



2041215: Preparing the Future Workforce for the Era of Automated VEHICLES (WEAVE)

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WEAVE
Preparing the Future Workforce
for the Era of Automated VEHICLES



STUDY OBJECTIVES

- Changing nature of driving jobs and knowledge, skills, & abilities (KSA) requirements in response to automated vehicles (AVs)
- Workers' willingness and ability to adapt to AVs
- Anticipated downstream impacts of AVs
- Impacts of COVID-19 on transportation jobs and AV perceptions

MAJOR ACTIVITIES

Focus Groups: 61 (136)⁺



Trucking

- Drivers: 13 (22)
- Supervisors: 12 (20)
- Managers: 12 (25)



Gig Drivers

- Ride-hailing: 2 (5)
- Delivery: 4 (8)
- Both: 11 (40)



Taxi Service

- Drivers: 7 (16)
- Supervisors: 0
- Managers: 0

⁺ Number of focus groups, followed by number of participants in parentheses.

Data Collection & Analysis

Newly collected data

- State of the State Survey (MSU) of policy insiders
- Truck driver survey
- Social media data (Twitter)

Existing public datasets

- O*NET
- Occupational Employment and Wage Statistics
- Current Population Survey
- American Community Survey

Ongoing activities

- Disseminate survey to gather workers' perceptions of AV adoption & impacts

KEY FINDINGS

• FOCUS GROUP RESULTS

- Gig respondents perceived the gig driver workforce would remain the same over the next two years but decrease in ten years due to AVs
- Trucking respondents were pessimistic about truck driver shortage ending in near future
- Participants recognized the potential of AVs to ease the truck driver shortage by appealing to younger tech-oriented drivers, reducing insurance costs, lowering driver age requirements, etc.
- Truck drivers expressed fear regarding uncertain changes that AVs will have on their jobs

• TRUCKING SURVEY RESULTS

- Drivers expressed interest in alternative occupations having objectively similar KSA requirements to driving
- Drivers' perceptions of being able to perform the demands of a job and of the job's prestige predict their perceptions of how appealing the job is and their interest in it as a transition occupation
- Age-related stereotypes may potentially hinder older drivers' career opportunities and effective use of human capital in trucking companies as they adopt AVs
- Despite successful AV technology developments and testing, most deployment timeline predictions have not been met yet

RESEARCH OUTPUT

- 5 peer-reviewed journal articles & 1 white paper
- 3 manuscripts submitted or under review
- 15 conference presentations or special sessions
- 6 manuscripts in process

CONTACT INFORMATION

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