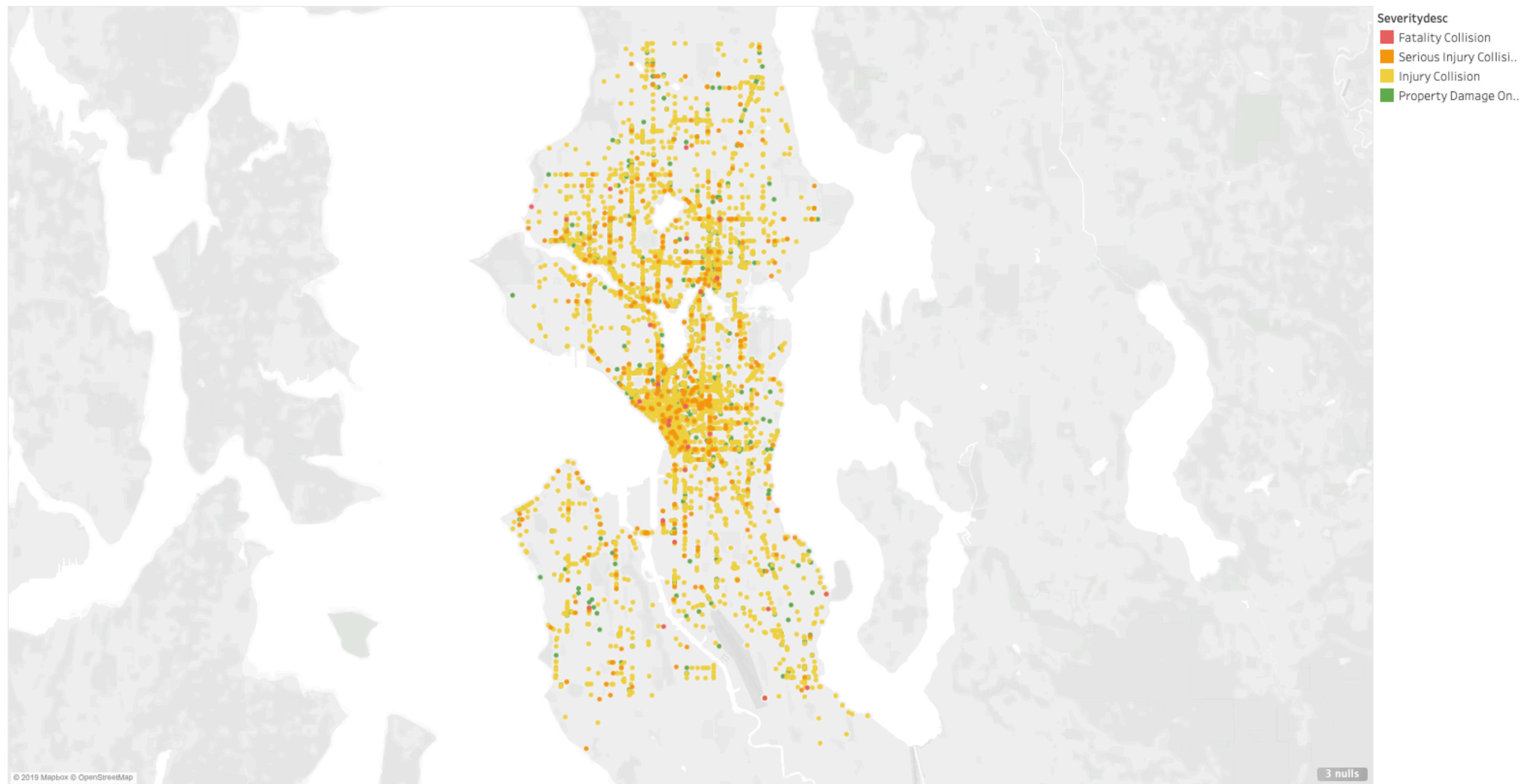


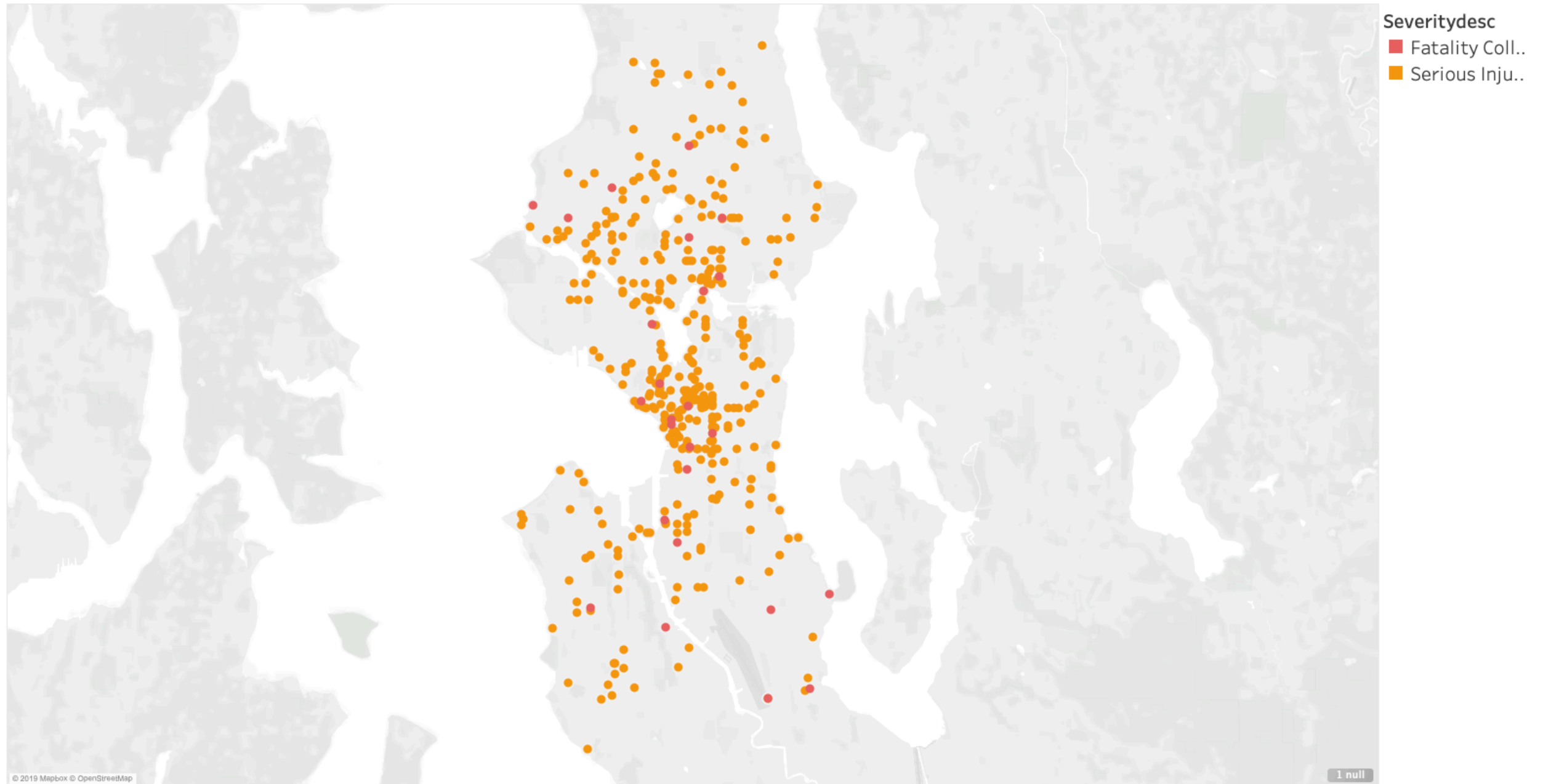
Predicting Types of Cycling Incidents in Seattle, WA

Russell Garner

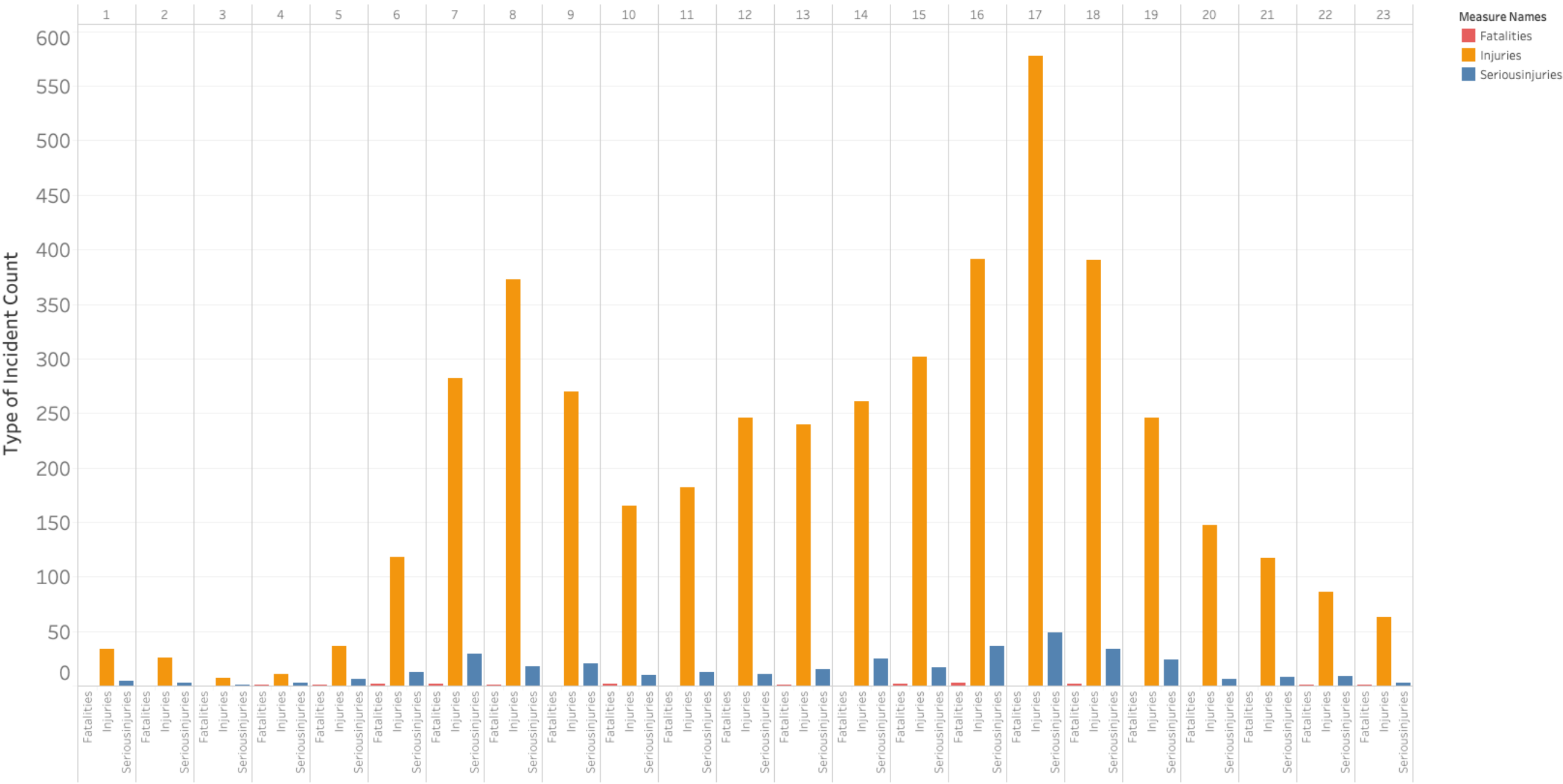
Seattle, WA Cycling Incidents



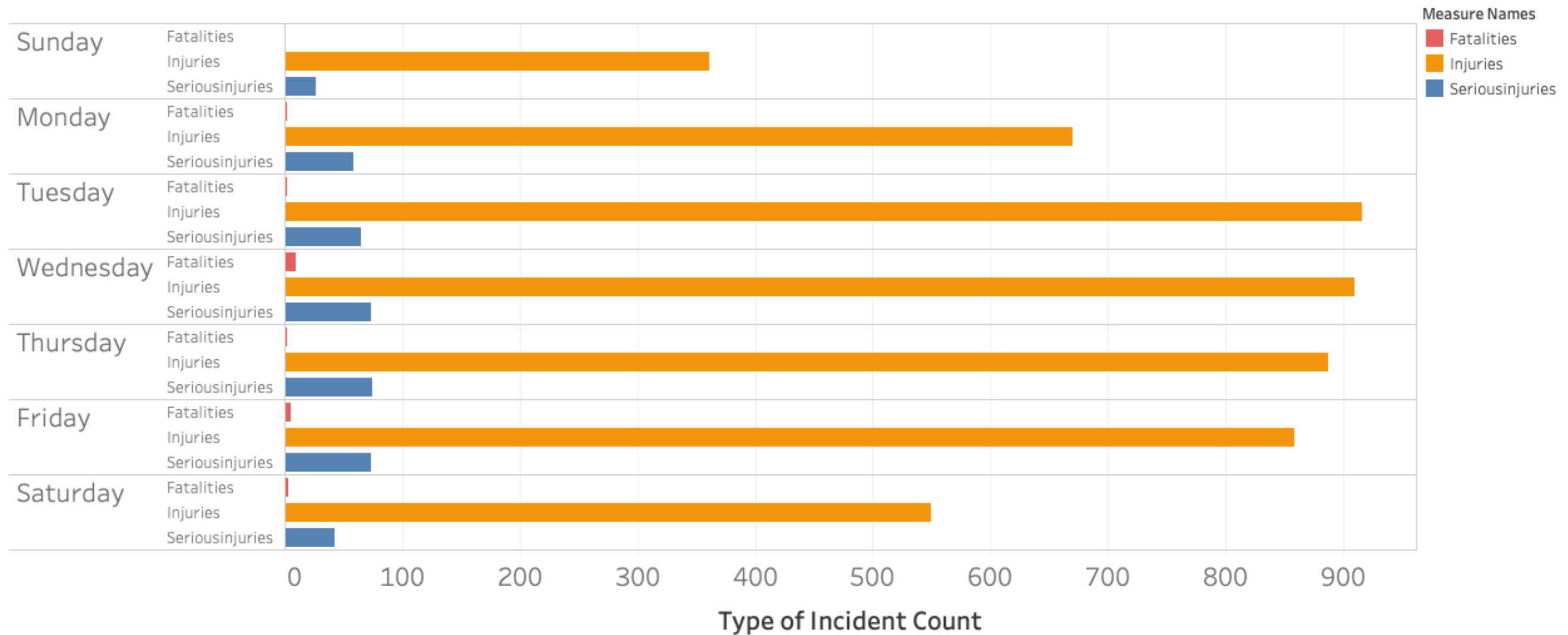
Seattle, WA Fatal and Serious Cycling Incidents



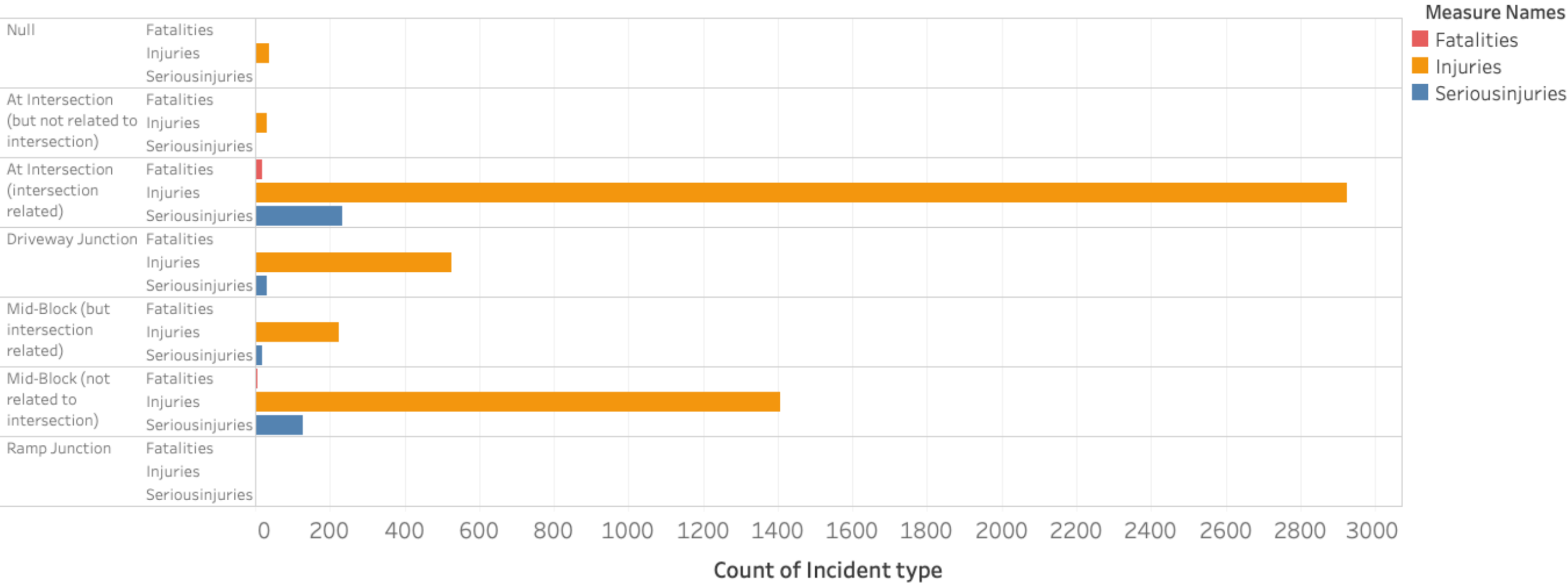
Hour of Day



Day of the Week



Section of Street



Imbalanced Classes

Injury	4510
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Property Damage	635
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Serious Injury	438
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Fatality	25
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Null Model	0.81
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Model Performance

Over sampled minority classes and under sampled majority classes

To have 3382 of each class

Random Forrest with: bootstrap = False, max_depth = 70

max_features = 3, min_samples_leaf = 1,

min_samples_split = 4, n_estimators = 1000

Training accuracy 0.99

Test accuracy 0.76

Confusion Matrix

	Predicted Property Damage	Predicted Injury	Predicted Serious Injury	Predicted Fatality
Property Damage	10	144	5	0
Injury	44	1053	31	0
Serious Injury	2	94	2	1
Fatality	0	6	0	0

Model is not a good predictor

- Collect data with different features
- Try a different problem statement
- Combine with data from other cities