

## **Determining the Effect of Smartphone Alerts and Warnings on Older-Adult Street-Crossing Behavior Dataset**

Dataset available at: <https://doi.org/10.7910/DVN/J78UQH>

(This dataset supports report **Determining the Effect of Smartphone Alerts and Warnings on Older-Adult Street-Crossing Behavior**)

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/J78UQH>

The related final report **Determining the Effect of Smartphone Alerts and Warnings on Older-Adult Street-Crossing Behavior**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/56083>.

### **Metadata from the Harvard Dataverse Repository record:**

Description: Research has shown that older pedestrians have more difficulty making road-crossing decisions than younger adults. This presents an opportunity for vehicle-to-pedestrian (V2P) communication to assist older adults' street-crossing decisions. We developed ability-based permissive alerts (safe to cross) and prohibitive warnings (not safe to cross) for a smartphone in a virtual street-crossing environment. We conducted a between-subjects study with 66 participants ages 65-84 to understand the effects of these alerts and warnings. We found differences between the permissive alerts and prohibitive warnings: (1) permissive participants were more likely to take smaller gaps than control participants (prohibitive had no effect); (2) permissive participants were more compliant with alerts (Cohen's Kappa: .80) than prohibitive participants (Kappa: .50); and (3) 10/22 prohibitive participants reported the warnings as annoying (none for permissive). These findings give insights into V2P design and raise questions about how V2P alerts affect older-adult street-crossing behavior (2020-03-01).

Subject: Computer and Information Science

### **Recommended citation:**

Rector, Kyle; Kearney, Joseph; Plumert, Jodie; Malik, Jeehan; Parr Di Napoli, Morgan; Flathau, Jessica, 2020, "Determining the Effect of Smartphone Alerts and Warnings on Older-Adult Street-Crossing Behavior", <https://doi.org/10.7910/DVN/J78UQH>, Harvard Dataverse, V1

### **Dataset description:**

This dataset contains 2 files described below.

- **Data Management Cognitive Assessment Descriptions.docx**
- **OPed Data Management\_CHI Analyses.xlsx**

### **File Type Descriptions:**

- The .xlsx file is a Microsoft Excel file, which can be opened with Excel, and other free available software, such as OpenRefine.

- The .docx file is a Microsoft Word file, which can be opened with Word and other free word processor programs, such as Kingsoft Writer, OpenOffice Writer, and ONLYOFFICE.

**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/J78UQH> on 2020-07-07. If, in the future, you have trouble accessing this dataset at the host repository, please email [NTLDataCurator@dot.gov](mailto:NTLDataCurator@dot.gov) describing your problem. NTL staff will do its best to assist you at that time.