

National Insulation Association (NIA)



Supply Chain Disruptions: The Impact of COVID-19 on the Trucking Industry

Presenter: Dan Murray, Senior Vice President, American Transportation Research Institute (ATRI)

Board of Directors



YRC Worldwide



Research Advisory Committee



DriverReach



GREAT WEST CASUALTY COMPANY



C.H. ROBINSON



2019 Top Industry Issues

1. Driver Shortage (1)
2. Hours-of-Service (2)
3. Driver Compensation (new)
4. Detention/Delay at Customer Facilities (new)
5. Truck Parking (5)
6. Driver Retention (3)
7. ELD Mandate (4)
8. CSA (6)
9. Transportation Infrastructure/
Congestion/Funding (8)
10. Economy (10)

CRITICAL ISSUES IN THE TRUCKING INDUSTRY – 2019



Presented to the
American Trucking Associations

Prepared by
The American Transportation Research Institute
October 2019



950 North Glebe Road
Arlington, VA 22203
(703)838-1966
ATRI@trucking.org
TruckingResearch.org

2019 Top Industry Issues

Commercial Drivers

1. Driver Compensation
2. Hours-of-Service
3. Truck Parking
4. ELD Mandate
5. Detention/Delay at Customer Facilities
6. Speed Limiters
7. Driver Training Standards
8. Driver Distraction
9. Transportation Infrastructure/Congestion/Funding
10. Autonomous Truck Technology

Motor Carriers

1. Driver Shortage
2. Driver Retention
3. Hours-of-Service
4. CSA
5. Transportation Infrastructure/Congestion/Funding
6. Detention/Delay at Customer Facilities
7. Economy
8. ELD Mandate
9. Insurance Cost/Availability
10. Tort Reform

ATRI COVID Research

- 1. COVID Impacts on Truck Flows**
- 2. COVID Impacts on Freight Activity Levels**
- 3. Industry Survey of COVID Impacts**

COVID-19 Impacts

- Joint survey with OOIDA Foundation
- 5,000+ respondents over 2 weeks
 - ◆ 77% drivers
 - ◆ 68.6% fleets with fewer than 50 trucks
 - ◆ 65.5.% TL

COVID-19 IMPACTS ON THE TRUCKING INDUSTRY



April 2020

Prepared by

The American Transportation Research Institute



Average Length of Haul Changes

	Before Pandemic	During Pandemic
Local (less than 100 miles per trip)	7.8%	18.2%
Regional (100-499 miles per trip)	31.0%	33.8%
Inter-regional (500-999 miles per trip)	28.6%	25.2%
Long-Haul (1,000+ miles per trip)	32.7%	22.7%

Congestion Costs the Economy

ATRI research findings:



\$74.5 billion

Annual cost to the trucking industry as a result of congestion on the nation's highways



1.2 billion

Lost hours of trucking industry productivity due to congestion



425,533

Equivalent number of truck drivers sitting idle for an entire year



Congestion Getting Worse

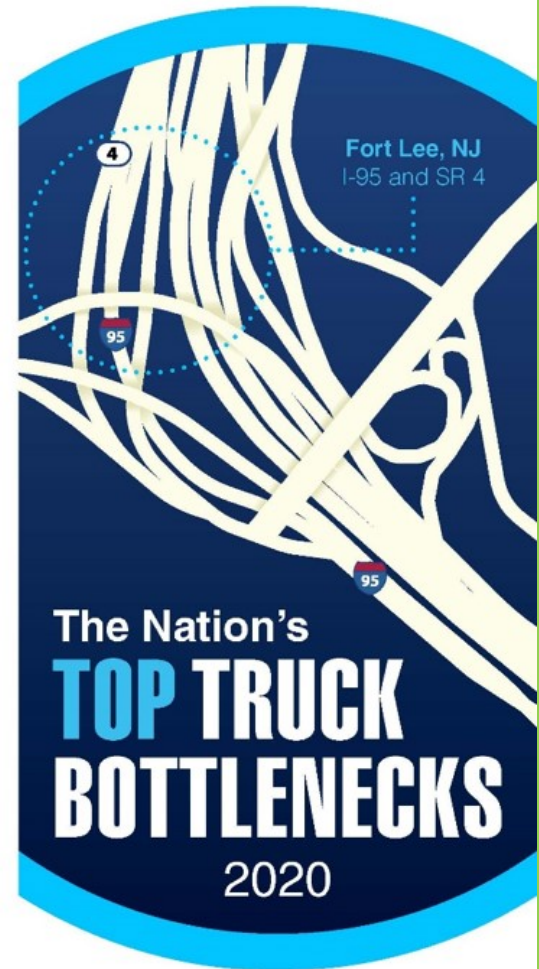
ATRI's analysis, which utilized data from 2019, found that the number of locations experiencing significant congestion – with average daily speeds of 45 MPH or less – has increased 92 percent in just five years, far outpacing the 10 percent growth in traffic congestion for that same time period.

States with Most Bottlenecks

Texas.....	11	Pennsylvania.....	6
California.....	7	Tennessee.....	6
Georgia.....	7	Washington.....	6
New York.....	7	Minnesota.....	5



To view the top 100 list of truck bottlenecks along with detailed profiles for each location, please visit ATRI's website:
TruckingResearch.org



2020 Top 10 Truck Bottlenecks

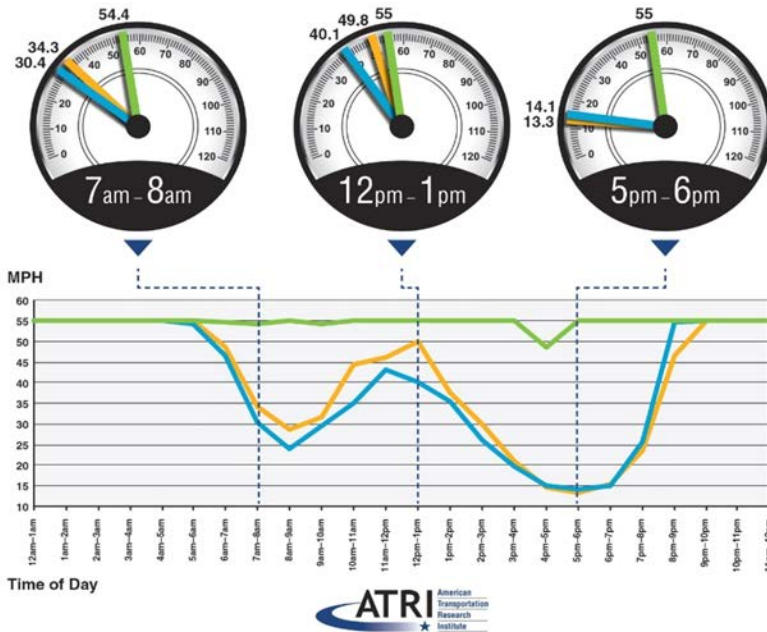
Rank	Location	Average Peak Speed	YOY Change in Average Peak Speed
1	Fort Lee, NJ: I-95 at SR 4	22.4	5.1%
2	Atlanta, GA: I-285 at I-85 (North)	22.4	-0.6%
3	Nashville, TN: I-24/I-40 at I-440 (East)	24.0	-12.0%
4	Houston, TX: I-45 at I-69/US 59	20.5	-8.6%
5	Atlanta, GA: I-75 at I-285 (North)	29.2	5.0%
6	Chicago, IL: I-290 at I-90/I-94	16.1	-2.6%
7	Atlanta, GA: I-20 at I-285 (West)	36.4	-0.8%
8	Cincinnati, OH: I-71 at I-75	36.0	-5.1%
9	Los Angeles, CA: SR 60 at SR 57	33.1	-1.9%
10	Los Angeles, CA: I-710 at I-105	25.2	-4.1%

Congestion Down during COVID

Average Speed by Time of Day Atlanta: I-285 at I-85 (North)

Third Week of March 2018-2020

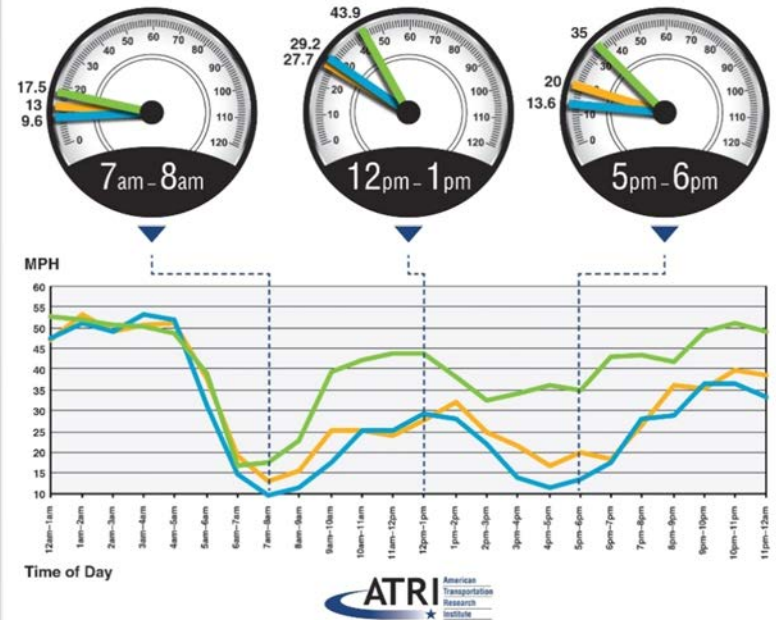
● 2018 ● 2019 ● 2020



Average Speed by Time of Day Queens, NY: I-495

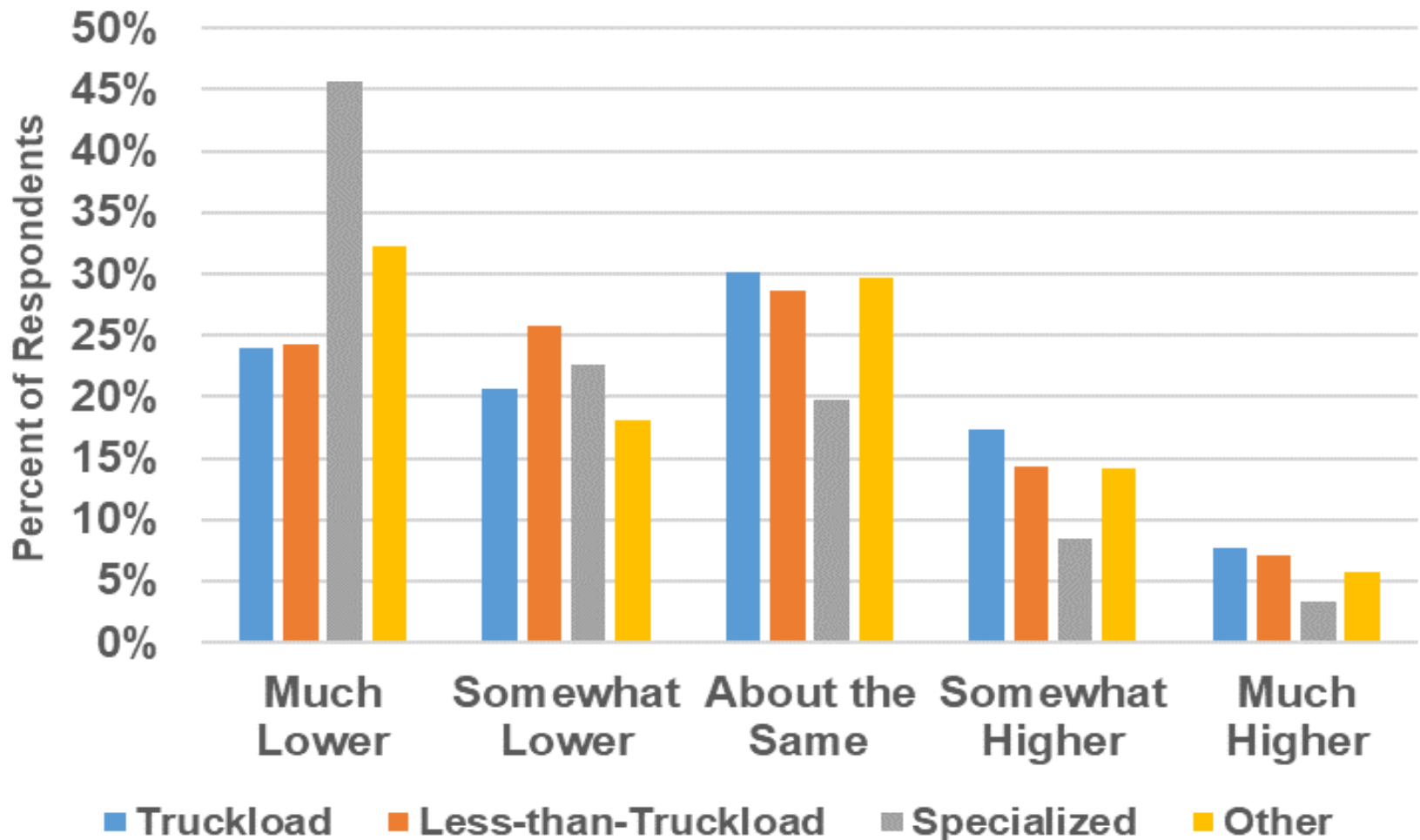
Third Week of March 2018-2020

● 2018 ● 2019 ● 2020

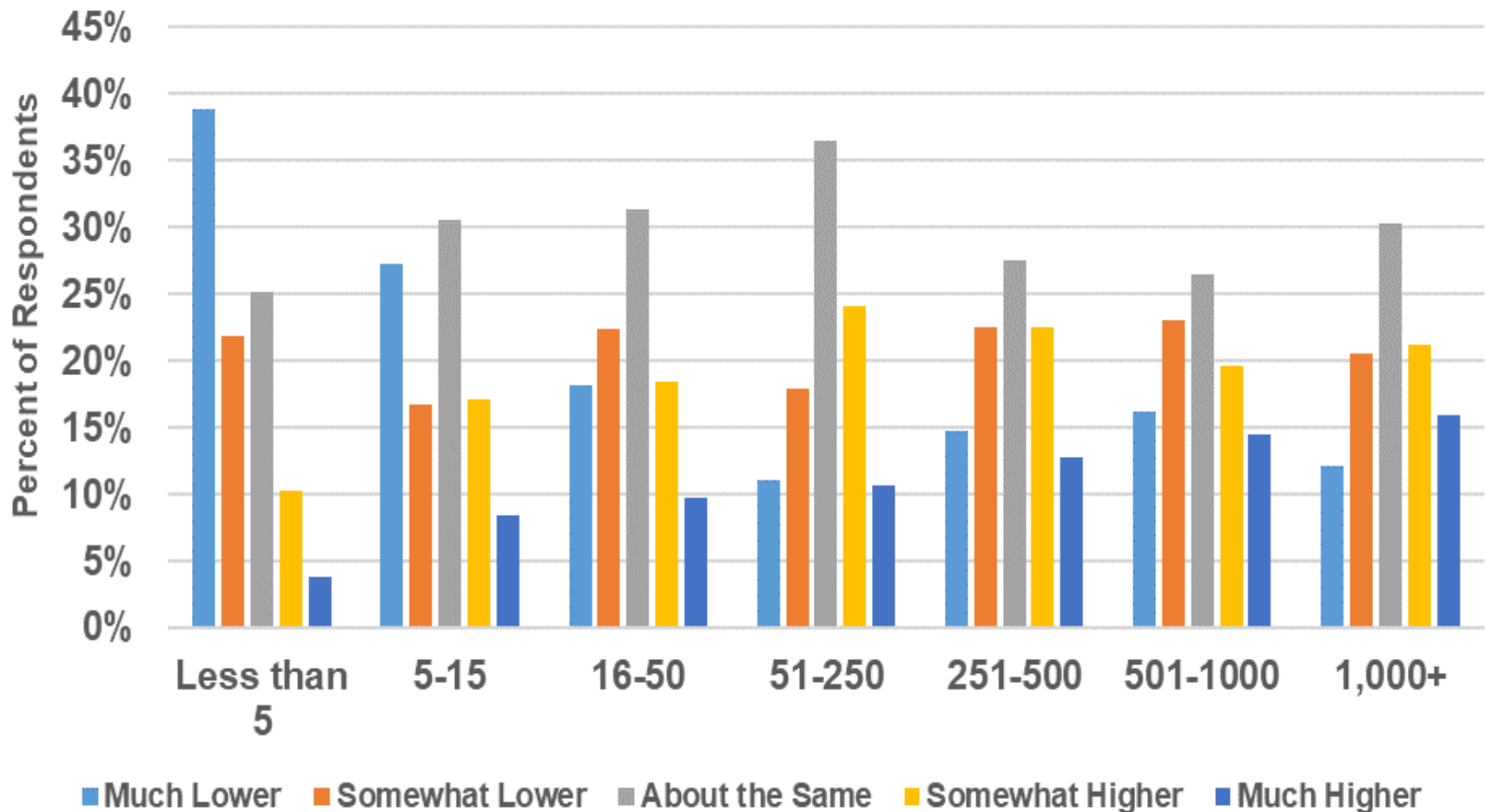


87% of respondents said traffic congestion is reduced during COVID

COVID Changes to Freight Levels



COVID Changes to Freight Levels

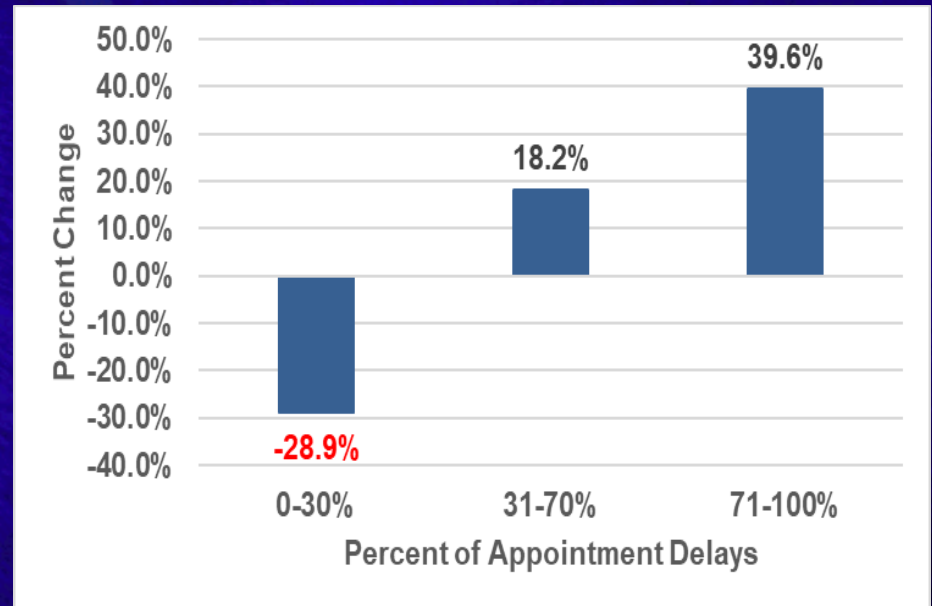


COVID-19 Impacts

- Overall, 44% reported truck parking “somewhat harder” or “much harder” to find
- Overall, 34% reported longer detention times; more pronounced among smaller fleets
 - ◆ 73% of respondents who reported longer detention times were from fleets of fewer than 50 trucks

Detention Getting Worse

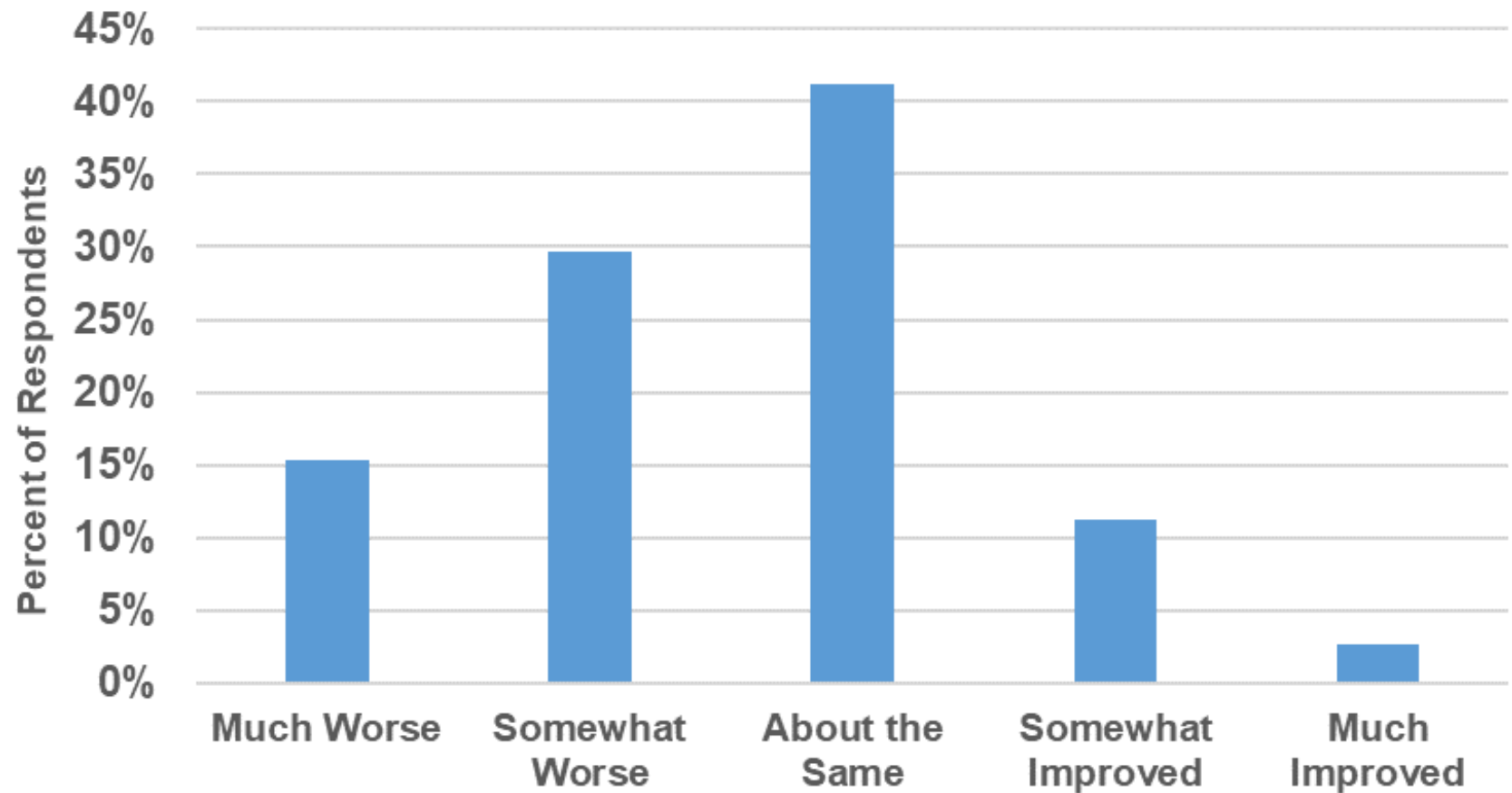
- Between 2014 and 2018, drivers reported 27.4% increase in delays of 6+ hours
- Nearly 40% increase in drivers reporting majority of appointments delayed due to customer actions



Detention Costs Fleets and Drivers

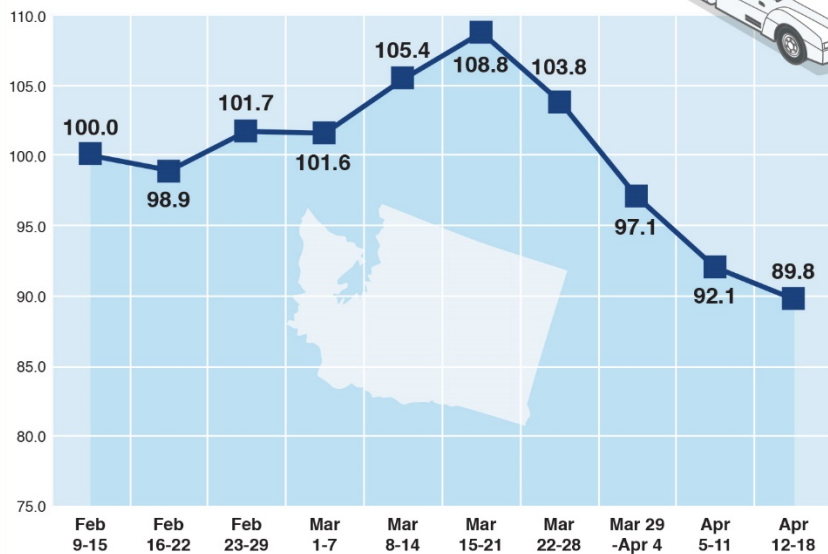
- Average excessive detention fee per hour charged by fleets was \$63.71, less than \$71.78/hour from ATRI's Operational Costs of Trucking
- 20% of smaller fleets (<50 power units) do not charge detention in order to stay competitive with larger fleets

Expected Changes in Freight Volumes Next Few Months



Truck Activity Impacts

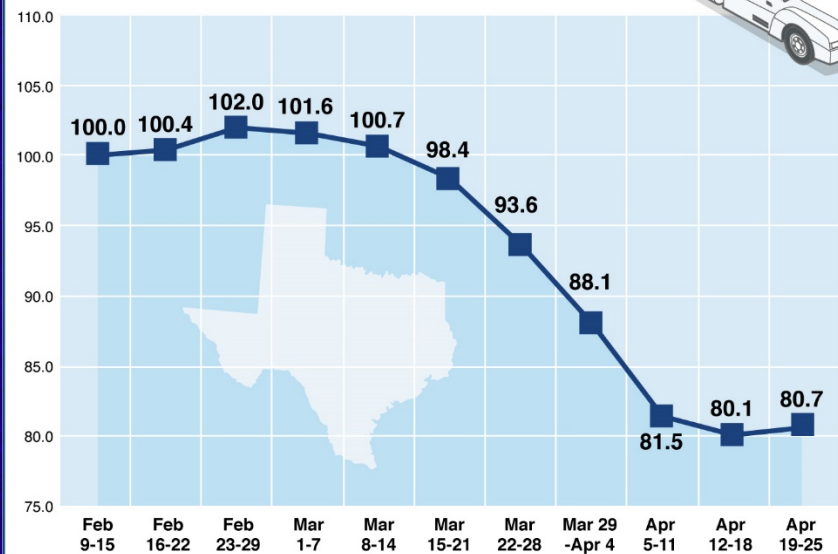
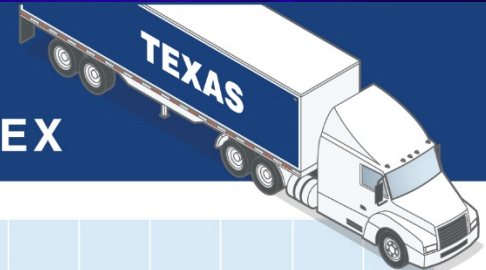
TRUCK ACTIVITY INDEX



2020



TRUCK ACTIVITY INDEX

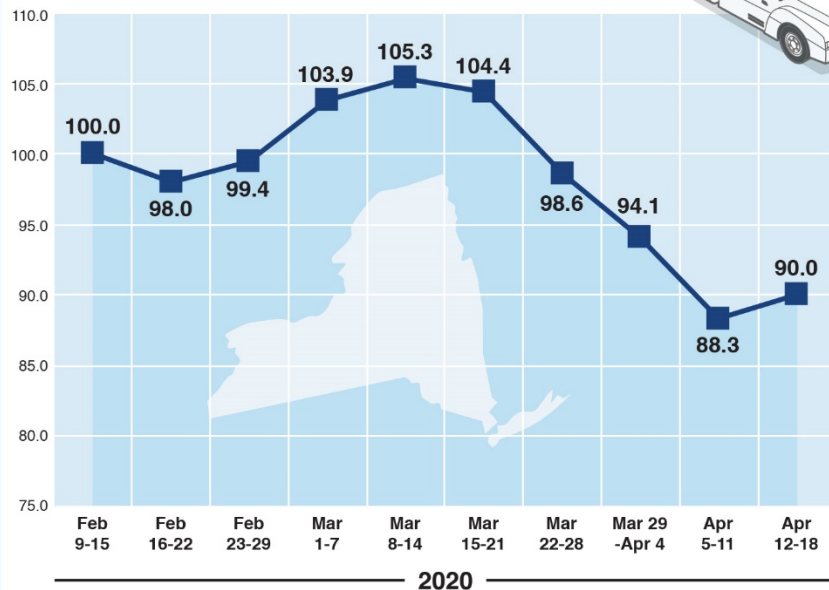
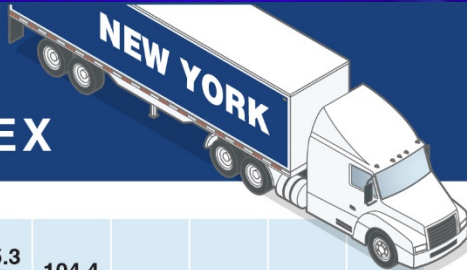


2020

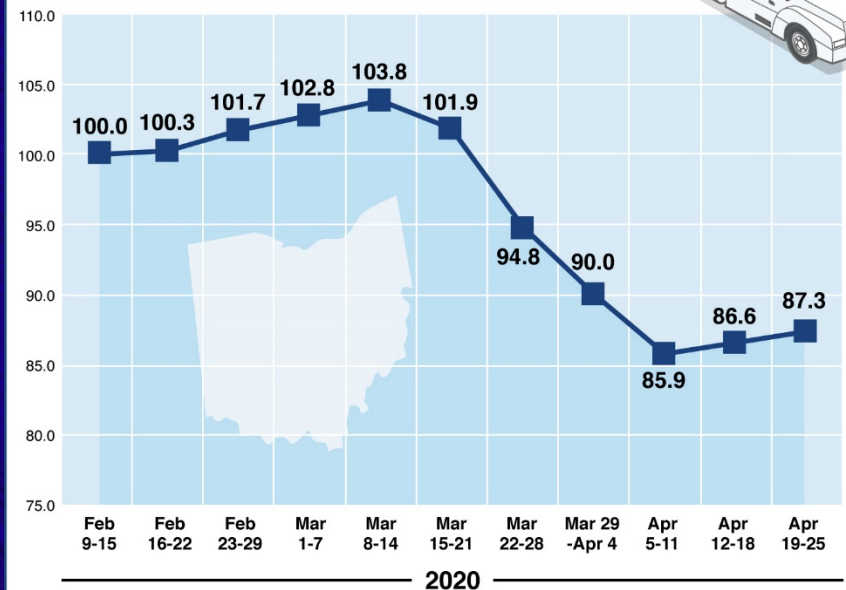


Truck Activity Impacts

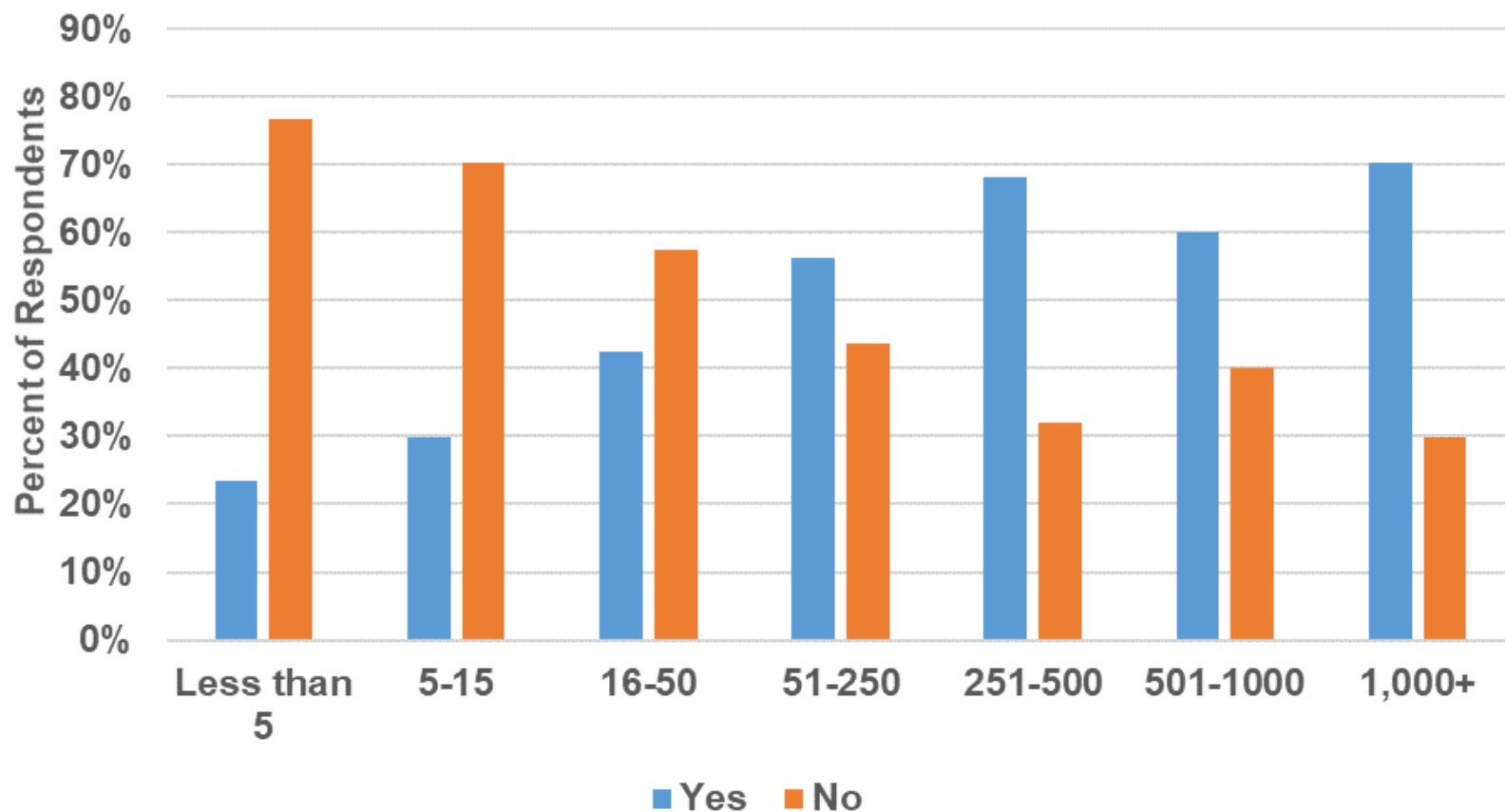
TRUCK ACTIVITY INDEX



TRUCK ACTIVITY INDEX



Disaster Response Plan in Place Pre-COVID



2020 Top Research Priorities

- Impact of Small Settlements on the Trucking Industry
- Rethinking VMT-Based Safety Metrics
- Owner-Operators/Independent Contractors in the Supply Chain
- VMT Cost-Benefit Analysis
- Impacts of Rising Insurance Costs on Industry Operational Costs

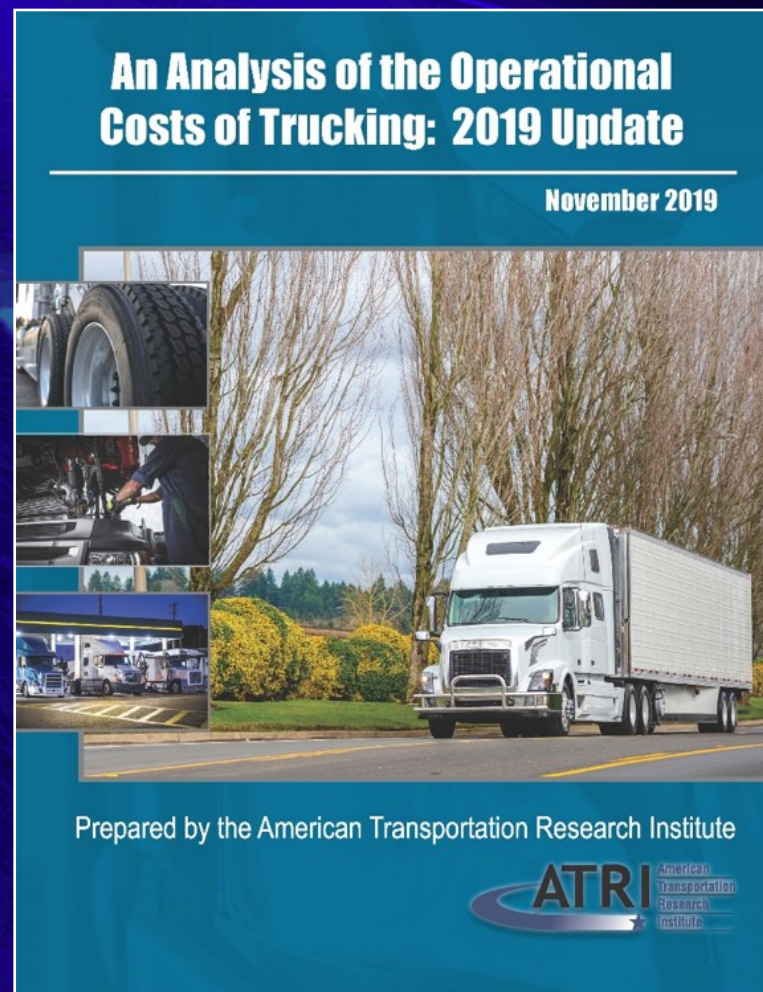
Operational Costs of Trucking

Average Carrier Costs per Mile

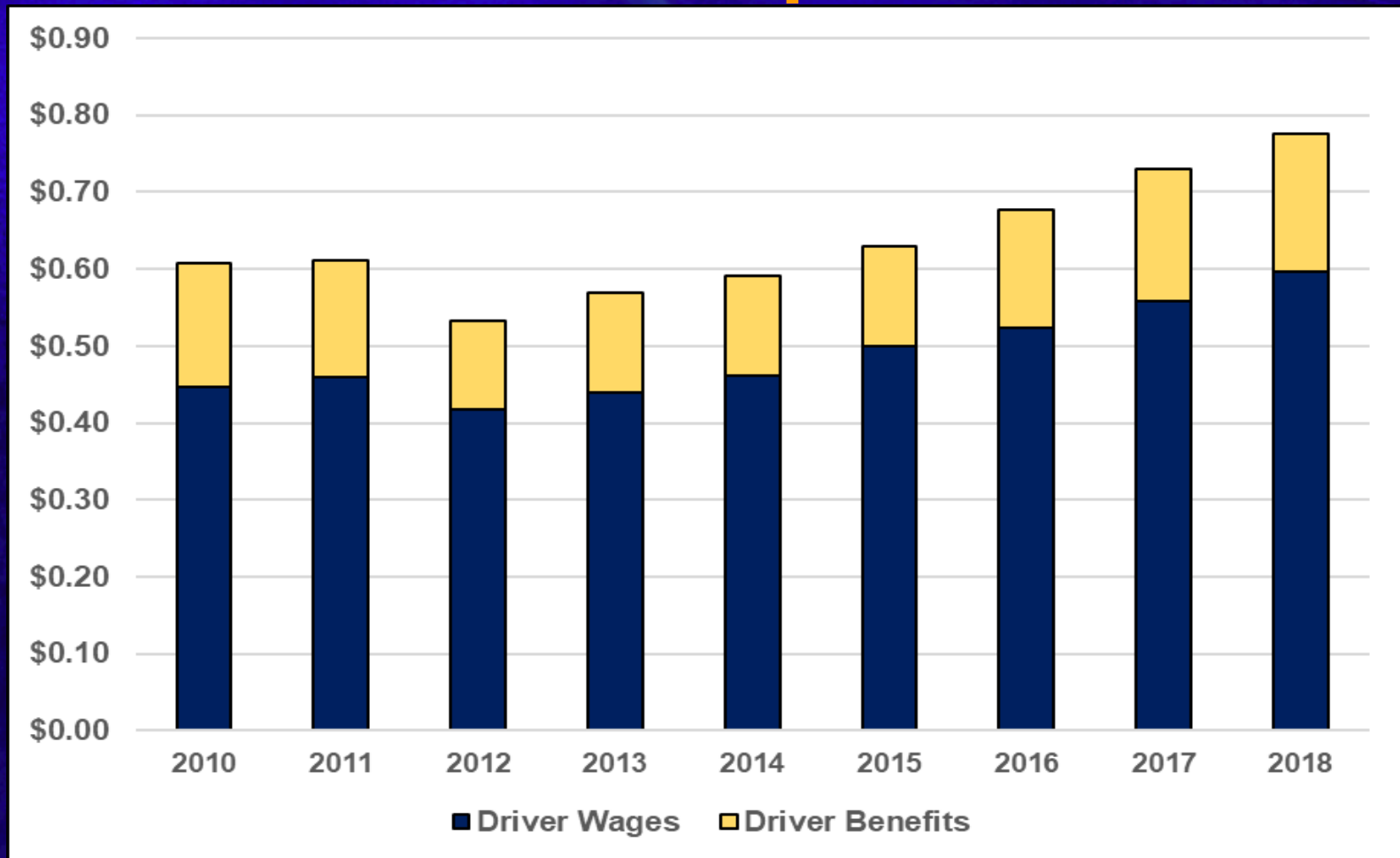
Motor Carrier Costs	2014	2015	2016	2017	2018
Vehicle-Based					
Fuel Costs	\$0.583	\$0.403	\$0.336	\$0.368	\$0.433
Truck/Trailer Lease or Purchase Payments	\$0.215	\$0.230	\$0.255	\$0.264	\$0.265
Repair & Maintenance	\$0.158	\$0.156	\$0.166	\$0.167	\$0.171
Truck Insurance Premiums	\$0.071	\$0.074	\$0.075	\$0.075	\$0.084
Permits and Licenses	\$0.019	\$0.019	\$0.022	\$0.023	\$0.024
Tires	\$0.044	\$0.043	\$0.035	\$0.038	\$0.038
Tolls	\$0.023	\$0.020	\$0.024	\$0.027	\$0.030
Driver-Based					
Driver Wages	\$0.462	\$0.499	\$0.523	\$0.557	\$0.596
Driver Benefits	\$0.129	\$0.131	\$0.155	\$0.172	\$0.180
TOTAL	\$1.703	\$1.575	\$1.592	\$1.691	\$1.821

Operational Costs of Trucking

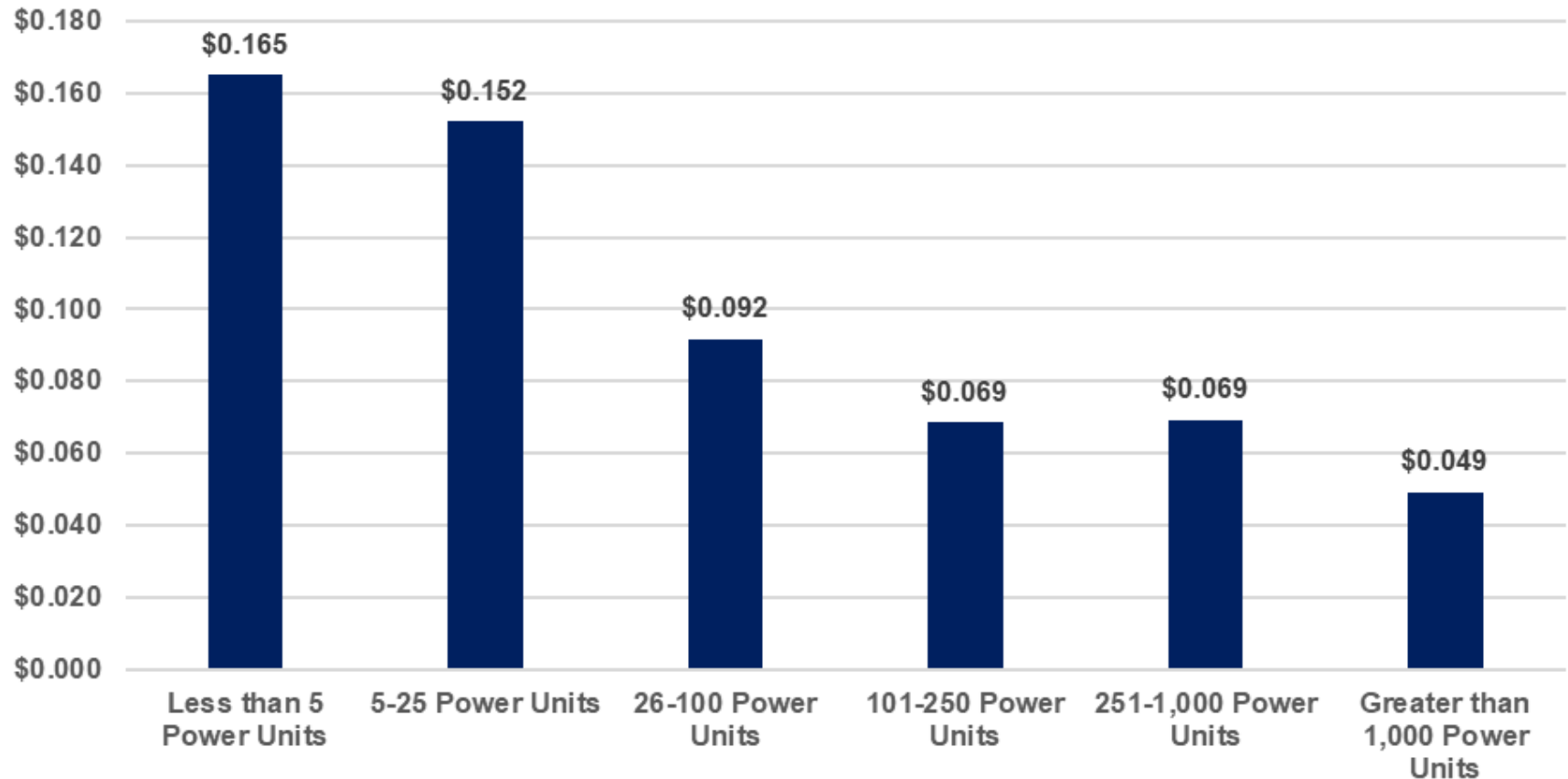
Motor Carrier Costs	2018 Share of Total Cost
Vehicle-Based	
Fuel Costs	24%
Truck/Trailer Lease or Purchase Payments	15%
Repair & Maintenance	9%
Truck Insurance Premiums	5%
Permits and Licenses	1%
Tires	2%
Tolls	2%
Driver-Based	
Driver Wages	33%
Driver Benefits	10%



Driver Wages Up 43% Since 2012; Benefits Up 55%

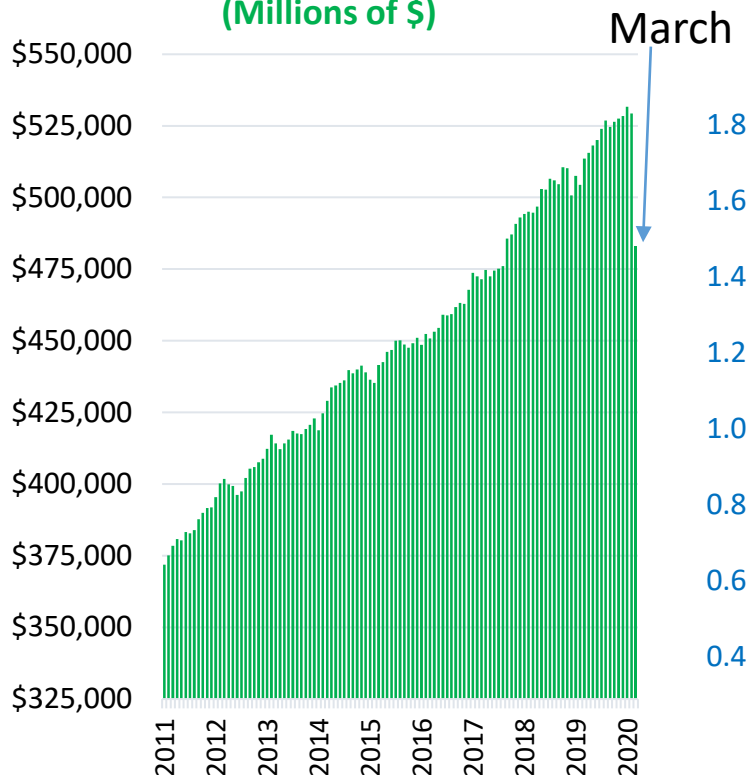


Insurance Cost Per Mile by Fleet Size

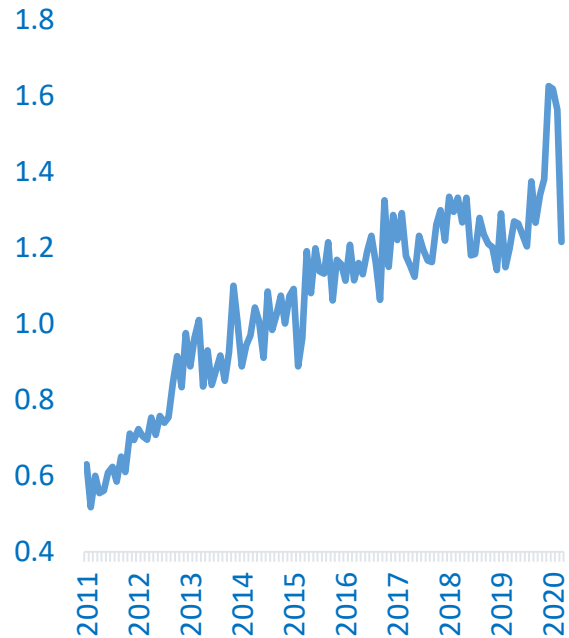


Drivers of Truck Freight Started Cracking from COVID-19 during March

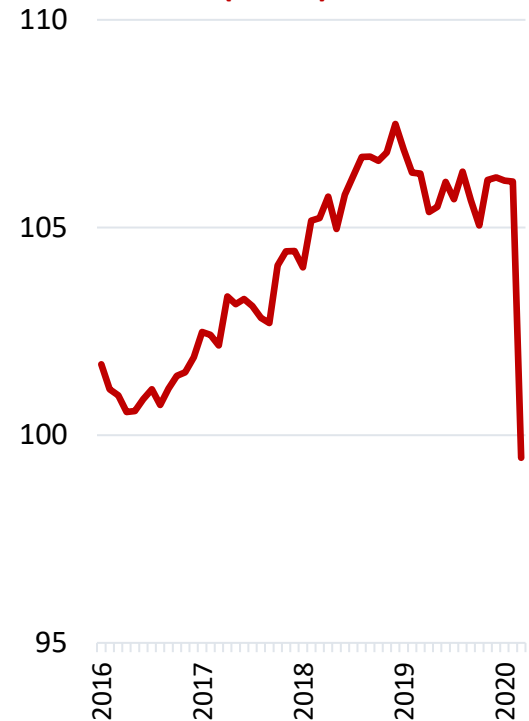
Retail Sales
(Millions of \$)



Housing Starts
(Annualized Rate; Millions)

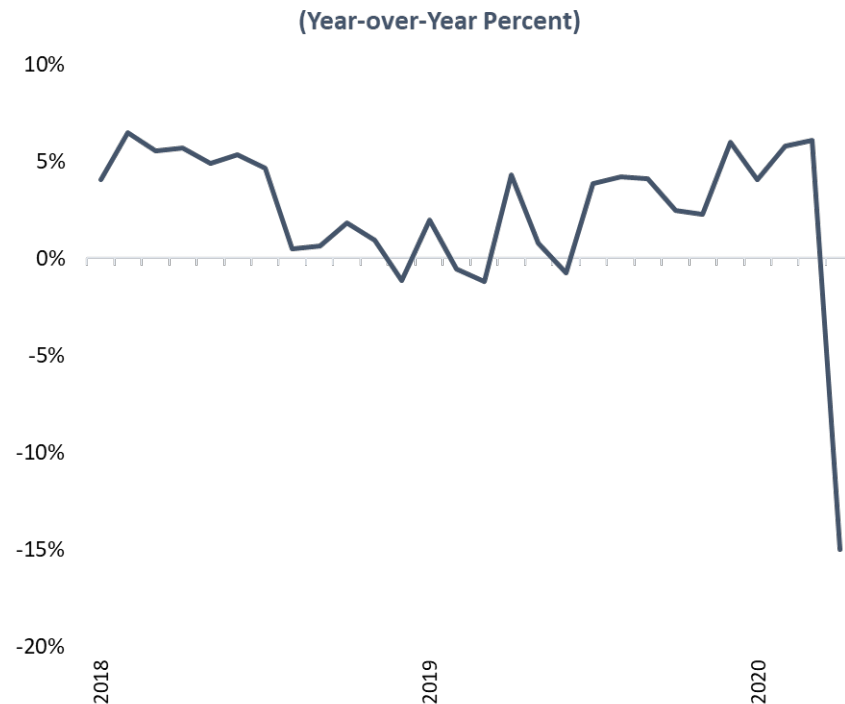
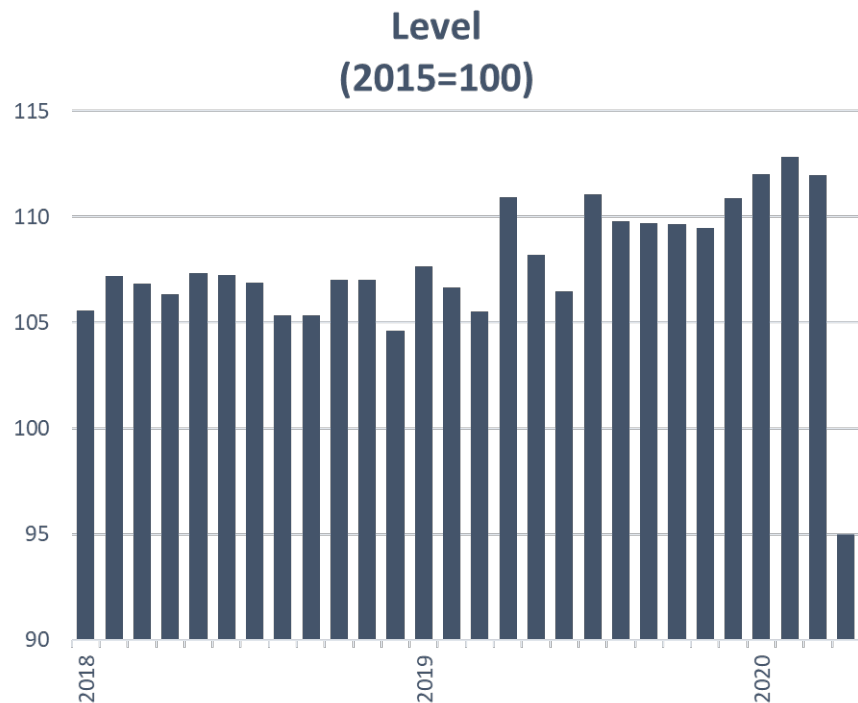


Factory Output
(Index)



Sources: Census Bureau and Federal Reserve

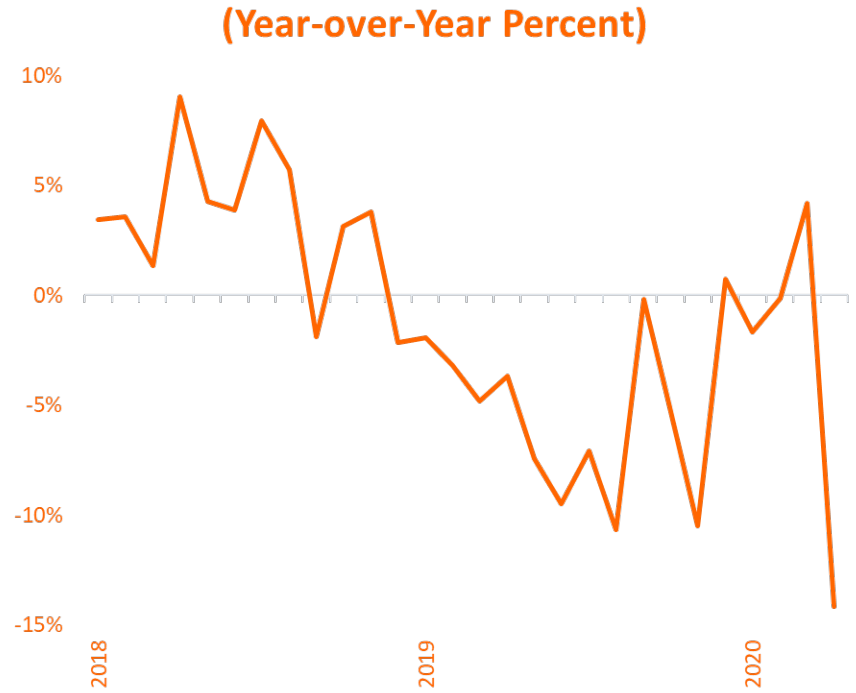
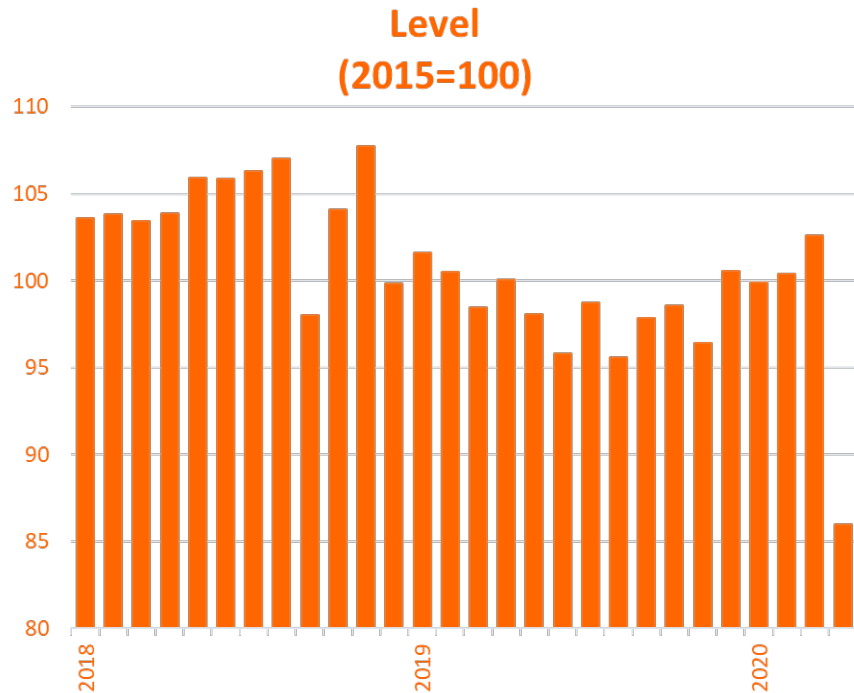
For-hire TL Contract Loads



April is a forecast

Source: American Trucking Associations' *Trucking Activity Report*

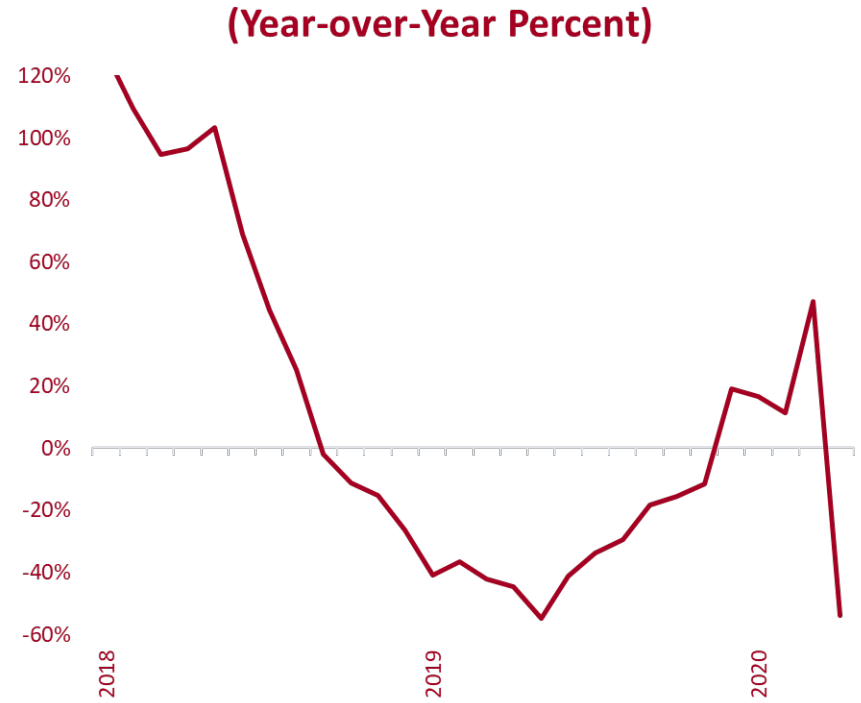
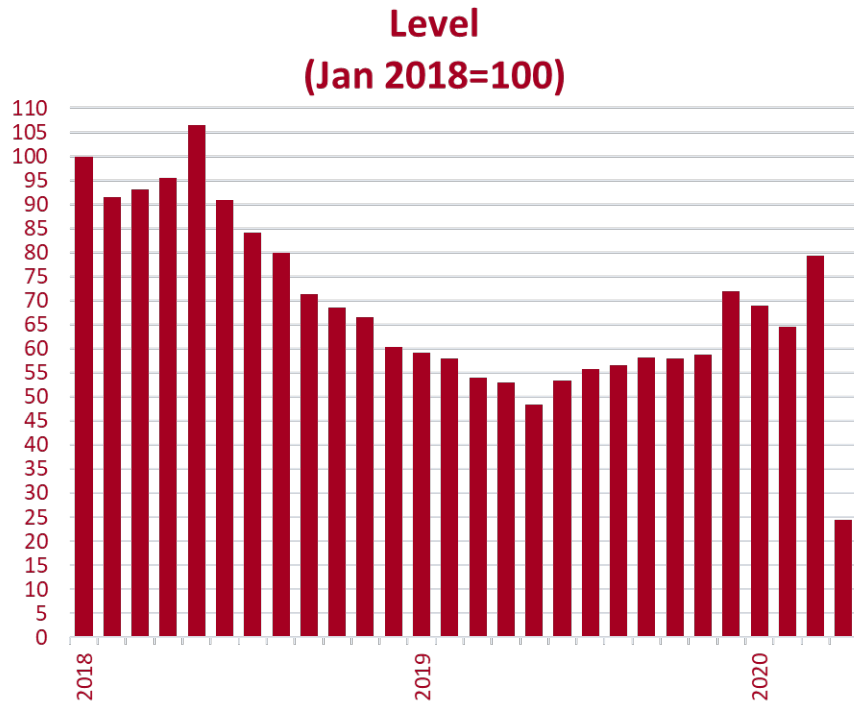
For-hire LTL Tonnage



April is a forecast

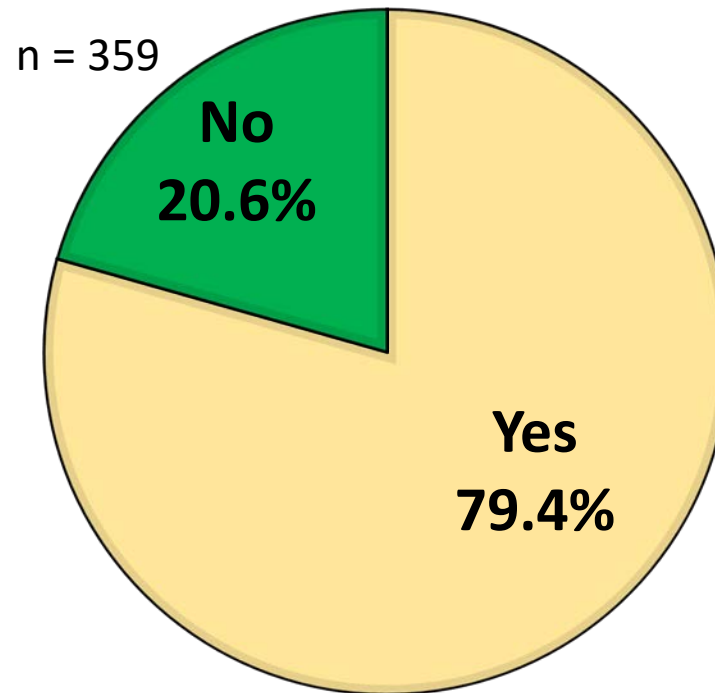
Source: American Trucking Associations' *Trucking Activity Report*

Spot Market Loads



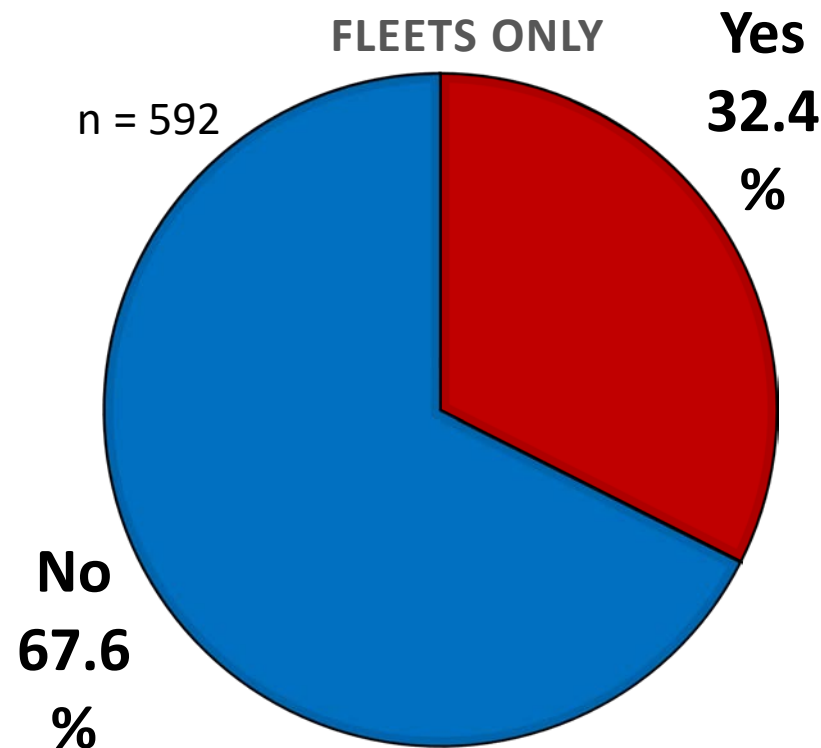
Source: DAT.com & ATA

For-Hire Fleets that Qualified: Did You Apply for the Payroll Protection Plan?



Source: ATA's COVID-19 Survey

Due to Coronavirus, have you had to lay off or furlough any employee drivers or release any independent contractor drivers?



Questions?

Dan Murray

dmurray@trucking.org

www.TruckingResearch.org



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Thank You for Participating!

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Additional Resources

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