ATRI Research Finds Truck Operations and Safety Have Been Impacted by 34-Hour Restart Provisions

The latest Hours-of-Service (HOS) analysis from ATRI has quantified additional safety and operational impacts related to the change in the federal HOS rules which took effect July 1, 2013. In this latest of an ongoing series of Research Tech Memos, ATRI analyzed an extensive truck GPS database to identify changes in truck travel by time-of-day and day of the week that may have occurred after the July 1, 2013 change to the HOS restart provisions. ATRI also examined several years of pre- and post-July 1 federal truck crash data to quantify safety impacts resulting from the HOS rules change implemented by the Federal Motor Carrier Safety Administration.

The truck GPS data analysis identified a shift of truck traffic from nighttime to daytime and a shift of truck traffic generally away from the weekends to more congested weekdays, with the biggest decreases in truck activity occurring on Sunday nights.

The crash data analysis showed a statistically significant increase in truck crashes after the July 1, 2013 rule change, specifically with injury and towaway crashes. In particular, the increase in injury and towaway crashes would be expected based on the shifting of trucks to more congested weekday travel due to increased traffic exposure.

The crash increases and operational shifts would ostensibly be independent of overall economic improvement since the statistical tool utilizes percentage change, and tonnage growth percentages over the two-year period were relatively constant. In addition, truck unit position points are a better indicator of physical truck movements than freight volumes.

ATRI’s report features some possible explanations for the GPS and crash data findings as a result of operational changes the industry had to make post-July 1, 2013. Among these are:

★ Drivers abandoning use of the more restrictive 34-hour restart in favor of the rolling recap.

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ATRI Board Approves Research Priorities for 2015

At its meeting held April 24, 2015, the ATRI Board of Directors approved the list of 2015 research priorities recommended by ATRI’s Research Advisory Committee (RAC). The list of priority research topics was identified by the RAC at its two-day annual meeting held March 3-4 in Atlanta.

Among the top priority topics for 2015 are studies on managing critical truck parking and two different studies focused on the potential for younger drivers to help mitigate the driver shortage. ATRI staff has begun to initiate work on the top priority studies.

1. Managing Critical Truck Parking
2. Onboard Safety Systems (OSS) Analysis
   - Phase 1 – Truck Crash Costs by Severity
   - Phase 2 – Deployment of OSS, Lives Saved, Injuries Avoided
3. Getting Younger Drivers in the Driver’s Seat
4. Younger Driver Assessment Tool
5. Fixing the 12%
6. Quantifying Baseline Class 8 Truck MPG

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**2015-2016 Research Advisory Committee**

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| VP, Safety Policy & Regulatory Relations  
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| Mr. Doug Bennett | Director, Operations & Business Development  
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| Mr. Rusty Weiss | Director, External Research  
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| Canadian Trucking Alliance |

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If you would prefer to receive the ATRInsider 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.
With the driver shortage continuing to climb to the top of motor carrier concerns, ATRI has released a new report that highlights a challenging future for the trucking industry based on demographic data and a dramatic shift in the age of the industry’s driver workforce.

ATRI’s analysis of U.S. Census Bureau data found that the trucking industry is disproportionately dependent on employees 45 years of age or older, many of whom will retire in the next 10-20 years. Complicating this is a sharp decrease over the past 20 years in the number of younger drivers that make up the industry, particularly those under 35.

"The average age of our current driver workforce is 52 and we’re noticing fewer and fewer younger individuals applying for jobs in recent years," said Keith Tuttle, Founder, Motor Carrier Service, Inc. and a member of ATRI’s Research Advisory Committee. "If the industry doesn’t collectively figure out how to recruit younger drivers, we may not have anyone left to haul freight in the coming decades. With more and more of the nation’s freight being hauled by trucks now and in the future, this is a piece of the puzzle we have to solve."

One of the challenges highlighted by the study is the lack of vocational education offerings for high school students to introduce them to a career in trucking. Based on data from the U.S. Department of Education, less than 30 percent of high schools nationwide offer any type of trade and industry transportation vocational courses. Further exacerbating the issue is the gap between high school graduation and CDL eligibility.

The results of this research prompted ATRI’s Research Advisory Committee (RAC) to rank two companion studies on younger driver issues as part of its 2015 top research priorities list. The first, Getting Younger Drivers in the Driver’s Seat, will focus on increasing the trucking industry’s vocational presence and examine the potential for a Graduated Commercial Drivers License (GCDL). The second, Younger Driver Assessment Tool, is designed to develop a screening tool that identifies the younger drivers that possess the cognitive decision-making attributes of mature, safe drivers. Once the tool is developed and validated, it could then be used to identify a pool of younger drivers for a GCDL pilot test involving commercial drivers 18-20 years old.

A copy of the white paper is available from ATRI’s website at www.atri-online.org.
New ATRI Board Member – Michael L. Ducker

ATRI’s newest Board Member is Michael L. Ducker, President and Chief Executive Officer (CEO) of FedEx Freight. Mr. Ducker was appointed to the Board by ATRI Chairwoman Judy McReynolds in February.

Mr. Ducker, who has been with FedEx for more than 40 years, provides strategic direction for the company’s less-than-truckload (LTL) companies across North America, and for FedEx Custom Critical, a leading expedited freight carrier.

He previously served FedEx as the President of international business, COO of FedEx Express, and President of FedEx Express Asia Pacific. In addition, Ducker led FedEx’s Southeast Asian, Middle Eastern, and Southern European regions.

Mr. Ducker currently serves as chairman of the U.S. Chamber of Commerce. He previously served on the Advisory Committee for Trade Policy and Negotiations for the Obama administration, as well as chairman of the International Policy Committee for the U.S. Chamber of Commerce. In addition to serving on the ATRI board, he currently serves on the executive committee of the American Trucking Associations and is a board member of the Coalition of Services Industries; the U.S.-China Business Council; The Salvation Army; Amway Corporation; and International Flavors and Fragrances.

Born in Chattanooga, Tennessee, he received his M.B.A. from a joint program of the Kellogg School of Management at Northwestern University and the Hong Kong University of Science and Technology.

“We are pleased to have Mike join the ATRI Board,” said Rebecca Brewster, ATRI President and COO. “FedEx Freight has a long history of support and involvement with ATRI and we look forward to Mike’s active involvement on the Board.”

RAC Member Kevin X. Jones

ATRI RAC Member Kevin X. Jones is currently the Vice President of Inbound Transportation for Wal-Mart Stores, Inc. He is responsible for carrier relations, grocery, general merchandise, and backhaul of products bound for Walmart stores and Sam’s Clubs in the United States.

Prior to his current role, he served as the Divisional Vice President, Supply Chain for Division N (Northern Plains) preceded by Senior Director of Logistics People responsible for HR Field support for the Logistics Division.

Kevin joined Wal-Mart in 1999 as a Regional Transportation Director.

Prior to Wal-Mart, he worked as a Vice President of Human Resources and Director of Recruiting and Training within the transportation industry. Kevin is a veteran having served in the United States Army as a Major in the Field Artillery branch.

Kevin grew up in North Carolina and has been married for 30 years to his wife, Shevette. They have two young adult children, Brianna and Phillip.
ATRI is part of a research team which recently released its Phase One Final Report of the Driver-Assistive Truck Platooning (DATP) initiative. The DATP truck platooning research, which was funded by a grant from the U.S. Department of Transportation’s Exploratory Advanced Research program, utilizes radar, vehicle-to-vehicle communications, and video technologies to decrease over-the-road truck headways, with the objective of improving fuel economy without compromising safety.

As a core team member of the project, ATRI was involved in multiple tasks including the development and assessment of trucking industry user requirements. It was also the Project Lead for development of the business case for truck platooning. Some of the Phase 1 results identified:

★ Up to 10 percent fuel economy for the trailing truck, and up to 5 percent fuel economy for the leading truck;
★ Truckload and line-haul LTL operations would likely be the greatest beneficiaries of a platooning system, particularly among larger fleets;
★ Fleets and drivers who operate average truck trips of more than 500 miles would experience the highest returns on investment from platooning;
★ Modelers at Auburn University confirmed that platooning would not negatively impact traffic flows, and could improve traffic flows if truck market penetration reached 60 percent;
★ Platoon formation in some operations appears to be feasible, based on a case study using actual truck movement data from ATRI’s truck GPS database;
★ Small fleets and owner-operators required an investment payback period of 10 months, while larger fleets had a mean payback expectation of 18 months.

In Phase 2 of the DATP project, the research team will be conducting both test-track and on-road pilot testing of the system. In addition, the team will monitor and assess a variety of human factors considerations including driver satisfaction, driver training requirements and driver operational experiences. The business case analysis will be extended based on these results.

The DATP research team is led by Auburn University and includes ATRI, Bishop Consulting, Peloton Technology, Peterbilt Trucks, and Meritor Wabco.

The Driver-Assistive Truck Platooning Phase 1 report is available on the ATRI website at www.atri-online.org.

**ATRI Chair Asks Industry to STEP UP**

Earlier this year, ATRI Chairwoman Judy McReynolds launched a fundraising campaign to support the critical research provided by ATRI. In her April 6th op-ed in Transport Topics, Chairwoman McReynolds called on all trucking industry stakeholders to Step Up their support of ATRI.

“The ATRI board members and I have a specific request: We need more support from more of you in the industry, whether that means starting to give or increasing your annual amount. In fact, each of our individual professional organizations has committed to increase annual giving to ATRI by a minimum of 20%.”

Among the many reasons to support ATRI, Ms. McReynolds cited the following, “Over the years, ATRI analyses have helped us crystallize the facts around the real-world effects of regulatory actions so that we’re better armed to advocate our positions on Capitol Hill. ATRI’s extensive work in freight performance measures has allowed us to identify the nation’s most critical freight nodes and bottlenecks so that we can target limited transportation resources. And, ATRI’s objective analyses of the costs and benefits of myriad safety technologies have given us the data needed to make wise investment decisions and maximize our returns on investments.”

To learn more about how you can support ATRI’s research through a charitable contribution, please visit the ATRI website at www.atri-online.org and click on the STEP UP logo.
For several years now, ATRI has published an annual list of the worst truck bottlenecks in the country. In December of last year, ATRI released the findings of its 2014 Congestion Impact Analysis of Freight-Significant Highway Locations. The research, which assesses the level of truck-oriented congestion at 250 locations on the national highway system, uses several customized software applications and analysis methods, along with terabytes of data from trucking operations to produce a congestion impact ranking for each location. The data is also used in conjunction with the FHWA-sponsored Freight Performance Measures (FPM) initiative. The locations detailed in this latest ATRI report represent the top 100 congested locations.

The number one spot on the ATRI list this year is the George Washington Bridge which connects New York and New Jersey. It surpassed the perennial first-place holder, Chicago’s Circle Interchange (#2 on the list). ATRI’s analysis points to construction on the top deck of the George Washington Bridge which created significant delays for trucks in 2013.

The top ten on ATRI’s list are, in rank order:

1. FORT LEE, NJ: I-95 AT SR 4
2. CHICAGO, IL: I-290 AT I-90/I-94
4. CINCINNATI, OH: I-71 AT I-75
5. HOUSTON, TX: I-45 AT US 59
6. HOUSTON, TX: I-610 AT US 290
7. ST. LOUIS, MO: I-70 AT I-64 (WEST)
8. LOS ANGELES, CA: SR 60 AT SR 57
9. LOUISVILLE, KY: I-65 AT I-64/I-71
10. AUSTIN, TX: I-35

“ATRI’s identification of congestion impacts at freight-significant locations is a critical tool in the transportation planning toolbox. Better-informed decisions mean more targeted infrastructure investment at critical freight nodes,” remarked Matt Hart, President of the Illinois Trucking Association. “Here in Illinois we’re seeing first-hand how ATRI’s identification of the Circle Interchange as the number one freight bottleneck in previous studies led to a significant state investment to fix the chokepoint.”

ATRI’s truck bottleneck list has been cited by other leaders in their push for increased and targeted funding to address these congestion chokepoints. In February of this year, the interchange at I-35W and I-494 in Minneapolis (#19), was the focal point in the push for Minnesota Governor Mark Dayton’s 10-year, $6 billion transportation spending plan. Additionally, congressional leaders in Southern California are using the 8th place ranking of the confluence of the 57 and 60 Freeways in Diamond Bar as the impetus to push for additional federal funding to address that bottleneck.

For access to the full report, including detailed information on each of the 100 top congested locations, visit www.atri-online.org.

Over 2,000 Commercial Drivers Provide Input on Truck Parking Issues

With truck parking identified by ATRI’s Research Advisory Committee as the top research priority for 2015, ATRI quickly initiated several data collection efforts to survey truck drivers on myriad truck parking-related issues. While at the Mid-America Trucking Show (MATS) in Louisville, Kentucky earlier this year, ATRI staff collected over 800 in-person driver surveys. That same survey was later put online for drivers to provide input and ATRI currently has over 2,000 responses.

ATRI’s latest survey cross-references driver perceptions of public and private truck parking availability with the viability of truck parking reservation systems and exactly how truck drivers put a "value" on truck parking availability.

In addition to its selection as a top research priority by ATRI’s RAC, truck parking continues to rank high in ATRI’s annual Top Industry Issues Survey; in the 2014 survey Truck Parking ranked 6th overall but among truck drivers in the survey it ranked 2nd, eclipsed only by the challenges associated with the Hours-of-Service regulations.

ATRI will be releasing the results of the driver data collection in a white paper due out later this summer.
Sometimes People Must Come Together for a Mission

THANK YOU

Since 1954, the American Transportation Research Institute and its predecessor have been the trucking industry’s source for scientific data and analysis on the many high priority issues facing freight transportation today. The people and companies listed here are our core contributors, annual donors who have come together in this mission to help the industry as a whole. If you or your company has not contributed in the past, now is the time to step up and do your part.

Step up and leave your footprint for the good of the industry.

Visit www.atri-online.org to explore your giving opportunities.

STEP UP
And leave your footprint.

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Kendra Hems Receives ATA President’s TAEC Leadership Award

Kendra Hems, the American Trucking Associations (ATA) 2014 President’s Award winner and President of the New York State Motor Truck Association, has designated ATRI as the recipient of the award’s $10,000 grant. Hems was presented the ATA President’s award, sponsored by J.J. Keller & Associates, Inc., at the 2014 ATA Management Conference and Exhibition (MC&E) in San Diego. "The ATRI Board of Directors greatly appreciates Ms. Hem's contribution to our ongoing research program and we congratulate her for her outstanding service and accomplishments on behalf of the trucking industry," said ATRI President and COO Rebecca Brewster. "This grant will help ATRI advance its work on several critical research studies addressing top industry issues." The ATA President’s Award and $10,000 check is given annually to a state trucking association executive in recognition of his or her service to the trucking industry. Hems served as a member of ATRI’s Research Advisory Committee from 2011 – 2014.

This is the seventh time that ATRI has been selected by the award winner. Previous winners who also designated ATRI as the grant recipient include John Hausladen of the Minnesota Trucking Association, Karen Rasmussen of the Arizona Trucking Association, Jim Runk of the Pennsylvania Motor Truck Association, George Burruss of the Missouri Trucking Association, Tom Howells of the Wisconsin Motor Carriers Association and Dale Hannington of the Maine Motor Truck Association.