

Assessment of Safety Benefits Dataset

Dataset available at:

https://drive.google.com/drive/folders/1PB2UALX6h79wggwmYLI1sxsS_OUWCpxvl?usp=sharing

(This dataset supports report **Assessment of Safety Benefits of Technologies to Reduce Pedestrian Crossing Fatalities at Midblock Locations Final Report**, <https://cecas.clemson.edu/C2M2/assessment-of-safety-benefits-of-technologies-to-reduce-pedestrian-crossing-fatalities-at-midblock-locations-final-report/>)

This U.S. Department of Transportation-funded dataset is preserved by the Center for Connected Multimodal Mobility at Clemson University on the Center for Connected Multimodal Mobility's site (<https://cecas.clemson.edu/C2M2/>) through the use of Google drive, and is available at https://drive.google.com/drive/folders/1PB2UALX6h79wggwmYLI1sxsS_OUWCpxvl?usp=sharing.

The related final report **Assessment of Safety Benefits of Technologies to Reduce Pedestrian Crossing Fatalities at Midblock Locations**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/53588>.

Metadata from the Center for Connected Multimodal Mobility record:

Publication Date: May 19, 2020

Abstract: In 2015, South Carolina ranked third in the nation in pedestrian fatalities per 100,000 population. Out of 979 total motor vehicle fatalities, 123 involved pedestrians, accounting for over 12% of all road user fatalities in South Carolina. While some individuals make conscious choices to walk and dwell in transit-oriented or mixed-use walkable communities, for others, vehicle availability or physical disability may dictate the pedestrian mode. Thus, pedestrian crashes and resulting deaths and injuries can disproportionately affect these segments of the population. Often, these crashes occur due to driver detection errors, such as: 1) inability to identify specific types of road users or looking at the direction that is appropriate due to the gap of cognitive expectation; and 2) failure in understanding stimuli when adequate lighting is not available or when a vehicle approaches in the periphery of the visual field for the road user. Historically, pedestrian detection has been the responsibility of the driver and is prone to errors related to expectation, visual acuity, visual contrast, etc. With the growing market of vehicle sensing, smartphones, and smart infrastructure, there exists a plethora of opportunities to aid the driver and pedestrian with enhanced sensing capability and visibility. This research lays the foundation of knowledge for pedestrian midblock crashes at nighttime, their exposure characteristics, and the potential effectiveness of existing sensing technologies. Through data analytics, this research advances knowledge for technology adoption to foster safer and more effective mobility for our society.

Downloadable Links to:

- Final Report
- Technology Transfer Report
- Report Data

Recommended citation:

Ogle, Jennifer; Islam, Sababa; Brown, Kweku; Mwakalonge, Judith; Michalaka, Dimitra; Chowdhury, Mashrur “Roonie” (2020), Assessment of Safety Benefits Data, Clemson University, Dataset,

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Dataset description:

This dataset contains 1 .zip file collection described below.

Assessment of Safety Benefits Data.zip:

This collection contains 10 .csv files listed below. 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>).

- 2016_ped_night.csv
- 2015_ped_night (1).csv
- 2014_ped_night (1).csv
- 2013_ped_night.csv
- 2012_ped_night.csv
- 2011_ped_night.csv
- 2010_ped_night.csv
- 2009_ped_night.csv
- 2008_ped_night.csv
- 2007_ped_night.csv

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://drive.google.com/drive/folders/1PB2UALX6h79wgwmYLI1sxsS_OUWCpxvl?usp=sharing on 2020-12-07.

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.