

# Biking in Seattle

Coursera Capstone Report Presentation

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# Data Set

- ◆ Seattle DOT Collision Records Dating April 2004 to Present
- ◆ 194,673 total collision records
- ◆ 5,527 total collisions involving a bicycle
- ◆ 4,805 bicycle collisions that resulted in a serious injuries
- ◆ [Link to Data](#)

# Variables

- ◆ 4,407 bicycle collisions occurred on Dry Road Conditions
  - ◆ 80% of the total bicycle collisions
- ◆ 3,146 bicycle collisions occurred at Intersections
  - ◆ 56.92% of total bicycle collisions
- ◆ 4,370 collisions involved a front end at angle impact
  - ◆ 79% of total bicycle collisions

# Selected Collision Pool

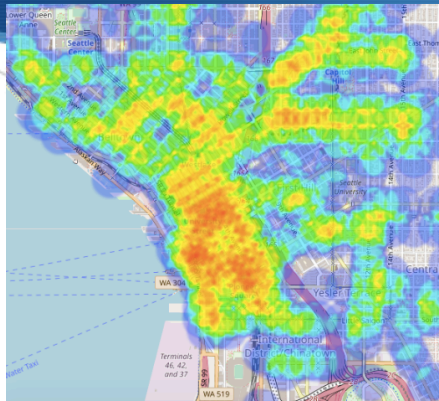
- ◆ When combined 2,479 collisions on Dry Roads at Intersections
  - ◆ 80% of all collisions that occurred at intersections
- ◆ 2,276 of those collisions involved front end at angle impacts
  - ◆ 41% of total bike collisions

# What do these collisions tell?

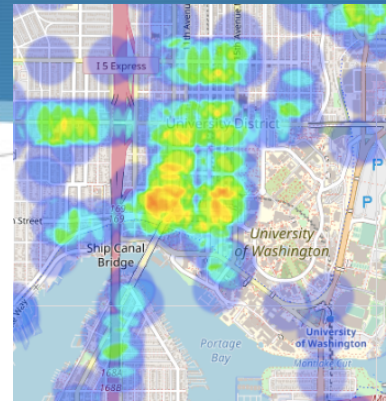
- ◆ Dry Roads played little factor into the stopping distance or cause of the crash
- ◆ Intersections means at least one party should be stopped or stopping
- ◆ Front end at angle impacts means one party either didn't obey traffic signal or didn't see the other



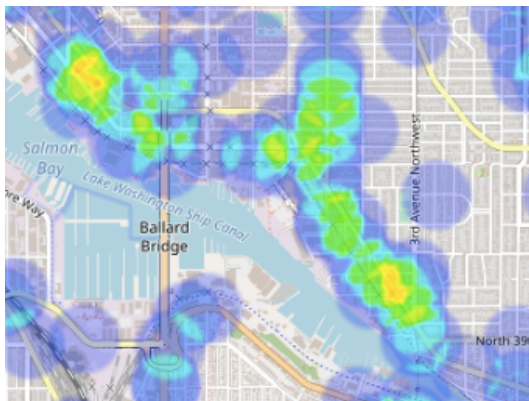
# Dangerous Intersections



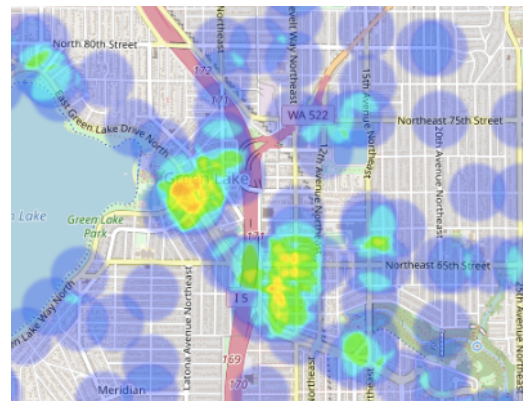
Downtown



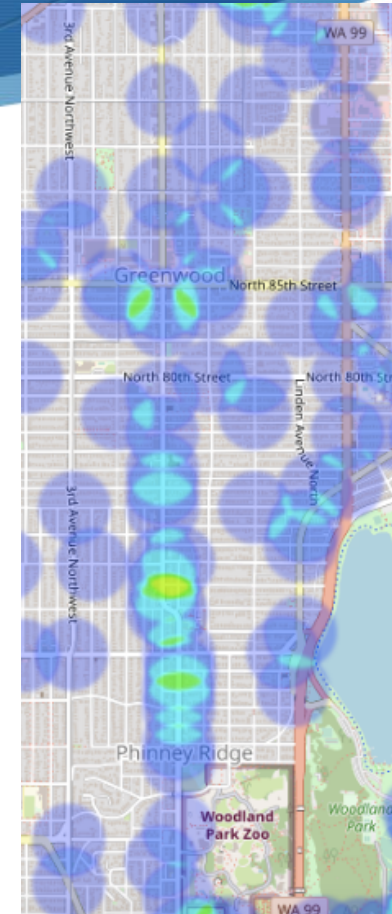
U of Washington  
Campus



Leary Way  
Between Ballard Bridge and 3<sup>rd</sup> Ave



Green Lake Area



Phiney Ave  
& Green Ave

# What Can Be Done?

- ◆ Campaign directed towards bicyclist to stop at all intersections
  - ◆ Includes added enforcement
- ◆ Study Bike Lane use in high collision areas to determine if they are being used or need re-routed
- ◆ Study Intersection design to see if a different layout would lower the number of collisions

# Conclusions

- ◆ While the collision numbers per year are small a bicyclist is 3x as likely to be seriously injured in a collision than a motorist
- ◆ Updating bike lanes and intersections can also reduce the number of pedestrian collisions as well
- ◆ Getting riders to abide by traffic laws will be difficult but will save lives