Problem: over 40000 injuries and 300 deaths per year in NYC

Traffic Severe Injuries (2004-2008)

- Motor Vehicle Occupants 50%
- Pedestrians 33%
- Motorcyclists 8%
- Bicyclists 8%
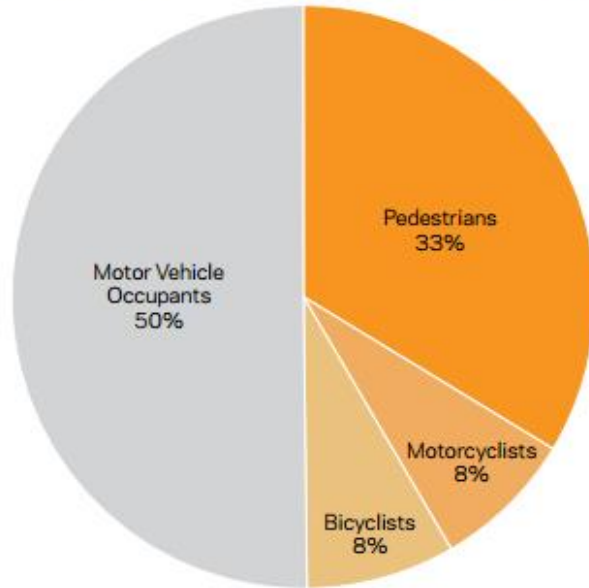
Probability of Fatality in a Crash (2004-2008)

Probability of a Fatality if Involved in a Crash

	Motorcyclists	Pedestrians	Bicyclists	Cars/Trucks

(3.0%, 2.5%, 2.0%, 1.5%, 1.0%, 0.5%, 0.0%)
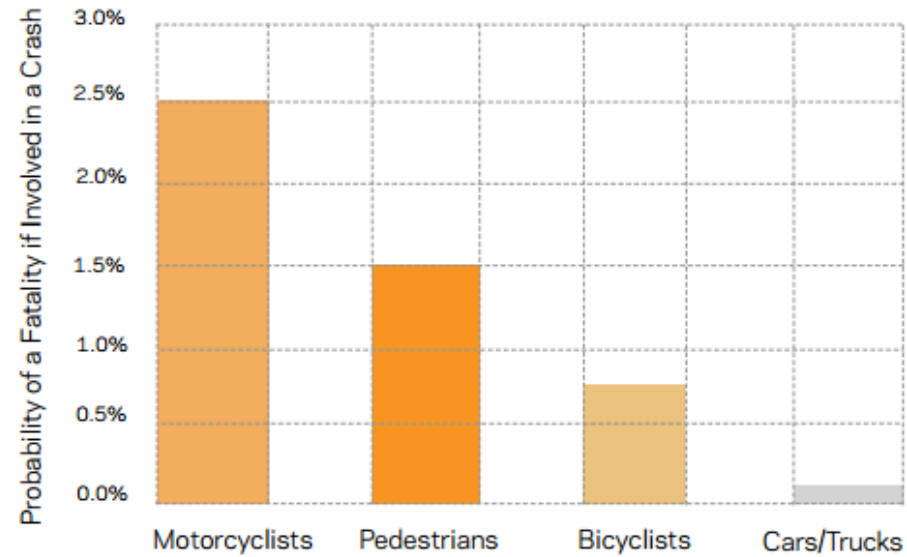
Burden on the economy: over $5 Billion/year

<u>Solution</u>: Integrated analytical approach, in high resolution, to identify underappreciated risk factors associated with injury or death.
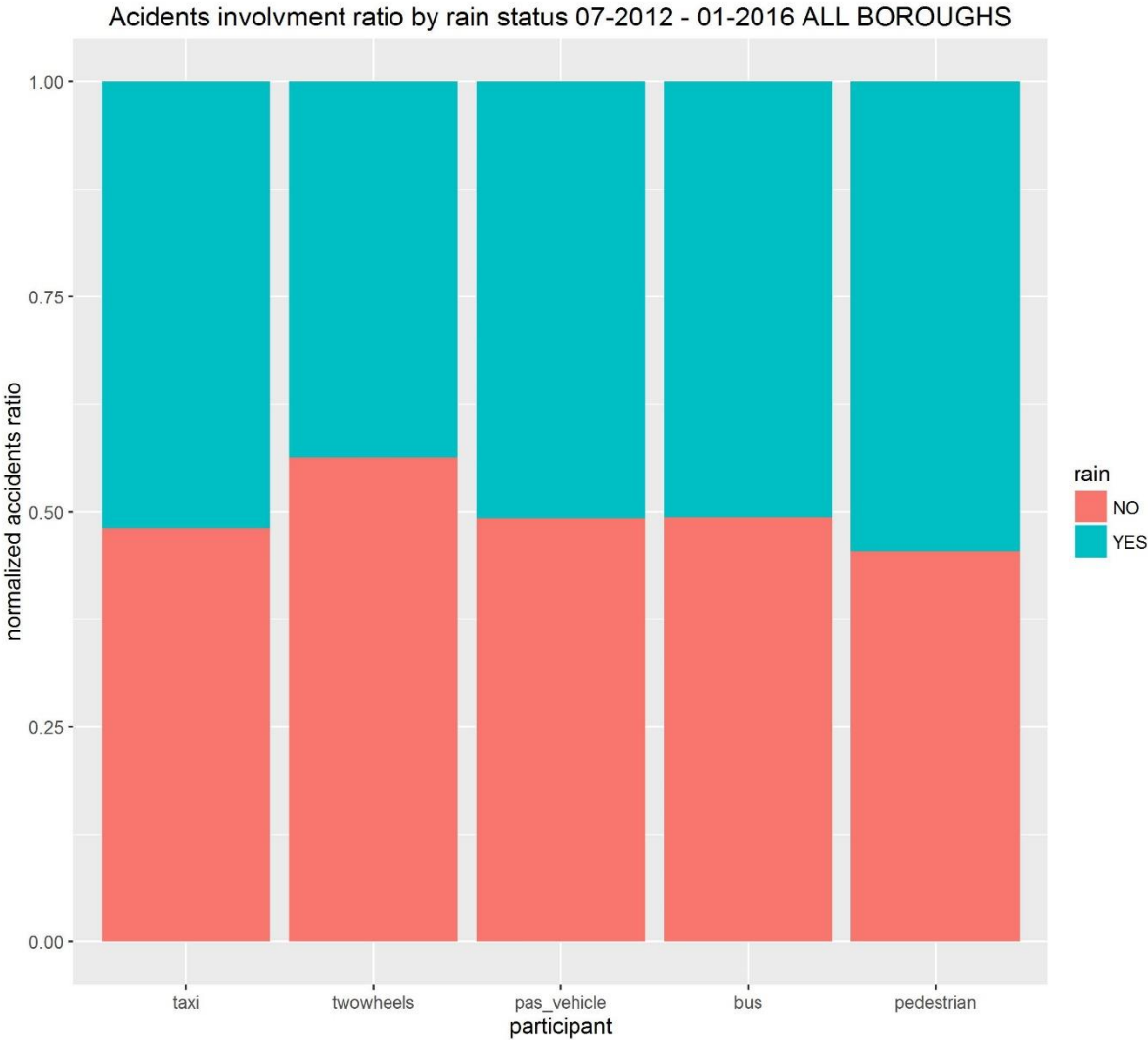
Plan

- Collect data from various sources, NYPD, NCOAA, city.

- Apply machine learning/statistics to infer features from the data with maximal predictive power.

- Share and Visualize.

Rain vs Injuries - correlation

Rain vs Injuries, corellation 07-2012 - 01-2016 ALL BOROUGHS

r=0.04
r=0.26
r=-0.11

Type
- pedestrian
- other
- cyclist

injuries / day
rain(0.1mm) / day

Accident involvement per road-user

Acidents involvment ratio by rain status 07-2012 - 01-2016 ALL BOROUGHS

normalized accidents ratio

rain
- NO
- YES

participant: taxi, twowheels, pas_vehicle, bus, pedestrian

Dependency Outcome/factor 07-2012 - 01-2016 ALL BOROUGHS