



Research Needs for Truck, Bus, and Delivery Workers: Findings from Focused Discussions

Transportation Research Board 2024 Annual Conference
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Industry-Focused Discussions

- Conducted to determine priority research areas in industries included in the transportation sector
- 95 Total Participants with attendees from:
 - NIOSH (27)
 - Industry (19)
 - Other government (U.S. DOT, OSHA, state) (14)
 - Union (14)
 - Associations / trade groups (7)
 - Academia (10)
 - Consultant (4)
- White paper/report to be developed

Issues For Fatalities/Injuries/Musculoskeletal Disorders

- Know the baseline to understand level of reduction needed
- More information is needed on injury events and rates
- Challenges with gaining access to the data, police reports, insurance companies
- Need for updated numbers on cost of claims when there are and are not fatalities
- Capture information from different sizes of trucking firms
- Automation in the trucking industry and understanding of its use
- Age as it relates to injuries and fatalities. Age as it relates to technology integration.
- Driver distraction, fatigue
- Loading and unloading
- Suspension seats vs. air-ride seats
- Use of cameras or mirrors for vision
- Violence
- Hazards in home deliveries

Issues in Health and Well-Being

- Health should be approached in an organizational context. Considerable interest in NIOSH Total Worker Health (TWH) approach and Healthy Worker Design program
- What types of products will drivers/transportation workers listen to?
- Are “products” of previous work (utilization of training programs) are dated?
- Go beyond health and wellness knowledge to encourage behavioral change
- Disconnect between H&W training information and drivers themselves
- Conditions of continuing interest: hypertension, weight/obesity/smoking, diet/nutrition, physical activity, access to health care, and mental health
- Synthesis of research topics: sleep apnea, fatigue, health, safety, crashes are examples of cross-cutting health issues
- How many carriers actually have a health and wellness program and what do they look like?
- Leverage insurance carriers to identify what/how many freight-shipping fleet and carrier companies have Insurance-sponsored or guided H&W programs

Issues In Prevention Through Design/Emerging technologies

- Delivery hazards at point of delivery
- Truck seat design-active seat suspension
- Ingress/egress safety issues
- Driver control human factors issues/ interface design
- Driver visibility from cab
- Roadway design
- Design of delivery spaces- parking
- Driver fatigue- sleep education specific for trucking; fatigue monitoring technologies
- Advanced driver assistance systems
- Use of Artificial intelligence in vehicles
- Wearable sensors
- Automation of loading/unloading
- Protective barriers
- Pedal placement
- Social procurement
- Electric vehicles and hazards

Issues In Safety Management Systems (SMS)/Economy

- Driver selection, orientation, training, on-board monitoring and evaluation should be considered in the Safety Management Systems. Understand the whole process related to the SMS.
- Smaller companies may be overlooked relative to SMS's
- More research is needed on how to provide/improve SMS's and safety culture for individual workers
- Different approaches needed for contractors vs. owner operated firms
- What are the associations between turnover and training?
- Generational needs may be different on training/learning, etc.
- Companies may be pressured to select higher-risk drivers, depending on the economy
- How to manage production pressures yet still focus on health and safety?
- Nonstandard work arrangements – need education and information
- Chronic understaffing may lead to stress, poor work-life balance
- Understanding new technologies may also lead to stress
- No one size fits all- no single solution. Drivers have different missions and needs

WHAT WE LEARNED

- Concerns/gaps:
 - Need better access to data and acknowledgement of data limitations
 - Better injury data is needed
 - Costs, days away from work
 - Worker attitudes toward safety and risk
 - Educational material on best practices
 - Accessible library for individuals
- Concerns and hazards and research gaps specific to each industry
- Sharing of useful documents/reports and programs