


RED

The **RUAN** Magazine

Number 15 January 2019

THE CRITICAL IMPORTANCE OF
INVESTING IN TECHNOLOGY
AND PEOPLE TO MOVE THE
INDUSTRY FORWARD.

FIRING ON ALL CYLINDERS





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MILE BY MILE

Keeping pace with the latest Ruan highlights.



Glenn Combs
2017 Driver
of the Year

We celebrated Glenn Combs of T403 in Phoenix, AZ, for being named our 2017 Driver of the Year. Combs has been with Ruan since 1996, logging more than 3.6 million miles during his 36 years as a professional truck driver. He serves Ruan customer Flowers Foods and is nearly preventable-accident-free in his driving career.

HIGH-PERFORMER



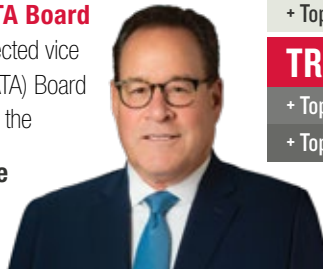
Ruan Named SmartWay High Performer by EPA

Ruan was named a SmartWay High Performer in the truck carriers category by the Environmental Protection Agency (EPA) in 2018. SmartWay is the EPA's program designed to help companies advance supply chain sustainability by measuring, benchmarking, and improving freight transportation efficiency.

Ruan's COO Elected Vice Chairman of ATA Board

Ruan's President and COO Dan Van Alstine was elected vice chairman of the American Trucking Associations' (ATA) Board of Directors in October and will eventually move up the board's leadership team to serve as chairman of the board in 2023.

Dan Van Alstine
Ruan President
and COO



Ruan Recognized as Top Transportation, Logistics Provider

INBOUND LOGISTICS

- + Top 100 3PL Providers
- + Top 100 Trucker
- + Top Green Supply Chain Partner

FOOD LOGISTICS

- + Top 3PL & Cold Storage Providers
- + Top Green Providers

TRANSPORT TOPICS

- + Top 100 For-Hire Carriers ^{NO. 41}
- + Top 50 Logistics Companies ^{NO. 22}

Ahead of the Curve.

New Tagline: Ahead of the Curve.

We recently launched a new tagline that better encompasses the company we are today. We are managing ahead of the curve; we are prepared for curves in the road; our people are top notch; we are safe, innovative, and out in front of new technology; and we strive to do everything better than the rest.

Ruan's Yuma, AZ, operation, led by Dedicated Transportation Manager Alan Hill, was named the **2017 Operation of the Year**. This operation serves Johnson Controls, Inc. — Battery Division. The operation employs nearly 70 team members, and our professional drivers haul batteries to more than 900 locations in Utah, Nevada, New Mexico, Texas, and California. Yuma averages 89,000 miles and between 440 and 500 deliveries per week.

SERVING JCI **70 TEAM MEMBERS** **900 LOCATIONS** **89K/440-500** **AZ** **YUMA, ARIZONA**

Iowa Alcoholic Beverages Division Partners with Ruan

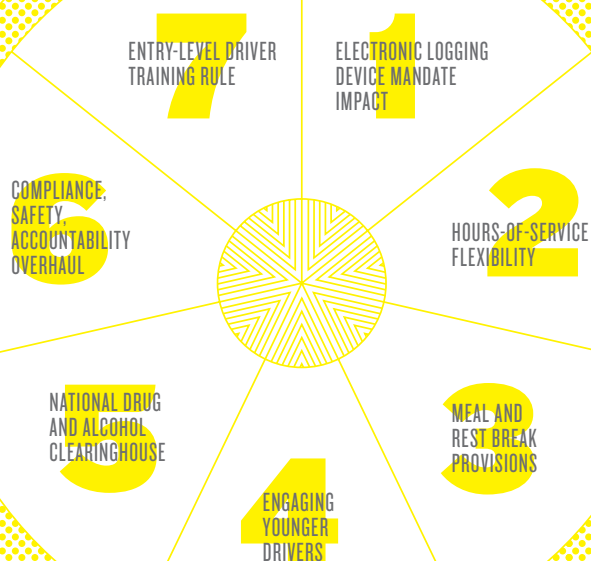
The Iowa Alcoholic Beverages Division (ABD) recently signed an agreement with Ruan for Dedicated Contract Transportation and Value-Added Warehousing beginning in 2019. ABD issued an RFP for transportation and warehousing fulfillment seeking a partner to serve its customers, reduce risk, build flexibility and scale, and maximize profit.



"This partnership with Ruan will enable ABD to provide the highest level of service to our customers. With a trusted and capable partner, we will be able to focus on our core responsibility of governing the alcoholic beverages marketplace in Iowa," said ABD Administrator Stephen Larson. "We are eager to begin a long partnership with a leading Iowa company and provide our customers with the best service possible."

Ruan will have responsibility for the management of the fleet and professional drivers, including recruiting and retaining employees, training and development, providing state-of-the-art technology, complying with all regulatory and safety requirements, and implementing an equipment and maintenance strategy to keep ABD's operation running efficiently and safely. Ruan will hire 16 professional drivers and 30 warehouse personnel. Current ABD employees who meet Ruan's standards, including years of experience and safety requirements, will receive an offer to continue their employment and receive a wage increase of as much as 14 percent.

"Ruan is excited to partner with another Iowa organization to better serve customers and optimize their transportation spend. This is truly a partnership of organizations built and sustained by Iowans, and we look forward to working with ABD to grow their capabilities to support our state," said Marty Wadle, Ruan senior vice president of Supply Chain Solutions.



TOP SEVEN TRANSPORTATION AND LOGISTICS REGULATIONS TO WATCH

WHILE PRESIDENT TRUMP'S ADMINISTRATION IS MARKED BY A STAY ON CURRENT AND IMPENDING REGULATIONS, **THERE ARE SEVERAL KEY PIECES OF LEGISLATION AND DEPARTMENT OF TRANSPORTATION REGULATIONS TO WATCH THAT COULD HAVE A SIGNIFICANT IMPACT ON THE TRANSPORTATION AND LOGISTICS INDUSTRY.** IN ADDITION, THE INDUSTRY IS PREPARING FOR THE UPCOMING IMPLEMENTATION AND ENFORCEMENT OF A COUPLE MAJOR REGULATIONS SIGNED INTO LAW AT THE END OF PRESIDENT OBAMA'S TERM.

ELECTRONIC LOGGING DEVICE MANDATE IMPACT

The industry is more than a year into the enforcement of the electronic logging device (ELD) mandate, a rule impacting more than 3 million truck drivers by requiring the installation and use of ELDs in all commercial heavy-duty trucks. While changes to this mandate are unlikely, the industry will continue to watch its impact. Before the rule went into effect in December 2017, industry experts speculated that the rule would cause a significant dip in trucking capacity by forcing those unwilling to adopt the technology out of the marketplace. This especially was a concern during an already serious driver shortage. But since enforcement began April 1, 2018, fewer than 1 percent of all roadside inspections have resulted in a driver being cited for operating without an ELD—so adoption is broader than anticipated, according to the *Journal of Commerce*.

While productivity has taken a hit, it's largely because of a loss of driving hours—not drivers themselves. The ELD mandate was created to monitor truckers' hours-of-service (HOS) limits, which are designed to reduce driver fatigue and, consequently, accidents. In order to avoid costly out-of-service violations for driving beyond those limits, many carriers and drivers that were operating illegally have fallen into HOS compliance—which is a positive result

for safety on America's roadways. This trend also means that a route that could previously be driven (albeit illegally) in one day now takes two. Drivers are spending more time delivering the same loads due to increased transit time. For companies impacted in this way, more driving hours—and more drivers themselves as they're limited to a certain number of driving hours per day and week—are needed to haul the same amount of freight. The ELD mandate, therefore, is having a much broader impact than originally predicted. Shippers and carriers are rethinking ideal routes, distribution center locations, and carrier selection.

While most motor carriers have complied with the mandate, 2019 will see a significant transition for fleets still using older electronic log systems that predate the ELD rule. The rule allowed early adopters of electronic logs to continue using their existing systems, classified as automatic onboard recording devices (AOBRDs) for two additional years. By December 16, 2019, those carriers running AOBRDs will have to update their systems to an ELD platform.

HOURS-OF-SERVICE FLEXIBILITY

Hours-of-service rules govern how, when, and for how long truck drivers work. This comprehensive, sweeping set of rules was last updated in 2013, and many in the industry are seeking flexibility in the rules. Primarily, truck drivers want revision to the 10-hour rest break rule. After the expiration of a trucker's 14-hour clock (which consists of 11 hours of drive time, plus three hours of on-duty time), that driver must be off-duty or in a sleeper berth for 10 consecutive hours before driving again. The industry is petitioning the Federal Motor Carrier Safety Administration (FMCSA) to allow drivers the flexibility to split the sleeper berth hours as they see fit: five and five, six and four, seven and three, etc.

Some drivers simply do not need 10 consecutive hours of rest at night—or during the day, depending on a driver's shift. Proponents of this sleeper berth flexibility argue that allowing a driver to rest when necessary will have a positive impact on safety; instead of feeling like they must work their 14 hours before they can take a long break, drivers could have the flexibility to rest for five hours before continuing the 14-hour clock. They wouldn't feel pressed to "beat the clock" and drive while tired. Flexibility to split the sleeper berth, many argue, would eliminate the other HOS

requirement that a driver take a 30-minute break after eight hours of working before being able to drive again. This provision was added in 2013 with a goal of reducing fatigue.

The FMCSA indicated in summer 2018 that it is willing to consider changes. The agency issued an Advanced Notice of Proposed Rulemaking (ANPRM) in August, seeking comments on some questions related to HOS. While this is not a formal regulation and may not lead to formal regulation, it is a positive sign that the agency is listening. The ANPRM sought input on whether the 30-minute rest break is necessary, if the 14-hour work day window should be expanded during adverse weather conditions, if short-haul drivers should be allowed to operate 14 hours in a day instead of the current 12-hour allotment, and what alternatives would make the sleeper berth options more effective.

"IF ONLY 25 TRUCK TRIPS PER DAY AVOIDED THE CONGESTED WEEKDAY TIME PERIOD PRESENTED ON THE STUDY SEGMENT, TRUCK DRIVERS WOULD DRIVE 4,700 FEWER HOURS ANNUALLY TO MOVE THE SAME GOODS THE SAME DISTANCE," ACCORDING TO AN ATRI REPORT.

An American Transportation Research Institute (ATRI) study on HOS flexibility found that breaking up the 10-hour rest break into strategic periods could lead to efficiencies by allowing drivers to avoid rush hour congestion.

"The opportunity for a driver to adapt to changing conditions and congestion levels throughout a day is critical and could be greatly enhanced with the addition of flexible sleeper berth rules to the current HOS regulations," according to ATRI. ATRI studied data from a 40-mile stretch of highway in Atlanta,

GA, that can take up to 90 minutes to navigate in rush hour. Flexible HOS rules would allow a driver to rest during times of peak traffic and traverse the highway when the route is relatively clear, saving time and money.

"If only 25 truck trips per day avoided the congested weekday time period presented on the study segment, truck drivers would drive 4,700 fewer hours annually to move the same goods the same distance," according to the report. "This equates to operational cost savings of more than \$300,000 per year for the 25-truck sample at that single location."

In a time of tight truck capacity and a shortage of professional drivers, spending less time in traffic and gaining efficiencies helps everyone. The feedback received during the ANPRM period will help determine FMCSA's next steps in the process of potentially revising the HOS rules, according to *Commercial Carrier Journal*.

MEAL AND REST BREAK PROVISIONS

Even though the trucking industry is regulated by these federal HOS rules, some states have issued their own regulations that are often in conflict with the federal rules. In these states, plaintiffs' attorneys are using state regulation of trucking companies as the basis of expensive lawsuits related to meal and rest breaks and pay types. And many courts are siding with the states, especially in California.

As a result, the top regulatory priority for the American Trucking Associations (ATA) has long been to restore the strength of the Federal Aviation Administration Authorization Act of 1994 (F4A)—the regulation that broadly preempted states from regulating interstate motor carriers. After Congress failed to act on the issue for four years, the trucking groups petitioned the FMCSA in September to determine whether California's rules are pre-empted under federal regulations, arguing that California's duplicative break rules hinder safety, create an unreasonable burden to interstate commerce, and are incompatible with federal regulations. In a triumph for the industry, the FMCSA granted the petition blocking California's rules in December 2018.

"FMCSA is granting this petition to ensure uniform and consistent rules in order to promote safety and economic growth. Drivers, consumers, and job

creators are best served by reliable and consistent rules,” according to the FMCSA. “This action prioritizes safety, jobs, and uniformity for truck drivers.”

ENGAGING YOUNGER DRIVERS

The industry is tirelessly looking for ways to attract new truck drivers in the face of nationwide professional driver shortage — currently estimated at around 50,000 drivers.

ALARMINGLY, ATRI RECENTLY FOUND THAT LESS THAN 5 PERCENT OF TRUCK DRIVERS ARE IN THE 20- TO 24-YEAR-OLD AGE BRACKET WHILE MORE THAN 55 PERCENT ARE 45 AND OLDER.

One key factor affecting the number of truck drivers in America is that one cannot acquire a commercial driver’s license (CDL) and travel interstate until age 21; until then, they may only drive intrastate. The industry loses many potential drivers during the three-year gap between graduating from high school and being able to make a living as a Class A CDL holder.

The ATA’s workforce development subcommittee is working with federal and state officials to find solutions to bridge this gap. The subcommittee is encouraging the development of robust apprenticeship programs to engage workers before they can officially qualify to drive across state lines with a CDL at age 21. Some efforts are even underway to lower the federal age requirement for interstate truck drivers.

Both the House of Representatives and Senate have considered the Developing Responsible Individuals for a Vibrant Economy (DRIVE-Safe) Act, which would direct the Department of Transportation to develop and regulate an apprenticeship program for under-21 drivers. Prospective 18- to 20-year-old truckers would be required to operate at least 400 hours of on-duty time and 240 hours of driving time, both with an experienced driver training them,

before they could drive interstate. The under-21 drivers would have to demonstrate proficiencies in backing and maneuvering, fueling procedures, trip planning, permitting, etc., according to *Commercial Carrier Journal*. If passed, individual carriers would be able to implement their own apprenticeship programs under the direction of the DOT.

COMPLIANCE, SAFETY, ACCOUNTABILITY OVERHAUL

Compliance, Safety, Accountability (CSA) is the FMCSA’s carrier scoring program designed to improve safety by identifying at-risk drivers and carriers. FMCSA conducts inspections and reviews crash reports and then measures the results using the Safety Measurement System (SMS). Each month, SMS measures a carrier’s previous two years of violations and crash data to calculate a score in seven safety behavior areas called BASICs: unsafe driving, hours-of-service compliance, driver fitness, controlled substances and alcohol, vehicle maintenance, hazardous materials compliance, and crash indicator.

But the regulation has been under fire for a number of reasons since its inception in 2011 — namely data quality, use of relative rankings between carriers, and enforcement and reporting inconsistencies between states. The 2015 FAST Act ordered CSA scores to be removed from public view until a study could be conducted to identify issues, followed by the implementation of needed changes that better assess a carrier’s safety performance. The National Academies of Science (NAS) completed the Congressionally-mandated study on CSA in 2017 and recommended that the FMCSA rework CSA’s Safety Measurement System and its underlying statistical model — essentially rework the regulation from the ground up, according to *Commercial Carrier Journal*.

Following the NAS’s recommendations, the FMCSA submitted a corrective action plan detailing CSA reforms to Congress in August 2018. FMCSA will replace the existing CSA SMS with a new scoring system; work to improve the quality of data used to score carriers; make it easier for carriers to understand and calculate their safety scores; and evaluate adding an absolute scoring system instead of relying only on relative scores that hinge on a comparison to a carrier’s peers, according to *Commercial Carrier Journal*. FMCSA plans to conduct a full-scale model test of the new system by April 2019.

NATIONAL DRUG AND ALCOHOL CLEARINGHOUSE

A rule mandating a national drug and alcohol clearinghouse containing professional driver drug test results was slated to go into effect in January 2020 after being signed into law by President Obama — but it will likely be delayed for several months. 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 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.

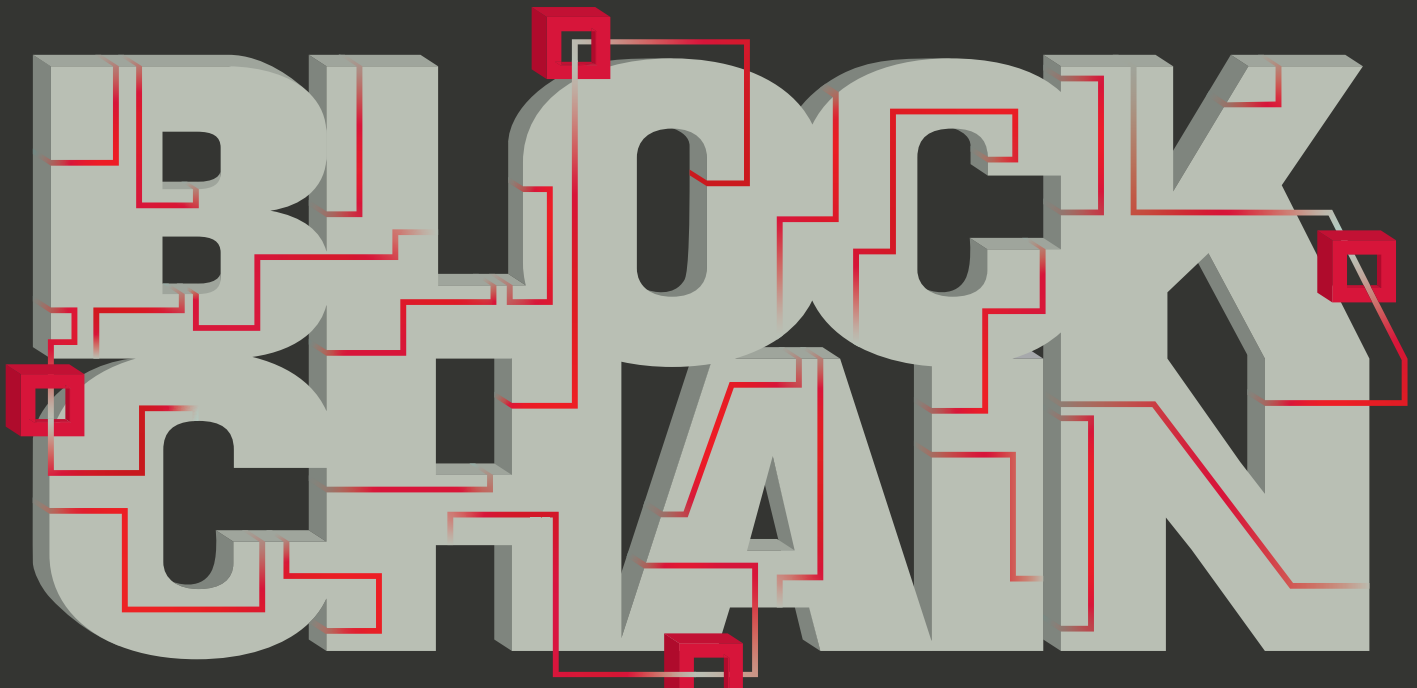
This rule is intended to increase highway safety by ensuring that CDL holders who have tested positive or have refused to submit to testing have completed the DOT’s return-to-duty process before driving, as well as ensure that employers are meeting their drug and alcohol testing responsibilities. Some expect the transparency of the clearinghouse to have a more severe impact on capacity than the ELD mandate because unfit drivers will be easier to identify.

ENTRY-LEVEL DRIVER TRAINING RULE

Another Obama-era rule, the entry-level driver training mandate will outline certain minimum training requirements for those seeking to obtain a Class A or Class B CDL, or a hazardous materials, passenger, or school bus endorsement. Beginning in February 2020, drivers will be required to 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.”

THE RUAN APPROACH

At Ruan, teams across the company stay abreast of these and other potential and impending regulatory changes that could affect operations. By staying up-to-date and being proactive, Ruan ensures regulatory compliance and customer satisfaction.



BLOCKCHAIN

THE FUTURE IN TRANSPORTATION

RUAN, BLOCKCHAIN IN TRANSPORT ALLIANCE DEVELOP BLOCKCHAIN STANDARDS IN TRANSPORTATION

Anyone who even moderately consumes media in any format has likely heard of blockchain technology and how it can revolutionize the way data is shared. Blockchain is a topic of consideration across all industries—including transportation.

Transportation transactions—like orders, payments, fuel records, shipment tracking—are complex. At each point in the process, each participant in the transaction has their own view of what's happening via their own digital ledgers.

Multiple ledgers can lead to error and inefficiency—and open up the potential for fraud. Blockchain reduces the complexity by creating a decentralized digital ledger across many nodes. Nodes are distributed across a network and carry out a variety of tasks. Everyone on the blockchain—from the shipper to carrier to receiver (and all the individuals included therein)—shares a common view of a ledger. They can see all details of a transaction from start to finish.

WHEN A TRANSACTION OCCURS, IT'S PUT INTO A BLOCK, THEN EACH BLOCK IS CONNECTED TO ONE BEFORE AND AFTER IT. THE TRANSACTIONS ARE BLOCKED TOGETHER IN AN IRREVERSIBLE CHAIN—A BLOCKCHAIN—THAT CAN'T BE ALTERED RETROACTIVELY.

The result is a type of distributed ledger that can be shared and accessed by anyone with the appropriate permissions. The information held on a blockchain exists as a shared and continually reconciled database.

Need an example? Consider collaborating on a Word document or spreadsheet. To share it with another party, you send it, ask the party to make revisions, then they send it back to you. You are essentially locked out of editing it until you receive the other party's revisions. In this process, both parties risk losing track of versions and not having the latest data if the other party hasn't sent you revisions. Now think about working with Google Docs or Microsoft Teams. Multiple parties have access to the same document at the same time, and they can all make changes at the same time that are visible to all parties. Blockchain is like Google Docs. Everything on the blockchain exists on a shared database.

Don and Alex Tapscott, authors of the *Blockchain Revolution* say, "The blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value."


The freight transportation industry is still determining how to use blockchain.

Hundreds of carriers—including Ruan—have joined BiTA, the Blockchain in Transport Alliance. "BiTA was formed by experienced technology, transportation, and supply chain executives to create a forum for the development of blockchain standards and education for the freight industry. BiTA's goal is to bring together leading companies in the freight technology industries that have a vested interest in the development of blockchain technology," according to the association's website.

"Ruan joined BiTA because we are excited to be part of the conversation about the development of blockchain standards in transportation," said Ruan's Director of Application Development Nehru Cheddie. "The possibilities blockchain holds for transparency and visibility, efficiency gains, and reducing auditing needs are truly compelling within such a complex industry."

In addition, Ruan's six-person internal Blockchain Forum meets bi-weekly to educate the membership on blockchain technology. The team is working to deploy a prototype blockchain in the first quarter of 2019 to prove out the technology.

FIRING ON ALL CYLINDERS



INVESTING IN TECHNOLOGY AND PEOPLE TO MOVE THE INDUSTRY FORWARD.

Each year, new research is released on the importance of healthy workplace practices. Ensuring you have proper posture, you're moving regularly, getting enough rest, staying hydrated, the list goes on. Society is passionate about monitoring our daily movements and periods of rest, and tech companies have maximized on this obsession with the invention of devices and applications to track our every move.

But what about your workplace? Is it operating at optimal health? Poor working conditions can lead to unnecessary down time, employee illness, lack of productivity and profitability, and more. Now imagine your office space is a 70,000-pound semi-truck moving down the highway at 65 miles per hour. The quality and habitability of that workspace could have a life or death impact.

Similar to a building operations department, trucking companies have maintenance teams dedicated to ensuring our trucks are operating at optimal levels of safety and efficiency. The maintenance team is the hub of any transportation organization. Without proper upkeep of our trucks, we cannot operate and serve our customers. Skilled, professional technicians and diesel engine specialists are in high demand. Fewer maintenance professionals are currently entering the field than in years past, and the demands of the job are more complex and technological than ever before. Additionally, the seasoned professionals of the Baby Boomer generation are retiring from the workforce, creating an even bigger void to fill. This void is only going to grow in the future. In fact, the Bureau of Labor Statistics predicts the trucking industry will need an estimated 142,000 new technicians and engine specialists by 2022.



The American Transportation Research Institute (ATRI) predicts that the need for technicians will grow faster than the national average for other occupations—10 percent by 2026 to be exact. Unfortunately, the industry has struggled to attract enough new and capable talent to make up for this rapid growth. Because the industry is so competitive, technicians can name their price and work nearly anywhere they please. To help attract qualified technicians, carriers are increasing wages at a rate higher than average, ahead of the cost of living increase. Attracting the best in the industry will come at a cost to transportation providers, and remaining an attractive employer is imperative to fleet productivity and carrier profitability.

Some attribute the growing need for technicians to the increasingly complex trucks on the road today. These trucks are designed to be incredibly fuel efficient, environmentally friendly, and technologically advanced, making for much more complicated machines. Technicians are

as fuel efficiency and improved safety technology, it is costlier to maintain and repair due to more advanced features. Innovative technologies, such as roll stability and active braking assistance require new diagnostic equipment and training for technicians and create opportunity for more parts failures.

Another major factor that plays into the repair and maintenance related costs for carriers is the intensity of usage of the equipment. Carriers are, on average, using their equipment less intensely than years past. Fleets that utilize their equipment more intensely have higher repair and maintenance costs due to wear and tear on the machinery. From 2016 to 2017, the average miles driven per truck decreased more than 13 percent, according

to a survey conducted by MacKay & Co., services performed in-house decreased nearly 10 percent from 2011 to 2015, and that number continues to fall. Some carriers conduct routine upkeep in-house and outsource the more technical and advanced work. Others, such as smaller carriers with fewer trucks, outsource all maintenance. For them, the cost of outsourcing is significantly less than the cost to obtain and retain skilled technicians and purchase the equipment necessary to repair technologically advanced trucks.

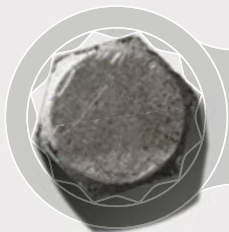
Recognizing Our Skilled Technicians

Essentially, trucks are like computers on wheels, resulting in a need for technicians who can not only conduct the manual work to make repairs, but also be skilled enough to operate the diagnostic

2008



REPAIR AND MAINTENANCE COSTS HAVE INCREASED BY MORE THAN 60 PERCENT SINCE 2008. WHILE NEW EQUIPMENT OFFERS A HOST OF BENEFITS SUCH AS FUEL EFFICIENCY AND IMPROVED SAFETY TECHNOLOGY, IT IS COSTLIER TO MAINTAIN AND REPAIR DUE TO NEWER, MORE ADVANCED FEATURES.



THE NEXT DECADE WILL SEE MANY ADVANCEMENTS IN THE INDUSTRY, INCREASING

required to have a broader range of knowledge and skill sets to work on these advanced vehicles. Finding the most skilled technicians and funding ongoing training for new diagnostic tools and equipment advances are a major but necessary expense for carriers.

The Cost of Healthy Fleet

According to ATRI, the average marginal cost per mile incurred by motor carriers increased 6 percent in the 2017. Repair and maintenance costs have increased by more than 60 percent since 2008. These costs have historically been the third highest average marginal cost to carriers, according to ATRI, accounting for approximately 10 percent of all vehicle and driver-based costs. While new equipment offers a host of benefits such

TESLA'S WHOLLY-ELECTRIC TRACTOR, TO BE ON THE MARKET IN 2020, BOASTS PREDICTIVE AND SELF-DIAGNOSING MAINTENANCE CAPABILITIES. RUAN HAS RESERVED FIVE TESLA ELECTRIC SEMIS.

2020



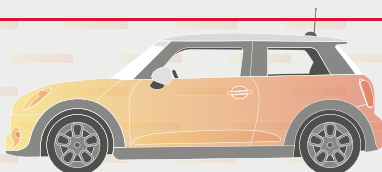
to ATRI. While this decrease in miles equates to a decrease in maintenance, the more sophisticated technology and operating systems offset these potential savings.

To combat the burden of maintenance costs, many carriers are choosing to outsource some or all of their maintenance. This is becoming a more attractive option to carriers as technicians become more difficult to find and keep. According

equipment and reset the machine after making repairs. The American Trucking Associations' (ATA) Technology and Maintenance Council's National Technician Skills Competition—TMCSuperTech—is designed to highlight and test the skills of the best technicians across the country in a written exam and in hands-on skills assessment. According to the ATA, TMCSuperTech is North America's premier skills competition for professional commercial vehicle technicians. Most recently, Ruan had three professional technicians compete in the competition.

DID YOU KNOW?

A typical tractor engine weighs 345 pounds more than a Mini Cooper.



The Future Is Here

What does the future hold for the world of tractor-trailer maintenance? One of the advancements in trucks hitting the market today includes self-diagnosing technology. For example, Tesla's wholly-electric tractor, to be on the market in 2020, boasts predictive and self-diagnosing maintenance capabilities. The truck alerts its owner of upcoming routine maintenance anywhere in the country using Tesla's online portal or app, allowing carriers to further predict tractor downtime.

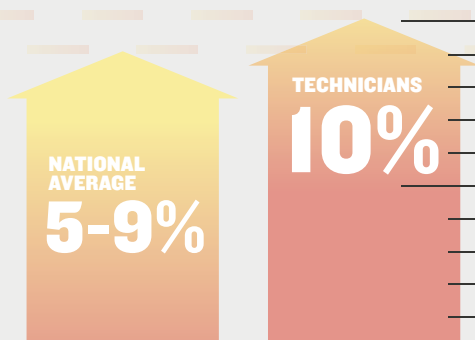
Ruan has reserved five Tesla electric semis. "The reservation of these vehicles is part of Ruan's

in the safety realm, such as lane departure warnings, rear-view cameras, collision avoidance systems, and more. Similar to Tesla, more tractor manufacturers will begin to include telematics in their equipment, allowing for more vehicle-to-vehicle communication and increased safety on our roads. All of these advancements will make for safer roads and safer jobs for professional truck drivers. But they will also require technicians to have a broadened knowledge base and skill set to service these sophisticated machines.

program, industry-leading equipment and diagnostic tools, and more. Technicians at Ruan service thousands of vehicles at more than 50 locations. Additionally, some technicians are mobile and travel within a region to provide service wherever needed. These mobile technicians reduce driver downtime for maintenance repairs and, in turn, offer a cost savings to our customers by ensuring their products are delivered on time.

Ruan recently held our first Top Tech Competition during our own Technician Appreciation Week.

13%
2016-2017
FROM 2016 TO 2017, THE AVERAGE MILES DRIVEN PER TRUCK DECREASED MORE THAN 13 PERCENT.



2026
THE NEED FOR TECHNICIANS WILL GROW FASTER THAN THE NATIONAL AVERAGE FOR OTHER OCCUPATIONS—10 PERCENT BY 2026 TO BE EXACT.

DEMAND ON PROFESSIONAL TECHNICIANS, THEIR SKILL SETS, AND RESPONSIBILITIES.

THE BUREAU OF LABOR STATISTICS PREDICTS THE TRUCKING INDUSTRY WILL NEED AN ESTIMATED 142,000 NEW TECHNICIANS AND ENGINE SPECIALISTS BY 2022.

2022

142K

sustainability efforts and commitment to providing our customers and professional drivers with the best technology available," said James Cade, Ruan's vice president of fleet services.

Autonomous trucks will present another round of challenges for technicians. In addition to the routine maintenance and advanced mechanics of these trucks, they will be technologically advanced with complicated radar, ultrasonic sensors, and camera systems. Keeping these components in working order will be imperative to the safety of all drivers as autonomous vehicles hit the road.

Into 2019 and beyond, we can expect to see trucks with more highly advanced technologies, especially

The Ruan Approach

Ruan has worked to grow our roster of technicians in recent years. We are dedicated to attracting and keeping the best in the business. These talented professionals provide the best service to their customers: our drivers. Our technicians are responsible for keeping our equipment operating properly and safely to ensure our drivers return home to their families—and they take that responsibility seriously. They ensure our equipment is functioning properly to keep repair costs down through regular preventative maintenance.

Ruan's professional technicians enjoy competitive pay and benefits, paid training, a free tool protection

This competition was an opportunity to highlight our technicians' skills and mastery of the industry's latest diagnostic tools and technologies. In addition, it placed a focus on training and education in an ever-changing and ever-advancing field. As part of the competition, all Ruan technicians participated in a written assessment, and the top 10 scoring participants advanced to the skills test in our headquarters city of Des Moines, IA. These participants were tested in 10 separate skill stations including brakes and collision mitigation systems, preventative maintenance inspections, HVAC, engine service information and diagnostics, tires and wheels, warranty and VMRS coding, DOT inspections, electrical, wheel end, and fasteners.

WHY OUTSOURCE TO AN ASSET-BASED 3PL?

Transportation is complex. It requires the best people, processes, and platforms to make hundreds of small factors come together to get your shipment from point A to point B. With Ruan's Integrated Solution, we can optimize your supply chain, reduce costs, and improve efficiencies. **HERE'S HOW:**

WE SAVE YOU TIME AND MONEY.

Let our qualified team members handle everything from sourcing safe carriers and selecting the right mode, to managing logistics and monitoring regulatory compliance. Pay your team members to focus on their core competencies.

WE HAVE THE BEST TECHNOLOGY PLATFORM — AND THE EXPERTISE TO USE IT EFFICIENTLY.

Partner with us and have access to the best transportation management system (TMS) money can buy with functionality to seamlessly manage multiple supply chain processes. We own it so you don't have to.

WE COVER THE RISK.

Our carrier qualification process includes a thorough review of carrier safety, authority, insurance, and service performance. And, if you use our Dedicated Contract Transportation services, we manage the insurance coverage, the drivers, the equipment, and the regulatory compliance. You can rest easy knowing your freight is in our hands.

WE PROVIDE VISIBILITY TO YOUR SHIPMENTS, ELIMINATING THE UNKNOWN.

Through the use of our integrated supply chain software, best-in-class logistics tools, and Ruan's custom intellectual property, we can provide our customers with a real-time picture of their entire supply chain and simplify essential transportation management requirements.

WE OFFER DEDICATED TRANSPORTATION — NOT JUST DEDICATED CAPACITY.

After we evaluate your supply chain, we recommend the solution that can best handle your shipping—whether that's on our trucks, on carrier trucks, or both. We'll integrate with our partners to identify efficiencies and services that optimize your supply chain and remove capacity concerns.

WE HAVE PARTNERSHIPS WITH AN EXTENSIVE NUMBER OF VETTED CARRIERS — OFFERING YOU THE BEST PRICE WITH THE SAFEST CARRIERS.

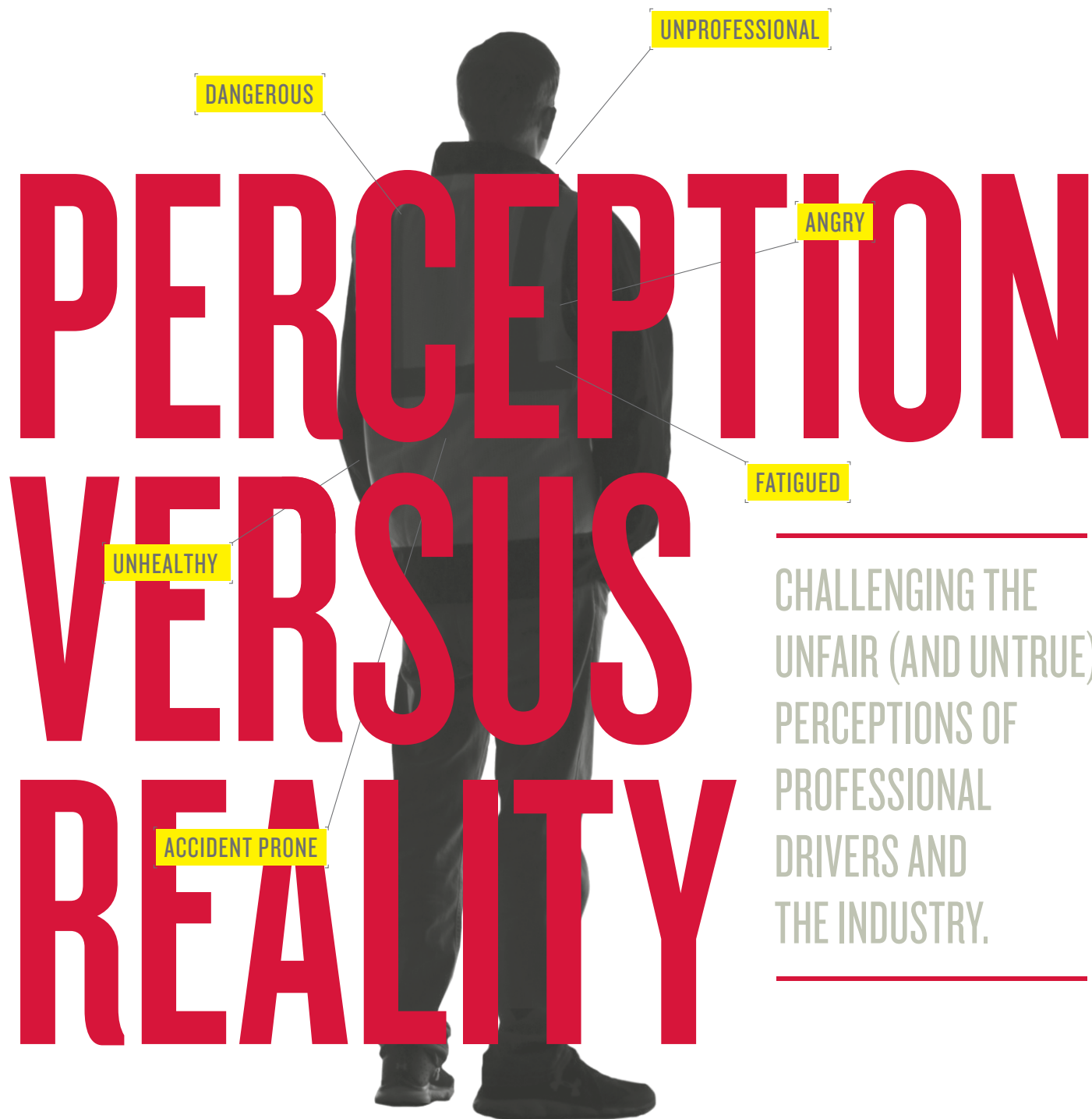
Ruan is committed to our carrier relationships and comprehensive collaboration. Our carrier development process enhances our carrier relationships and guides continuous improvement efforts, ensuring all parties have an opportunity to grow and be profitable.

WE SIMPLIFY YOUR BILLING.

Ruan offers one single invoice for all your Integrated Solutions services. All service providers, from warehouse to independent carriers, are presented in one comprehensive, easy-to-read invoice. Plus, we are EDI-capable and can build customer electronic invoices that integrate into our customers' financial systems so that logistics expenses may be tracked and understood at a detailed level.

What are you waiting for? Contact one of our supply chain experts and explore your options with Ruan's Integrated Solutions.

Ruan.com | solutions@ruan.com | 866-782-6669



CHALLENGING THE
UNFAIR (AND UNTRUE)
PERCEPTIONS OF
PROFESSIONAL
DRIVERS AND
THE INDUSTRY.

The trucking industry faces a host of challenges in attracting newcomers to fill the role of professional truck driver. A low national unemployment rate, competition from other blue-collar industries, and barriers to entry based on age are some of the key obstacles to bridging the driver shortage gap, which is currently estimated at 50,000 and could balloon to 174,000 in a decade. The industry must also contend with negative stereotypes about truck drivers.

A quick Google search of the term “truck driver” pulled up top news stories about truck driver fatalities related to fatigue, truck drivers falling asleep at the wheel, an accident article referencing a “confused” driver striking a bridge his truck was too tall to fit under, and a video of a truck driver angrily confronting another motorist. Candidly, drivers are often considered rude, dangerous, angry, accident prone, unhealthy, and unintelligent, to name a few.

Those employed within the trucking industry know otherwise—that truck drivers are smart, considerate professionals. We understand that some trucks are governed at speeds lower than speed limits for fuel efficiency and safety purposes,

DRIVER DEFICIT

50K  174K

◀ 2018 ----- 2030 ▶

which can sometimes make it a slow process for one truck to pass another. We know that professional truck drivers receive more driving training more frequently than other motorists. We are proud of the hundreds of thousands of drivers who make an effort to walk or exercise during stops and pick from among the few healthy items available at truck stops and fast food restaurants. We are aware of the myriad of regulations with which truckers must comply—as well as the advanced tools and technology systems installed on trucks and in cabs to help drivers be safe.

Finally, we know without doubt that truck drivers are one of the resources most taken for granted in our country. They do their jobs behind the scenes, hauling goods at all hours of the day—away from their families—so that store shelves are stocked when the rest of us need groceries, clothes, medical supplies—everything that consumers and other industries touch is first touched by a truck driver.

Statistics show the majority of accidents—80 percent, according to the American Trucking Associations (ATA)—are caused by other motorists, not truck drivers. According to data released by the National Highway Transportation Safety Administration (NHTSA), there were 4,761 fatalities involving large trucks in 2017, compared to all fatalities, which numbered 37,133. Regardless, the accidents and road rage incidents that do involve trucks are often sensationalized. A few bad apples unfortunately shape the narrative about all truckers.

So what can the industry do to flip the narrative? How can we educate the public about the many desirable jobs within the trucking industry?

ALL IN

First and foremost, the industry must come together to promote itself. The ATA is leading the way with its Trucking Moves America Forward (TMAF) movement. The mission of TMAF is to establish a long-term, industry-wide effort to create a positive image for the industry, to ensure that policymakers and the public understand the importance of the trucking industry to the nation's economy, and to build the political and grassroots support necessary to strengthen and grow the industry in the future.

“By telling our story—educating the public and working with policymakers at the state and federal level—we can ensure that the trucking industry remains the thriving industry it is today,” the TMAF website reads.

Education is the movement's key priority. Working with state trucking associations and individual carriers, TMAF uses video, social media, billboards, editorial placements, trailer wraps, and many other platforms to convey key messages in support of the industry. They include:

TRUCKING MATTERS

Trucks drive economic growth and jobs in America—currently employing nearly 7 million people, 3.5 million of which are professional drivers. And, trucks stimulate economic activity in every sector of the American economy—including health care, fuel and transportation, waste removal, retail, food and agriculture, manufacturing, banking and finance, and many

others. Without trucks to haul the goods necessary for other industries to prosper, little would get accomplished.

TRUE PROFESSIONALS

The professional drivers selected to drive heavy-duty trucks are just that—professionals. They

must meet strict requirements to obtain and maintain a commercial driver's license. They get regular physicals to prove they are healthy enough to reliably operate large equipment, and they submit to mandated random drug and alcohol screens. They are subject to a wide array of stringent state and federal regulations, company rules, and customer requirements. And,

TRUCKING EMPLOYS

7M  3.5M
OF WHICH ARE PROFESSIONAL TRUCK DRIVERS

professional drivers attend regular and ongoing training to enhance skills and focus on seasonal trends. What's more, data collected from truck technology is reported to trucking managers, which means drivers are often coached on potentially risky behavior, like hard braking or following too closely. Compared to regular motorists, those are pretty steep requirements.

In trucking, the actions of truck drivers are highly visible and noticeable—and they play an important role in elevating the image of the industry. “The men and women that are behind the wheel of the truck are the true ambassadors of the industry and have the ability every day to either enhance the image of their profession or destroy it. Every day the driver is out there on the road, how they behave, how they react, how they perform will ultimately determine how the industry is perceived,” said Brenda Neville, president and CEO of the Iowa Motor Truck Association. “The drivers that accept and understand this responsibility are not only successful as drivers, but also critical in helping us sustain a positive image of the industry.”

TOP TECHNOLOGY

In 2017, the U.S. trucking industry generated more than \$700 billion in revenue, accounting for 79.3 percent of overall U.S. freight revenue and 70.2 percent of tonnage—and that volume increased 6.6 percent in 2018, the largest year-over-year increase in 20 years. So it's no surprise that the technology that governs heavy-duty trucks has seen rapid advancements in recent years to keep up with the rising demand. New trucks are equipped with advanced technology designed to assist the driver in avoiding accidents—either by

LARGE TRUCKS WERE INVOLVED IN

4,761

OF

37,133

TOTAL FATALITIES

OR JUST UNDER

13%

activating controls on the truck or allowing fleets to coach drivers on certain risky behaviors. While companies continue to focus on continuous training for their drivers, even the safest fleets and drivers can have accidents, often caused by members of the motoring public. Truck safety technology is helping to reduce those accidents.

SUSTAINABILITY

TMAF also touts the efforts the industry is making to protect the environment, stating, "Many companies have participated in a sustainability program to reduce greenhouse gas emissions by 1 billion tons and fuel consumption by 86 billion gallons over 10 years," according to TMAF. And, truck manufacturers are embracing green technologies — like electric engines, renewable fuels, aerodynamics, and auxiliary power units, to name a few — that reduce idling time and air pollution.

COMMUNITY IMPACT

Trucking companies are in a unique position to help those in need. From donating transportation services to local food drives and providing natural disaster relief, truckers are there for their communities. They deliver — usually for no charge — food, housing relief materials, and first aid supplies, plus they haul away debris. And when the immediate crisis is over, trucks deliver the essentials to rebuild those communities. During the 2018 hurricane season, hundreds of drivers donated their time to be away from their families, navigating flooded roadways, to get life-saving items to those who needed them desperately.

BOTTOM LINE

Trucks and truck drivers are immeasurably important to our nation's economy. We do not have enough of these road warriors, and the shortage is going to get even worse as demand stays strong and the aging population of professional drivers retires. The industry, led by efforts and messages from Trucking Moves America Forward, is participating in an aggressive public relations campaign to showcase the importance of trucking and the desirability of trucking jobs. Carriers and shippers are working diligently to optimize routes and reevaluate regional distribution center locations to get drivers home more often, preferably daily. Shippers are changing processes to reduce detention time to increase driver productivity — and lower the amount of time they sit waiting to

load or unload. Carriers are investing in late-model equipment equipped with the latest safety tools and technology to enhance safety and environmental performance. Driver pay is increasing, and benefits are highly competitive. Many carriers offer wellness reimbursements for exercise facilities and smoking cessation programs — plus education about how to stay fit on the road.

With continued education, the industry is working hard to shift the public's perception of trucking and truck drivers. This strategy, coupled with ongoing efforts to provide hours-of-service flexibility, attract and legalize younger drivers, and widen driver demographics will allow the trucking industry to rise to the challenge of hauling the rising volume of freight that consumers demand.

If the industry fails, leaving store shelves to sit empty, the men and women who move America forward behind the scenes will no longer be taken for granted.

THE RUAN APPROACH

At Ruan, we know professional drivers are the backbone of our company and our industry. Heck, we were founded by our first driver 86 years ago — and we never forget that legacy.

We want our professional drivers to be safe, healthy, and home with their families. Our Megasafe Safety Program provides drivers quarterly training, coaching, and top-notch driver safety assistance systems in late-model equipment. We recognize drivers for safe driving and exceptional customer service in our Driver of the Year program and Megasafe Awards and Recognition Program. And the industry's National Truck Driver Appreciation Week is celebrated at all of our 300-plus operations across the country. It is important for us to acknowledge and thank drivers for the work they do that allows the rest of us to be employed in the industry.

As an industry-leading asset-based 3PL specializing in Dedicated Contract Transportation, 80 percent of our drivers are home daily. Others are home two to three times per week. All have predictable schedules. They drive the same routes and serve the same customers each week, allowing for familiarity and opportunities to make continuous improvement suggestions.

REDUCE GREENHOUSE GAS

1 BILLION TONS

+

FUEL CONSUMPTION BY

86

BILLION GALLONS

NAME VS NUMBER

We stand behind our recruiting message — Name vs. Number: Nothing compares to the respect you get driving for Ruan. We ensure that our on-site managers provide our drivers the same level of customer service as they do to our shipper customers. They empower drivers to be the Captain of the Ship — to make decisions about continuing to drive in inclement weather conditions or if feeling ill. And in an industry with a 98 percent turnover rate, we retain 70 percent of our professional drivers. Professional drivers are the backbone of our company, our industry, and our nation's economy.

300 OPERATIONS NATIONWIDE

80%

OF OUR DRIVERS ARE HOME DAILY

OTHERS ARE HOME 2^{TO} 3 TIMES PER WEEK

+

PREDICTABLE SCHEDULES

WE RETAIN 70% OF OUR DRIVERS

RUAN

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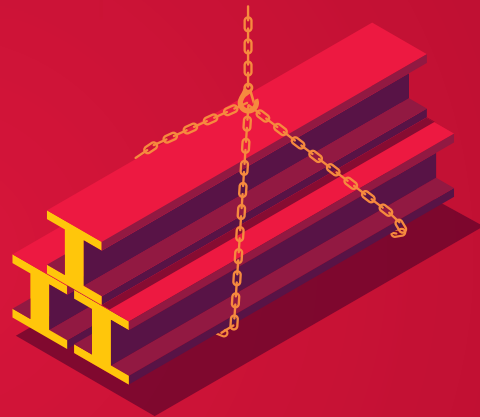
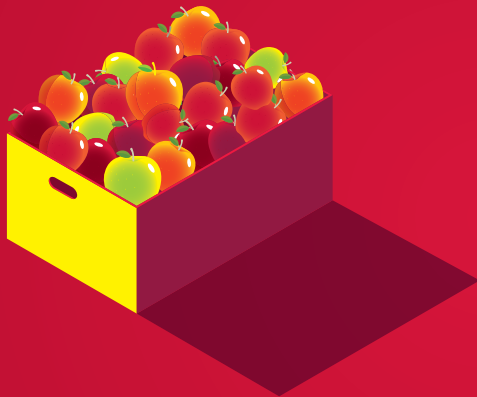
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INTEGRATED SOLUTIONS > DEDICATED CONTRACT TRANSPORTATION + SUPPLY CHAIN SOLUTIONS + VALUE-ADDED WAREHOUSING

COMPARING THIRD-PARTY TRANSPORTATION PROVIDERS IS LIKE COMPARING

APPLES TO STEEL.



**NO TWO PRODUCTS ARE ALIKE.
NO TWO THIRD-PARTY LOGISTICS PROVIDERS ARE EITHER.**

When you're choosing between 3PLs, make sure you're doing an apples to apples comparison of the proposals. Ruan's Integrated Solutions bring additional value to every shipment through our people, process, and technology platform.

With more than 86 years of experience, we provide a wealth of knowledge to each client. And our process generates savings by optimizing your supply chain, whether

your integrated solution requires logistics, warehouse management, Ruan assets, or more. And our flexible, best-of-breed technology platform scales to meet your needs, improving visibility, reducing spend.

For more information about how we can design a solution that brings more value to you (whether you're shipping apples or steel), **call (866) 782-6669 or visit ruan.com.**

RUAN



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