# ATRI BOARD OF DIRECTORS

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<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Company/Location</th>
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<tbody>
<tr>
<td>Ms. Judy McReynolds</td>
<td>Chairman of the ATRI Board</td>
<td>ArcBest Corporation, Fort Smith, AR</td>
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<tr>
<td>Mr. Michael S. Card</td>
<td>President</td>
<td>Combined Transport, Inc., Central Point, OR</td>
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<tr>
<td>Mr. Michael L. Ducker</td>
<td>President &amp; CEO</td>
<td>FedEx Freight, Memphis, TN</td>
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<tr>
<td>Mr. Rich Freeland</td>
<td>President &amp; COO</td>
<td>Cummins Inc., Columbus, IN</td>
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<tr>
<td>Mr. Hugh H. Fugleberg</td>
<td>President &amp; COO</td>
<td>Great West Casualty Company, South Sioux City, NE</td>
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<tr>
<td>Mr. Dave Huneryager</td>
<td>President &amp; CEO</td>
<td>Tennessee Trucking Association, Nashville, TN</td>
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<tr>
<td>Mr. Derek Leathers</td>
<td>President &amp; CEO</td>
<td>Werner Enterprises, Omaha, NE</td>
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<tr>
<td>Mr. Chris Lofgren</td>
<td>President &amp; CEO</td>
<td>Schneider National, Inc., Green Bay, WI</td>
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<tr>
<td>Mr. Rich McArdle</td>
<td>President</td>
<td>UPS Freight, Richmond, VA</td>
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<tr>
<td>Mr. Jeffrey J. McCaig</td>
<td>President &amp; CEO</td>
<td>Trimac Transportation, Inc., Houston, TX</td>
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<tr>
<td>Mr. Gregory L. Owen</td>
<td>Head Coach &amp; CEO</td>
<td>Ability/ Tri-Modal Transportation Services, Carson, CA</td>
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<td>Ms. Annette Sandberg</td>
<td>President &amp; CEO</td>
<td>Transsafe Consulting, LLC, Davenport, WA</td>
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<tr>
<td>Mr. Steve Williams</td>
<td>Chairman &amp; CEO</td>
<td>Maverick USA, Inc., Little Rock, AR</td>
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<tr>
<td>Ms. Rebecca M. Brewster</td>
<td>President &amp; COO</td>
<td>American Transportation Research Institute, Atlanta, GA</td>
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<tr>
<td>Mr. Chris Spear</td>
<td>President &amp; CEO</td>
<td>American Trucking Associations, Arlington, VA</td>
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ATRI RESEARCH ADVISORY COMMITTEE

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VP, Safety Policy & Regulatory Relations
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Mr. Michael Conyngham
Director of Research
International Brotherhood of Teamsters

Mr. Bob Costello
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Energy Manager
Southeastern Freight Lines

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Werner Enterprises

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C.R. England

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Nevada Trucking Association

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Garner Transportation Group

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C.H. Robinson

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Maverick USA, Inc.

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Texas Dept. of Public Safety

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College of Staten Island – The City University of New York

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HELP Inc.

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McLean, VA

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Wellington F. Roemer Insurance, Inc.

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Mr. Keith Tuttle
Founder
Motor Carrier Service Inc.

Mr. Ronald Uriah
Vice President, Safety
Pitt-Ohio, LLC

Mr. Tom Weakley
Director of Operations
Owner-Operator Independent Drivers Association Foundation

Mr. Rusty Weiss
Director, External Research
DriveCam-Lytx

Mr. Geoffrey Wood
VP, Operations & Safety
Canadian Trucking Alliance

The past 12 months have seen a number of legislative and regulatory actions which have directly and indirectly impacted the trucking industry. In December 2015, Congress passed the long-awaited Fixing America’s Surface Transportation (FAST) Act, which directed attention and resources to a number of the trucking industry’s top concerns. The FAST Act mandated reform of the Federal Motor Carrier Safety Administration (FMCSA) Compliance, Safety, Accountability (CSA) program, allocated $225 billion over five years to the highway program, and established a pilot program for younger veteran drivers among other items.

December 2015 also saw the issuance of FMCSA’s final rule on electronic logging devices (ELDs), which set a timeline of two years for fleets and drivers using paper logs to convert to ELDs for hours-of-service (HOS) tracking. Among its provisions, the rule grandfathers in existing ELDs until at least December 2019, and sets provisions to prevent the harassment of drivers using ELDs. However, concerns exist over the productivity impacts the industry may experience from ELDs, and at least one legal challenge has yet to be settled.¹

More recently, the U.S. Department of Transportation’s (U.S. DOT) National Highway Traffic Safety Administration (NHTSA) and the Environmental Protection Agency (EPA) issued the Phase 2 final rule on Greenhouse Gas Emissions and Fuel Efficiency Standards for medium- and heavy-duty engines and vehicles. As the industry now evaluates how to ensure compliance with the new standards, concern over escalating vehicle costs continues.² Other significant regulatory impacts are being experienced by industry stakeholders from the Food and Drug Administration’s (FDA) Food Safety Modernization Act (FSMA) and the potential of a rulemaking on sleep apnea screening for commercial drivers.

In addition to myriad legislative and regulatory changes, issues internal to the industry continue to impact fleet operations. With an aging workforce and lack of new entrants to fill open positions, the industry is still challenged by a growing shortage of commercial drivers and diesel technicians, with no viable solution in sight for addressing the pervasive staffing challenges faced by the trucking industry.

Given these and numerous other issues impacting the nation’s freight system, the American Trucking Associations (ATA) and its Federation partners in the State Trucking Associations (STA) continually seek opportunities to identify and prioritize the industry’s most pressing concerns. For the past 12 years, the industry has relied on the American Transportation Research Institute’s (ATRI’s) annual industry survey to better understand

trucking’s most critical issues as well as to identify preferred strategies for addressing these issues.

ATRI’s Top Industry Issues report is based on a robust survey methodology. The issues and potential strategies were first identified by ATRI in collaboration with various trucking stakeholder groups. ATRI then conducted a large-scale survey distribution using its own contact database as well as through major trucking industry trade press and dissemination through the 50 State Trucking Associations to their respective memberships.

Survey respondents were asked to select their top three choices from the aforementioned list, and subsequently rank their top three preferred strategies corresponding to each selected issue.

As evidence of the numerous and varied challenges currently facing the industry, this year’s survey generated a record-breaking 3,285 responses, a 137 percent increase over last year’s total, and by far the highest response rate since the inception of the survey. Respondents represented industry stakeholders across North America including the U.S., Canada, and Mexico. The respondents were predominantly commercial drivers (64.5%), with motor carriers making up 27.8 percent of the respondent pool, and other industry stakeholders accounting for 7.7 percent. Recognizing that the top industry issues impact motor carriers and commercial drivers differently, this year’s report includes separate “Top Ten” lists specific to commercial drivers and motor carriers, in addition to the overall ranking.

This report presents the findings of the 2016 annual survey and analysis, and compares the findings of previous years’ surveys (Table 2) resulting in an indicator of rising, falling, and emerging priorities in the trucking industry.
Top Issues Summary

The issuance of FMCSA’s final rule mandating the use of ELDs caused the ELD Mandate to climb five places and top the overall list as the number one issue in 2016. Subsequently, the HOS rules fell to the number two position for the first time since 2012. Reflecting industry concern with these and other regulatory actions, a new issue emerged in third place in the 2016 survey – the cumulative economic impacts of trucking regulations on the industry. The lack of available, safe parking for truck drivers climbed one position from last year, ranking fourth overall in 2016. Finally, concern over the soft economy in 2015, and the continued slow growth in 2016 caused the state of the economy to climb three positions and round out this year’s top five issues.

ATRI develops the “Top Ten” using a formula assigning quantitative values to respondents’ rankings of issues facing the industry. An issue that is ranked most important receives three points, while an issue ranked second receives two points and an issue ranked third receives one point. Issues that were not ranked by respondents do not receive any points.

The total number of points is then totaled to generate a prioritized list of industry concerns. The issue with the highest number of points is, of course, identified as the top industry issue. An Industry Concern Index (ICI) is presented to illustrate the relative level of concern from one issue to the next. The Top Industry Issue receives an ICI of 100, and then all other issues are indexed against 100. For example, if an issue receives an ICI of 50, it has half the level of concern as the top issue ICI of 100.

Each respondent also ranked three strategies that were previously identified as having the greatest impact. Values are then assigned to respondents’ rankings for each of the three strategies and an average score is calculated based on all of the rankings to determine the most preferred strategy.

In rank order, the top ten issues identified by industry respondents are detailed below in Figure 1 showing a breakdown of the rankings for each of the top issues, from first place to tenth place (left to right).
Figure 1: Distribution of Industry Issue Prioritization Scores

Number of Respondents

- Most Important
- Second Most Important
- Third Most Important

Issues:
- ELD Mandate
- Hours-of-Service (HOS)
- Cumulative Impacts of Regs.
- Truck Parking
- Economy
- CSA
- Driver-Shortage
- Driver Retention
- Infrstr / Congestion / Funding
- Driver Distraction
1. Electronic Logging Device (ELD) Mandate

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<td>24%</td>
<td>13%</td>
<td>7%</td>
<td>44%</td>
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On December 10, 2015 FMCSA issued its final rule on ELDs, mandating their use by December 2017 for all commercial drivers who are required to track hours-of-service.\(^3\) With this final rulemaking the top two strategies identified in the 2015 survey were addressed; ELDs are not required to be capable of creating hard-copy printed HOS records, and existing devices installed by early adopters are grandfathered until December 2019 (potentially longer if these devices can be modified to meet the new specifications). However, concerns over the ELD mandate persist and the day after the rule was published, a lawsuit was filed by the Owner-Operator Independent Drivers Association (OOIDA) seeking to vacate the rule.\(^4\) New concerns surrounding privacy, the potential to inappropriately use the information tracked by ELDs, and industry-wide productivity loss caused the issue to top the Critical Issues list, climbing from the number six position in 2015.

**Proposed Strategies (in rank order):**

a) *Research and quantify industry impacts on safety and productivity from full deployment of ELDs.* There is significant uncertainty in the industry concerning the costs and benefits of industry-wide ELD deployment. With an average price of $495 per truck or more\(^5\), a major hurdle for many carriers will simply be the purchase and deployment of the devices. While FMCSA’s Regulatory Impact Analysis showed a savings to the industry of $2.44 billion in administrative costs\(^6\), other research predicts an overall loss in productivity of between three and five percent, with this figure potentially increasing to 10 percent for small carriers.\(^7\) Given the disparity in predicted impact, a vast majority of respondents (65.8%) want to see research that quantifies real-world industry impacts from full deployment of ELDs

b) *Assess the landscape of appropriate and inappropriate uses of newly available ELD data.* Given the scope of information that ELDs are capable of tracking, there is much skepticism in the industry about how this information will be used beyond recording HOS – with privacy and driver harassment being the two major areas of concern. While

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language in FMCSA’s final rule prohibits driver harassment and provides a channel for drivers to file a written complaint regarding harassment, a quarter of respondents (25%) would like to establish standards on the uses of ELD-generated data.

c) Ensure that the two-year implementation window is not extended. A small portion of respondents (10.7%) indicated they do not want the implementation window to be extended past the current two-year period due to the unfair competitive advantages that fleets using paper logs could have over early ELD-adopting fleets.\(^8\)

2. Hours-of-Service (HOS)

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Significant negative impacts on the industry have been documented by numerous sources due to the 34-hour restart provisions first implemented in July 2013. In 2013, ATRI found that 80 percent of motor carriers indicated a loss of productivity directly attributable to the now-suspended rules, and driver pay impacts were estimated to range from $1.6 billion to $3.9 billion annually.\(^9\) Although the restart provisions were suspended by Congress in December 2014, concern over their reinstatement continues pending FMCSA’s release of the results of its second congressionally mandated field study. Additional uncertainty surrounding the final disposition of the HOS rules was unintentionally introduced in the December 2015 Omnibus appropriations bill with the omission of critical language that would have permanently suspended the more restrictive 34-hour restart provisions. Combined with the volatility and uncertainty of ongoing HOS changes, these factors kept the HOS rules in the top five, ranking second after the ELD mandate.

Proposed Strategies (in rank order):

a) **Advocate for a permanent science-based fix to the 34-hour restart rule that ensures that FMCSA does not return to the more restrictive provisions requiring two overnight rest periods of 1-5 a.m. and limitation on the use of the restart to once per week.** Given the growing amount of uncertainty surrounding the future of the HOS rules and the documented research showing the negative safety and productivity impacts\(^10\) that resulted from the 34-hour restart provisions, the industry is understandably impatient for a long-term solution that does not include a return to the currently suspended provisions. As such, 45.7 percent of respondents would like to see a resolution based on empirical evidence.

b) **Continue to push for increased flexibility in the current sleeper berth provision.** Currently, drivers using the sleeper berth provision must take at least eight consecutive hours in the sleeper berth, plus a separate two consecutive hours either in the sleeper berth, off duty, or any combination of the two.\(^11\) 30 percent of respondents would like to see added flexibility to this rule to allow drivers to rest when they are tired. In response

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to this request, FMCSA has initiated a pilot study to assess the benefits of added flexibility to the sleeper berth provision.\textsuperscript{12}

c) \textit{Research and quantify the true safety and economic impacts of customer detention on truck drivers and trucking operations}. Driver delays at customer facilities can result in a variety of adverse safety and economic impacts. As called for in the FAST Act, the U.S. DOT Office of Inspector General (OIG) recently initiated an audit of detention time impacts on the industry’s safety and productivity.\textsuperscript{13} The OIG is required to complete their audit and issue a report to Congress not later than one year after the date of the enactment of the FAST Act.\textsuperscript{14} A quarter of respondents (25.6\%) believe that quantifying these impacts is an important first step in identifying solutions.


3. Cumulative Economic Impacts of Trucking Regulations on the Industry

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For the first time in the Top Industry Issues Survey history, a new issue relating to economic impacts of trucking regulations has emerged (and is ranked 3<sup>rd</sup> overall) which speaks to the industry’s growing concern for “over-regulation.” With FMCSA’s ELD rule and the EPA/NHTSA Phase 2 greenhouse gas emissions rule, vehicle costs will continue to increase. And, productivity impacts that generate from regulatory actions, such as the HOS, speed limiter and ELD rules, all have corresponding economic effects. These and countless other regulatory actions and proposals from the numerous agencies which regulate trucking all add up to a new third place concern for the industry.

Proposed Strategies (in rank order):

a) Analyze the accuracy of federal agency regulatory impact analyses (RIA) versus actual industry costs as new regulations are proposed. As required by law, a study of the potential impacts of new regulations must be conducted on the benefits and costs of implementing the proposed regulation. Research has documented where significant discrepancies exist between agency projections and actual industry costs. When reviewing the RIA for the HOS rules change in 2013, ATRI documented a delta of $322 million between FMCSA’s projected benefits and the industry’s costs from the more restrictive 34-hour restart provisions. Over half of respondents (51.8%) would like more research similar to the ATRI study in comparing the projected and actual impacts of new regulations.

b) Quantify cumulative regulatory costs incurred by the trucking industry over the past decade, broken out by each federal agency promulgating the regulations. The trucking industry is among the most regulated in terms of the number of federal agencies with jurisdiction – FMCSA, FHWA, NHTSA, EPA, PHMSA, DOL, DOD, FDA, DHS, HHS, among others. Given the vast array of regulations in which the industry must operate, over a third (35%) of respondents would like to see research that quantifies the costs incurred by the industry directly related to these regulations.

c) Develop recommended industry metrics and model analyses for future rulemakings to better project industry costs. A small portion of respondents (14.3) would like to standardize the methodology utilized to project industry impacts of new regulations.

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4. Truck Parking

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<td>7%</td>
<td>9%</td>
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The growing scarcity of available truck parking creates a dangerous situation for truck drivers who are often forced to drive beyond allowable HOS rules or park in undesignated and, in many cases, unsafe locations. In response to a congressional requirement, the Federal Highway Administration (FHWA) released its *Jason’s Law Truck Parking Survey Results and Comparative Analysis* in August 2015 which confirmed that truck parking continues to be a major issue in the United States. As such, this issue climbed one position to number four overall from last year.

Similarly, ATRI’s Research Advisory Committee selected Truck Parking as the most critical research need for the industry in 2015. In response, ATRI released the first of a series of technical memoranda on the topic of truck parking in September 2015 highlighting driver perceptions and valuations for locating available parking. The second Tech Memo to be released in October 2016 analyzes detailed information on over 2,000 days of truck parking activity recorded by commercial drivers in ATRI’s “Truck Parking Diary.” ATRI is also involved as a core team member in the Mid America Association of State Transportation Officials- (MAASTO) sponsored Truck Parking Information Management Systems (TPIMS) development, funded through a $25 million TIGER grant. When fully deployed, the TPIMS will deliver real-time truck parking availability information to commercial drivers in eight Midwest states. ATRI is also part of a national partnership including the National Association of Truck Stop Operators (NATSO) to develop the Park My Truck app for drivers, providing real-time information on parking availability nationwide.

**Proposed Strategies (in rank order):**

a) **Support and encourage investment in new truck parking facilities.** A vast majority of survey respondents, 71.2 percent, indicated that new truck parking capacity is their preferred strategy. Budget shortfalls experienced by many states have resulted in the

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17 The American Transportation Research Institute (ATRI) Research Advisory Committee (RAC) is comprised of industry stakeholders representing motor carriers, trucking industry suppliers, labor and driver groups, law enforcement, federal government, and academics. The RAC is charged with annually recommending a research agenda for the Institute.


closure of many public truck stops and rest areas. Reopening shuttered facilities and investing in new ones would help alleviate the shortages occurring in many areas.

b) Educate the public sector on the safety consequences resulting from closing public parking facilities. The “Jason’s Law” study was called for by Congress as part of the larger MAP-21 highway authorization bill. The impetus for Jason’s Law was the murder of a truck driver in a parking location he believed was safe. Educating state and local officials on the critical need for safe truck parking facilities could lead to new investments in parking facilities. This strategy is preferred by nearly a quarter of respondents (23.4%).

c) Research the role and value of real-time truck parking information availability and truck parking reservation systems. Technological advances make programs like the MAASTO Truck Parking Information Management Systems and the Park My Truck app possible. These systems, being tested around the country, have the potential to inform drivers of available parking before exiting the highway. A small number of respondents (6.2 %) feel this is the best strategy.

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5. Economy

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Stagnant economic growth in the fourth quarter of 2015\textsuperscript{22}, as well as slow growth thus far in 2016\textsuperscript{23} caused concern over the state of the nation’s economy to climb three positions to fifth overall. This has generated significant concern among industry stakeholders, who for the past two years have ranked the economy much lower in the list of annual concerns, thanks to the strong post-Great Recession period between 2011 and 2014 (9\textsuperscript{th} in 2014 and 8\textsuperscript{th} in 2015).

Proposed Strategies (in rank order):

a) \textit{Research and quantify the impact of the new U.S. Department of Labor overtime rules on the trucking industry}. On May 18, 2016 the Obama administration unveiled the final rule concerning overtime pay which, effective on December 1, 2016, sets $47,476 as the minimum annual salary for overtime exemption – representing more than a 100 percent increase from the current threshold of $23,660.\textsuperscript{24} Uncertain of the cost impact this will have on the trucking industry, a majority of respondents (54.8\%) want this rule’s impact quantified through empirical research.

b) \textit{Advocate for reforming/repealing ineffective and burdensome regulations that add to economic costs without providing benefits}. Nearly a third of respondents (32.2\%) feel that regulatory reform is the best strategy for improving the economy and driving up the demand for freight.

c) \textit{Continue to advocate for policies that will stimulate the economy}. Given the strong relationship between consumer spending and freight demand, 14.3 percent of respondents would like to see policies which boost consumer confidence and spending. With increased consumer spending comes increased freight demand and a more stable financial situation for the trucking industry.

6. Compliance, Safety, Accountability (CSA)

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With the passage of the FAST Act in December 2015, a number of trucking industry concerns with FMCSA’s regulatory framework were addressed, at least temporarily. Among the reforms included in the FAST Act were a study of CSA data accuracy and reliability, removal of carrier CSA scores from public view and a requirement that FMCSA initiate a pilot program to review non-preventable crashes. As such, CSA fell out of the top five issues for the first time since its addition to the survey in 2010. However, the industry still has issues with elements of CSA and as such, it retained a top 10 ranking in the 2016 survey.

**Proposed Strategies (in rank order):**

a) *Continue to push for a crash accountability determination process that removes non-preventable crashes from carrier scores.* In a November 2015 report, ATRI researchers quantified the impact that removal of five non-preventable crash types would have on carrier CSA Crash BASIC scores. Among the carriers in the ATRI report, reductions to the Crash BASIC were as much as 15 percent. On July 12, 2016, FMCSA announced its plan for the congressionally mandated pilot study of a crash accountability determination process and it referenced several of the same non-preventable crash types utilized in the ATRI study. 59.5 percent of respondents believe that having a credible process for removing non-preventable crashes from the Crash BASIC calculation is the most important step to improving how CSA measures safety performance.

b) *For carriers who choose to participate in FMCSA’s Beyond Compliance program, advocate for CSA BASIC score reductions rather than a new carrier BASIC.* FMCSA’s Beyond Compliance program, called for in the FAST Act, is modeled after ATRI’s “Alternative Compliance” research from 2011. In that research, ATRI identified a number of safety technologies, management strategies and driver training approaches that motor carriers could be incentivized to voluntarily adopt. Among the potential incentives proposed in ATRI’s study was a reduction in corresponding CSA BASIC

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scores. Similarly, FMCSA’s Beyond Compliance program also proposes to recognize motor carriers for the adoption of safety technology, enhanced driver fitness, and/or fleet safety management tools. However, the agency may incorporate this credit into a newly created BASIC. 27.7 percent of respondents would like to see the credit as a reduction in existing BASICs as opposed to creating a new BASIC.

c) *Ensure that the recommendations of the Congressionally-mandated National Academies of Sciences review of CSA are implemented by FMCSA.* Another aspect of the CSA reform involves commissioning a Transportation Research Board (TRB) study to examine the accuracy of CSA scores in identifying high risk carriers and predicting future crash risk and severity. Previous research identified an inverse relationship between certain CSA scores and crash risk in several of the BASICs. In light of this, 14 percent of respondents are looking for the FAST Act-required study to corroborate earlier research and recommend changes to be implemented by FMCSA.

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7. Driver Shortage

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A top three issue in 2015, the driver shortage has dropped to number seven overall this year, reflecting concern over the softening freight market. Despite the drop in ranking, the American Trucking Associations (ATA) still estimated a shortage of 48,000 drivers in 2015, with projections that the shortage could increase to 175,000 by 202530.

Proposed Strategies (in rank order):

a) **Work with state and federal authorities to consider a graduated CDL program to attract new and younger drivers that meet safety standards.** ATA found that 45 percent of new driver hires are done to replace retirees. This corroborates ATRI’s recent driver demographic analysis, which found that 26 percent of the industry’s workforce is 55 and older. Therefore, it is critical that the industry identify new workers to fill the growing number of openings due to an aging workforce. However, federal rules that require individuals to be 21 years old to obtain a Commercial Driver License (CDL) limit options for individuals aged 18-20 who are interested in becoming truck drivers. A Graduated CDL would provide an avenue for younger drivers to enter the profession and work toward a full CDL. Researching ways to safely incorporate younger drivers into the industry is the preferred strategy for 53 percent of respondents.

b) **Research and quantify successful recruitment strategies for commercial drivers.** Approximately one-third (31.8%) of respondents feel that the best strategy for combating the driver shortage is to identify proven practices for attracting new entrant drivers. These strategies could include ways to identify and engage non-traditional workers with new recruitment ads messaging.

c) **Work with the Department of Labor to formalize a national truck driver recruitment program.** 16.2 percent of respondents would like to see cooperation with the Department of Labor (DOL) on what is becoming a significant national workforce issue. It has been noted that the DOL continuously lists Truck Driver on its “highest job demand” list, but does not commit resources to addressing the shortage.

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8. Driver Retention

<table>
<thead>
<tr>
<th>Rank</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>5%</td>
</tr>
<tr>
<td>2nd</td>
<td>6%</td>
</tr>
<tr>
<td>3rd</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>15%</td>
</tr>
<tr>
<td>Index</td>
<td>30.5</td>
</tr>
</tbody>
</table>

Related to the driver shortage issue, but requiring different approaches is Driver Retention, which continues to be a top priority for motor carriers. Despite driver turnover falling in the first quarter of 2016\(^{33}\), the industry still experiences turnover rates significantly higher than most other sectors of the U.S. workforce, creating additional costs for motor carriers in recruitment and training.

**Proposed Strategies (in rank order):**

a) *Identify and publish carrier best practices that improve work/life balance, healthy lifestyles and family relationships for drivers.* There is a continuum of success among fleets in how they structure their driver programs and work environment to improve their drivers’ quality of life. Among the more successful strategies utilized by fleets is the practice of more frequent home time and newer equipment acquisition. Quantifying and disseminating these best practices is the preferred strategy of 35 percent of respondents.

b) *Study the effectiveness of carrier retention programs that financially incentivize drivers for driving performance in the areas of safety, fuel economy, and trip productivity.* While driver pay is only part of the equation, it plays a leading role in maintaining and/or enhancing driver satisfaction. However, understanding the relationship of the various industry driver pay models and their relationship to driver productivity and retention is a necessary first step in advancing the most successful compensation schema. 34.4 percent of respondents believe an analysis of driver compensation approaches would be beneficial to the industry.

c) *Research the relationship between driver compensation models and driver productivity.* By financially rewarding drivers who are safe and productive, carriers could encourage those drivers to stay longer with the fleet. These bonuses may serve as an incentive to other drivers to improve their safety and productivity-related behaviors as well. 31.2 percent of respondents that prefer this strategy would like to see research measuring possible impacts of these incentive programs.

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9. Transportation Infrastructure / Congestion / Funding

<table>
<thead>
<tr>
<th>Ranked 1st</th>
<th>Ranked 2nd</th>
<th>Ranked 3rd</th>
<th>Total Share</th>
<th>Industry Concern Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>3%</td>
<td>4%</td>
<td>6%</td>
<td>13%</td>
<td>21.5</td>
</tr>
</tbody>
</table>

With the December 2015 passage of the FAST Act, $225 billion was allocated to the highway program over a 5-year period, $10.8 billion of which is allocated to freight programs. The first is the Nationally Significant Freight and Highway Projects program, a new $4.5 billion grant program for highway projects that improve the movement of freight on either the National Highway Freight Network (NHFN) or the National Highway System (NHS). Another freight program, the $6.3 billion National Highway Freight Program, apportions money to all states to only be spent on the NHFN for projects improving freight movements.\(^{34}\)

**Proposed Strategies (in rank order):**

a) *Continue to advocate for long-term highway funding through an increase in the fuel tax or other user fees, and prevent additional diversion of revenue to non-highway projects.* The ability of existing fuel tax revenues to adequately fund transportation improvements has been declining due to improvements in fuel economy and stagnant fuel tax rates.\(^{35}\) With the Congressional blockage to increase the Federal fuel tax rate,\(^{36}\) many states are attempting to increase their own fuel tax rates in order to adequately fund infrastructure improvements.\(^{37}\) However, many of those states are experiencing difficulties in raising the rate at the state level as well.\(^{38}\) Based on research that demonstrated the administrative efficiency of the fuel tax,\(^{39}\) many in the industry feel that an increase in the fuel tax is the best way to ensure the transportation system is adequately funded. Over half (54.3\%) of respondents rank this strategy as their top choice.

b) *Utilize the Congressionally-mandated National Freight Policy and National Freight Network as tools to ensure adequate investment in critical highway infrastructure.* As part of the MAP-21 authorization passed in 2012, Congress mandated that the U.S DOT develop a National Freight Policy and National Freight Network to assist with long-term

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infrastructure planning and investment prioritization. Additionally, the FAST Act apportioned up $10.8 billion to improvement projects taking place on the National Freight Highway Network.\textsuperscript{40} 27 percent of respondents considered this the best strategy for dealing with infrastructure funding.

c) \textit{Create a new funding program to focus federal resources on truck bottlenecks on major freight routes.} 19.3 percent of respondents feel that it is necessary to target and prioritize freight transportation funding. ATRI monitors congestion at 250 freight-significant locations and produces a ranking of those locations as one mechanism for prioritizing infrastructure investments.\textsuperscript{41} The Jane Byrne Interchange (formerly Circle Interchange) in Chicago is now the focus of a $450 million reconstruction effort to improve truck freight mobility as a direct result of ATRI’s bottleneck research.\textsuperscript{42}


10. Driver Distraction

<table>
<thead>
<tr>
<th>Ranked 1&lt;sup&gt;st&lt;/sup&gt;</th>
<th>Ranked 2&lt;sup&gt;nd&lt;/sup&gt;</th>
<th>Ranked 3&lt;sup&gt;rd&lt;/sup&gt;</th>
<th>Total Share</th>
<th>Industry Concern Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>3%</td>
<td>4%</td>
<td>3%</td>
<td>10%</td>
<td>19.1</td>
</tr>
</tbody>
</table>

Driver distraction and its impact on highway safety rounds out the 2016 list of top 10 issues. According to 2014 statistics, 3,179 people were killed, and 431,000 were injured in all vehicle crashes involving distracted drivers. Further, 13 percent of distracted driving crashes were directly attributed to cell phone use. As such, increased concern about the rising use of technology in vehicles by all drivers will likely result in this issue continuing as a top concern in the coming years.

Proposed Strategies (in rank order):

a) *Encourage harsher penalties and more aggressive enforcement of distracted driving violations for drivers of all vehicle types.* All 50 states have some form of mobile phone use restriction; however, there are varying degrees of definition and enforcement. States may only ban use for novice drivers, some consider any cell phone usage a primary citable offense, while others consider it to be a secondary offense. 52.8 percent of respondents would like to see uniform enforcement of distracted driving laws.

b) *Recognizing the growing role of onboard technologies, identify solutions that support safe technology usage in the cab.* Expanded use of in-cab technology is inevitable, and the number of freight-related smart phone apps is now in the tens of thousands. Many drivers and carriers utilize technologies that streamline decision-making, and assist with vehicle safety and operations, and maintaining this tenuous balance between technology-related safety and operational efficiency is critical. Consequently, 32.5 percent of respondents want to ensure that in-cab technologies continue to provide benefits without compromising safety.

c) *Continue to advocate for research to better understand the scope of the distracted driving problem.* There are those in the industry who believe that, despite increased media attention on the issue, there is a lack of credible data on the actual scope of the distracted driving problem – in both cars and trucks. 16.2 percent of respondents would like research conducted to better quantify the issue.

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Commercial Driver and Motor Carrier Issue Rankings

The Top Industry Issues report details the results of the overall industry survey. However, the issues identified impact industry stakeholders in varied ways and as such, their ranking by different populations may differ. Table 1 below juxtaposes the ranking of issues by commercial drivers and motor carriers, with some very interesting differences being highlighted.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Commercial Drivers</th>
<th>Motor Carriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electronic Logging Device (ELD) Mandate</td>
<td>Driver Shortage</td>
</tr>
<tr>
<td>2</td>
<td>Hours-of-Service (HOS)</td>
<td>Electronic Logging Device (ELD) Mandate</td>
</tr>
<tr>
<td>3</td>
<td>Truck Parking</td>
<td>Cumulative Economic Impacts of Trucking Regulations on the Industry</td>
</tr>
<tr>
<td>4</td>
<td>Cumulative Economic Impacts of Trucking Regulations on the Industry</td>
<td>Economy</td>
</tr>
<tr>
<td>5</td>
<td>Economy</td>
<td>Hours-of-Service (HOS)</td>
</tr>
<tr>
<td>6</td>
<td>Compliance, Safety, Accountability (CSA)</td>
<td>Driver Retention</td>
</tr>
<tr>
<td>7</td>
<td>Driver Retention</td>
<td>Compliance, Safety, Accountability (CSA)</td>
</tr>
<tr>
<td>8</td>
<td>Sleep Apnea Rulemaking</td>
<td>Transportation Infrastructure/Congestion/Funding</td>
</tr>
<tr>
<td>9</td>
<td>FMCSA Mission</td>
<td>Federal Preemption of State Regulation of Interstate Trucking (also known as F4A)</td>
</tr>
<tr>
<td>10</td>
<td>Driver Health and Wellness</td>
<td>Driver Distraction</td>
</tr>
</tbody>
</table>

Both drivers and carriers share four of the same top five issues in the ELD Mandate, HOS, the Economic Impact of Regulations and the state of the Economy. For drivers, the remaining top five issue is Truck Parking – one that clearly impacts their day-to-day operations. For motor carriers, the Driver Shortage is at the top of their list, where it has been for the past several years.

Drivers and carriers also ranked CSA lower than in previous years, in part due to new expectations created by the reforms enacted by the FAST Act.

A new issue added this year pertaining to drivers which made the top ten commercial driver list is FMCSA’s proposed rulemaking on sleep apnea. While a formal rulemaking
is not expected until sometime next year, in response to an ANPRM docket-review meeting, FMCSA’s Medical Review Board recently discussed updating the guidance on sleep apnea testing and which drivers to send for additional screening.45 While not yet formalized, the MRB’s recommendations are for drivers to take diagnostic sleep studies if they have a body mass index (BMI) of 40 or higher.46 Additionally, a sleep apnea test is recommended for those with a BMI between 33 and 40 who exhibit any of a host of factors including loud snoring and being over the age of 42. Given the concern over the costs of these tests,47 as well as time lost from work as a result of the testing, the Sleep Apnea Rulemaking ranks eighth on the commercial driver list of issues.

On the motor carrier list another new issue appears for the first time in 2016: the Federal Preemption of State Regulation of Interstate Trucking. With the 1994 passage of the Federal Aviation Administration Authorization Act, or informally known as “F4A,” Congress laid down groundwork to ensure that the complex trucking industry is governed by one nationwide set of regulations.48 Recently however, some states such as California have introduced driver rest break bills which deviate from the federal regulations. Industry concerns surrounding the inefficiency of creating a “patch-work” of regulations at the state level brought this issue to the ninth position on the motor carrier ranking of issues.

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Emerging Issues

The 11th through 13th place issues are presented in Table 2 below to provide insight into issues that generated a measurable amount of concern, but not enough to make the top ten list of critical issues. Furthermore, this list may provide a forward-looking indicator of emerging issues in the trucking industry.

Table 2: Issues 11 – 13

<table>
<thead>
<tr>
<th>Rank</th>
<th>Issue</th>
<th>ICI</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Sleep Apnea Rulemaking</td>
<td>17.2</td>
</tr>
<tr>
<td>12</td>
<td>Driver Health and Wellness</td>
<td>16.9</td>
</tr>
<tr>
<td>13</td>
<td>FMCSA Mission</td>
<td>16.4</td>
</tr>
</tbody>
</table>

As previously mentioned, while not appearing on the overall top ten list, the Sleep Apnea Rulemaking was eighth on the commercial driver list. The overall ranking of 11th shows that it is an emerging issue for the industry as a whole. The top strategy ranked by respondents for addressing this issue was to ensure that any future rule focuses on drivers with multiple risk factors rather than just a single risk factor. This was a major concern identified by survey respondents in ATRI’s recent research on the proposed sleep apnea rule.49

Related to sleep apnea, driver health and wellness has been a top ten issue since 2012. While it is not on the overall list this year, it does appear at the tenth position on the driver list, and may have dropped in the overall list based on the greater concern over growing regulatory burdens. Encouraging increased availability of exercise facilities and healthy food choices at truck stops and travel plazas was the top strategy for addressing driver health and wellness.

A new emerging issue from last year’s report, the overall mission of the FMCSA, continues to be an emerging issue in 2016. Similar to last year, the vast majority of respondents ranking this issue as most important indicated they would like to see a push for creation of a standing industry oversight panel to review FMCSA-sponsored research plans, study methodologies, contractor selection, and research results to ensure a more balanced and transparent process for developing and promulgating regulations.

Table 3: Top Industry Issue Rankings, 2005 – 2016

<table>
<thead>
<tr>
<th>Issue Rank</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>ELD Mandate</td>
<td>Hours-of-Service</td>
<td><strong>Cumulative</strong></td>
<td>Truck Parking</td>
<td>Economy</td>
<td>CSA</td>
<td>Driver Shortage</td>
<td>Driver Retention</td>
<td>Infrastr./Congestion/Funding</td>
<td>Driver Distraction</td>
</tr>
<tr>
<td>2015</td>
<td>Hours-of-Service</td>
<td>CSA</td>
<td>Driver Shortage</td>
<td>Driver Retention</td>
<td>Truck Parking</td>
<td>ELD Mandate</td>
<td>Driver Health/Wellness</td>
<td>Economy</td>
<td>Infrastr./Congestion/Funding</td>
<td>Driver Distraction</td>
</tr>
<tr>
<td>2014</td>
<td>Hours-of-Service</td>
<td>Driver Shortage</td>
<td>CSA</td>
<td>Driver Retention</td>
<td>ELD Mandate</td>
<td>Truck Parking</td>
<td>Driver Health/Wellness</td>
<td>Economy</td>
<td>Infrastr./Congestion/Funding</td>
<td>Driver Distraction</td>
</tr>
<tr>
<td>2013</td>
<td>Hours-of-Service</td>
<td>CSA</td>
<td>Driver Shortage</td>
<td>Economy</td>
<td>ELD Mandate</td>
<td>Truck Parking</td>
<td>Driver Retention</td>
<td>Fuel Supply/Fuel Prices</td>
<td>Infrastr./Congestion/Funding</td>
<td>Driver Health/Wellness</td>
</tr>
<tr>
<td>2012</td>
<td>CSA</td>
<td>Hours-of-Service</td>
<td>Economy</td>
<td>Driver Shortage</td>
<td>Fuel Supply/Fuel Prices</td>
<td>ELD Mandate</td>
<td>Driver Retention</td>
<td>Truck Parking</td>
<td>Driver Health/Wellness</td>
<td>Congestion/Truck Bottlenecks</td>
</tr>
<tr>
<td>2011</td>
<td>Economy</td>
<td>Hours-of-Service</td>
<td>Driver Shortage</td>
<td>CSA</td>
<td>Fuel Issues</td>
<td>Congestion</td>
<td>Transportation Funding</td>
<td>Tort Reform</td>
<td>Onboard Truck Technology</td>
<td>Truck Size and Weight</td>
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<tr>
<td>2008</td>
<td>Fuel Costs</td>
<td>Economy</td>
<td>Driver Shortage/Retention</td>
<td>Government Regulation</td>
<td>Hours-of-Service</td>
<td>Commercial Driver Issues</td>
<td>Environmental Issues</td>
<td>Tolls/Highway Funding</td>
<td>Environmental Issues</td>
<td>Tort Reform</td>
</tr>
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<td>2007</td>
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<td>Driver Shortage</td>
<td>Fuel Issues</td>
<td>Congestion</td>
<td>Government Regulation</td>
<td>Tolls/Highway Funding</td>
<td>Tort Reform/Legal Issues</td>
<td>Truck Driver Training</td>
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<td>Onboard Truck Technology</td>
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<td>Insurance Costs</td>
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<td>Government Regulation</td>
<td>Congestion</td>
<td>Environmental Issues</td>
<td>Truck Security</td>
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</table>

Note: **Bold** indicates first year in top ten.