

# Research Report Summary

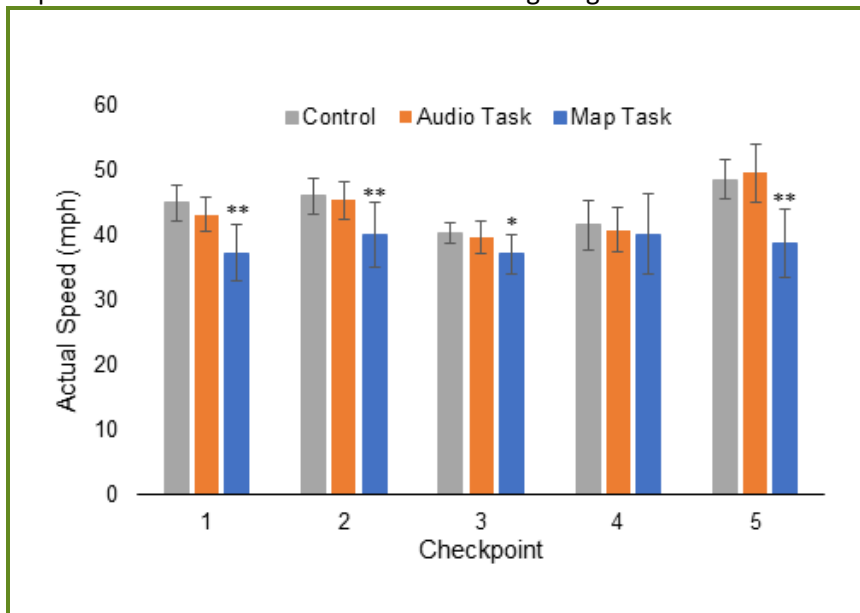


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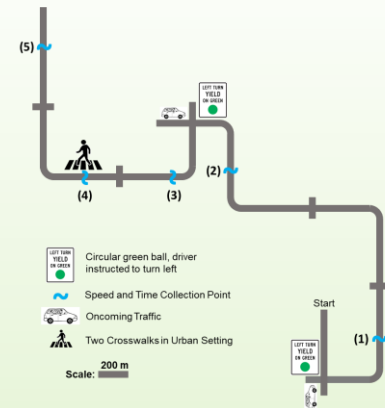
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## Examining Distracted Drivers' Underestimation of Time and Overestimation of Speed

Thirty-four drivers participated in a driving simulator experiment that investigated time and speed perception as it related to cognitive workload resulting from secondary tasks. Each participant drove the virtual drive twice, once with either an audio or a map task and again with no distractions as a control. Participants knew from a practice drive that they would be asked to estimate their speed and time duration of driving, thus this study used the prospective paradigm. Based on previous literature, it was expected that there would be an underestimation of time and an overestimation of speed. The reverse occurred: participants overestimated time and underestimated speed. This suggests that drivers may have found the drive unstimulating, despite the secondary tasks, and that the rural environment may have impacted speed perception. Additionally, a large group of participants, nine out of 34, crashed the virtual vehicle at a horizontal curve that not was problematic in previous simulator studies. When investigating these crashes further,



### Simulated Drive Layout



#### Participant Details:

Control/Map Task: 4M/3F

Map Task/Control: 3M/3F

Control/Audio Task: 4M/2F

Audio Task/Control: 3M/3F

Average age: 25.1 years

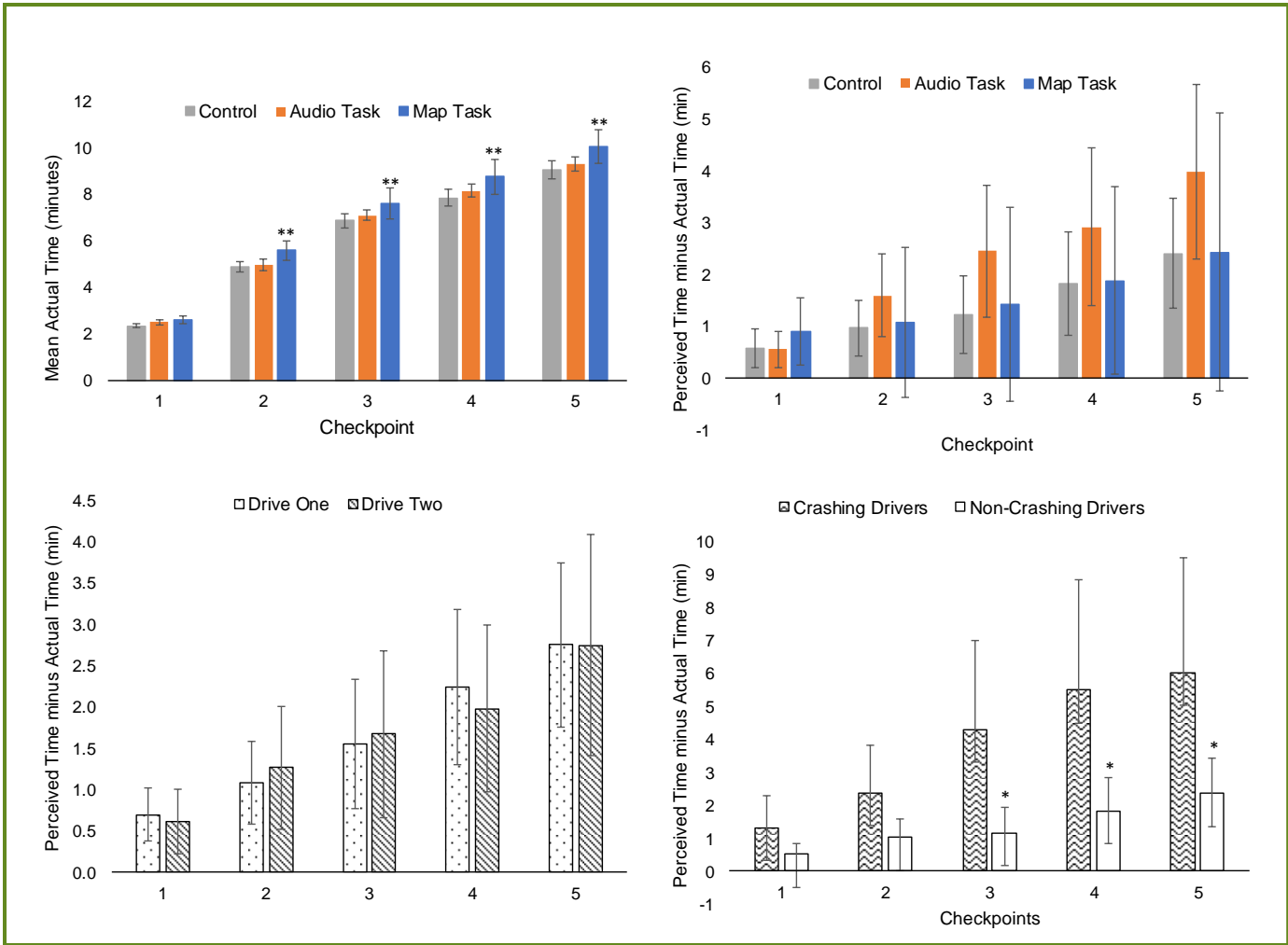
Std. dev. of age: 7.2 years



**34 subjects participated in driving simulator at UMass Amherst**

it was found that drivers who crashed in the second drive had significantly worse time perception in the first drive than drivers who did not crash in the second drive. This finding suggests that current time perception may be a predictor of future speed selection.

*“The findings from this study suggest that current time perception may be a predictor of future speed selection.”*



**References**

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