

Analysis of Conditions in Car Accidents

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Introduction/ Business Problem

- ▶ Accidents in Seattle
- ▶ Severity of the car accidents
 - ▶ Only property damage
 - ▶ Injury occurred
- ▶ Caution drivers

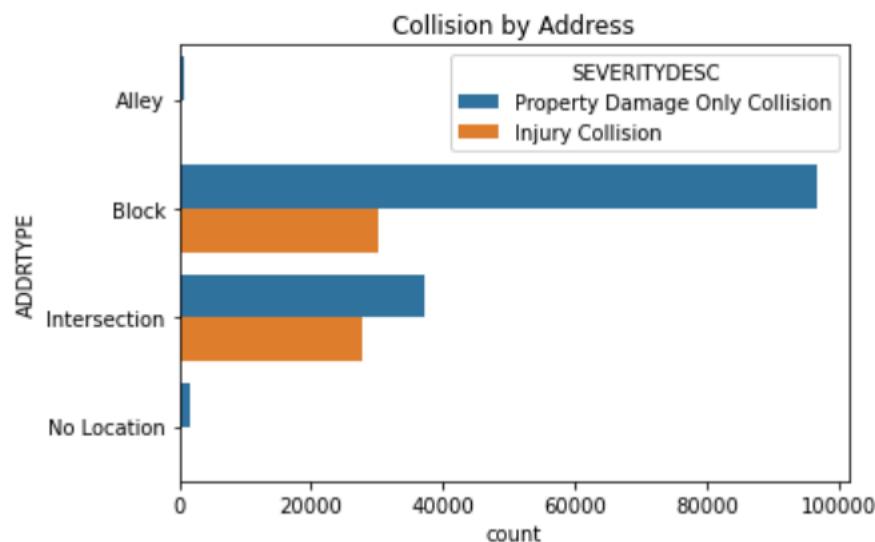
Data and Methodology

- ▶ Attributes vs. the Fatality
- ▶ Location, car speeding, number of people, number of vehicles
- ▶ Exploratory analysis
- ▶ Bar plots
- ▶ Correlation

Attribute Type	Description
Address Type	Whether it was a block, alley or intersection
Light Conditions	Daylight, night, street lights etc.
Road Conditions	Presence of ice, water, oil etc.
Weather	Clear, cloud, dust, snow etc.

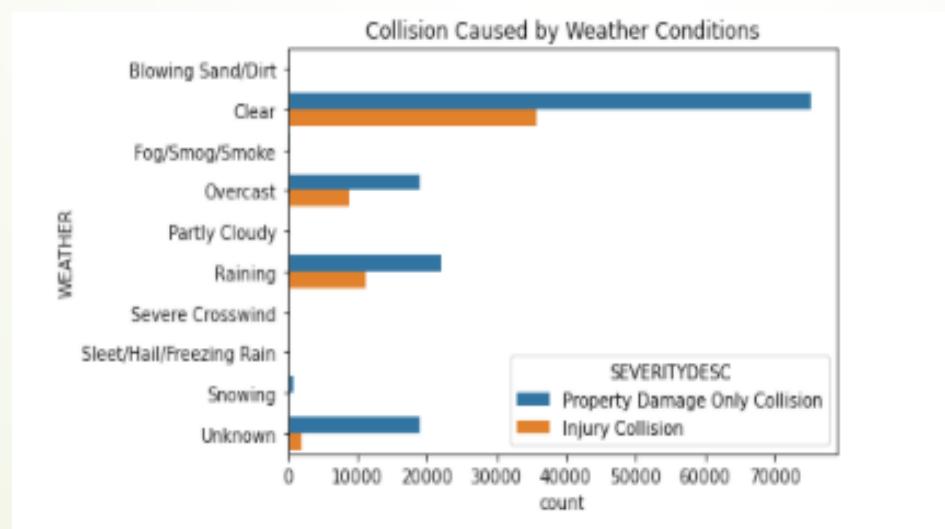
Results & Discussion: Address

- ▶ Block: Property damage
- ▶ Intersection: Equal on both
- ▶ Alleys: Minimal, close to buildings



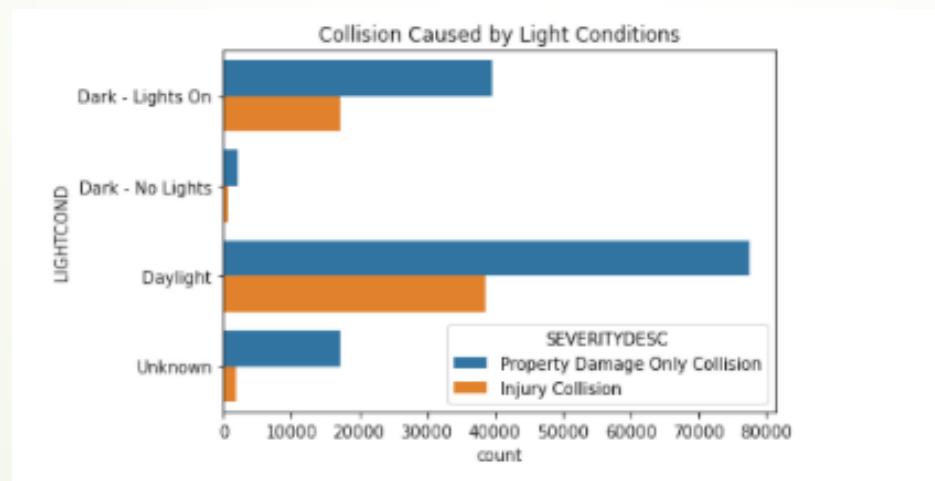
Results & Discussion: Weather Conditions

- ▶ Hypothesis: Occur in rain or snow
- ▶ Most when sky is clear: Property damage
- ▶ Seattle weather
 - ▶ Snow not frequent
 - ▶ Rain and overcast often



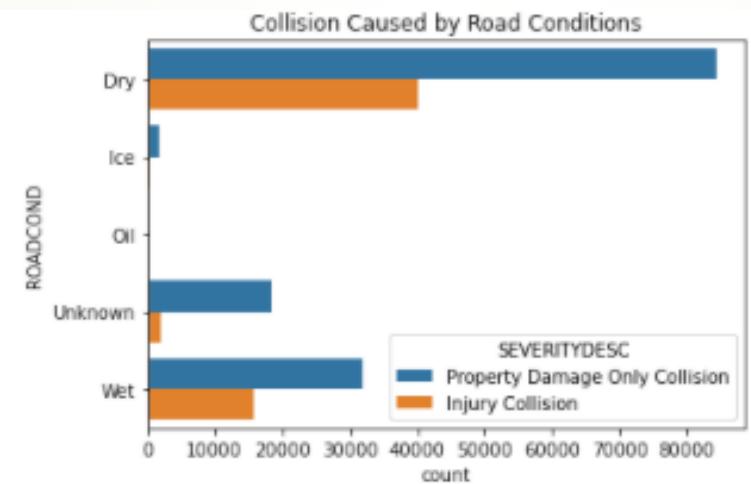
Results & Discussion: Light Conditions

- ▶ Twice only property damage
- ▶ Most during daytime
 - ▶ Less severity
- ▶ Less during nighttime
 - ▶ Less frequency



Results & Discussion: Road Conditions

- ▶ Weather and road conditions similar
- ▶ Dry conditions = more accidents
- ▶ Only property damage is twice the amount
- ▶ Car speeding
- ▶ Favorable conditions





Conclusion

- ▶ More careful during favorable conditions
- ▶ Higher speeds
- ▶ More people on the road
- ▶ More presence when favorable