# Replication Data for: To Trust or Not to Trust? A Simulation-based Experimental Paradigm Dataset

**Dataset available at:** https://doi.org/10.7910/DVN/QLZVFJ

(This dataset supports report **Replication Data for: To Trust or Not to Trust? A Simulation-based Experimental Paradigm,** http://safersim.nads-sc.uiowa.edu/final_reports/UM%202%20Y1_FinalReport.pdf)

This U.S. Department of Transportation-funded dataset is preserved by the SAFER-SIM University Transportation Center in the Harvard Dataverse Repository (https://dataverse.harvard.edu/), and is available at https://doi.org/10.7910/DVN/QLZVFJ

The related final report **Replication Data for: To Trust or Not to Trust? A Simulation-based Experimental Paradigm**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/42280

**Metadata from the Harvard Dataverse Repository record:**
Dataset Persistent ID: doi:10.7910/DVN/QLZVFJ
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Title: Replication Data for: To Trust or Not to Trust? A Simulation-based Experimental Paradigm
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Description: The automated driving system is expected to enhance traffic safety and flow; however, the system will not be as effective if users do not accept it or do not utilize it appropriately. Appropriate acceptance and use of technology depends on attributes such as perceived risk, mental workload, self-confidence, and appropriate level of trust that matches system performance. An inappropriate level of trust in the technology, whether it is over-trust or undertrust, would negatively affect the benefits of that technology. Based on the literature, trust is a dynamic construct that consists of an initial or dispositional trust that is shaped before experiencing the system performance and a history-based trust that constantly changes with user experience of the system. This study first reviews the history of research on humans' trust in automation and the factors that are correlated with trust. It also provides a brief overview of some previous models of trust in automation. Then, based on the gaps in the literature, a

simulator-based experiment is proposed to further study the factors affecting initial or dispositioned trust and history-based trust. The results of this study are expected to help better understand drivers' trust in automated vehicles and help enhance human-automation interaction models.
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**Dataset description:**
This dataset contains 2 .zip file collection described below.

**ToTrust_CSV.zip:**
This collection contains seven .csv files titled:

- 1. Demographics Questionnaire_Feburary 3, 2018_12.20.csv
- 3. Post-Study Perception Questionnaire-Correct_January 29, 2018_22.46-Analysis.csv
- 3. Pre-Study Perception Questionnaire_January 29, 2018_22.46-Analysis.csv
- 4.1. Mid-Study Perception I_January 30, 2018_01.04-Analysis.csv
- 4.2. Mid-Study Perception I I_January 29, 2018_19.51-Analysis.csv
- 6. Post-Study Perception Questionnaire_January 29, 2018_23.46.csv
- Final Trust Survey-Pilot Round_February 2, 2018_20.44-Analysis.csv

The .csv, Comma Separated Value, file is a simple format that is designed for a database table and supported by many applications. The .csv file is often used for moving tabular data between two different computer programs, due to its open format. The most common software used to open .csv files are Microsoft Excel and RecordEditor, (for more information on .csv files and software, please visit https://www.file-extensions.org/csv-file-extension).

**ToTrust_Data.zip:**
This collection contains 300 .plt files, with the naming structure trust_Sub_(numbers ranging from 01 to 80)_(Drive or DELETE)_(indistinguishable string of numbers).plt: eg. Trust_Sub_06_Drive_81.plt. The .plt file format ……..

**National Transportation Library (NTL) Curation Note:**
As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (https://ntl.bts.gov/public-access) Section 7.4.2 Data, the NTL staff has performed ***NO*** additional curation actions on this dataset. NTL staff last accessed this dataset at https://doi.org/10.7910/DVN/QLZVFJ on 2019-09-04. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.