

## **Data Fusion for Nonmotorized Safety Analysis (03-049) Dataset**

**Dataset available at:** <https://doi.org/10.15787/VTTI/ZSJK4Z>

(This dataset supports report **Data Fusion for Nonmotorized Safety Analysis**)

This U.S. Department of Transportation-funded dataset is preserved by the Virginia Tech Transportation Institute (VTTI) in their data repository (<https://dataverse.vtti.vt.edu/>), and is available at <https://doi.org/10.15787/VTTI/ZSJK4Z>

The related final report **Data Fusion for Nonmotorized Safety Analysis**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/60229>.

### **Metadata from the VTTI Repository record:**

Dataset Persistent ID: doi:10.15787/VTTI/ZSJK4Z

Publication Date: 2021-10-06

Title: Data Fusion for Nonmotorized Safety Analysis (03-049)

#### Author:

- Sener, Ipek Nese (TTI) - ORCID: 0000-0001-5493-8756
- Munira, Sirajum (TTI) - ORCID: 0000-0002-4953-2628
- Description:  
Project Description: This project explored an emerging research territory, fusion of nonmotorized traffic data for estimating reliable and robust exposure measures. The researchers developed fusion mechanisms to combine five bike demand data sources in Austin and demonstrated the applicability of the fused estimate in two crash analyses. The data used in this study were gathered from five primary data sources: (a) actual bicycle volume counts, (b) bicycle-sharing data, (c) NHTS add-on data, (d) Strava data, and (e) StreetLight data. In addition, the sociodemographic and land-use data for building models were obtained from the American Community Survey, Austin Transportation Department, and other public data domains.
- Data Scope: Please see document below for additional information (filename: 03-049\_Metadata ).
- Data Specification: Some of the datasets used in this project were obtained through public domains, and thus are available for sharing. Some other datasets were requested from corresponding data providers or government agencies and obtained under specific data use agreements, and thus are not available directly from the authors. Please see document below for additional information (filename: 03-049\_Metadata ).

Subject: Engineering

Keyword: Fusion, exposure, nonmotorized activity, demand models, safety analysis, crowdsourced data, Dempster Shafer

Depositor: Atkins, Whitney

Deposit Date: 2021-08-03

### **Recommended citation:**

Sener, Ipek Nese; Munira, Sirajum, 2021, "Data Fusion for Nonmotorized Safety Analysis (03-049)", <https://doi.org/10.15787/VTT1/ZSJK4Z>, VTTI, V1

### **Dataset description:**

This dataset contains 1 file collection, described below.

### **Data Fusion for Nonmotorized Safety Analysis\_Data.zip**

- 03-049\_Metadata.pdf
- 03-049\_DataTable.csv
- 03-049\_Data\_Dictionary.xlsx

### **File Type Descriptions:**

- The .pdf file format is an Adobe Acrobat Portable Document Format (PDF) file and can be opened with the Adobe Acrobat software.
- The .xlsx and .xls file types are Microsoft Excel files, which can be opened with Excel, and other free available software, such as OpenRefine.
- 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>).

### **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://doi.org/10.21949/1503647>) 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/10.15787/VTT1/ZSJK4Z> on 2022-04-21. 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.