



## ATRI RESEARCH SELECTED FOR PRESENTATION AT TRB ANNUAL MEETING

Three papers submitted by ATRI researchers have been selected for presentation as part of the upcoming Transportation Research Board (TRB) 92nd Annual Meeting, to be held in Washington, DC January 13-17, 2013. The TRB Annual Meeting is attended by more than 11,000 transportation professionals from around the world. The following papers will be presented by ATRI staff:

- ★ Mapping Large Truck Rollovers: Identification And Mitigation Through Spatial Data Analysis – Lisa Park, Research Analyst
- ★ Quantifying Truck Delay on Interstates in Georgia - Dave Pierce, Research Associate
- ★ Roundabouts and the Accommodation of Large Trucks: A Motor Carrier Perspective – Lisa Park, Research Analyst

## ATRI Research Assesses CSA's Relationship to Crash Activity

Since the full deployment of FMCSA's Compliance, Safety, Accountability (CSA) program in late-2010, there has been a lack of consensus over whether motor carrier Behavior Analysis and Safety Improvement Category (BASIC) scores are related to safety performance. This uncertainty has made it difficult to determine where CSA stands on the continuum between success and failure.

ATRI recently released its study examining the relationship between motor carrier CSA scores and actual crash involvement. ATRI's research utilized a sophisticated statistical analysis capable of evaluating complex crash data to provide more accurate and direct results than previous studies had done.

The large scale analysis considered data from roughly 500,000 interstate and intra-state hazardous material carriers. ATRI used July 2012 carrier CSA profiles and 24

months of historical crash data to evaluate whether associations could be found between crash frequency and any of CSA's five publicly accessible BASIC scores. The series of analyses identified a strong link to safety for the Unsafe Driving, Fatigued Driving and Vehicle Maintenance BASICs; partial support for the Controlled Substances and Alcohol BASIC; and no statistical support for the Driver Fitness BASIC. In fact, the data show that, as a carrier's Driver Fitness record improves, that carrier's crash rate goes up.

This research allows motor carriers to determine which

aspects of CSA can be used to guide safety improvement efforts. Additionally, it advises other trucking stakeholders that carriers who have not been assigned BASIC scores are not necessarily unsafe (and may actually pose a lower safety risk than carriers with below threshold scores).

Finally, recognizing the flaws in current CSA profiles, ATRI proposes an alternative method for communicating fleet safety information to the public in a way that more accurately reflects carrier safety performance.

Classification Group	Description	Level of Safety Risk
		Low → High
Group A	Sufficient inspection data in at least one BASIC, but no scores	→
Group B	Scores in at least one BASIC, but no "Alerts"	→
Group C-1	1 "Alert"	→
Group C-2	2 "Alerts"	→
Group C-3	3 "Alerts"	→
Group C-4	4 "Alerts"	→
Group C-5	5 "Alerts"	→

## Understanding the Differences in Roll Stability Systems

Roll Stability Systems (RSS) are generally designed to prevent two types of crashes: un-tripped rollovers and loss of control crashes (which can lead to skidding, jackknifing, or rollover). These types of crashes have varying rates of occurrence and severity. ATRI first studied RSS in 2008, when ATRI and FMCSA collaborated to assess the benefits and costs associated with Roll Stability Systems (RSS). The landmark study focused specifically on Roll Stability Control (RSC) and its impact on preventing expensive rollover crashes. The other type of RSS solution is Electronic Stability Control (ESC), which has an additional sensor that is designed to address loss-of-control crashes as well as the rollover crashes.



In March of this year, ATRI's Research Advisory Committee identified as a top priority study a cost-benefit assessment of ESC versus RSC – based on anecdotal evidence that RSC might

*(Roll Stability Systems—Continued on page 6)*

### INSIDE THIS ISSUE:

Board Member Spotlight - Jack Holmes	2
New RAC Chairman Appointed	2
New RAC Members Selected	3
Trucking Industry's Top Ten	4
ATRI Releases Operational Costs Report	5

## Board of Directors

**Mr. Steve Williams**  
**ATRI Chairman**  
 Chairman and CEO  
 Maverick USA, Inc.

**Mr. Michael S. Card**  
 President  
 Combined Transport, Inc.

**Mr. Edward Crowell**  
 President and CEO  
 Georgia Motor Trucking Association

**Mr. Rich Freeland**  
 President-Engine Business  
 Cummins Inc.

**Mr. Hugh H. Fugleberg**  
 President and COO  
 Great West Casualty Company

**Mr. Jack Holmes**  
 President  
 UPS Freight

**Mr. Ludvik F. Koci**  
 Director  
 Penske Corporation

**Mr. Chris Lofgren**  
 President and CEO  
 Schneider National, Inc.

**Mr. William J. Logue**  
 President and CEO  
 FedEx Freight

**Mr. Jeffrey J. McCaig**  
 President and CEO  
 Trimac Transportation, Inc.

**Ms. Judy McReynolds**  
 President and CEO  
 Arkansas Best Corporation

**Mr. Gregory L. Owen**  
 Head Coach and CEO  
 Ability Tri-Modal Transportation Services

**Mr. Douglas W. Stotlar**  
 President and CEO  
 Con-way Inc.

**Ms. Rebecca M. Brewster**  
 President and COO  
 American Transportation Research Institute

**Hon. Bill Graves**  
 President and CEO  
 American Trucking Associations

## Board Member Spotlight: Jack Holmes

Earlier this year, ATRI Chairman Steve Williams appointed Jack Holmes to the ATRI Board. Jack is president of UPS Freight, a leading provider of regional and less-than-truckload (LTL) freight services in the U.S., and of UPS Freight Truckload, with operations including dedicated transportation services, transactional truckload, truckload brokerage and dry and refrigerated intermodal. Jack also oversees UPS Freight's operations in Canada, Mexico and Puerto Rico.

Jack's career in transportation began 33 years ago outside of Philadelphia, while still attending West Chester State University, where he began his career in an entry-level position unloading trailers on a pre-dawn shift. He was also a delivery driver prior to being promoted into management, where he has held leadership positions in Operations, Engineering and Human Resources.

Twelve years ago, Jack was promoted to President and COO of the company's Western States based in Salt Lake City. Since that time he has held the same title in numerous locations across the country prior to his promotion as President of UPS Freight.

Jack's more notable assignments included presiding over UPS's Chicago Area Consolidated Hub (CACH) – UPS's largest automated ground package sorting facility - and heading the transition team for UPS's largest-ever domestic acquisition, the purchase of Overnite Transportation in 2005. During his tenure with Overnite, now UPS Freight, the LTL carrier has increased its market share each year since the acquisition. Jack is very involved outside of UPS, including service on the Virginia Governor's Advisory Council on Revenue Estimates, the Virginia Business Council, and the Richmond Management Roundtable.



## ATRI Board Appoints Niswander RAC Chairman

On October 9th, the ATRI Board of Directors appointed Steve L. Niswander, Vice President of Safety, Policy and Regulatory Relations for Groendyke Transport in Enid, Oklahoma as Chairman of the Institute's Research Advisory Committee (RAC). Niswander has been a member of the RAC since 2009 and he will serve as Chairman of the 2013-2014 RAC. As RAC Chairman, Niswander will be responsible for leading the group's identification, review and prioritization of the trucking industry's top research needs.

Also at its October 9th meeting, the ATRI Board recognized the service of outgoing RAC Chairman, Philip L. Byrd, Sr., President and CEO of Bulldog Hiway Express in Charleston, South Carolina. Phil served as Chairman of the 2011 – 2012 Research Advisory Committee.



"The work of the Research Advisory Committee is so vital to ATRI's mission and to the industry at large," commented ATRI Board Chairman Steve Williams. "The Board and I want to thank Phil for his commitment to ATRI and for his thoughtful and deliberate leadership of the Research Advisory Committee." Phil's industry leadership continues as he now serves as First Vice Chairman of the American Trucking Associations.



## New Research Advisory Committee Members Selected

The ATRI Board of Directors recently approved a new slate of members for ATRI's Research Advisory Committee (RAC). ATRI's RAC is charged with annually developing a prioritized list of research studies for the Institute to pursue. RAC members represent a diverse group of industry stakeholders including motor carriers, industry suppliers, academics, government, driver groups and law enforcement. RAC members serve two-year terms and can be reappointed by the ATRI Board to subsequent terms. The 2013-2104 RAC includes 16 reappointed members and the following **new members**:

### Duane Acklie

Chairman  
Crete Carrier Corporation

### Kirk Altrichter

Vice President, Maintenance  
Gordon Trucking, Inc.

### Andrew Boyle

Executive Vice President  
Boyle Transportation

### Michael Conyngham

Director of Research  
International Brotherhood of Teamsters

### John Freeman

Vice President Sales  
Pilot Travel Centers

### Matt Hart

Executive Director  
Illinois Trucking Association

### Sanford Hodes

Senior Vice President and Deputy  
General Counsel  
Ryder System, Inc.

### Keith Klingenberg

Senior Vice President,  
Logistics Practice Group Leader  
Wells Fargo Insurance Services USA, Inc.

### Michael Kray

Principal Planner  
Atlanta Regional Commission

### Chris McLoughlin

Cargo Risk Manager  
C.H. Robinson

### Robert Moseley, Jr.

Transportation Group Lead  
Smith Moore Leatherwood

### Scott Mugno

Vice President, Safety and Maintenance  
FedEx Ground

### Vidya Mysore

Manager, Systems Traffic Modeling  
Florida Department of Transportation

### Richard Plewacki

Partner  
Benesch Friedlander Coplan & Arnoff

### Webb Shaw

Vice President, Editorial Resources  
J.J. Keller & Associates

### Frank Southworth

Principal Research Scientist  
Georgia Institute of Technology,  
School of Civil and Environmental  
Engineering

### Keith Tuttle

President  
Motor Carrier Services, Inc.

## 2011-2012 Research Advisory Committee

### Mr. Philip L. Byrd, Sr., RAC Chairman

President & CEO  
Bulldog Hiway Express

### Ms. Kendra Adams

Executive Director  
New York State Motor Truck  
Association

### Dr. Teresa M. Adams

Director, Wisconsin Transportation  
Center University of Wisconsin

### Ms. Susan Alt

VP, Industry Relations & Public  
Affairs  
Volvo Group North America

### Ms. Cheryl Bynum

Manager, SmartWay Transport  
Partnership  
U.S. Environmental Protection  
Agency

### Mr. Lamont Byrd

Director of Safety & Health  
International Brotherhood of  
Teamsters

### Mr. Terry Croslow

Chief Financial Officer  
Bestway Express, Inc.

### Mr. Ted Dahlburg

Manager, Office of Freight Planning  
Delaware Valley Regional Planning  
Commission

### Mr. Tom DiSalvi

Director of Loss Prevention  
Schneider National, Inc.

### Mr. Chad England

Chief Operating Officer  
C.R. England, Inc.

### Mr. John Flanagan

Manager, Quality, Safety & Fleet  
Services  
Stevens Van Lines

### Mr Tom Flies

Senior Director, Product  
Management  
QUALCOMM

### Mr. Bryan Foe

Vice President, Transportation  
C.H. Robinson Worldwide, Inc.

### Mr. David Foster

Vice President, Fleet Services  
Southeastern Freight Lines

### Dr. Patti Gillette

Safety Director  
Colorado Motor Carriers  
Association

### Mr. John Hancock

Director  
Prime, Inc.

### Mr. Steve A. Keppler

Executive Director  
Commercial Vehicle Safety Alliance

### Mr. Alan Korn

Chief Engineer Apps and Customer  
Service  
MeritorWABCO

### Ms. Jennifer Morrison

Vehicle Factors Engineer  
National Transportation Safety  
Board

### Mr. Michael Naatz

President,  
USF Holland, Inc.

### Mr. Dean Newell

Vice President, Safety  
Maverick USA, Inc.

### Mr. Steve L. Niswander

Vice President Safety Policy  
Groendyke Transport, Inc.

### Mr. Deane H. Sager

Director-Transportation Industry  
Practices  
The Northland Group

### Mr. Brett A. Sant

VP, Safety & Risk Management  
Knight Transportation, Inc.

### Mr. Jim Schultz

ITS Program Manager  
Michigan Department of  
Transportation

### Ms. Nanci Tellam

Group Director, Environmental  
Services & Sustainability  
Ryder System, Inc.

### Mr. Tom Weakley

Director of Operations  
Owner-Operator Independent  
Drivers Association Foundation

### Mr. Scott Wombold

Vice President, National Accounts  
& Wholesale Fuel  
Pilot Travel Centers

### Mr. Greer Woodruff

Senior Vice President of Corporate  
Safety & Security  
J.B. Hunt Transport Services, Inc.



## ATRI Seeking Industry Input on 34-Hour Restart

Input from both motor carriers and commercial drivers is being sought by ATRI as part of its research to quantify potential impacts from the changes to the 34-hour restart provision in the federal Hours-of-Service (HOS) rules. In the new HOS rules that are scheduled to take effect next July, the 34-hour restart will include: 1) a requirement that a restart include two periods between 1 a.m. and 5 a.m.; and 2) a limitation of one restart per 7-day time period. As part of a larger ATRI study quantifying real-world operational impacts on the trucking industry that may result from these revisions, ATRI has launched online surveys for motor carriers and commercial drivers to provide qualitative and quantitative input on what these changes will mean for their operations.

Both surveys are available online at [www.ATRI-online.org](http://www.ATRI-online.org).

## Osterberg Appointed to TRB Executive Committee

Congratulations to Don Osterberg, Senior Vice President, Safety and Security for Schneider National, Inc. who was recently appointed to a three-year term on the Transportation Research Board Executive Committee. The TRB Executive Committee is the senior policy body of TRB and is composed of approximately 25 members appointed by the Chairman of the National Research Council. Don served as Chairman of ATRI's Research Advisory Committee from 2007 – 2010. ATRI President Rebecca Brewster also serves as a member of the TRB Executive Committee.

## The Trucking Industry's Top Ten

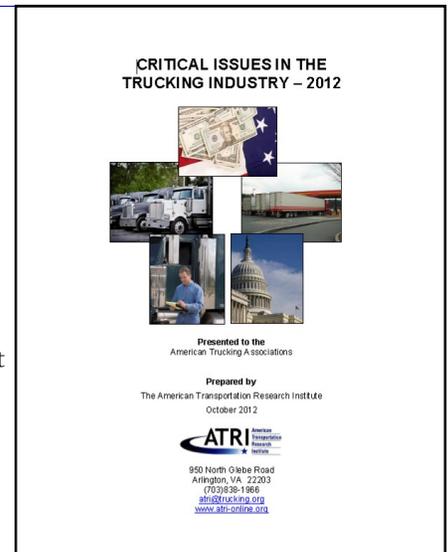
Almost two years after nationwide deployment of the FMCSA's Compliance, Safety, Accountability (CSA), it now ranks as the number one issue of concern for trucking industry stakeholders. The annual ranking of top industry issues is done each year by ATRI on behalf of the American Trucking Associations and the 50 State Trucking Associations. ATRI's survey of over 4,000 industry stakeholders not only asks respondents to rank the priority of critical industry issues but also to identify and prioritize strategies to deal with each issue.

CSA was ranked first, second or third by a larger share of respondents than any other issue (37.7%) in the annual survey. Despite the fact that CSA was first implemented nationally by the FMCSA in late 2010, uncertainty and dissatisfaction with the impacts of CSA remains a significant challenge for many in the trucking industry. While FMCSA has worked with the industry to address some of the issues surrounding CSA and its measurement of carrier and driver safety performance, challenges still remain. In particular, the lack of a process for determining crash accountability within CSA and the uncertain relationship between CSA scores in each of the BASICs and future truck crash risk are two areas where the trucking industry believes more work must be done by FMCSA. This increasing displeasure with CSA may be one reason for its number one ranking in 2012.

The federal regulations that govern commercial driver Hours-of-Service (HOS) have been a top five issue in the annual survey since it began in 2005. This year the HOS rules maintained their #2 ranking from 2011, likely driven by FMCSA's publishing of a new final rule in December 2011. The new rules changed several key provisions in the HOS including limits on the 34-hour restart and a requirement for a minimum 30-minute break after 8 hours of driving. The HOS rules were first changed in 2004 and since then, the industry has seen proposed changes implemented, vacated by the courts and changed again. Given the significant operational modifications that the industry has undergone to comply with the multiple changes to the HOS rules and the anticipation of additional costly impacts from this latest round of changes, it is not surprising this issue continues to rank high.

2011 Top Industry Issues Survey
1. CSA
2. Hours-of-Service
3. Economy
4. Driver Shortage
5. Fuel Supply/Fuel Prices
6. EOBR/ELD Mandate
7. Driver Retention
8. Truck Parking
9. Driver Health/Wellness
10. Congestion/Truck Bottlenecks (tie)
10. Highway Infrastructure (tie)

survey. The unsteady nature of the economic recovery clearly continues to weigh heavily on the minds of many in the industry.



After three years as the number one trucking industry concern, the state of the nation's economy dropped two spots to #3 in the 2012 survey. This drop is primarily the result of economic improvement and escalating concern over the impacts of CSA and HOS. Regardless of the drop in ranking, concern over the economy still remains high; it received more first place votes than any other issue (16.1% of first place votes) in the 2012

*(Continued on next page)*

## Top Ten

(Continued from page 4)

The continued difficulty in finding qualified new drivers put the driver shortage at #4 in the survey of top industry concerns. Immediately following the economy as an issue, the ranking of the driver shortage highlights the unevenness of the economic recovery and the diversity of the trucking industry. While some in the industry are worried about freight demand, others cannot find enough drivers to accommodate growing demand. However, the source of the driver shortage may not be completely tied to a growing economy or baby boomer retirements. Many in the industry are reporting significant hiring challenges as a result of CSA. And, the proposed changes to the HOS rules have industry stakeholders concerned about additional impacts on the driver labor pool once the rules take effect in 2013. Regardless of the reasons, the driver shortage is a major concern for many in the industry. Over a quarter (27.9%) of respondents feel strongly enough about the driver shortage to rank it first, second or third.

Rounding out the top five in this year's survey is fuel issues/fuel prices. This perennial top industry issue typically fluctuates in ranking based on the price of fuel. In those years, like 2008, when fuel prices skyrocketed, it ranked #1 in the ATRI survey. This year it maintained its #5 position from 2011. However, fuel issues remain a concern for many in the industry, particularly given the impact that fuel costs have on a motor carrier's bottom line.

This year the Top Industry Issues Survey saw several new issues emerge as top concerns, among them the #6 issue, the Electronic Onboard Recorder/Electronic Logging Device (EOBR/ELD) mandate. In 2011, FMCSA was forced to vacate a proposed EOBR/ELD rule due to a court decision regarding concerns over driver harassment. Though FMCSA had been working toward a new EOBR/ELD final rule that addressed harassment concerns, the agency's work was preempted by the inclusion of an EOBR/ELD mandate for HOS tracking in the MAP-21 transportation bill passed by Congress in 2012. In MAP-21, Congress gave the agency until October 1, 2013 to issue a final rule.

Two other new issues that appeared in the 2012 survey for the first time were Truck Parking (#8) and Driver Health/Wellness (#9). Concerns over the lack of available truck parking appear to be increasing with the closing of many public rest areas and the uncertain impacts from the new HOS provision which will require additional rest breaks for drivers. With driver turnover increasing and carriers experiencing difficulty in finding qualified new drivers, the emergence of driver health and wellness as an issue points to the recognition that improving commercial driver health is critical to preserving the industry's most valuable asset.

A copy of the full report is available online at [www.ATRI-online.org](http://www.ATRI-online.org).

## ATRI Releases Updated Operational Costs of Trucking Report

ATRI recently released the findings of its 2012 update to *An Analysis of the Operational Costs of Trucking*. The research, which identifies fleet-generated marginal trucking costs from 2008 to 2011, provides carriers with an important high-level benchmarking tool. Additionally, government agencies can utilize the results as an accurate dataset for future infrastructure improvement analyses.

The average marginal cost per mile for 2011 was \$1.71, the highest of the four years studied. After a sharp decline in fuel prices resulted in decreased industry costs between 2008 and 2009, marginal costs have steadily risen through 2010 and 2011. The per-mile costs were converted to hourly figures using an empirical average truck operating speed. The total average industry cost per hour was \$68.20 in 2011, the highest "Operational Costs..." calculation to-date. Fuel and driver wages (excluding benefits) continued to be the largest cost centers for carriers – together constituting 62 percent of the average operating cost in 2011.



"Accurate, up-to-date operational costs are essential for our industry. Given the current economic climate, the more financial data carriers have to analyze, the more opportunities there are to improve operations," commented Chad England, Chief Operating Officer of C.R. England, Inc. and a member of ATRI's Research Advisory Committee.

Since its original publication in 2008, the *Operational Costs of Trucking* reports continue to be one of the most requested ATRI reports among industry stakeholders. In addition to average costs per mile, ATRI's report documents average costs per hour and includes cost breakouts by industry sector.

**The American Transportation  
Research Institute**

Atlanta • Sacramento • Minneapolis

950 N. Glebe Road  
Suite 210  
Arlington, VA 22203-4181

Phone: 703-838-1966  
Fax: 703-838-0291  
E-mail: [atri@trucking.org](mailto:atri@trucking.org)

*Knowledge and Excellence  
In Trucking and Transportation  
Research*

**Visit us online to order  
copies of ATRI's  
research reports**

<http://www.ATRI-online.org>



**Roll Stability Systems**

*(Continued from page 1)*

provide a more cost-effective solution. In mid-2012 the National Highway Traffic Safety Administration (NHTSA) announced a proposed new federal motor vehicle safety standard (FMVSS) which would mandate ESC on all new truck tractors with a gross vehicle weight rating of 26,000 pounds and higher.

ATRI's methodology involved analyzing crash rates, crash costs, and technology costs for motor carrier fleets using RSC and ESC compared to vehicles without any RSS technology. ATRI's research, based on data from over 135,000 heavy trucks, indicated that installation of RSC technology may result in fewer rollover and jackknife crashes compared to trucks equipped with ESC. Furthermore, the study found that RSC installation costs were significantly lower than ESC installation costs.

ATRI's research represents the industry's first major comparative analysis of roll stability systems based on carrier operational data. However, ATRI's study is not the first to report similar findings. Research sponsored by FMCSA found similar crash rates for RSC-equipped trucks as those found in the ATRI analysis. Furthermore, additional work by NHTSA cited in the proposed FMVSS lowered the original ESC efficacy rates as previously determined by the agency. Ultimately, NHTSA's own conclusion that ESC benefits exceeded RSC by 3%, and the total ESC efficacy for loss of control crashes was reduced from 25% to 14% likely supports the ATRI conclusion that the cost-benefit formulas favor the lower cost RSC.

**If you would prefer to receive the ATRI Insider electronically rather than by mail please visit [www.ATRI-online.org](http://www.ATRI-online.org). You may also send an email to [ATRI@trucking.org](mailto:ATRI@trucking.org).**

950 N. Glebe Road  
Suite 210  
Arlington, VA  
22203-4181



First Class Pre-Sorted  
US Postage  
Paid  
Permit #5264  
Atlanta, GA