

ATRI's Younger Driver Research

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Institute**

ATRI

Trucking industry's not-for-profit research organization

- **Safety**
- **Mobility**
- **Economic Analysis**
- **Technology**
- **Environment**

www.TruckingResearch.org

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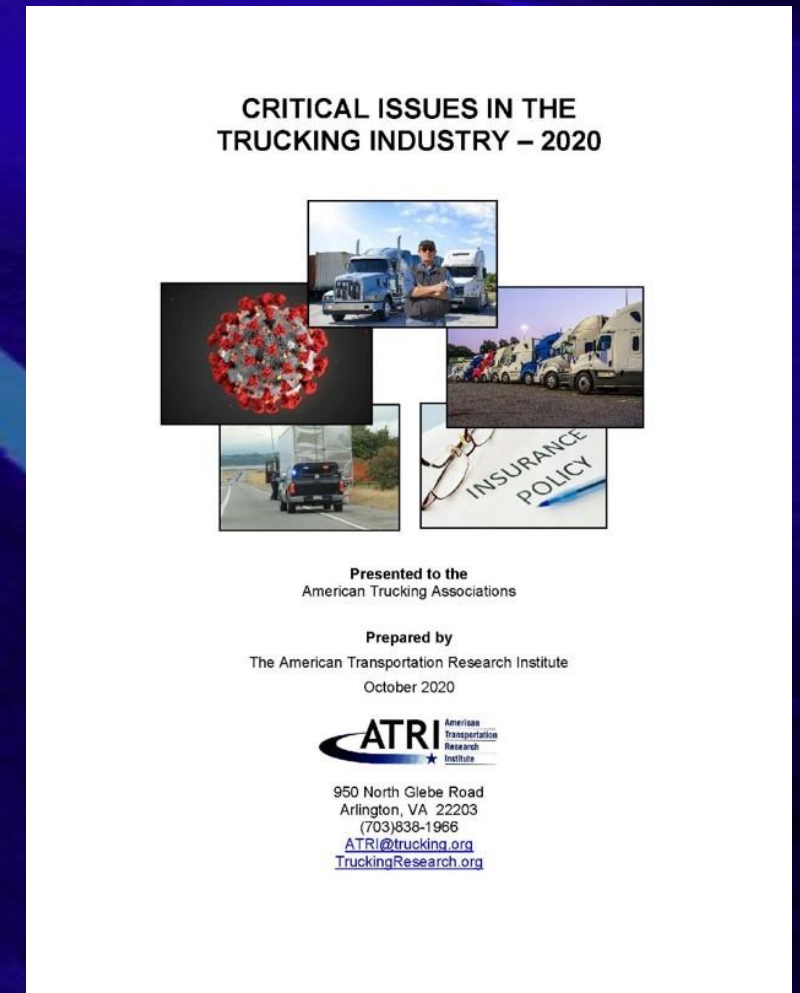


Research Advisory Committee



2020 Top Industry Issues

1. Driver Shortage (1)
2. Driver Compensation (3)
3. Truck Parking (5)
4. Compliance, Safety, Accountability (8)
5. Insurance Cost / Availability (#3 in 2005)
6. Driver Retention (6)
7. Tort Reform (#8 in 2011)
8. Economy (10)
9. Detention / Delay (4)
10. Hours-of-Service (2)



2020 Top Industry Issues

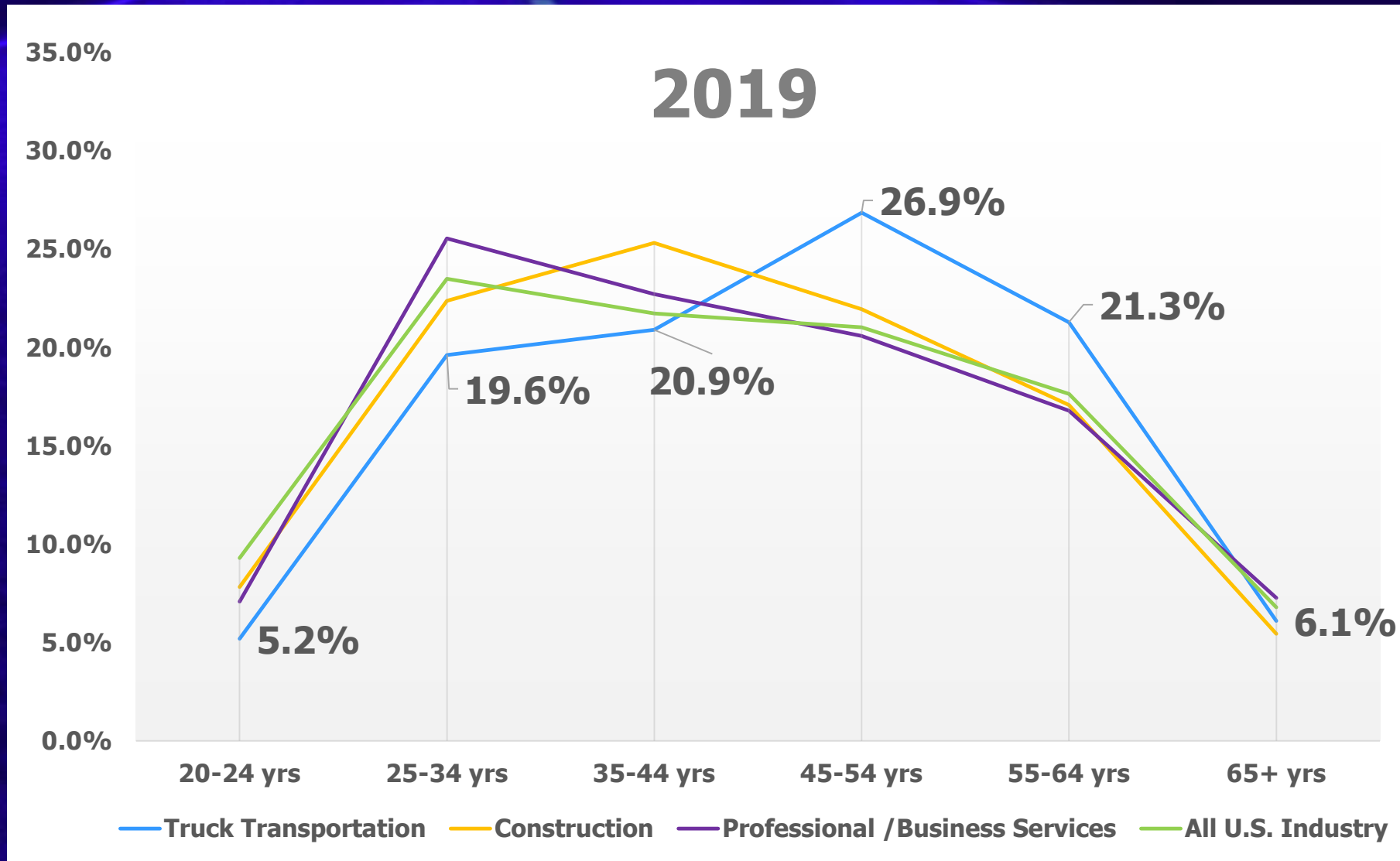
Commercial Drivers

1. Truck Parking
2. Driver Compensation
3. Detention / Delay
4. Hours-of-Service
5. Driver Training Standards
6. Automated Truck Technology
7. CSA
8. Driver Health & Wellness
9. Speed Limiters
10. ELD Mandate

Motor Carriers

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

Truck Driver Age Demographics

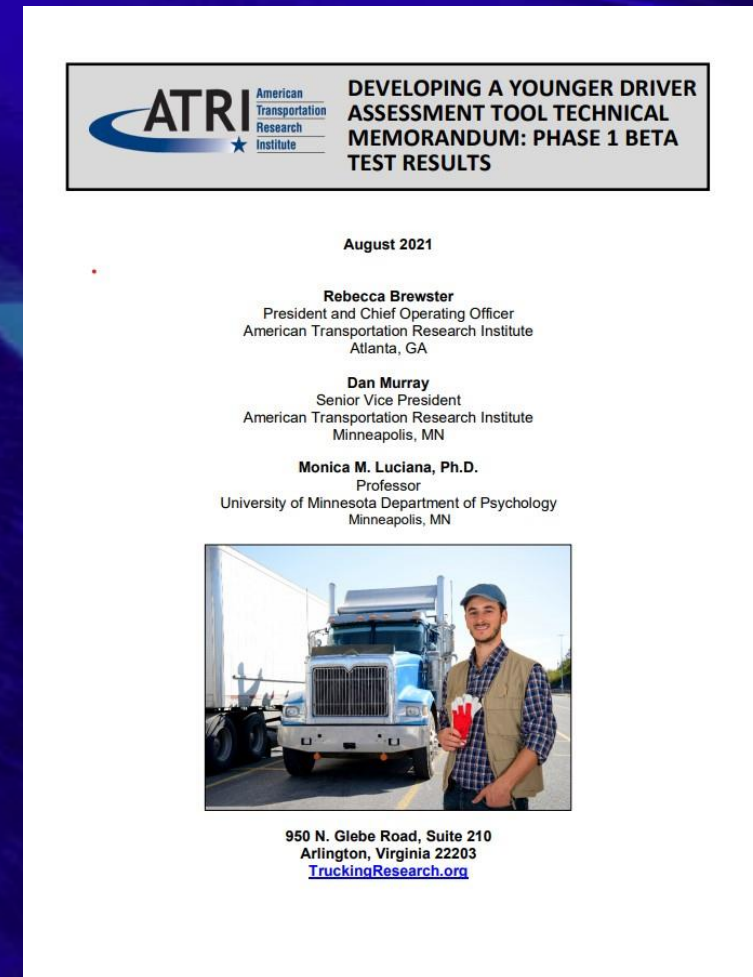


Younger Driver Assessment Tool

- **Minnesota Trucking Association Younger Driver Project Team submitted research proposal to ATRI in 2015**
 - ◆ **Selected as top priority research topic by ATRI's Research Advisory Committee**
- **Meta-analysis of research linking crash risk with specific driver traits and the relationship between those traits and driver age**

Younger Driver Assessment Tool

- ATRI-developed assessment tool to identify younger drivers with personality characteristics similar to mature, veteran drivers
- Beta test of tool included 94 drivers aged 20-60



Younger Driver Assessment Tool

- **Measures tested included:**
 - ◆ **Personality traits**
 - ◆ **Reasoning**
 - ◆ **Impulsivity**
 - ◆ **Sensation-seeking**
 - ◆ **Sleep quality**
 - ◆ **Cognitive control**
- **Participating drivers' safety performance measured through MVR and PSP – crashes and safety violations**

Younger Driver Assessment Tool

- **Among statistically significant findings, safest drivers scored highest on Extraversion and Conscientiousness and lowest on Depression and Sleep Latency**
- **Assessment did show sensitivity to age-related variations in performance**
 - ◆ **Similar findings for older drivers with less driving experience**

Younger Driver Assessment Tool

- **Next phase will expand sample to include more drivers under 25**
 - ◆ Working with CVTA, carriers with schools, apprenticeship programs
- **Shortened assessment will remove several tests**
 - ◆ BMI assessment – more likely to be predictive of health risks and threats to safety such as poor sleep in older and more seasoned drivers
 - ◆ UPPS-P – though highly sensitive to age, was not predictive of driver safety
 - ◆ Trail-Making Test – due to significant questions about validity in the context of automated administration
 - ◆ Attentional Network Test – the ANT is redundant in theory with the Multi-Source Interference Task and was not well received by the drivers

Advanced Driver Assistance Systems



 U.S. Department of Transportation
Federal Motor Carrier Safety Administration



Project Recommended ADAS Performance Buckets

Active Braking Systems

- Automatic emergency braking
- Adaptive cruise control

Active Steering Systems

- Lane keep assist
- Lane centering
- Adaptive steering control

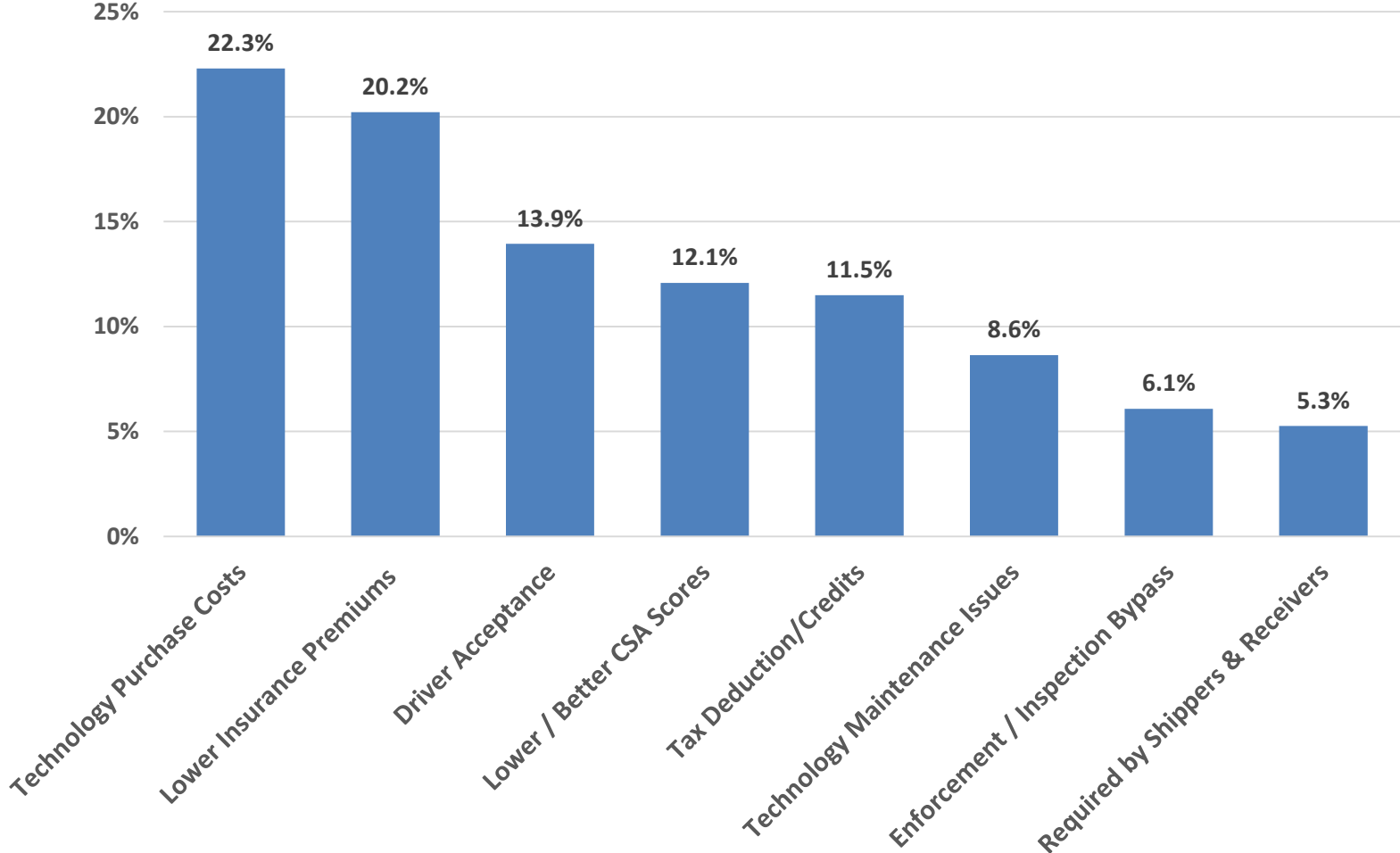
Active Warning Systems

- Lane departure
- Forward collision
- Blind spot detection

Camera Monitoring Systems

- In-cab facing driver training
- Forward facing event recording
- Side rear-view for mirrors

Carriers: Top Ranked Issues Impacting Adoption Benefits



How to Best Integrate 18-20 Year Olds in the Trucking Industry

- **Background:** Identified by ATRI's Research Advisory Committee as the top research priority for 2021
- Young individuals are critical to addressing driver shortages as well as technician and dock or yard worker shortages in the long run
- Younger employees may segue into driving jobs

- **Research Objective:** identify best practices for recruiting, training, and retaining younger employees

How to Best Integrate 18-20 Year Olds in the Trucking Industry

- **Focuses on four key challenge areas for integrating young individuals into the trucking industry.**
 - ◆ **1: Legal. Federal law currently prohibits individuals under the age of 21 from driving interstate freight.**
 - **Best practices for utilizing 18-20 year olds in non-driving or non-interstate driving roles evenly within company operations.**
 - ◆ **2: Logistical. Even if the DRIVE-Safe Act made it legal for 18-year-olds to drive tomorrow, there will still be challenges.**
 - **Strategies for integrating driver training into early employment rather than / in addition to previous driving training to ensure optimal safety among less-tested age group.**

How to Best Integrate 18-20 Year Olds in the Trucking Industry

- **Four key challenge areas, continued:**
 - ◆ **3: Generational. Gen Z and Millennials have different workplace priorities and behaviors.**
 - **Responding to younger employees' desires for flexibility, ongoing growth opportunities, belonging to a team environment where they are valued, and contributing to a greater good.**
 - **Especially among non-white individuals, who make up a fast growing proportion of drivers, and women, who remain an significantly under-reached driver demographic.**

How to Best Integrate 18-20 Year Olds in the Trucking Industry

- **Four key challenge areas, concluded:**
 - ◆ **4: Reputational.** there is a lack of public awareness about careers in the trade industries and trucking in particular.
 - **Effective rhetorical strategies, platforms, and programs for shifting stereotypes and prejudices against trade jobs.**
 - **High school and technical college outreach, including trucking classes or clubs, represent an area of growing interest.**

Questions?

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