Generate

Map vis using Lat and Long coordinates

Person count coded by color/opacity

Stacked bar chart to show collision rate for each junction type

Filter based on range of date for incident

Number of incidents can be used as numerical values on y axis

Number of incidents

Weather and other conditions can be grouped into bars

Clear & Dry | Raining & Wet | Overcast & Dry

Collision type coded by shape

Rear Ended | Parked Car | Sideswipe | Left Turn

Filter based on range of people involved

Highlight collisions based on neighborhood

Utilize color gradient for collision severity

Select a point and provide tooltip data

Severity indicated by color/opacity

Property Damage
Injury Collision
Fatality Collision

Bar chart for lighting conditions, can color code the bars from dark to light

Collision type for bars in a graph

Address used as tooltip

5TH AVE AND SPRING ST

Have street addresses with tooltip that is relative to amount of incidents on that street.

Utilize Incident date to create a line plot based on timeline

2010 2018

Sort bar graph based on number of incidents

Filter based on weather, road or light condition

Locate areas on map based on district

Split a bar graph into multiple other cases like out of the number of dry incidents, how many were of this severity

Filter

Address used as tooltip

5TH AVE AND SPRING ST

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Filter based on weather, road or light condition

Categorize

Map Visualization Ideas

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Severity indicated by color/opacity

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5TH AVE AND SPRING ST

Collision type coded by shape

Rear Ended | Parked Car | Sideswipe | Left Turn

Filter based on weather, road or light condition

Line Graph Visualization Ideas

Number of incidents can be used as numerical values on y axis

Number of incidents

Utilize Incident date to create a line plot based on timeline

2010 2018

Bar Graph Visualization Ideas

Stacked bar chart

Weather and other conditions can be grouped into bars

Clear & Dry | Raining & Wet | Overcast & Dry

Collision type for bars in a graph

Sort bar graph based on number of incidents

Split a bar graph into multiple other cases like out of the number of dry incidents, how many were of this severity

General Visualization Ideas

Highlight collisions based on neighborhood

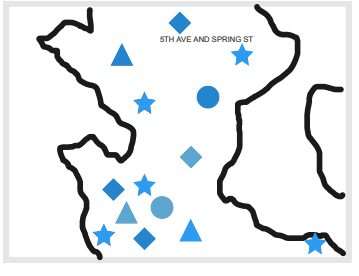
Provide a pop-up window tooltip for selected point

Filter based on range of date for incident

Filter based on range of people involved

Combine & Refine

Density Map Sketch



Filter by:

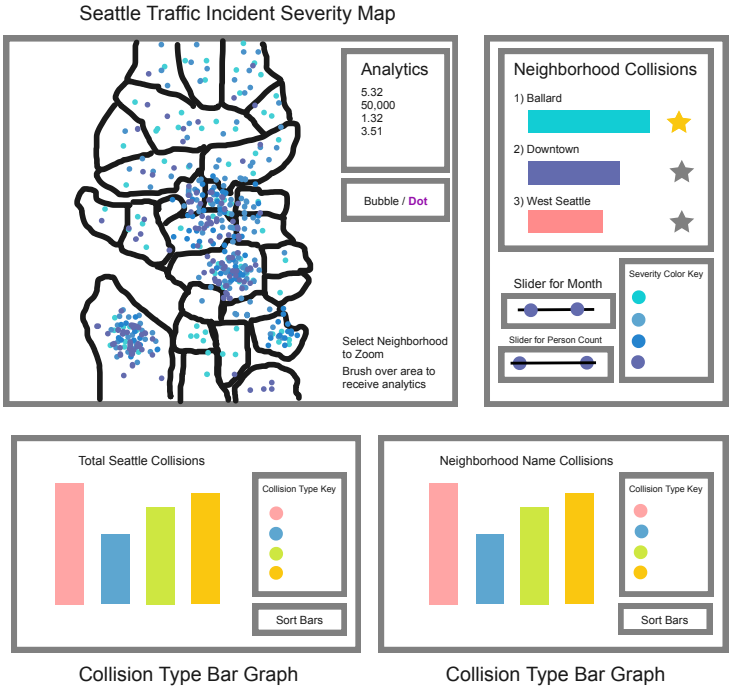
Rainy | Dry

With stakeholders in mind, a map visualization best suits our target audience. Unfortunately, we can most likely only use color as an indicator due to size of dataset

Timeline Line Graph Sketch

Bar Graph Sketch

Layout



Meta-data

Title: Map-Centered Visualization
Author: Daniel Pham
Date: 11/18/21
Sheet Number: 2
Task: Initial design to scope out visualization

Operations

Ranked Neighborhoods

- The ranked neighborhood collisions allows users to get a ranked understanding of how many collisions there are, selecting one directs redirects the map to that neighborhood.

Sliders for Month and Person Count

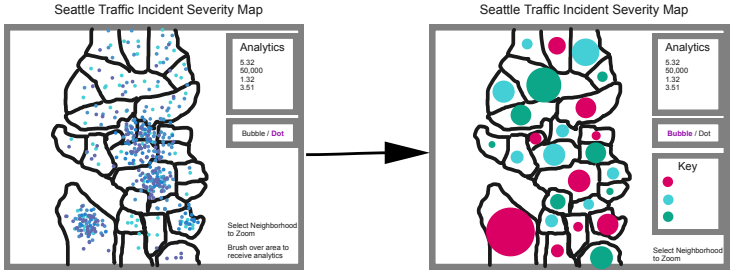
- Changing the sliders filters the data let in, you can adjust months to only be from June to August for example.

Sort Bar Graph

- The Bar Graphs are ordinarily sorted alphabetically by collision, but can be sorted by height.

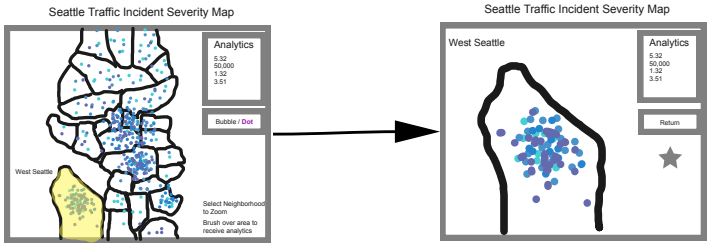
Focus/Zoom

Bubble vs Dot Map

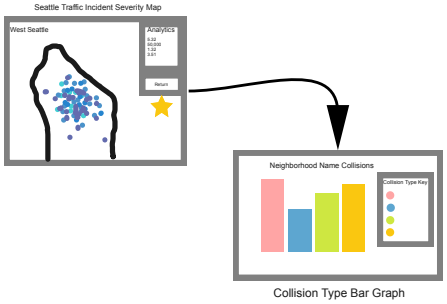


Colors are the most common incident, size indicates number of incidents

Select Neighborhood



Add Neighborhood Bar Chart



DESCRIPTION
The key focus of this visualization is to provide quick and effective information about different areas of Seattle, while avoiding over plotting and an overwhelming amount of information. This means both abstracting information and deriving information in better ways.

Discussion

PROS:

- Is generally easy to navigate and avoids overwhelming information
- Includes multiple characteristics to examine, and gives a good rundown of each neighborhood
- Answers important questions that traffic enforcement, emergency services and policy makers need to ensure that area needs are being met.

CONS:

- Data from ranked neighborhood collisions kind of repeats the map data but in a different form
- Could provide more complex information
- Does not have as much room for multiple variables, like what were the weather conditions?
- Reliant on creating neighborhood boundaries