TRUCKING INDUSTRY CONGESTION COSTS TOP $63.4 BILLION

Traffic congestion on the U.S. National Highway System (NHS) added over $63.4 billion in operational costs to the trucking industry in 2015, according to ATRI’s annual update of its Cost of Congestion to the Trucking Industry research. Utilizing a variety of data sources including its unique truck GPS database, ATRI calculated delay on the NHS totaling more than 996 million hours of lost productivity, which equates to 362,243 commercial truck drivers sitting idle for a working year.

ATRI’s analysis also documented the states, metropolitan areas, and counties that were most impacted by these delays and subsequent cost increases. The top 10 states experienced costs of over $2 billion each, with Florida and Texas leading with over $5 billion each.

As expected, traffic congestion tended to be most severe in urban areas, with 88 percent of the congestion costs concentrated on only 17 percent of the network mileage, and 91 percent of the total congestion cost occurring in metropolitan areas.

The analysis also demonstrates the impact of congestion costs on a per-truck basis, with an average increased cost of $22,676 for trucks that travel 100,000 miles annually.

As part of this analysis, ATRI has updated its congestion cost database with 2015 data to provide granular cost information to transportation planning officials on the hours of delay and associated cost by major jurisdiction type and road level.

TOP 100 TRUCK BOTTLENECKS A BIG PART OF INDUSTRY’S COST OF CONGESTION

ATRI’s annual list of the worst truck bottlenecks in the country underscores the finding that 91 percent of the trucking industry’s congestion costs generate from metropolitan areas. The list of 100 top bottlenecks, released in January, shows the worst bottlenecks in major cities across the nation including Atlanta, New York, Chicago and Los Angeles. The 2017 Top Truck Bottleneck List assesses the level of truck-oriented congestion at 250 locations on the national highway system. The analysis, based on truck GPS data

(Continued on page 2)
(Bottlenecks Continued from page 1)

from 600,000+ heavy duty trucks 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 associated with the FHWA-sponsored Freight Performance Measures initiative. The locations detailed in this latest ATRI list represent the top 100 congested locations.

“Trucks move 70% of the nation’s goods, so knowing where there are kinks and slowdowns in the system is important for motor carriers and our professional drivers, making this analysis a key tool for identifying where and when to route our trucks to avoid congestion,” said Prime Inc. President and CEO Robert Low.

For the second straight year, Atlanta’s “Spaghetti Junction,” the intersection of Interstates 285 and 85 North is the most congested freight bottleneck in the country. The rest of the Top 10 includes:

2. I-95 at State Route 4 in Fort Lee, New Jersey
3. I-290 at I-90/94 in Chicago
4. I-65 at I-64/71 in Louisville, Kentucky
5. I-71 at I-75 in Cincinnati
6. SR 60 at SR 57 in Los Angeles
7. SR 18 at SR 167 in Auburn, Washington
8. I-45 at US 59 in Houston
9. I-75 at I-285 North in Atlanta
10. I-5 at I-90 in Seattle

“With the Trump administration pressing for significant long-term infrastructure spending, this ATRI analysis should be a key guide for deciding what projects are worthy of funding,” said American Trucking Associations President Chris Spear.

“Ensuring the safe and efficient movement of goods should be a national priority and this report draws attention to the places where our highway network needs improvement in order to meet that goal.”

For access to the full report, including detailed information on each of the 100 top congested locations, visit the Congestion HOT TOPIC on ATRI’s website at www.truckingresearch.org.
The ATRI Board of Directors has approved the 2017 Top Research Priorities as identified by ATRI’s Research Advisory Committee (RAC). ATRI’s RAC developed the list of recommended research topics at its meeting held in Dallas in March and the ATRI Board vetted and approved that list at its meeting in April.

Several of ATRI’s 2017 top priority studies are focused on improving congestion choke points at the nation’s top truck bottlenecks as identified in ATRI’s annual listing. The top priority topics will also look at various impacts of technology on the industry now and into the future.

The 2017 ATRI top research priorities are:

★ Driven to Distraction – examining the impact of technology deployment inside the truck which may either exacerbate or reduce truck driver distraction. The research will also look at the role of car driver distraction on trucking industry crash involvement.

★ Cumulative Economic Impact of Trucking Regulations – examining the potential for developing a standardized methodology for conducting regulatory impact analyses (RIA) of trucking industry regulations which can then be applied across agencies and regulations to identify industry costs.

★ HOS Flexibility: A Possible Solution to Bottlenecks – exploring the opportunity for addressing some of the nation’s worst congestion choke points through flexibility in the federal Hours-of-Service rules, which would allow drivers to wait out the most congested periods of the day.

★ Impact of E-Commerce on Trucking – mapping potential impacts of E-Commerce to the trucking industry’s top industry issues.

★ Truck Bottleneck Trends: Economic Changes or Infrastructure Improvements – conducting a deep dive into ATRI’s Annual Truck Bottleneck List to identify specific infrastructure improvements that will positively impact congestion.

★ Autonomous Truck Impacts on the Truck Driver – a detailed analysis of how autonomous truck technologies will change the operational environment and driving requirements for commercial drivers.

ATRI Updates Online Idling Regulations Compendium

ATRI continues to update and maintain a listing of state and local idling regulations on its website. The listing is provided in two forms, an online compendium which provides detailed information and Internet links to each of the 60 state and local regulations which have been identified; and a cab card which provides a consolidated listing of the state and local limits. The cab card is designed to be downloaded and carried in the glove box of a truck.

The latest update includes two newly enacted regulations.

1. San Antonio joins the growing number of Texas cities and counties that have implemented a 5-minute idling limit. Exemptions include Hours-of-Service compliance beyond two miles of facilities with available external heat or air connections and trucks with Certified Clean Idle engines. The new limit went into effect on January 1, 2017 with fines up to $500.

2. Ann Arbor, Michigan has implemented a new 5-minute limit which began on July 1, 2017. Exemptions will be provided for rest or sleep breaks beyond 25 miles of available truck stop electrification or shore power or when temperatures are less than 32° F or greater than 85° F and a temperature-controlled area is not accessible. Violations may result in a minimum fine of $500.

ATRI continues to monitor the development of idling regulations across the country and provides the compendium and cab card as a free service to help trucking companies and truck drivers comply with the myriad of state and local idling regulations.

The compendium is available at www.truckingresearch.org.
ATRI Continues Research Focus on Autonomous Trucks

Following on the successful release of “Identifying Autonomous Vehicle Technology Impacts on the Trucking Industry” late last year, ATRI has remained actively involved in a number of autonomous vehicle technology initiatives.

Last October, then start-up Otto (now Uber ATG trucks) completed the world’s first commercial shipment by self-driving truck. Otto formed an important partnership with ATRI to monitor the delivery in real-time and validate the journey. Since that time, we’re excited to announce that the journey has been awarded the Guinness World Record for the “Longest continuous journey by a driverless and autonomous lorry (semi-trailer truck).”

Under ATRI’s watch, the then-Otto team, in partnership with Anheuser-Busch and with full support from the state of Colorado, hauled 51,744 cans of Budweiser from Fort Collins, through downtown Denver, to Colorado Springs. In total, the truck drove itself 131.99 miles without driver interference or a lead vehicle, completing the highway route – exit-to-exit – entirely on its own. In order to validate the run for the world record, ATRI served as a third party to monitor the entire trip and conduct a thorough technical and literature review in order to determine that Otto was the first to achieve this landmark record.

“The speed at which both the autonomous technologies, and trucking industry interest, is evolving is unparalleled. It is critical that we continuously promote what autonomous trucks will, and won’t do, for our industry. They will enhance safety and productivity, and they won’t replace the truck driver. All of this, however, is contingent on government stakeholders facilitating technology development, rather than impeding it,” said Dan Murray, ATRI’s Vice President of Research.

In January, ATRI led a Spotlight Session at the Transportation Research Board Annual Meeting in Washington, DC focused on the future of autonomous trucks. In addition to American Trucking Associations President and CEO Chris Spear, the “Hot Topic” panel included ATRI Vice President Dan Murray and Deputy Chief Mark Savage of the Colorado State Patrol, who serves as a member of ATRI’s Research Advisory Committee.

In March, ATRI’s Research Advisory Committee selected “Autonomous Truck Impacts on the Truck Driver” as a top research priority for 2017. This study will look specifically at what changes commercial truck drivers can expect as the industry moves toward increased deployment of autonomous vehicle technologies.

In June, ATRI’s Dan Murray served as a keynote speaker at the British Columbia Trucking Association’s Annual General Meeting and Management Conference, with his remarks focused on the future of autonomous truck technologies.

For more on ATRI’s autonomous truck research, visit the Autonomous Vehicle Technology HOT TOPIC on ATRI’s website at www.truckingresearch.org.

Honoring Those Who Have Passed

ATRI is also a great choice for a memorial gift to honor someone’s service to the trucking industry. The gift creates a legacy for that person’s service to the industry through the advancement of the industry’s safety and productivity. For more on how to provide a Memorial Gift to ATRI, visit the Support ATRI tab at truckingresearch.org.

Memorial gifts to ATRI this year include:

In memory of Ted Scott, ATA’s Director of Engineering Services
In memory of Chester Baylor, founder of Baylor Trucking
In memory of Lynda Byrd, wife of past ATA Chairman Phil Byrd, Sr.
In memory of David R. Free, past ATA Chairman
In memory of Jane Spear, mother of ATA President Chris Spear
In memory of C. James McCormick, past ATA Chairman
In memory of Jan Vineyard, West Virginia Trucking Association President
In memory of Liz Donohue, wife of former ATA President Tom Donohue
RAC Member Dustin Koehl is Vice President of Sales and Marketing for TOTAL Transportation of Mississippi, LLC. Dustin has been with TOTAL since 2007 and is currently responsible for providing executive leadership to TOTAL’s customer related departments that represent $180M in annual revenue across 3 Divisions (Truckload – Logistics – Dedicated). Direct responsibilities include providing oversight and strategic direction for the National Sales Team, Brand Development, Pricing & Reporting Functions, Network Analytics, Monthly Receivables, Customer Service Team, Management Trainee Program, Logistics Division and the recently formalized Dedicated Division. Dustin is a persistent leader passionate about value creation, developing people, change management and identifying new resources that drive opportunity for the people of TOTAL. This passion has been realized through his efforts in facilitating company growth through revenue opportunities and employee development, seeing the company double in size since 2009.

Prior to joining TOTAL, Dustin spent his years in college and shortly after working in the finance industry for Clayton Homes, Morgan Stanley & Northwestern Mutual. During this time, he developed a heart and vision for young leaders in business, while identifying the economic impact that a sales & customer service departments can have on people’s lives. In 2013, Dustin was selected as one of the industry’s top young executives and completed a 1-year leadership program with the American Trucking Associations (ATA). Dustin currently serves on the ATA’s Image & Outreach, Chairman’s Membership Committees. In June, Dustin was selected as Vice Chair for National Truck Driver Appreciation Week and Labor & Work Force Sub-Committees.

Dustin holds an MBA with a focus in organizational management from Lincoln Memorial University and a B.S. in Business Administration with a major in Finance & International Business from the University of Tennessee. Dustin has been highlighted as a guest speaker, panelist and industry leader by Transport Topics, XM Radio – Road Dog Trucking, Heavy Duty Trucking Magazine, Food Shippers of America, The University of Tennessee - Haslam College of Business, Belhaven University School of Business and various ATA Management Conferences.

Dustin and his wife, Melissa and daughter, Charlotte Ann currently live in the Belhaven Neighborhood of Jackson, Mississippi. They are members of Redeemer Church, PCA and have a heart for the Jackson community. Dustin serves on the board of directors as treasurer for SOW REAP FEED, a local non-profit committed to growing fresh produce and taking to neighbors in need.

### 2017-2018 Research Advisory Committee

| Mr. Scott Mugno, RAC Chairman | Mr. Dennis Dellinger, President Cargo Transporters | Ms. Kelly Killingsworth, VP of Inbound Transportation Walmart Transportation | Ms. Karen Rasmussen, President and CEO HELP Inc. |
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ATRI Active in Numerous Truck Parking Studies

Truck Parking has been climbing in ranking as a top issue and in 2016, it ranked fourth overall on the top 10 list of critical issues for the trucking industry. In 2015 ATRI’s Research Advisory Committee identified Truck Parking as the top research priority. Given the interest in identifying solutions for this perennial challenge, ATRI is involved in a number of truck parking studies examining new approaches for identifying available truck parking capacity.

In an analysis completed for the Minnesota Department of Transportation, “Utilizing Truck GPS Data to Assess Parking Supply and Demand,” ATRI presents a technical analysis that utilizes truck GPS data to assess truck parking capacity at four Minnesota rest areas. This first-of-its-kind research assessed truck parking supply and demand by time-of-day and day-of-week by cross-referencing truck GPS data to identify truck activity at several state-run rest stops.

“A Comprehensive System for Assessing Truck Parking Availability” – research completed for the Federal Highway Administration – details a field test conducted by ATRI and the University of Minnesota to deliver real-time truck parking information to commercial drivers through three separate delivery systems: 1) Roadside Changeable Message Signs (CMS); 2) an Internet/Website information portal; and 3) through in-cab communication systems.

These studies successfully demonstrated new approaches for identifying where additional truck capacity is needed and how delivering real-time information on parking availability to commercial drivers can improve their operational efficiency.

ATRI is also part of the research teams studying truck parking issues for the following organizations:
- Mid America Association of State Transportation Officials
- Kansas Department of Transportation
- Atlanta Regional Commission
- North Carolina Department of Transportation
- Arizona Department of Transportation

ATRI Parking Diaries Give Voice to Driver Challenges Finding Truck Parking

Another of ATRI’s major truck parking studies asked commercial drivers to provide detailed documentation of their challenges in looking for safe, available truck parking as recorded in a Truck Parking Diary. Participating drivers recorded their parking experiences and issues over 14 days of driving, representing over 4,700 unique parking stops documented in the diaries.

ATRI’s report brings important granularity to the specific issues faced by drivers compared to other truck parking studies. Among the findings, drivers looking for parking between the hours of 4:00 p.m. and midnight face a confluence of challenges including increased search times, and truck parking spaces clogged by non-commercial vehicles, which results in drivers parking in undesignated or unauthorized locations such as roadway shoulders or ramps during those same times.

ATRI’s diary research also documented the amount of lost revenue time that drivers experience by parking earlier than they otherwise needed to, just to find parking. With an average of 56 minutes of revenue drive time sacrificed by drivers per day, the parking shortage effectively reduces an individual driver’s productivity by 9,300 revenue-earning miles a year, which annually equates to $4,600 in lost wages.

Based on the diary findings, ATRI’s report offers recommendations for a number of industry stakeholders, including public sector providers of parking at rest areas, private truck stop operators and motor carriers -- all designed to reduce the challenges faced by commercial drivers when looking for available parking.

“The lack of available truck parking creates a lot of stress for me and my fellow drivers,” said Stephanie Klang, a professional driver for CFI and an America’s Road Team Captain. “And, as ATRI’s diary research shows, it’s a number of things – from lack of capacity, concerns over running out of hours, time limitations on parking in public rest areas and customers not letting us park in their facilities – that all combine to make this a perennial issue for us.”
New Research Quantifies Impacts of National Registry of Certified Medical Examiners

ATRI and Mayo Clinic recently collaborated on research to examine impacts of the FMCSA’s National Registry of Certified Medical Examiners. As part of this research, ATRI and Mayo Clinic jointly surveyed over 900 commercial drivers, 300 motor carriers and 1,200 certified medical examiners (CMEs) to better understand the impacts that the NRCME has had on the trucking industry since its implementation in 2014. The NRCME was designed to improve the DOT physical exam process and ensure that medical examiners understand FMCSA regulations and guidance for issuing medical certificates.

ATRI’s research focused on commercial driver and motor carrier impacts and identified the following:

1. A majority of drivers (63.3%) reported increased exam costs following implementation of the NRCME, yet were not experiencing commensurate improvements in exam quality; only 6.2 percent of drivers reported improved exam quality post-NRCME implementation.

2. 6 percent of drivers reported spending 20 minutes or less with their CME, with 6.5 percent of those drivers spending 10 minutes or less, an insufficient time to complete all required processes of a DOT physical. Drivers certified by chiropractors were more likely to have important medical checks omitted.

3. Among the 5.9 percent of drivers who were not issued a medical certificate on the day of their physical exam, 22.6 percent cited having a medical condition that required treatment before certificate issuance as the reason.

4. Motor carriers still have significant concerns related to the medical certification process, including requests by CMEs for additional medical documentation causing certification delays, driver confusion of how regulatory changes impact the ability to hold a valid medical certificate, and concerns with the competency of CMEs. Nearly 50 percent of motor carriers reported that they specify which CME their drivers see to ensure medical exam quality.

5. Less than one percent of carriers reported no major concerns with the medical certification process.

6. The ability of drivers to find a CME close to where they live may be more challenging in the future as 15.3 percent of CMEs reported that they have quit performing DOT physicals or plan to quit performing DOT physicals.

“The data show a polarity in quality of medical examiners,” said Clayton T. Cowl, MD, MS, Chair of Mayo Clinic’s Division of Preventive, Occupational and Aerospace Medicine. “Those examiners who are performing only minimal examinations may have received substandard training or are not taking their role seriously. The key seems to strike a balance between meeting the regulatory intent of the examinations and communicating with drivers ahead of time to minimize confusion regarding the need to document clinical stability. This is particularly true for drivers with multiple or complex medical conditions from whom medical examiners do need more documentation in order to make a certification decision.”

You can download a copy of this report, as well as a white paper detailing the findings of Mayo Clinic’s survey of medical examiners, from the Driver Health and Wellness HOT TOPIC on ATRI’s website at [www.truckingresearch.org](http://www.truckingresearch.org).

ATRI Updates Compendium of Sustainable Freight Practices

ATRI recently updated the compendium of sustainable freight practices on its website. The compendium identifies a number of sustainable practices being used by the trucking industry today ranging from driver training, idle reduction and speed management to vehicle aerodynamics, tires and engine systems. In addition to identifying sustainable practices, the compendium provides research findings on the costs and benefits associated with these practices.

The update identifies some of the latest research on the practices being used today by trucking companies to save fuel and reduce emissions. “Sustainability is often viewed as managing the triple bottom line – profits, people and planet. The practices identified in the compendium can not only save companies money but also improve operational efficiency and reduce emissions,” said Mike Tunnell, ATRI’s Director of Environmental Research.

Designed as a one-stop shop for information on motor carrier sustainable practices, the compendium also identifies how public sector practices such as congestion mitigation, research and testing, and the use of standards can advance sustainable freight practices. Research findings quantifying the benefits generated from these public sector practices are also provided.
Research. It’s what we do. Now it’s where you can find us.

ATRI recently announced a new web address – [www.truckingresearch.org](http://www.truckingresearch.org) – aimed at making it easier to access the organization’s work.

"Key to our success as an organization is not only the quality of our research but in our ability to disseminate the findings far and wide," said ATRI President and COO Rebecca Brewster. "We are taking steps, including this new web address, to get critical research findings and analysis out in the world so it can be used to improve the trucking industry’s safety and productivity."

In addition to relaunching its website as [truckingresearch.org](http://truckingresearch.org), ATRI is taking steps to streamline its online presence and is doing more to promote its ongoing research efforts like the annual top industry issues survey, the cost of congestion report and identification of the nation’s top freight bottlenecks.

"ATRI is the leading voice on trucking research and now we’re doing more to raise that voice so it can be heard loud and clear by industry, our public sector partners, and lawmakers across the country," Brewster said.