Urban Transportation Infrastructure and Cyclist and Pedestrian Safety Dataset

Dataset available at: https://digitalcommons.lsu.edu/transet_data/123/

(This dataset supports report **Urban Transportation Infrastructure and Cyclist and Pedestrian Safety**)

This U.S. Department of Transportation-funded dataset is preserved by the Transportation Consortium of South-Central States (TRAN-SET) in the LSU Digital Commons Repository (https://digitalcommons.lsu.edu), and is available at https://digitalcommons.lsu.edu/transet_data/123/

The related final report **Urban Transportation Infrastructure and Cyclist and Pedestrian Safety**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/61824.

Metadata from the LSU Digital Commons Repository record:

Authors:

- Hatim Sharif, University of Texas at San Antonio
- Samer Dessouky, University of Texas at San Antonio

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Abstract: The goal of this project was to perform a comprehensive evaluation of crash causes and risk factors to identify the root causes of crashes involving bicyclists and pedestrians in San Antonio, TX. The research included the development of a database of bicycle and pedestrian crash reports in the target area, calculation of crash counts and rates, identifying road segments and intersections with highly concentrated bicycle and pedestrian crashes, and the development of effective safety countermeasures. Several variables and factors were analyzed, including driver characteristics such as age and gender, road-related factors, and environmental factors such as weather conditions and time of the day. Bivariate analysis and logistic regression were used to identify the most significant predictors of severe pedestrian/bicyclist crashes. Geospatial analysis was used to investigate crash frequency and severity. High-risk locations were identified through heat maps and hotspot analysis. The downtown area had the highest crash density, but crash severity hotspots were identified outside of the downtown area. The strongest predictors of severe injury include lighting condition, road class, road speed limit, traffic control, collision type, and the age and gender of the pedestrian/bicyclist. Fatal and incapacitating injury risk increased substantially when the pedestrian/bicyclist was at fault. Resource allocation to high-risk locations, a reduction in the speed limit, an upgrade of the lighting facilities in high pedestrian activity areas, educational campaigns for targeted audiences, the implementation of more crosswalks, pedestrian refuge islands, and raised medians, and the use of leading pedestrian/bicyclist interval and hybrid beacons are recommended.

Comments: Tran-SET Project: 20SAUTSA35

Recommended citation:
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Dataset description:
This dataset contains 1 file described below.

Pedestrian_Dataset.zip:
- Pedestrian Dataset.csv
- Bicyclist Dataset.csv

File Type Descriptions:
- 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://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://digitalcommons.lsu.edu/transet_data/123/ on 2022-05-24. 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.