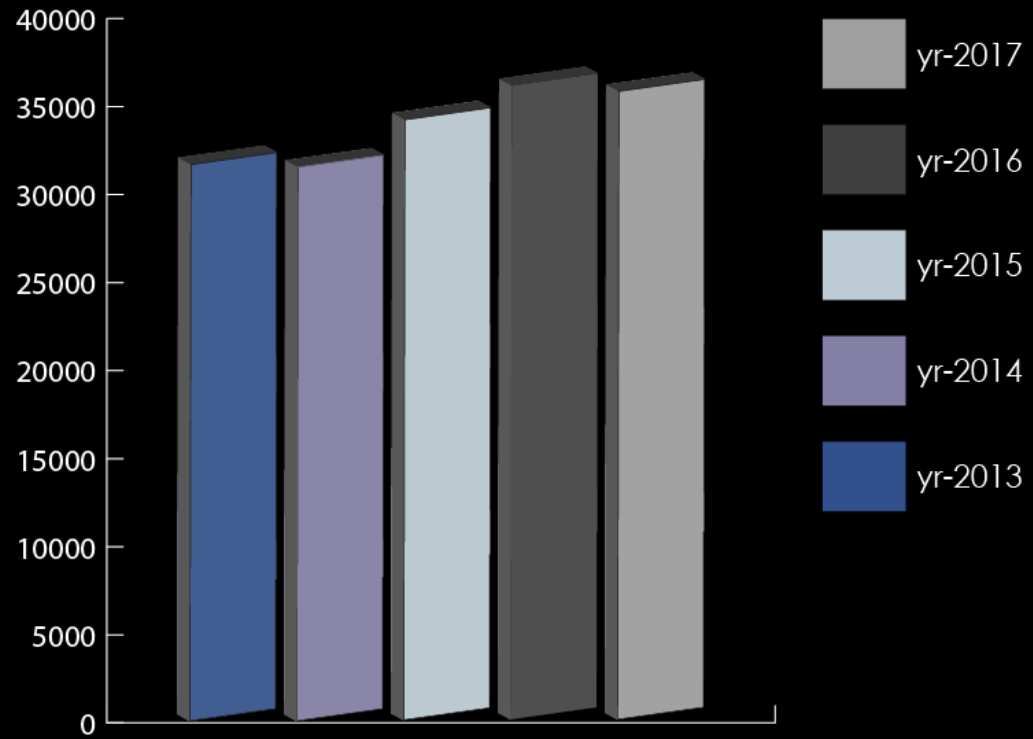


Fatal Crashes in Metro-Atlanta

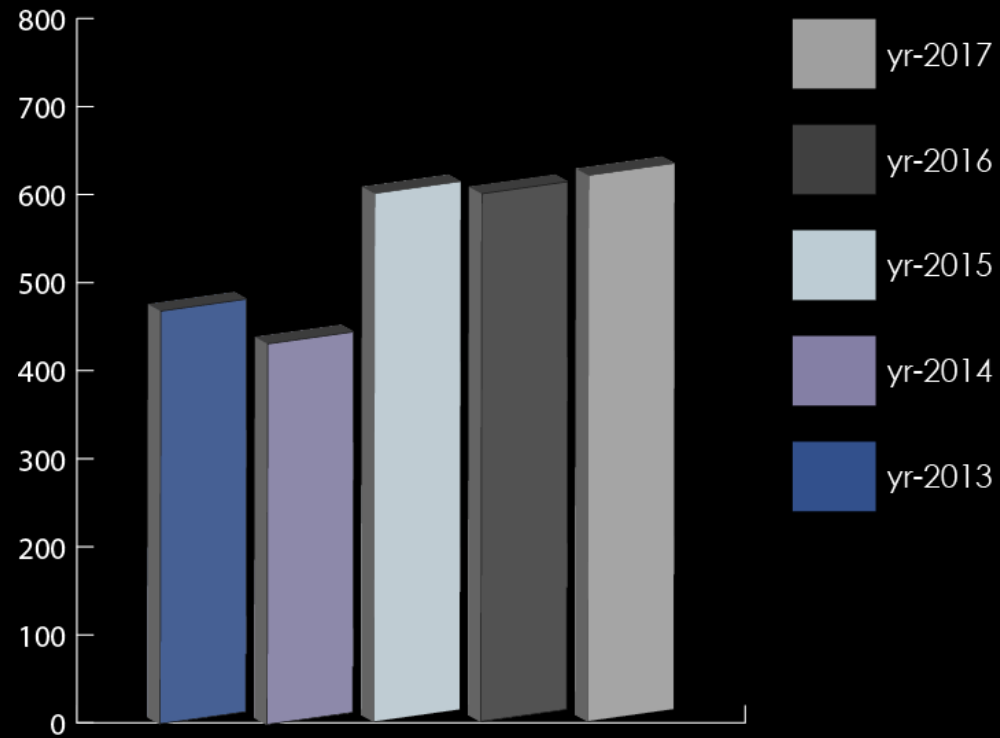
A Hot Spot Analysis



National Trends

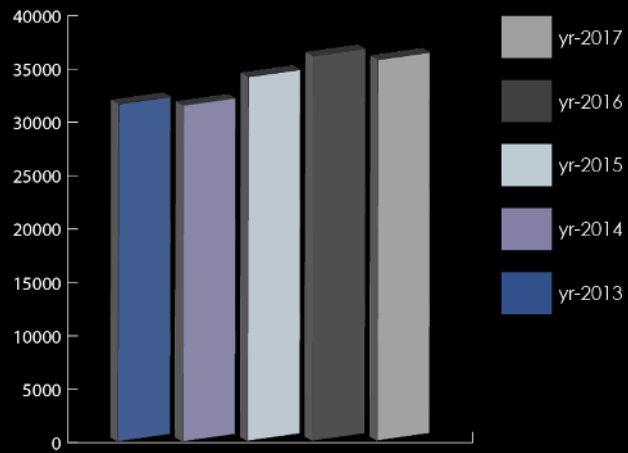


Metro-Atlanta Trends



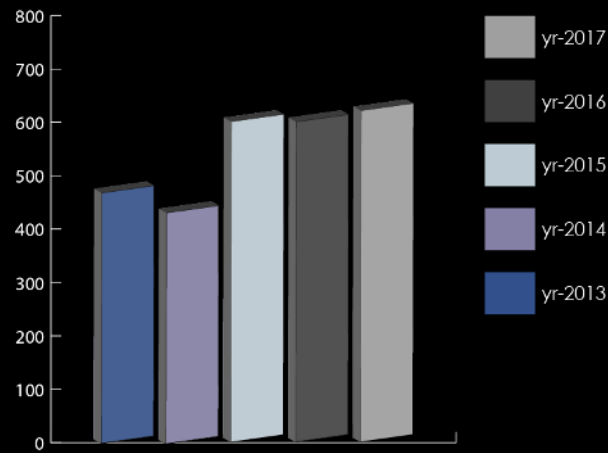
Comparison

National



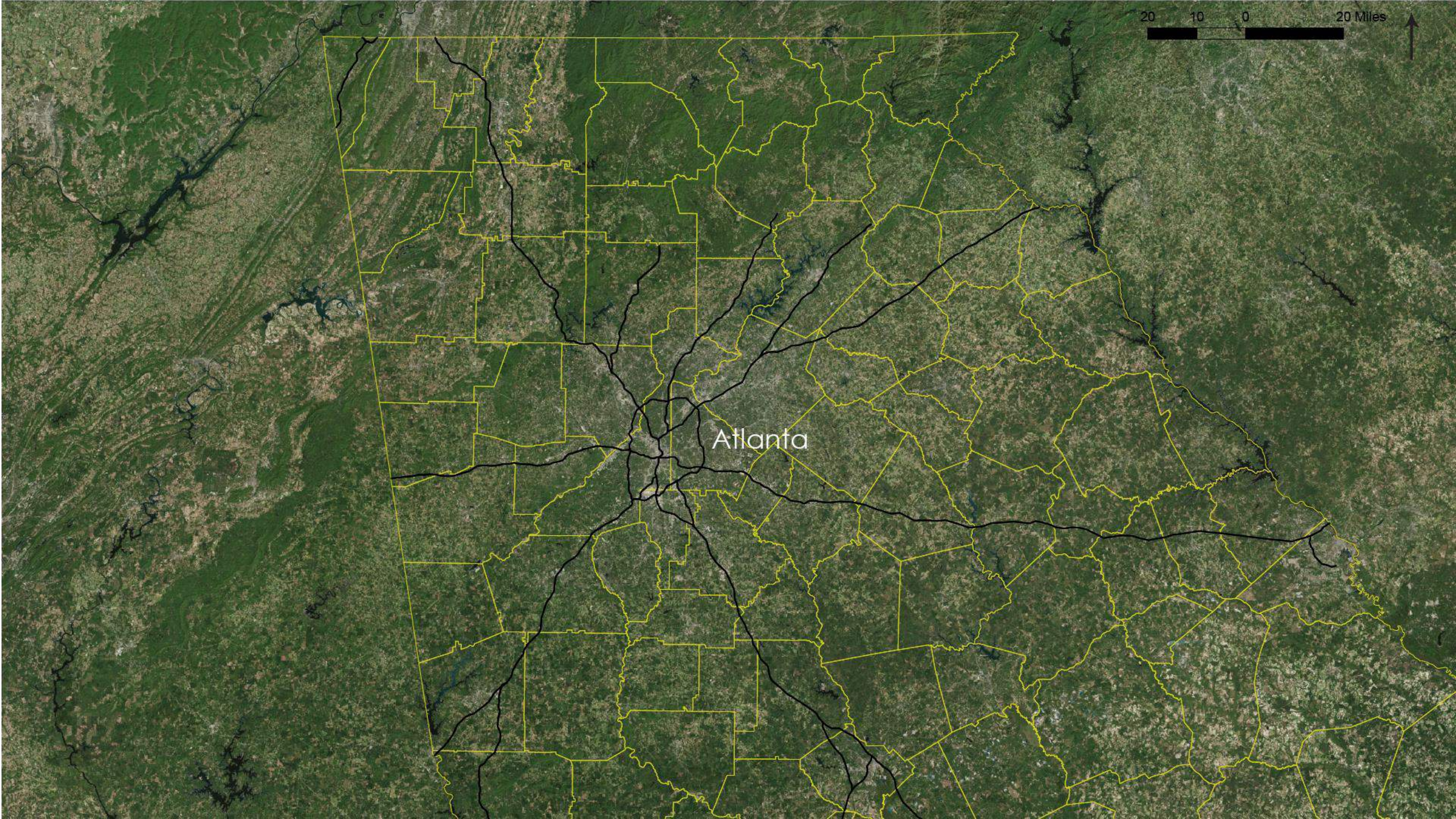
12.89% Increase

Metro-Atlanta



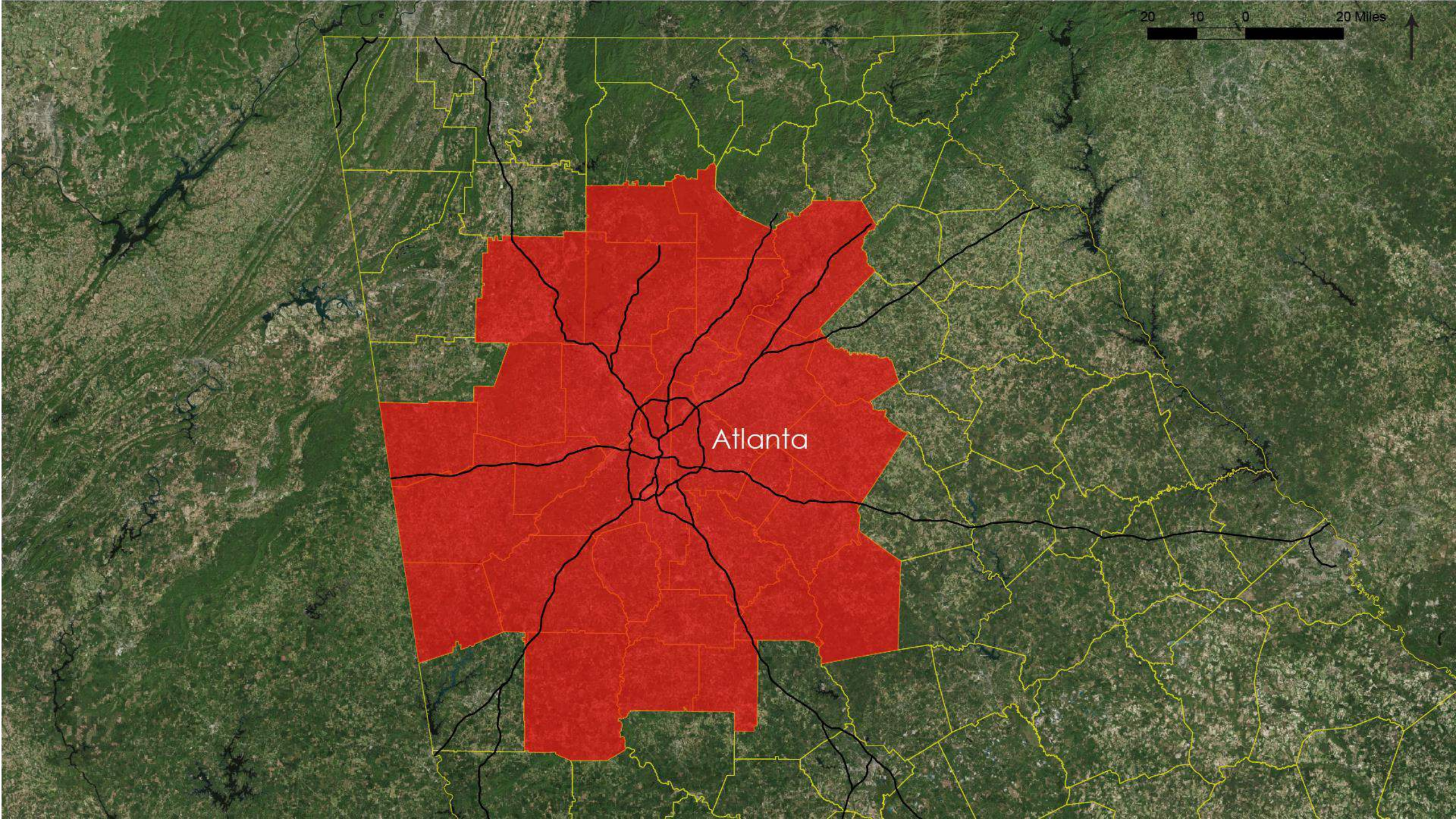
32.17% Increase





Atlanta

20 10 0 20 Miles



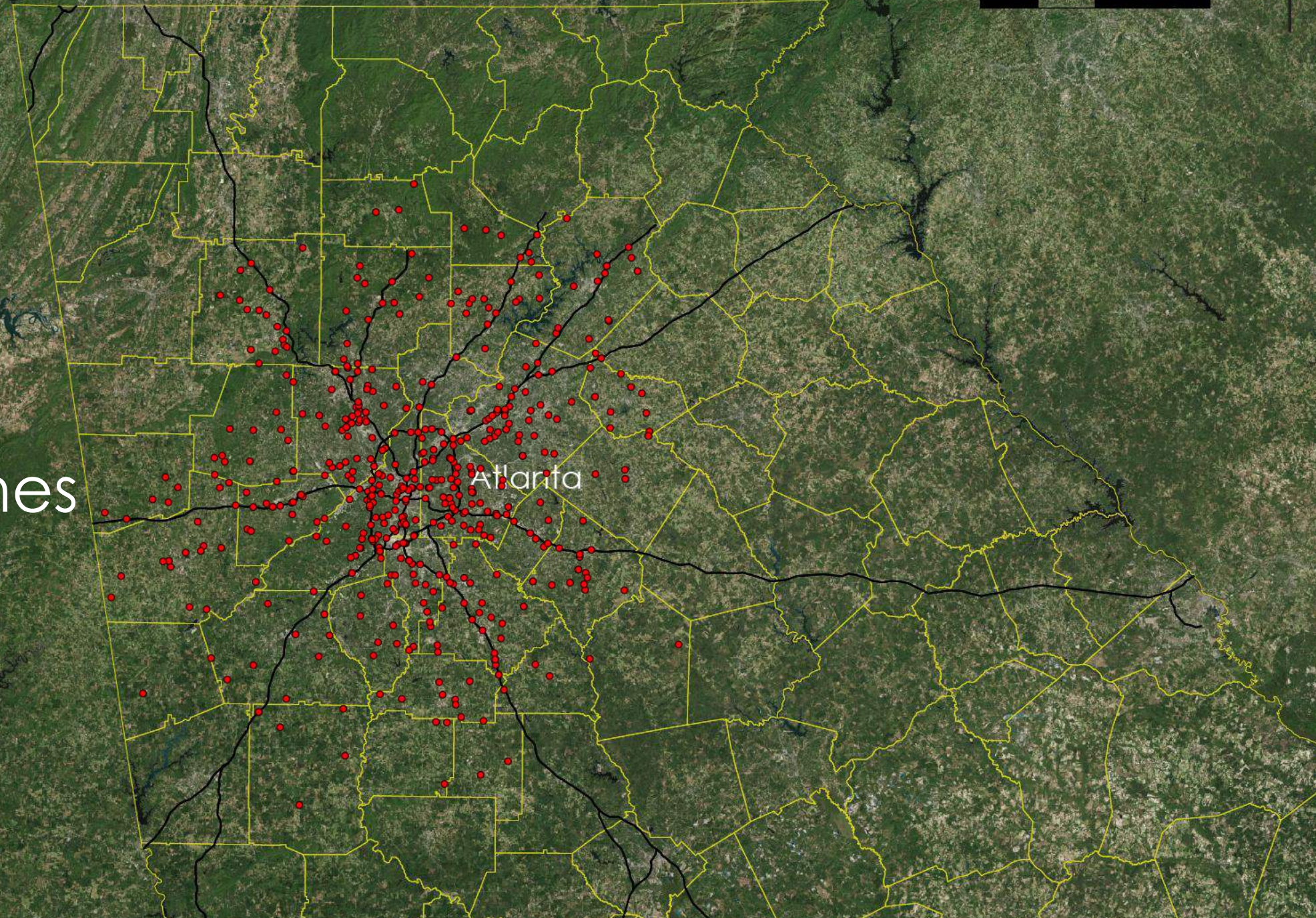
Atlanta

20 10 0 20 Miles

20 10 0 20 Miles



Fatal Crashes
2013: 488



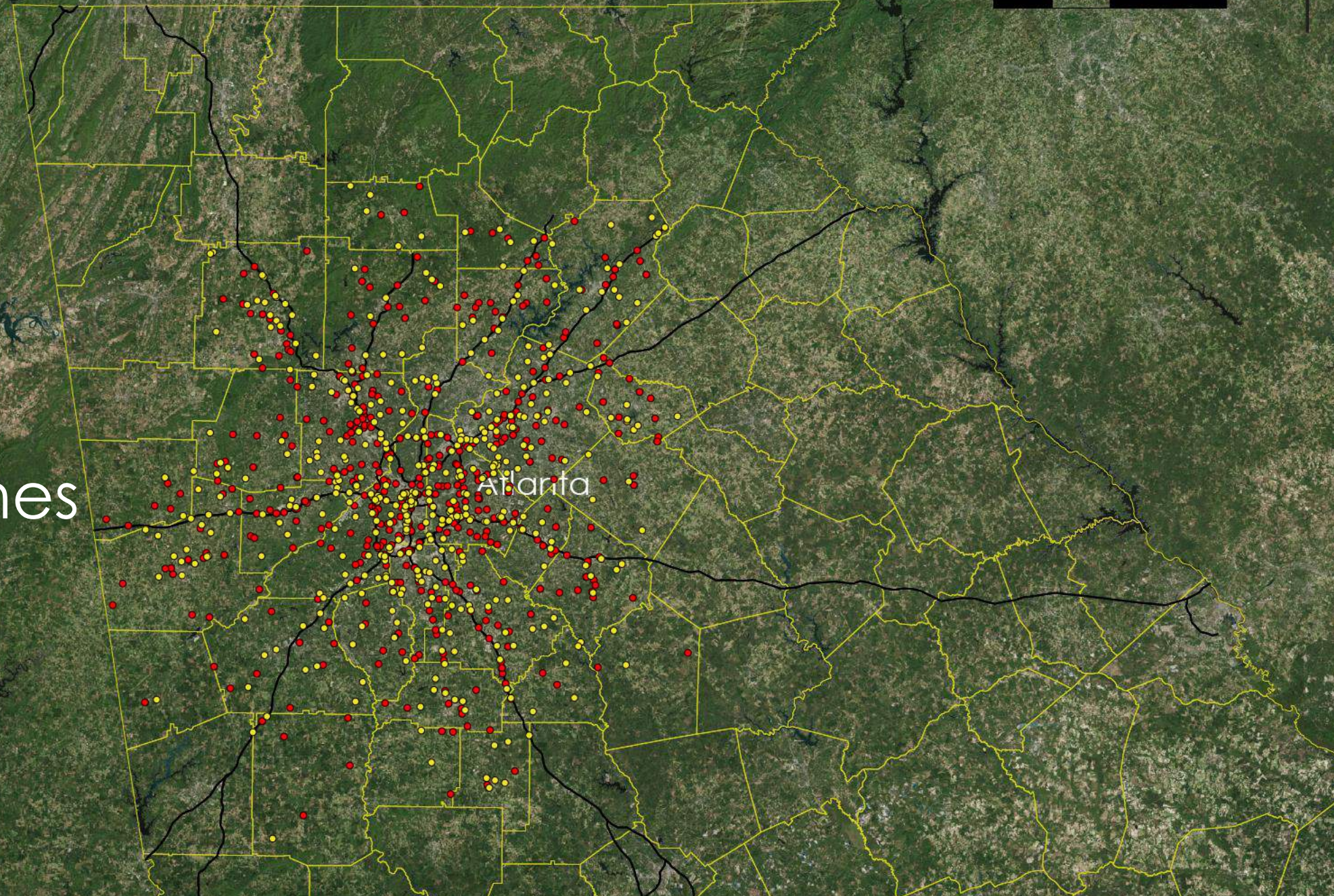
20 10 0 20 Miles



Fatal Crashes

2013: 488

2014: 450



20 10 0 20 Miles

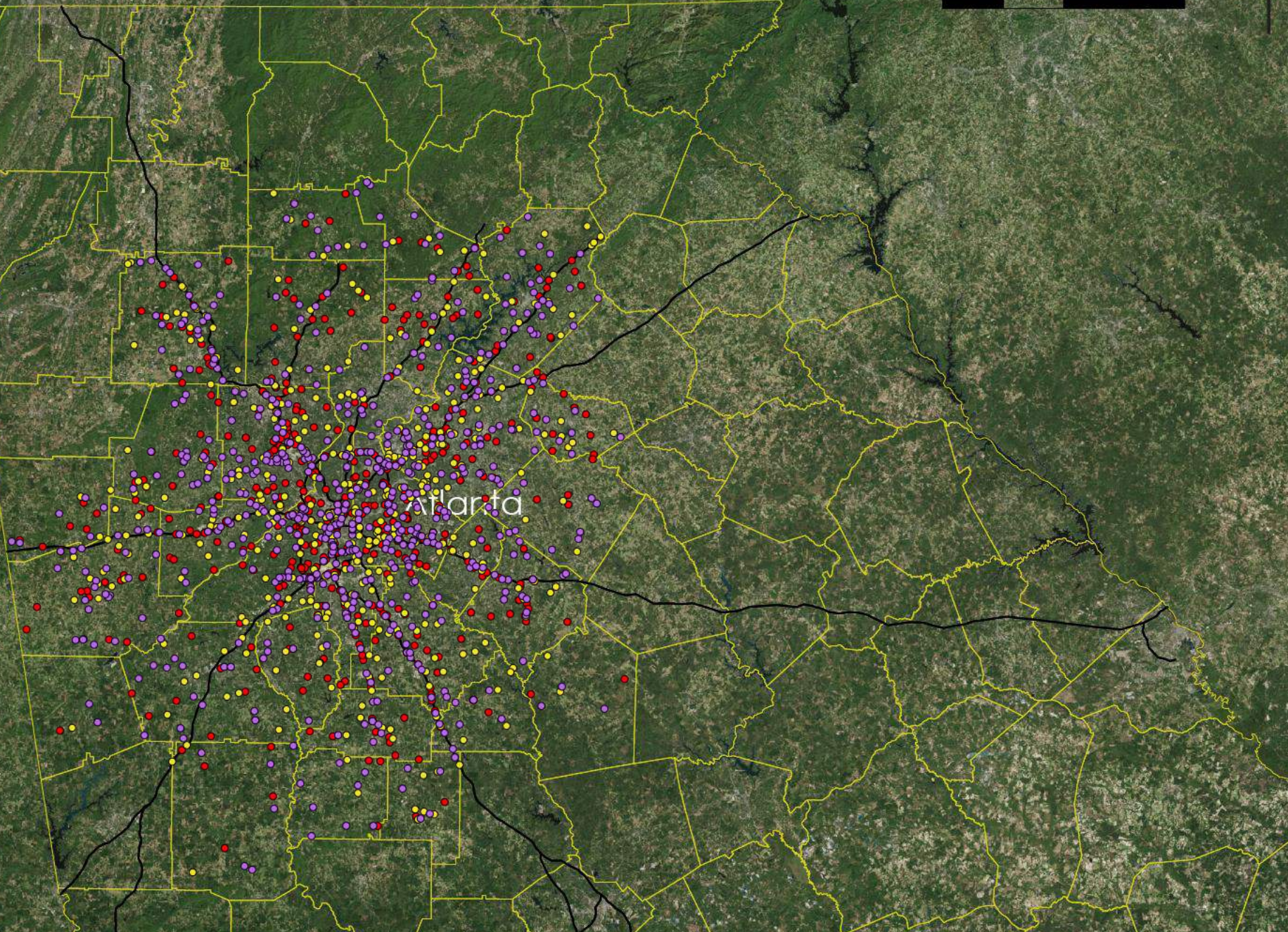


Fatal Crashes

2013: 488

2014: 450

2015: 624

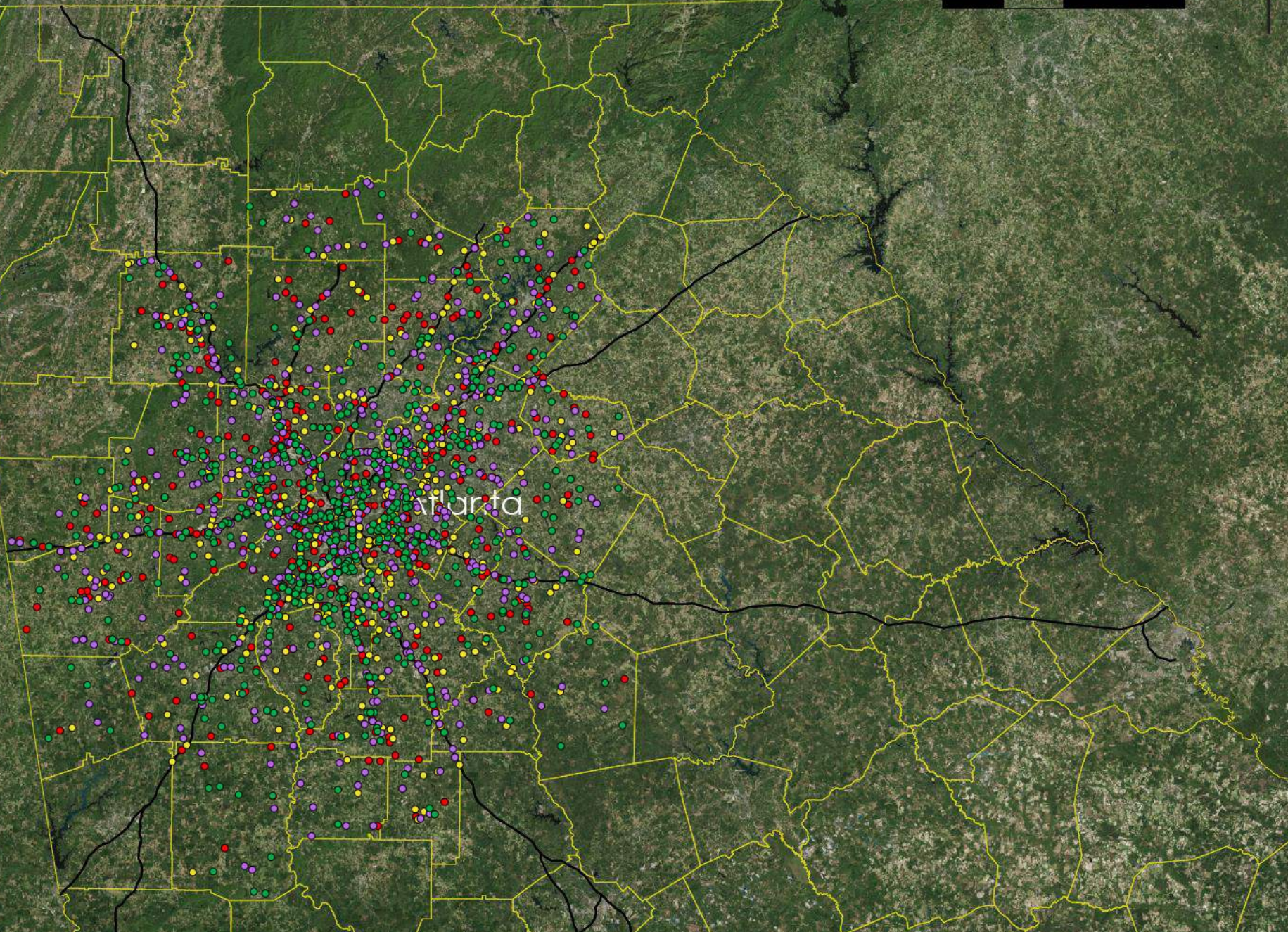


Atlanta



Fatal Crashes

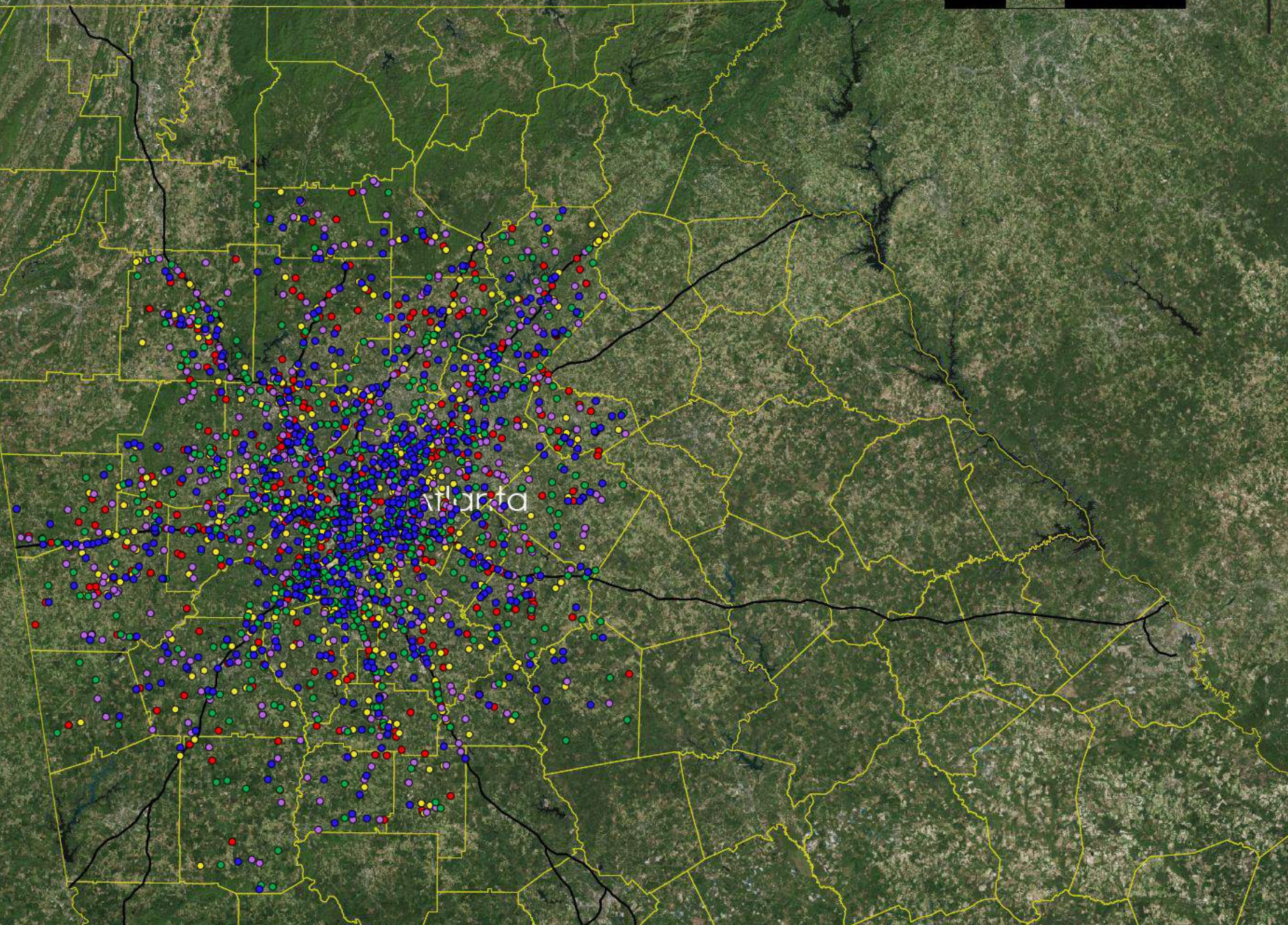
2013: 488
2014: 450
2015: 624
2016: 624





Fatal Crashes

2013: 488
2014: 450
2015: 624
2016: 624
2017: 645





Fatal Crashes

2013: 488

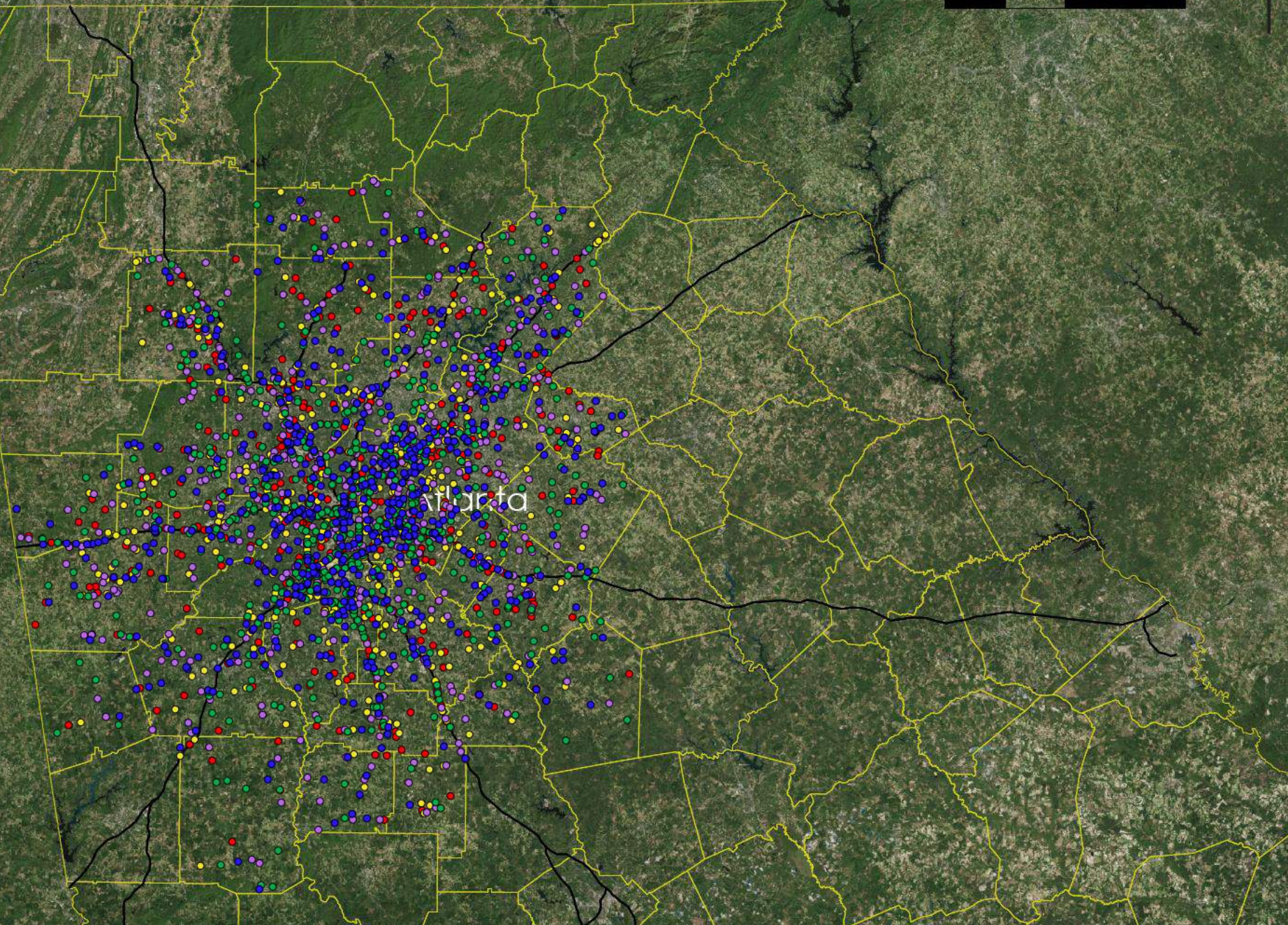
2014: 450

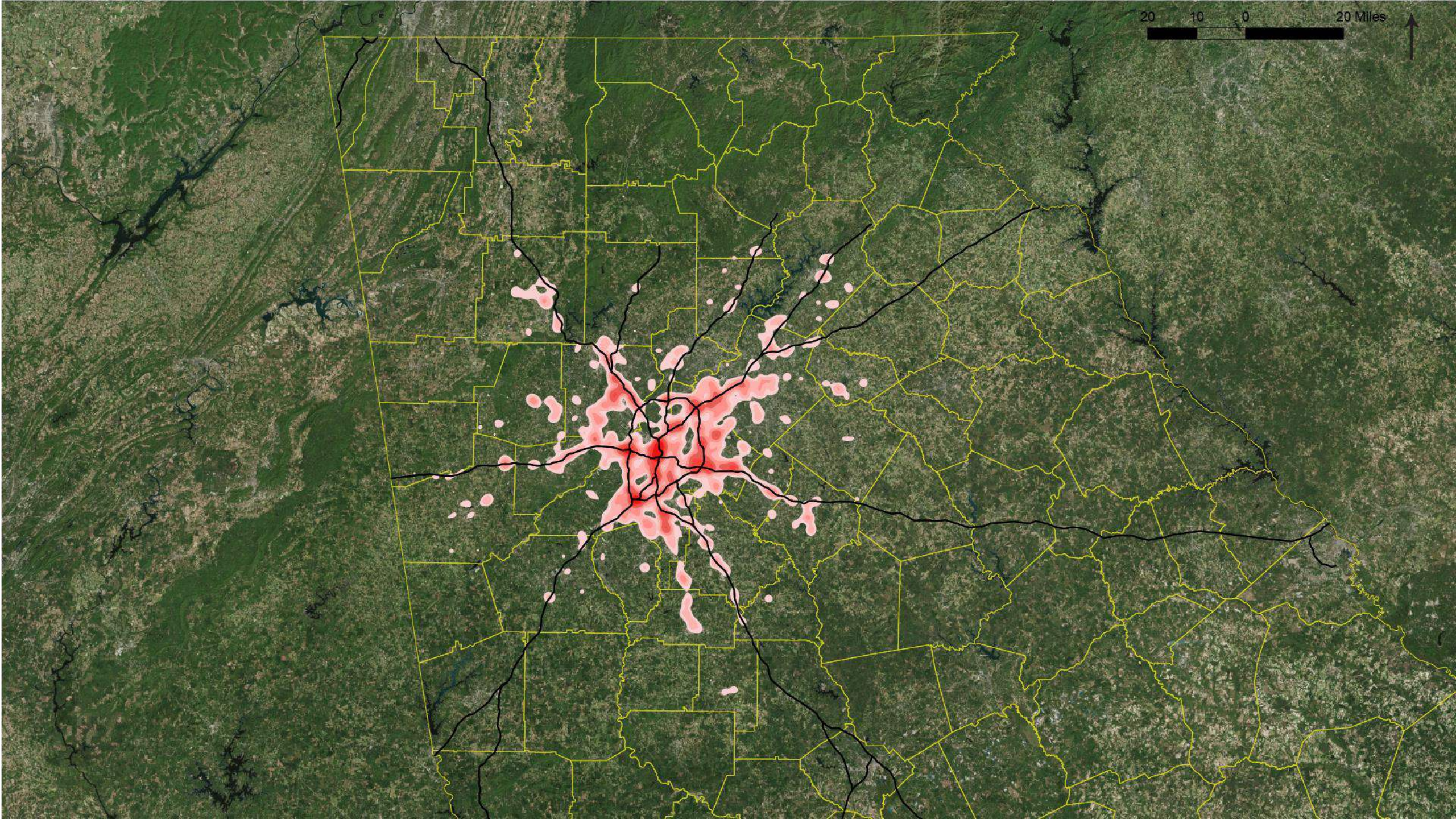
2015: 624

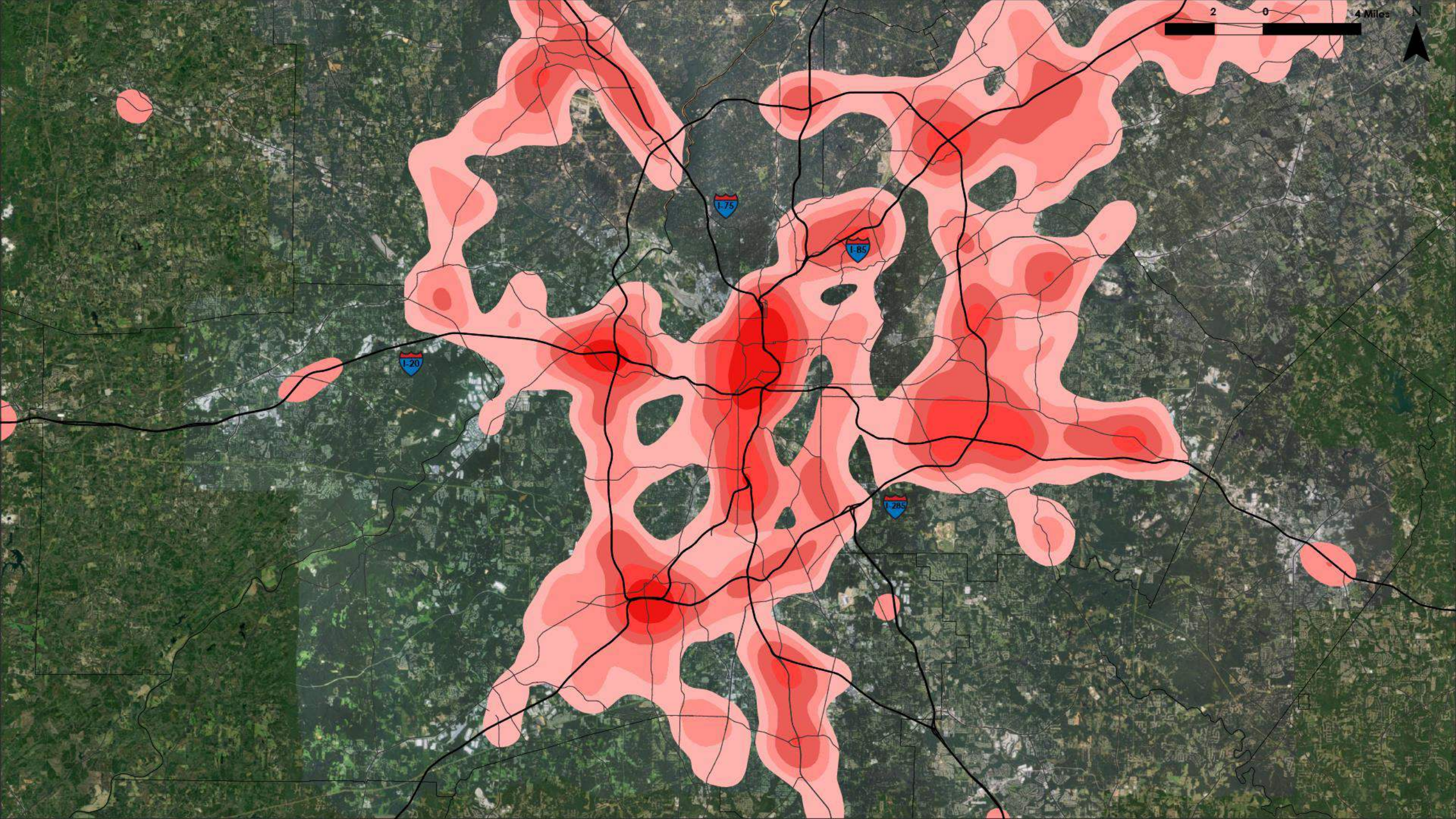
2016: 624

2017: 645

Total: 2831

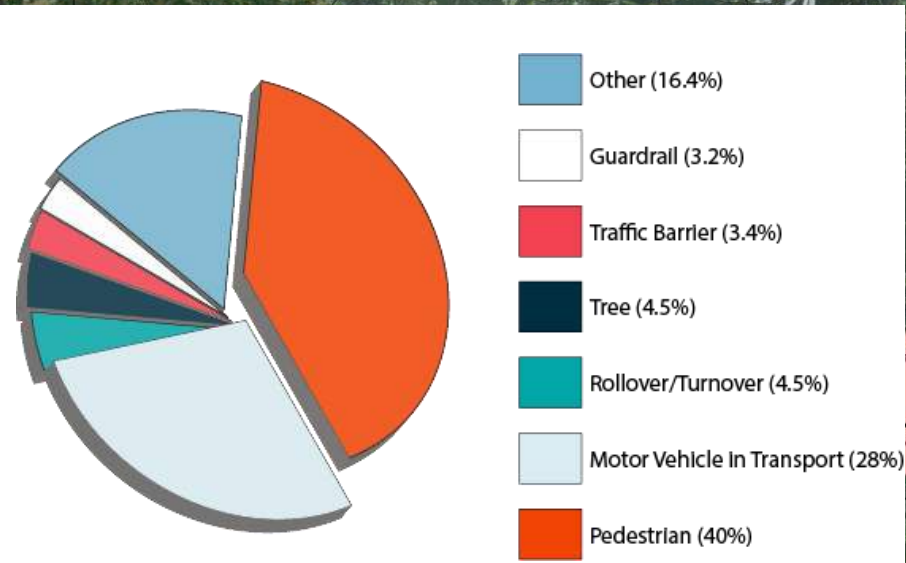
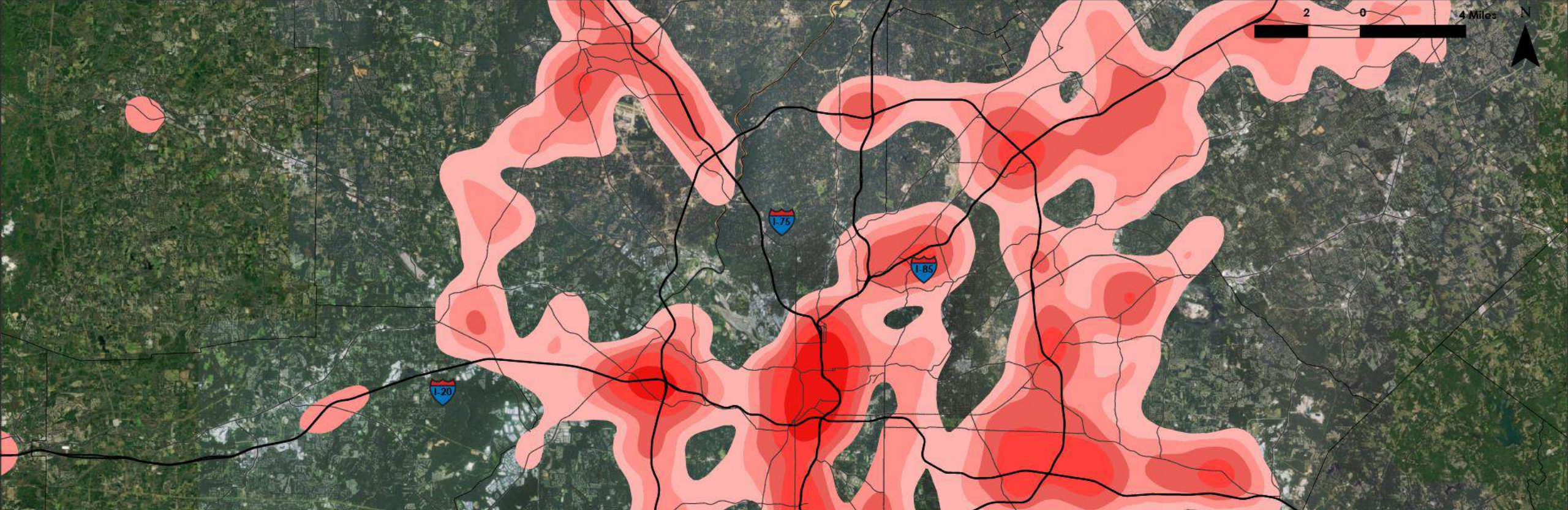






0 2 4 Miles





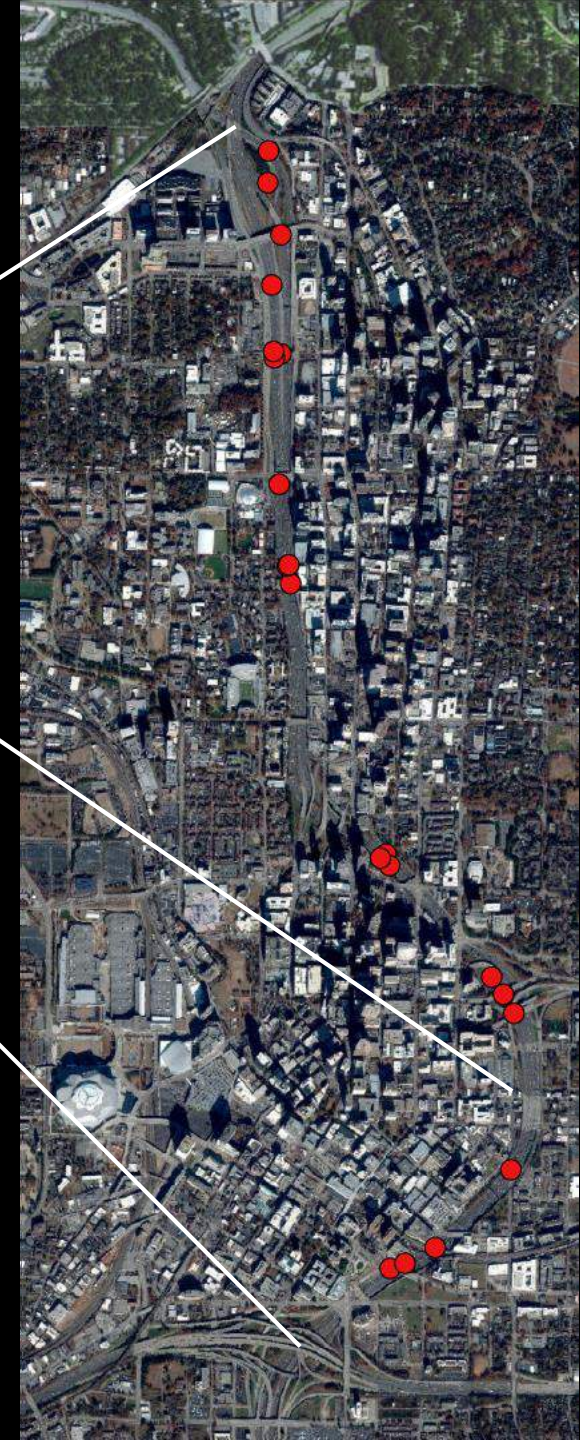
I-75/I-85 Connector

- 4 Miles
- Over 300,000 VPD
- 32% Over Capacity
- 21 Fatal Crashes

Brookwood Split

Grady Curve

I-20 Interchange

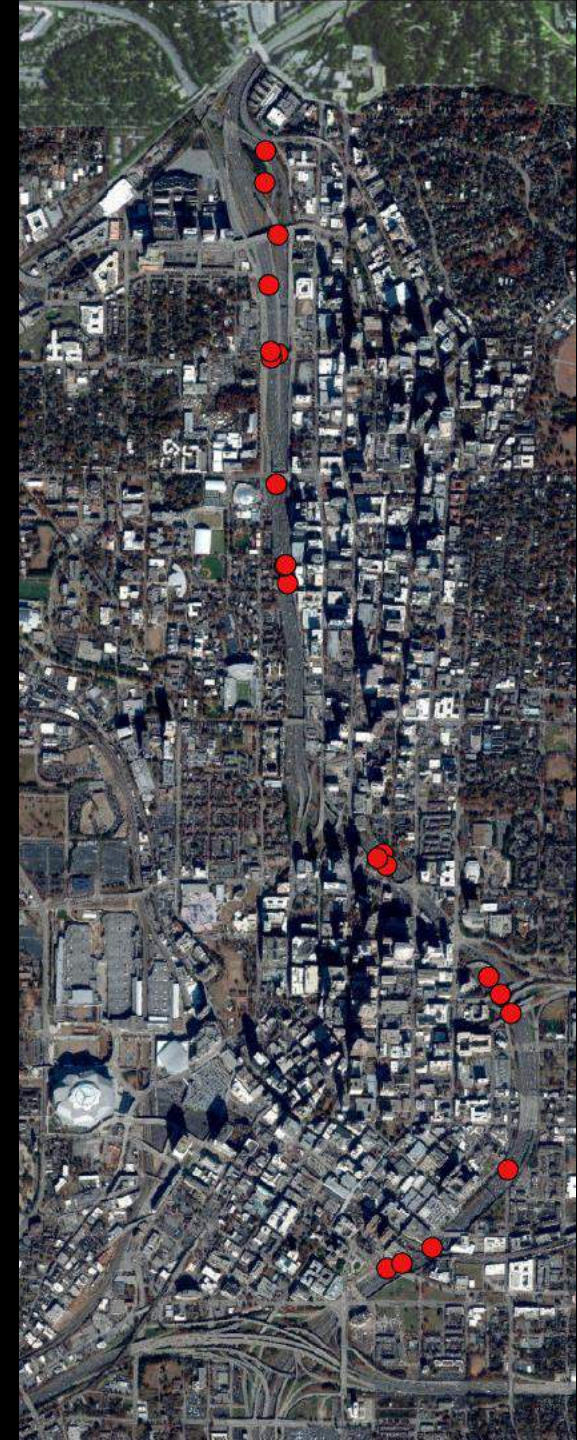
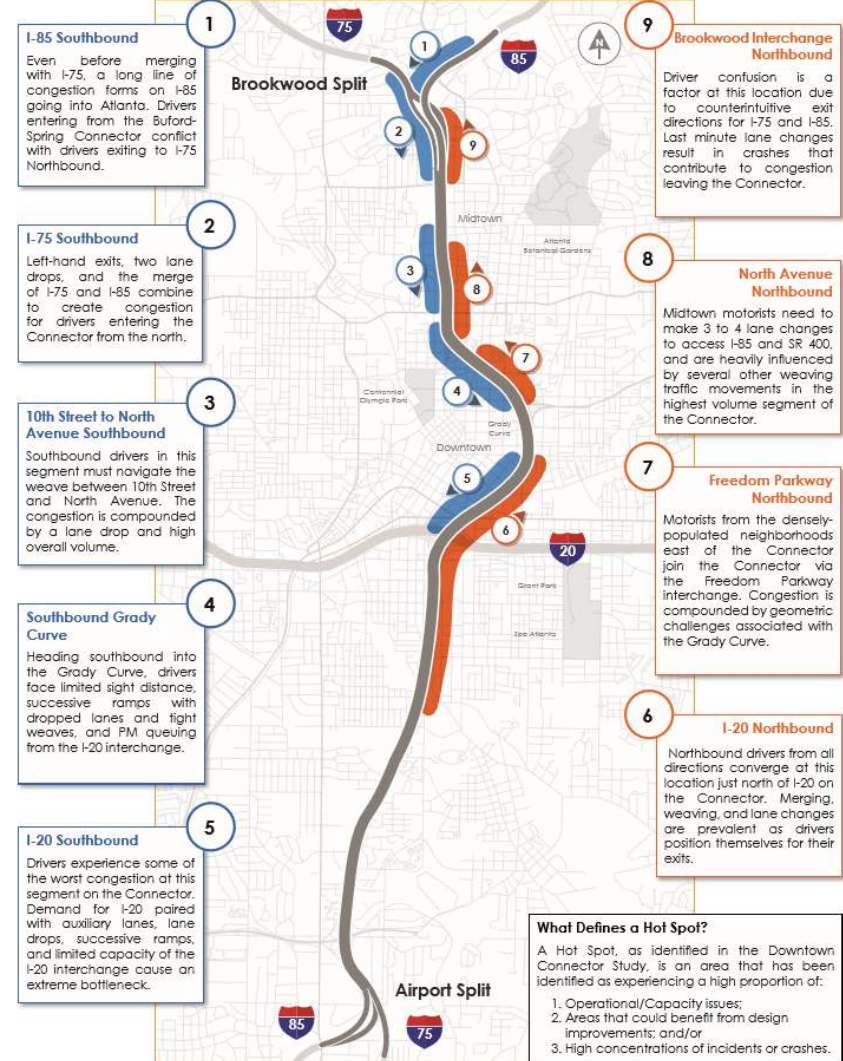


GDOT "Downtown Connector Study"

Downtown Connector Impacts Hot Spot Map



Nine Hot Spots on the Connector have been identified and have the greatest impact on the operation of the Connector. These are summarized in the boxes below:



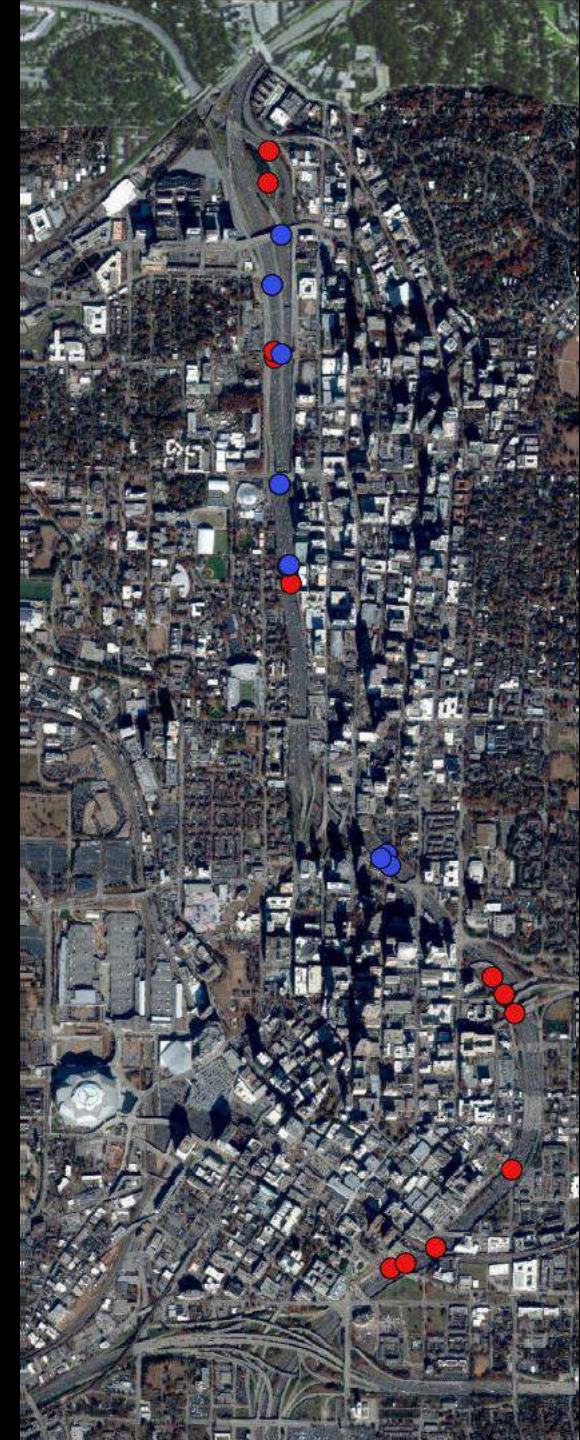
I-75/I-85 Connector

43% of crashes involved pedestrians



Conclusion

- Atlanta's road network prioritizes speed
- This is most evident on the "Downtown Connector"
- New developments, most notably "The Stitch" and "The Gulch", will increase pedestrian interaction with dangerous road conditions
- Future designs must focus first on the safety of pedestrians before addressing the alleviation of congestion



Sources:

“Spatial Analysis to Identify High Risk Area for Traffic Crashes Resulting in Death of Pedestrians in Tehran” (Moradi, Soori, Kaousi, Eshghabadi, Jamshidi, Zeini.)

“Black Spots Identification Through a Bayesian Networks Quantification of Accident Risk Index” (Gregoriades, Mouskos)

“Exploring Relationships Between Driving Events Identified by In-vehicle data Recorders, Infrastructure Characteristics and Road Crashes” (Gitelman, Bekhor, Doveh, Pesahov, Carmel, Morik)

“Vulnerable Road User Crash Patterns in Orlando” (Zhang, Xiao)

Georgia Department of Transportation “Downtown Connector Study”
<http://www.dot.ga.gov/BuildSmart/Studies/Pages/StudyInfo.aspx?studyID=4>

<https://www.atlantadowntown.com/initiatives/the-stitch>

“Mapping Downtown Atlanta’s Current and Planned Developments” (Michael Kahn)

Data Sources:

Atlanta Regional Commission

Georgia Department of Transportation

Google Earth Satellite Imagery

National Highway Traffic and Safety Administration, Fatal Accident Reports 2013-2017

2010 US Census