THE UNIVERSITY OF TEXAS AT AUSTIN
CENTER FOR TRANSPORTATION RESEARCH
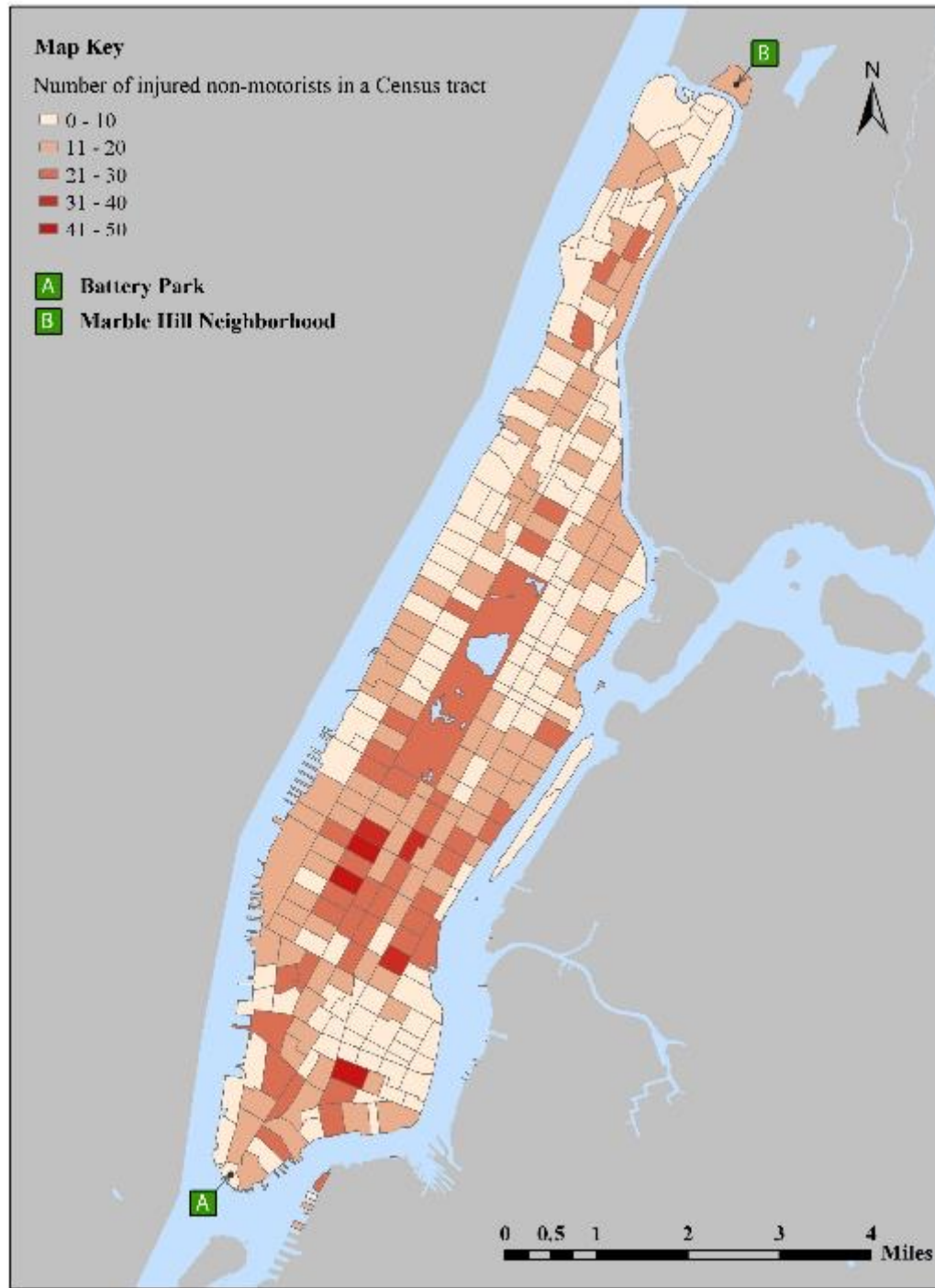
Safety Research at the Data-Supported Transportation Operations and Planning (D-STOP) UTC

Dr. Jen Duthie

March 19, 2015

Crash Prediction

- Spatial multivariate count model to jointly analyze traffic-related counts of pedestrians and bicyclists by injury severity

Source: http://crashstat.org/

Map Key

Number of injured non-motorists in a Census tract

- 0 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 50

A Battery Park
B Marble Hill Neighborhood

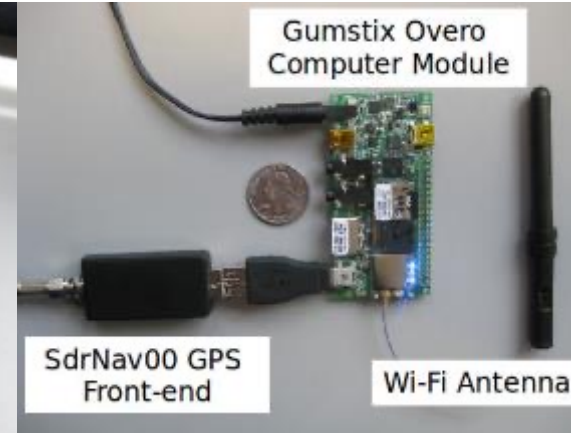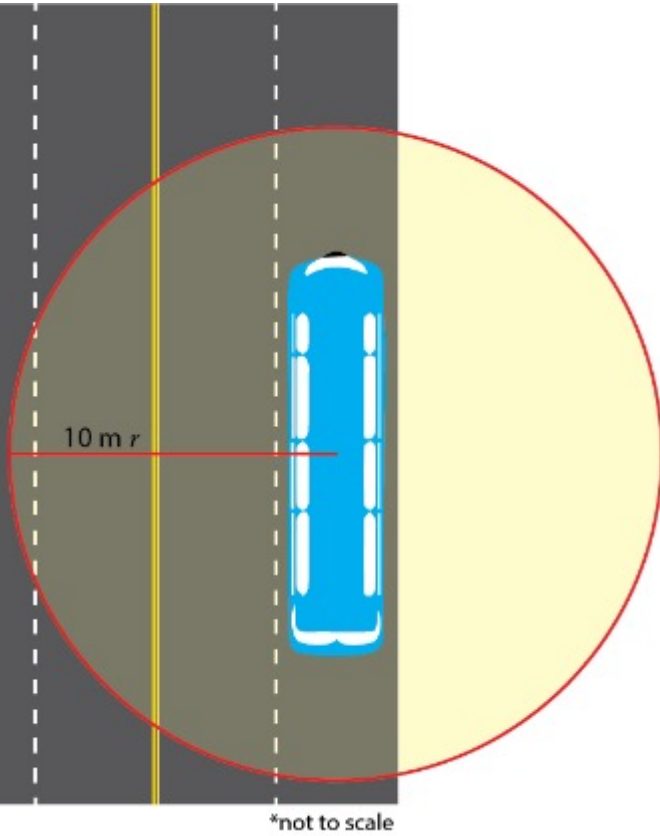0 0.5 1 2 3 4 Miles

Crash Prediction

- Predicting crash frequency at urban intersections with a count data model with endogenous covariates
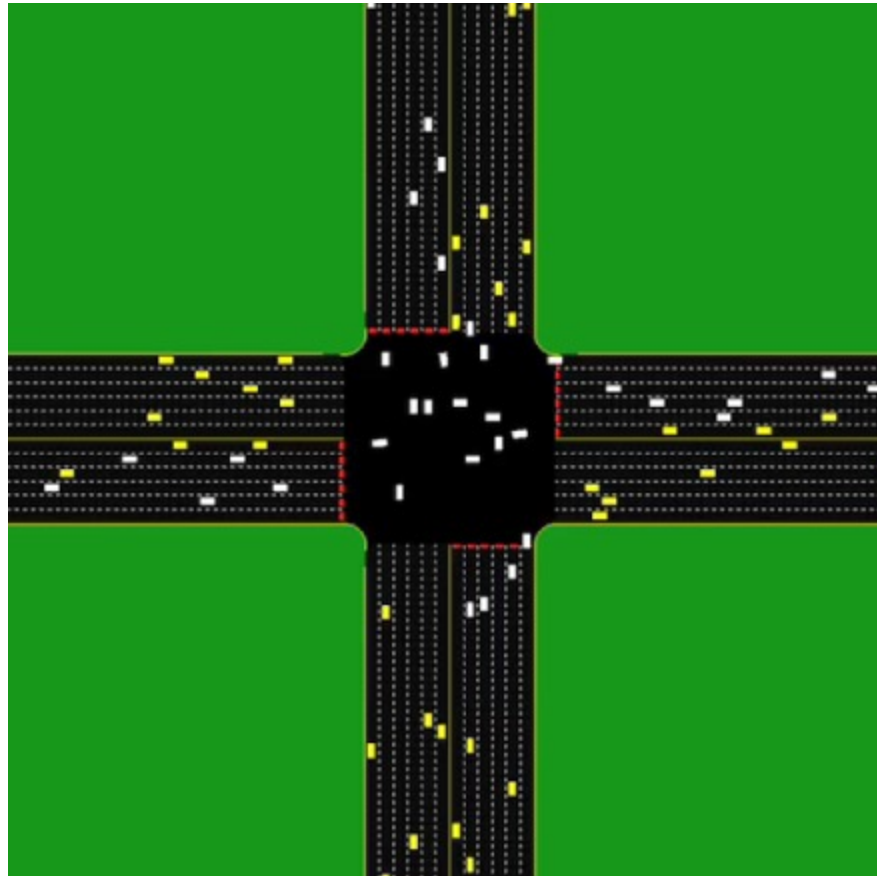

Source: hotpads.com

Vehicle Tracking with Fine-Grained GPS

10 m *r*

not to scale

Gumstix Overo Computer Module

SdrNav00 GPS Front-end

Wi-Fi Antenna

Autonomous Vehicle Intersection Modeling

Thank you.

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