# Disentangling Traffic

Data Driven Approaches to Road Safety

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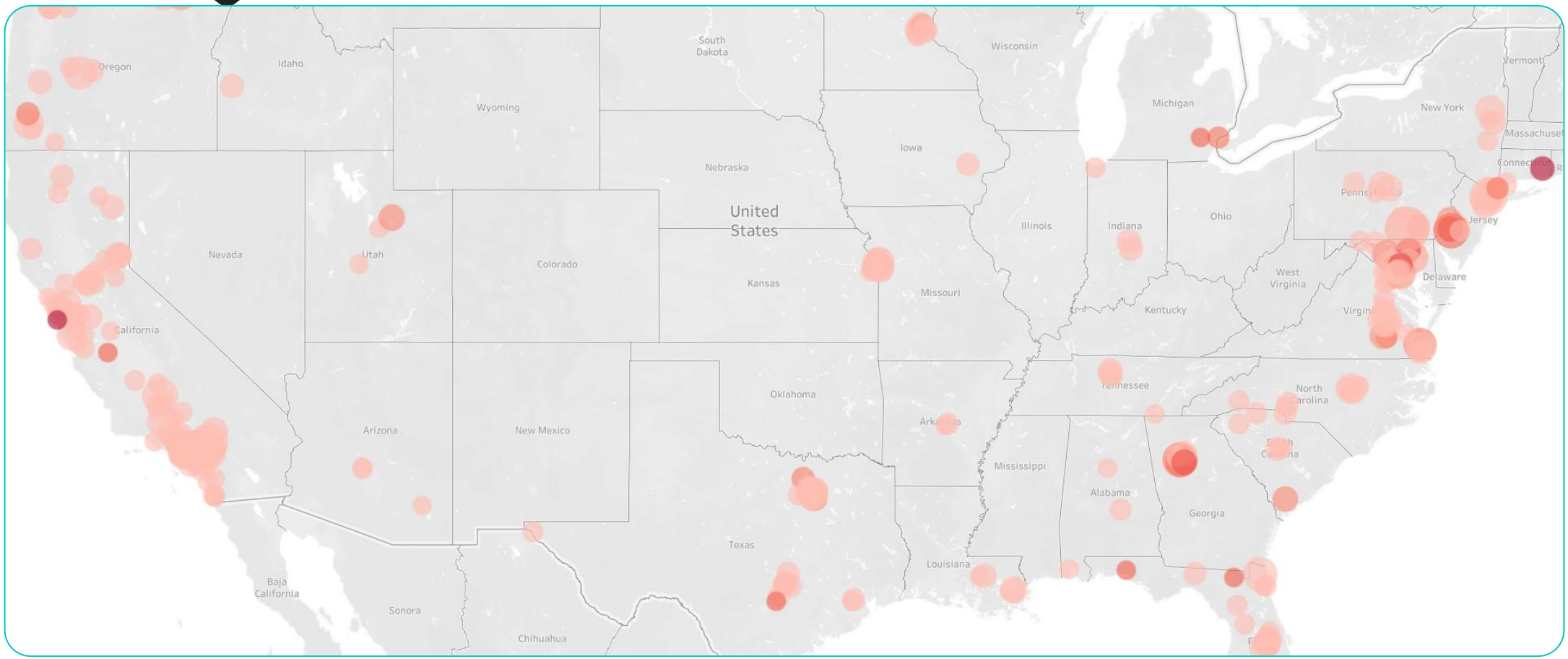
# Introduction

- Hypothesis:

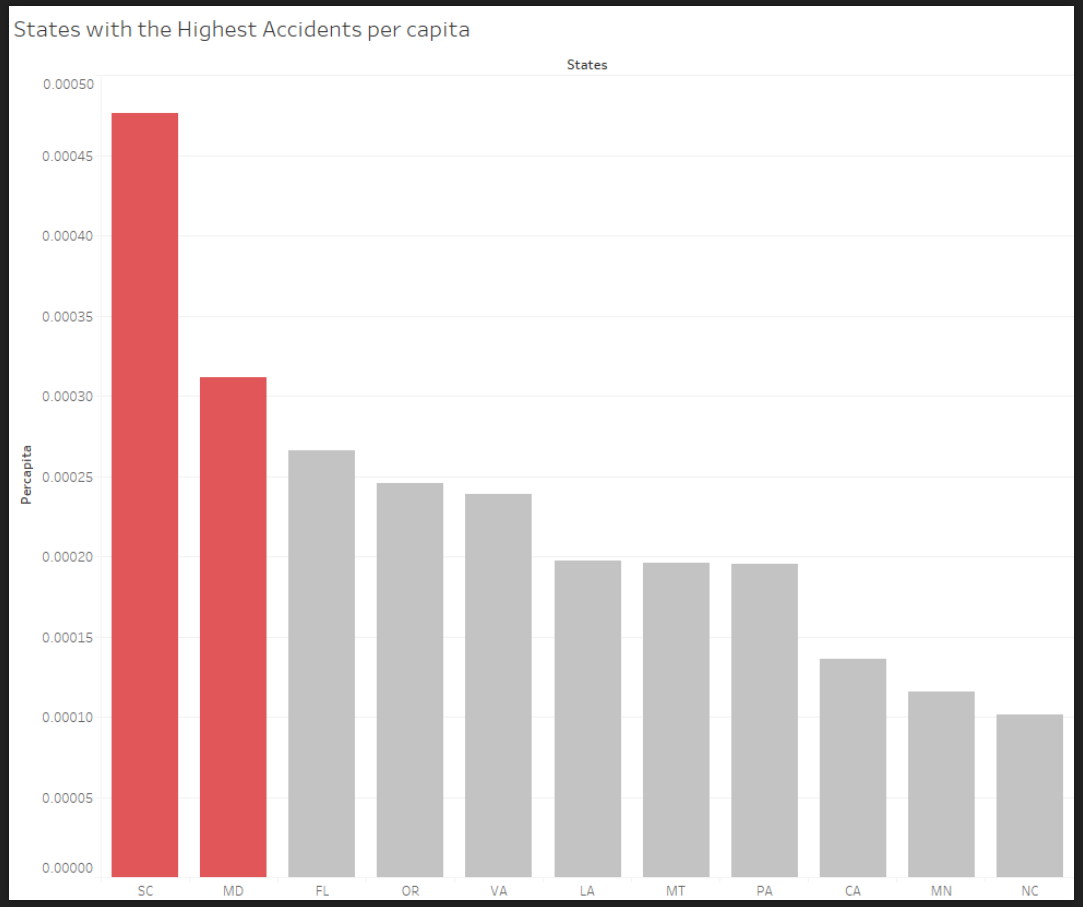
  If we understand **where** and **why** traffic accidents take place, we can mitigate them
- Using accident data for the first week of 2021
  - Locations with the most accidents
  - Locations with high accident severity*
  - Locations with particular features (to wit: Pedestrian Crossings)

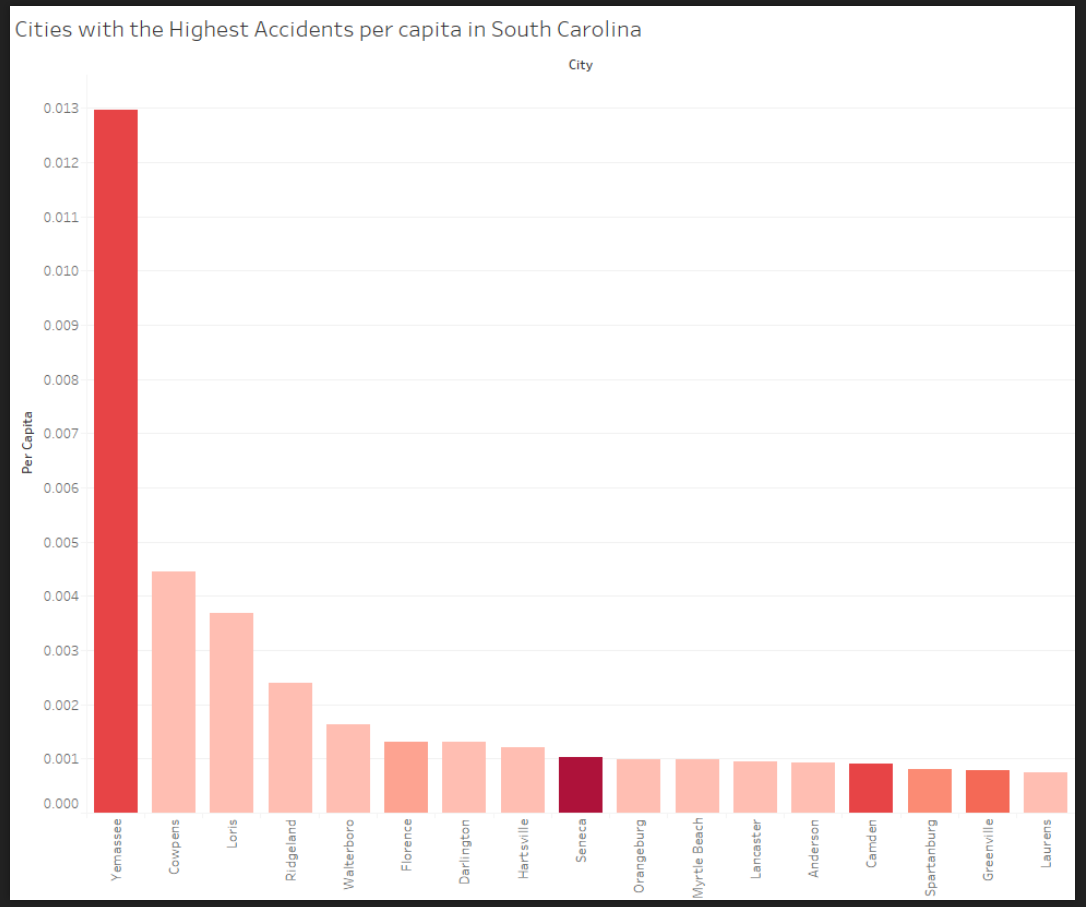
# Accidents by Postal Code

Accidents Scale with population—perhaps per-capita statistics are more useful?

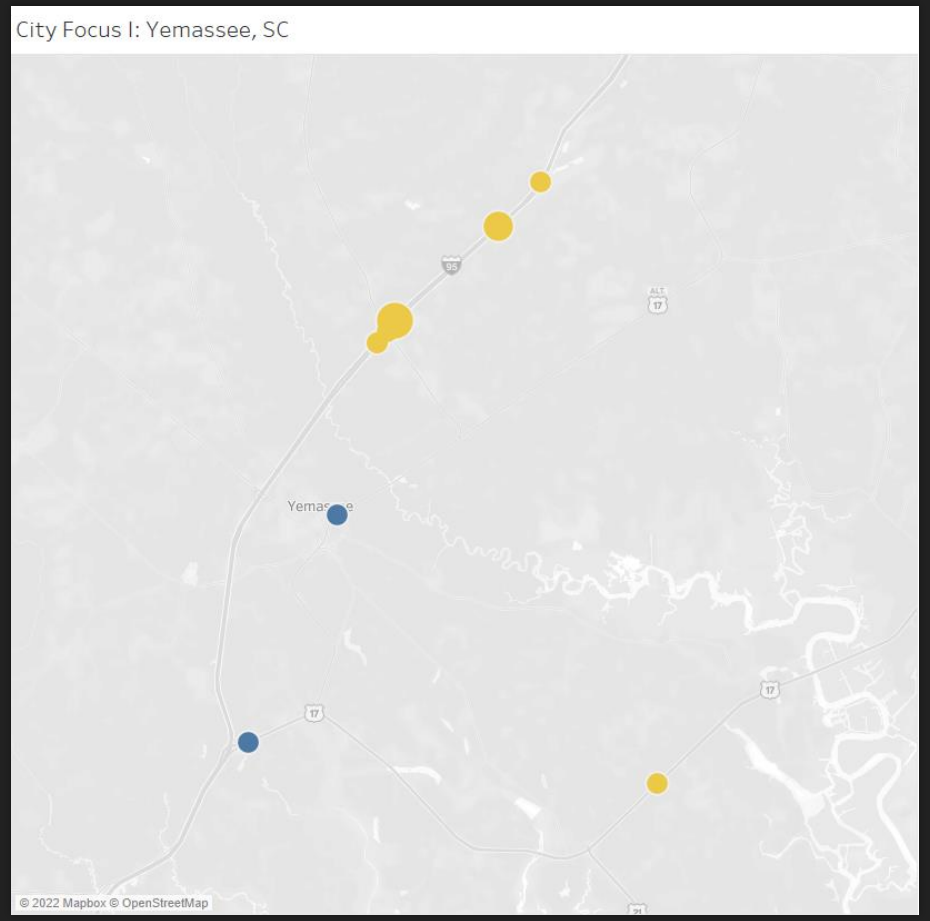


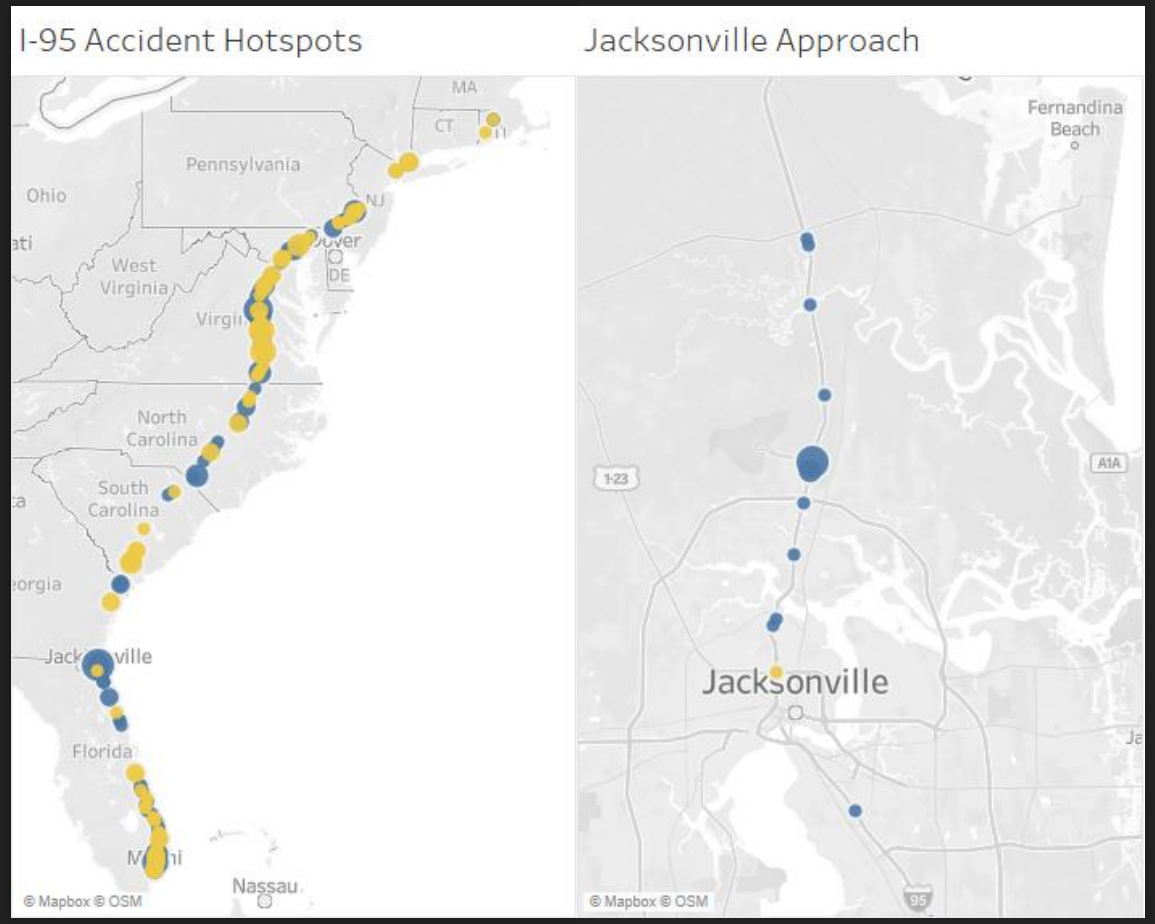
# Per Capita Trends



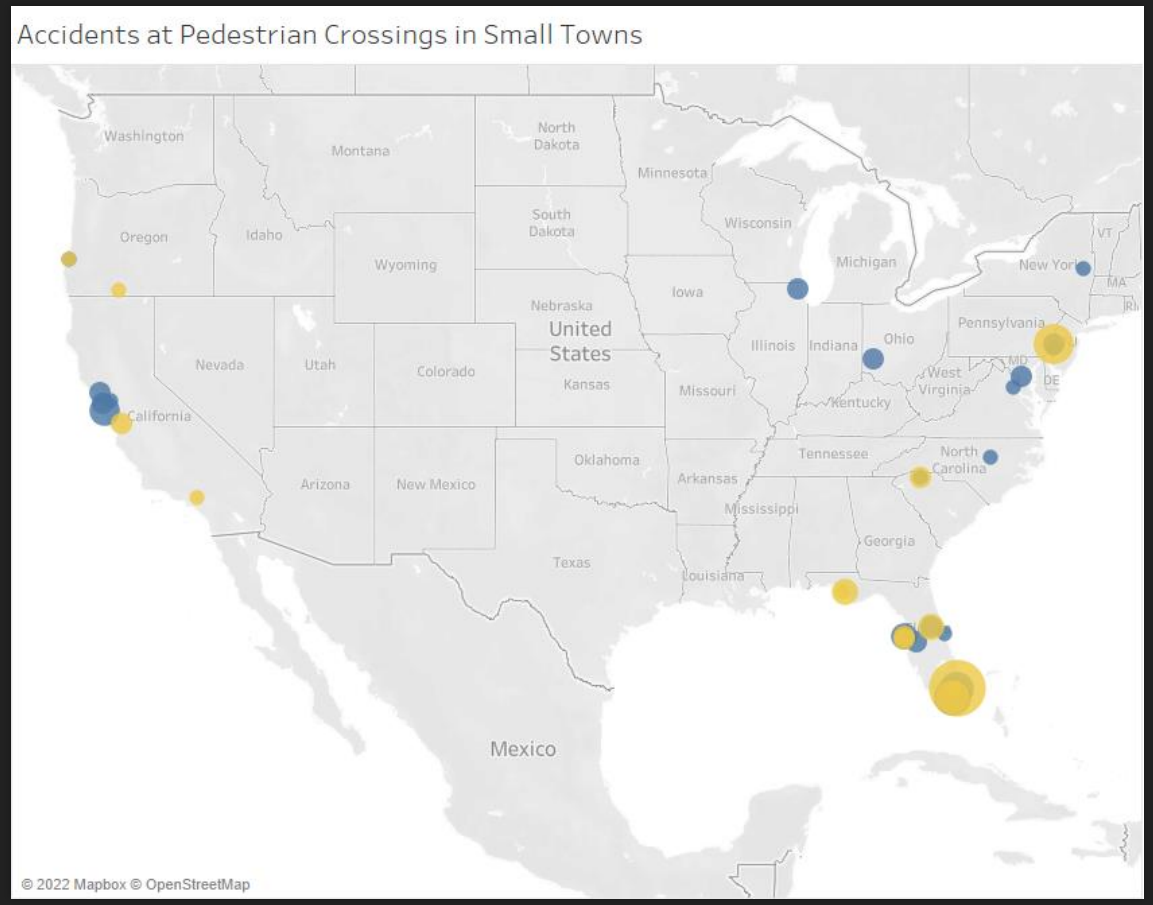



# A Closer Look: Yemassee and the I-95



# Points of Interest




- North Wales, PA
  - Population: 3426
  - Pedestrian Crossing Accidents: 1.2/day (in broad daylight)

# The Way Forward: Some Options

- Use more data (this is one week's worth)
- More rigorous options for analyses
  - Fixed effects model can better control for things like weather, population, dummies for things like highways, streetlights
  - Better accident data to focus on more preventable and actionable causes; poor visibility is easier to fix compared to DUI's
  - Incorporate better measures of the cost of an accident; consider parties involved and medical severity