data, which can impact delivery schedules, for example," he explained. "This can easily be addressed by looking at what you're building and figuring out how to properly secure it."

Cyber security is also becoming a larger concern throughout the U.S. business community, according to the 2015 *Business Risk Survey* conducted by insurance broker The Graham Company.

The firm polled 300 senior U.S. business professionals and found that cyber security retained the highest proportion of "business risk" with 21% of respondents naming it as the number one threat they were most concerned about.

The survey also found nearly half of respondents felt a "significant level" of cyber risk from the following scenarios:

- A hacking incident leading to theft of customer information
- Inability to use the organization's network
- Theft of employees' private information
- Theft of intellectual property
- Inability to access the organization's website

"In the modern-day business environment where everything is interconnected, the potential threats facing a business are immense," noted Ken Ewell, president and COO of The Graham Company. "This complexity of risks has caused many business leaders to become overwhelmed and unknowingly expose their businesses to risks that threaten their bottom line."

That's one reason why Spirent's Buesnel believes IT security on the "back-end" of a motor carrier's network

"is vital, as all it takes is someone doing the wrong thing once" and malware gets installed within the carrier's computer system.

"At that point a hacker now has complete access to your network, including delivery schedules, credit card payments, customer lists, etc.," Buesnel warned. "All of this data can be taken very easily if the back-end IT network supporting the fleet is not secure."

It's also wise policy not to put too much trust in off-the-shelf "firewalls" designed to protect IT networks from hacking, he emphasized.

"Companies will often buy a firewall but they don't always take time to think, 'What does it actually mean that I bought a firewall?'" Buesnel pointed out.

"Is it configured properly? Did I buy the right licensing for it? Is it actually going to provide the protection I'm looking for? That goes for anti-virus too," he added. "In Spirent's testing, we've seen well-known products that are only 44% effective at blocking attacks. Just because you buy a firewall doesn't mean you're automatically secure." ■

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111 Congressional Blvd., Suite 500
Carmel, IN 46032

TOPICS THAT REVOLVE AROUND YOU

KEEP TIME ON YOUR SIDE

AVOID COMMON DOT DOCUMENTATION VIOLATIONS



When drivers are recording their time, it's not always obvious how some activities should be classified. To avoid hours-of-service violations, refresh your drivers on these classification rules.

Many drivers incorrectly record time spent on the following activities as Off Duty, or only record a portion of the time as On-Duty, Not Driving. In fact, the entirety of the time spent on these activities should be recorded as **On-Duty, Not Driving**:

- Being present at the scene of an accident
- Roadside inspections
- Fuel stops
- Drug and alcohol screenings, including the time spent going to and from the screening, unless driving in commerce

Drivers should also be reminded that to be compliant with DOT regulations, they cannot record their 30-minute rest break concurrently with a fuel stop. The rest break must be recorded as Off Duty time and cannot be combined with other work activities, unless specific exemptions apply.

For additional guidance, refer to FMCSR Part 395 or contact Protective's Loss Prevention & Safety Services Department. ■



Protective, Infinit-i and Vertical Alliance Group are teaming up to offer a two day conference that combines the fun of a unique Texas setting with hard-hitting safety and trucking topics. Several dates are available throughout 2016. Learn more and reserve your seat at www.VAGBootCamp.com/protective.