

MAKE AMERICA HEALTHY AGAIN

PRESCRIPTIVE ANALYTICS 2020

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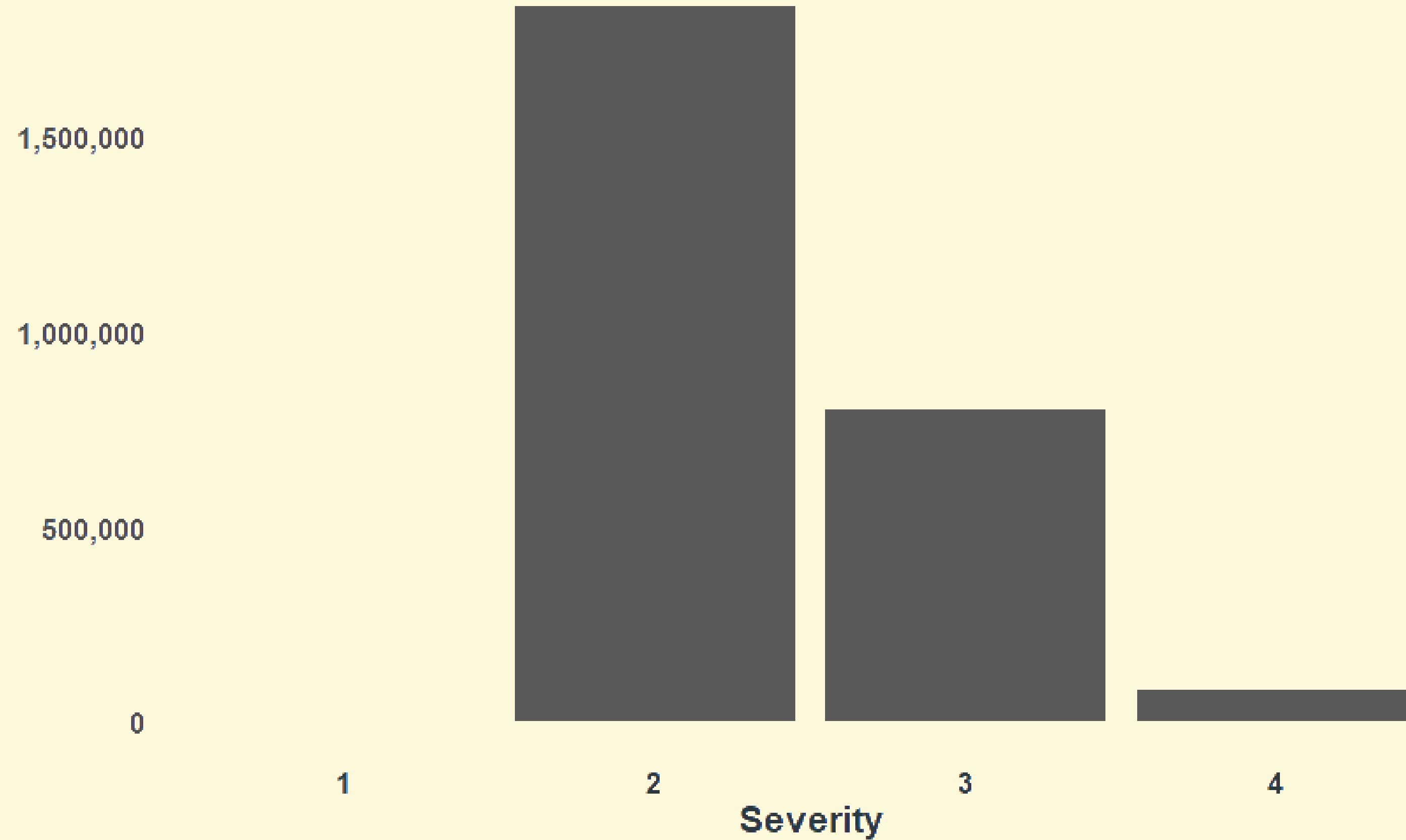
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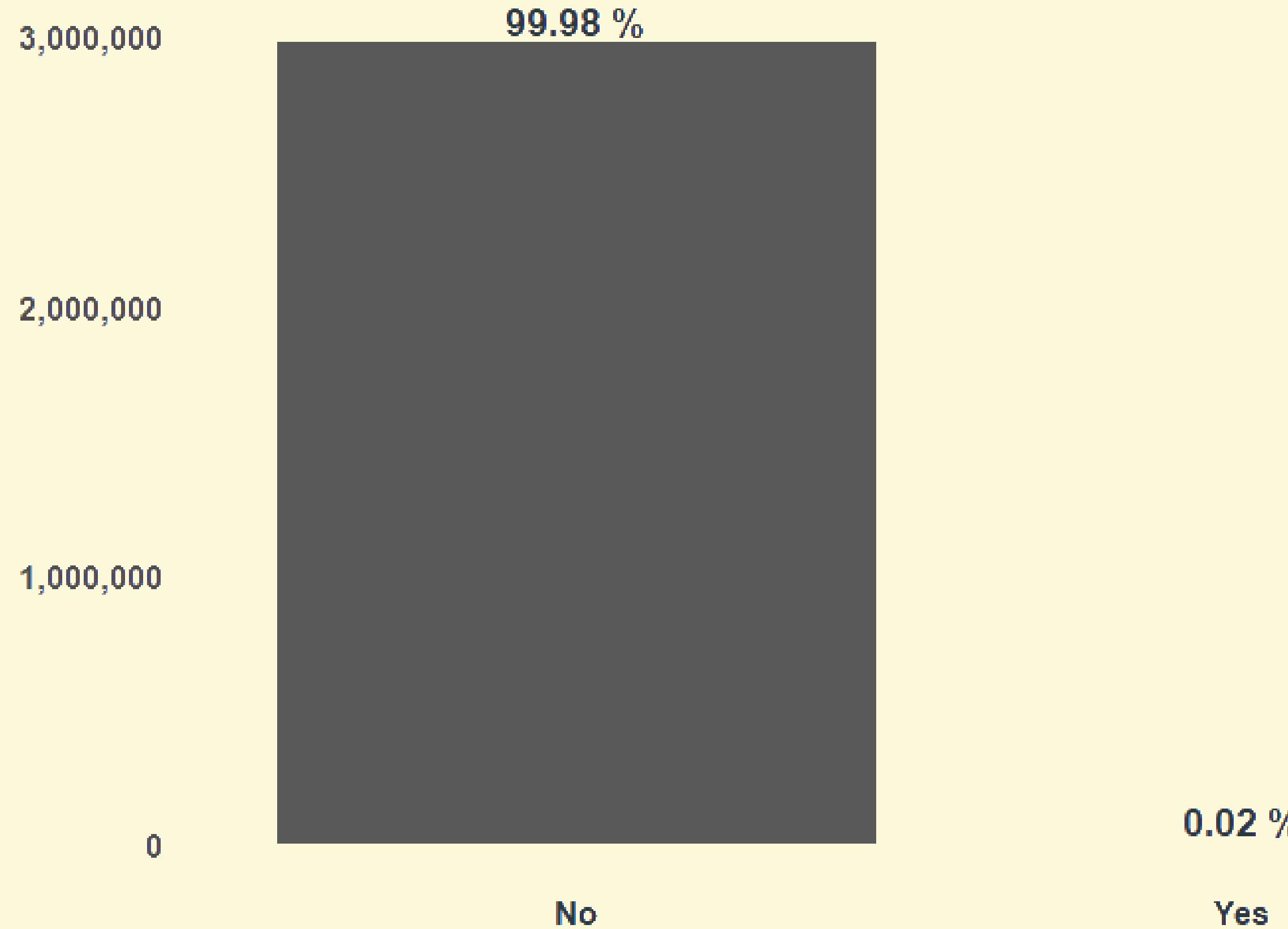
MANAGERIAL RECOMMENDATIONS

Exploratory data analysis

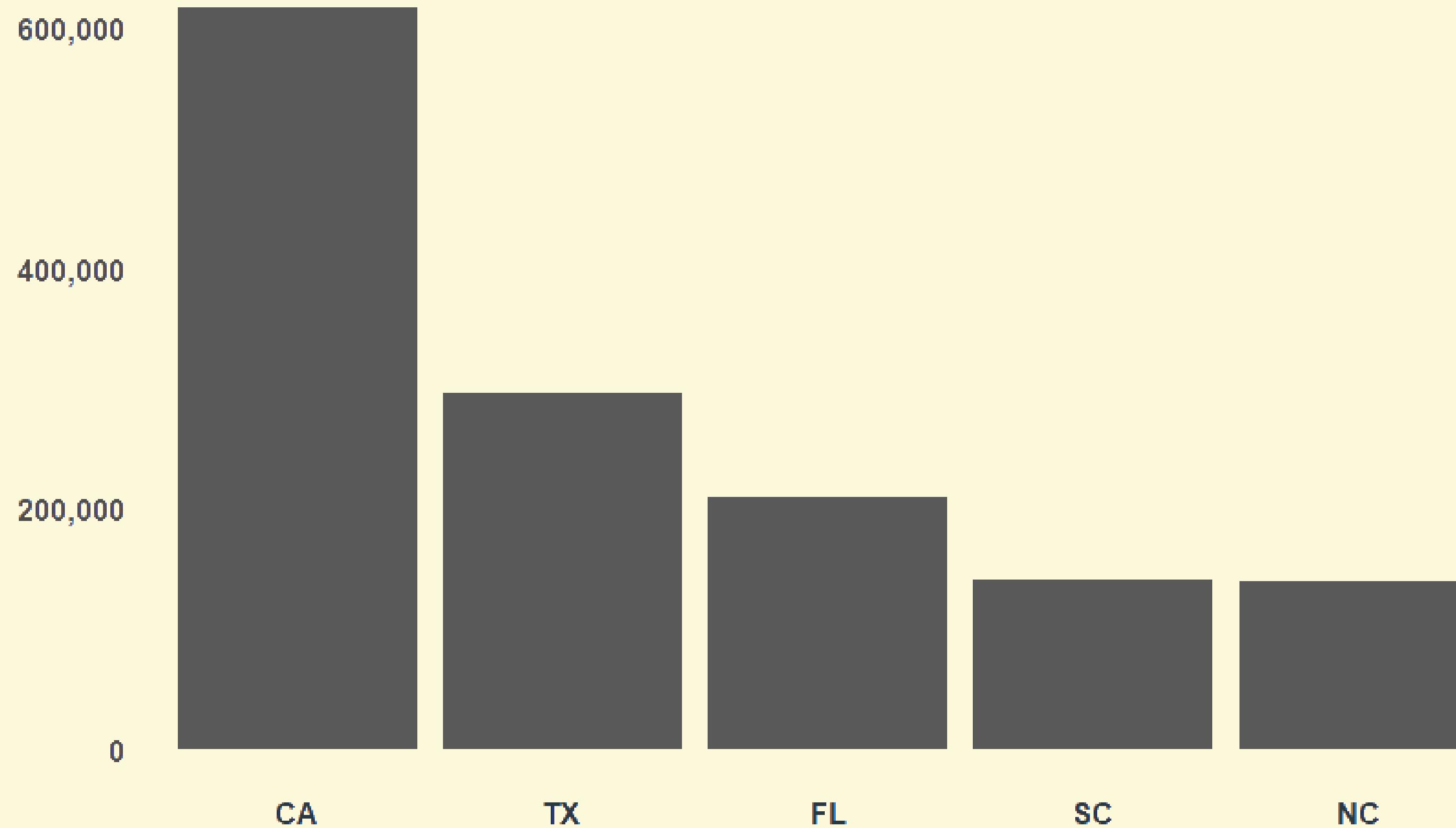
Severity of accidents



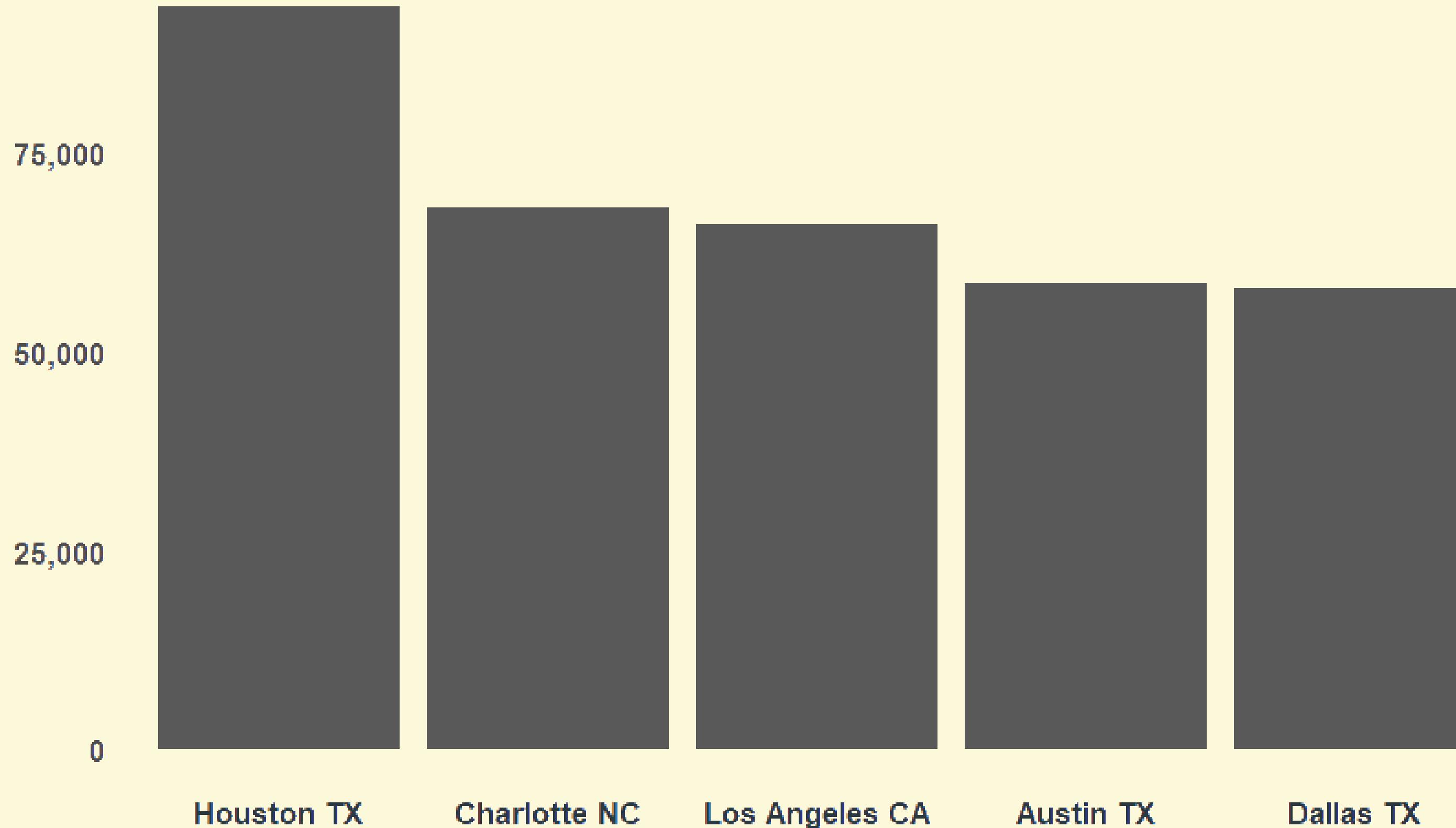
Speed bump present

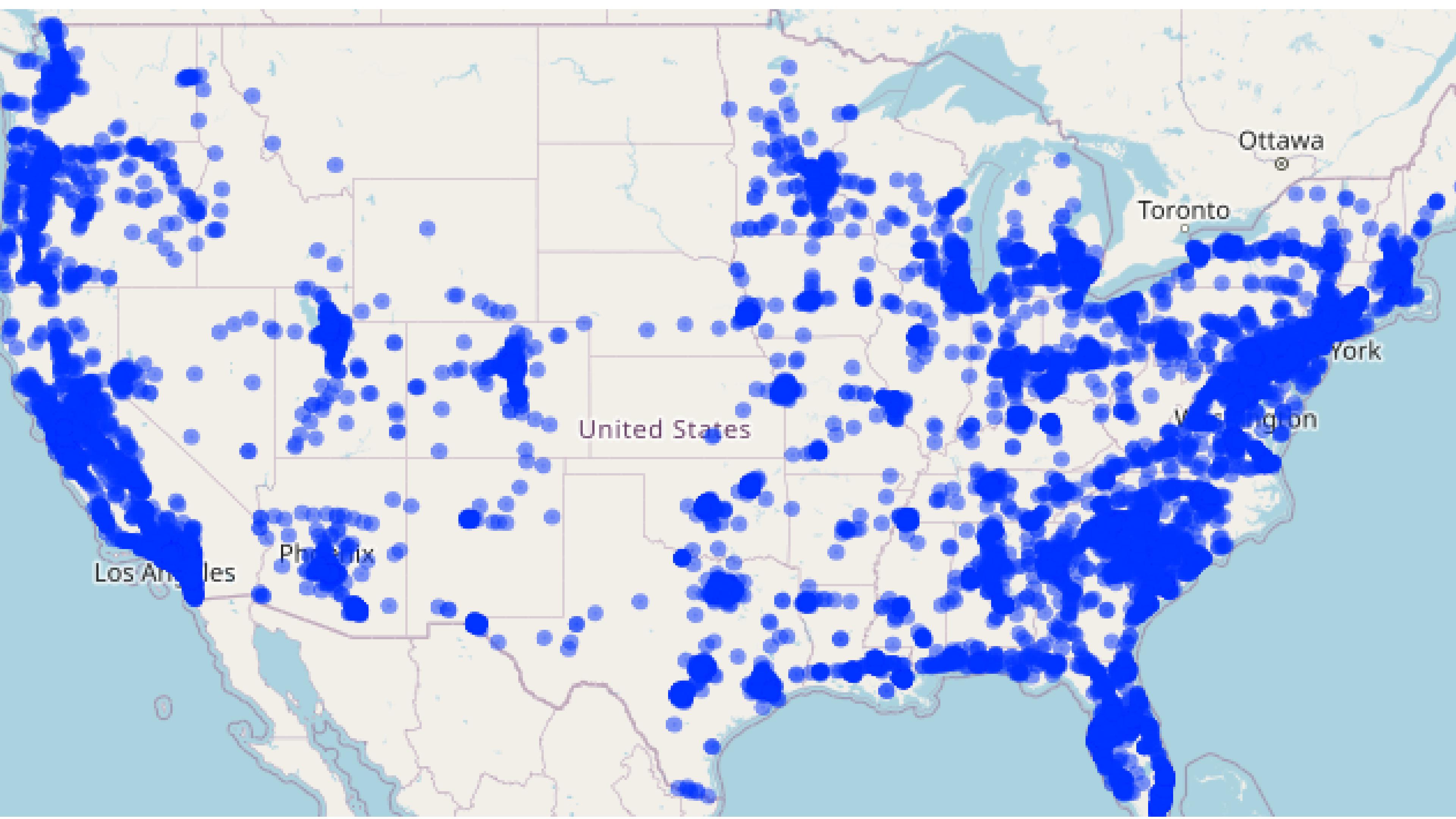


States with most accidents



Cities with most accidents





Most accidents per inhabitant



Allocation of hospitals

Number of hospitals

159

Total Cost

€ 2.65 TRILLION

hospital predictions per city

Choose miles constraint:

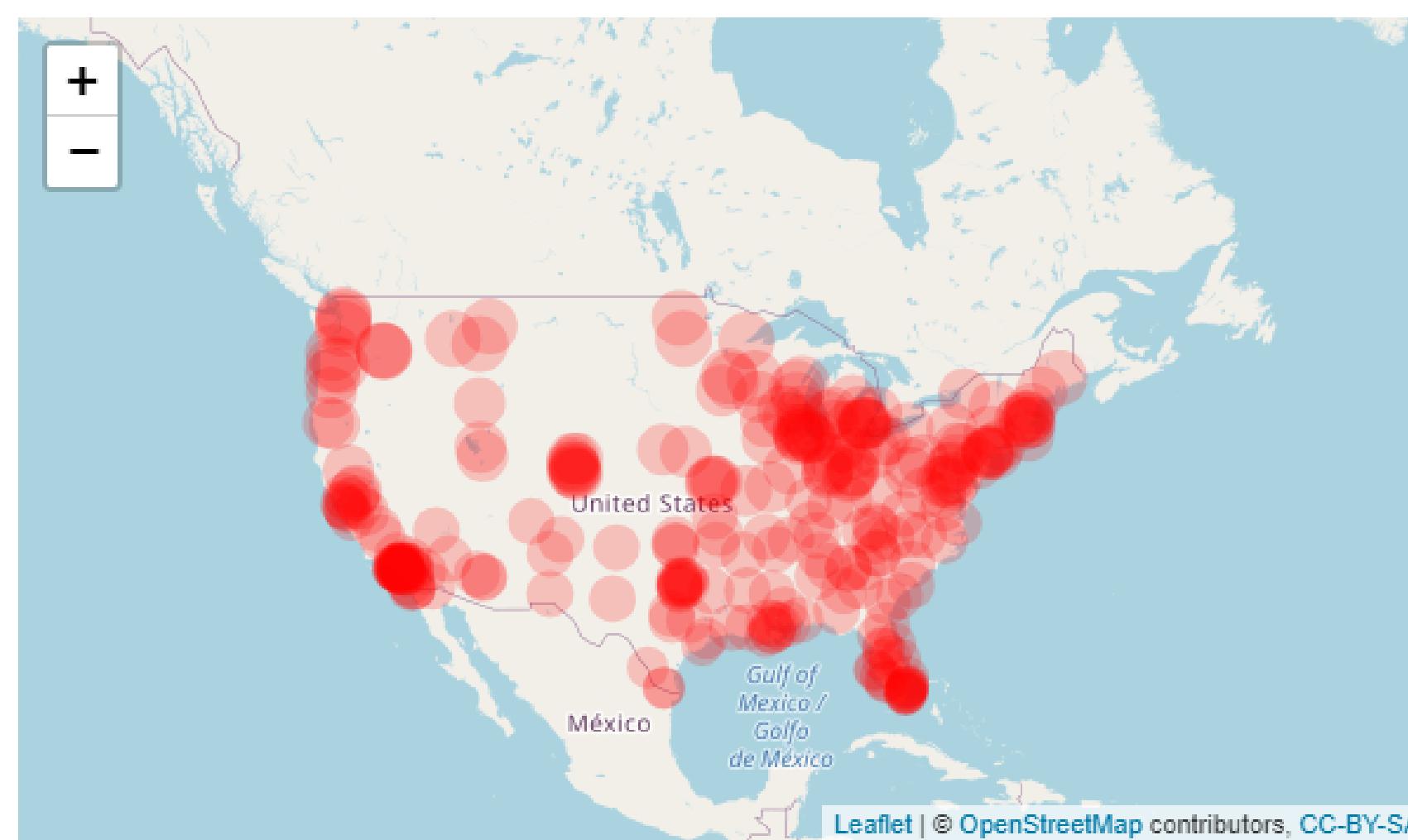
- 100 miles
- 110 miles
- 120 miles

Choose coverage ratio:

- 98 %
- 99 %

Choose minimum population size:

- 50 000
- 40 000
- 30 000



hospital predictions per county

Choose miles constraint:

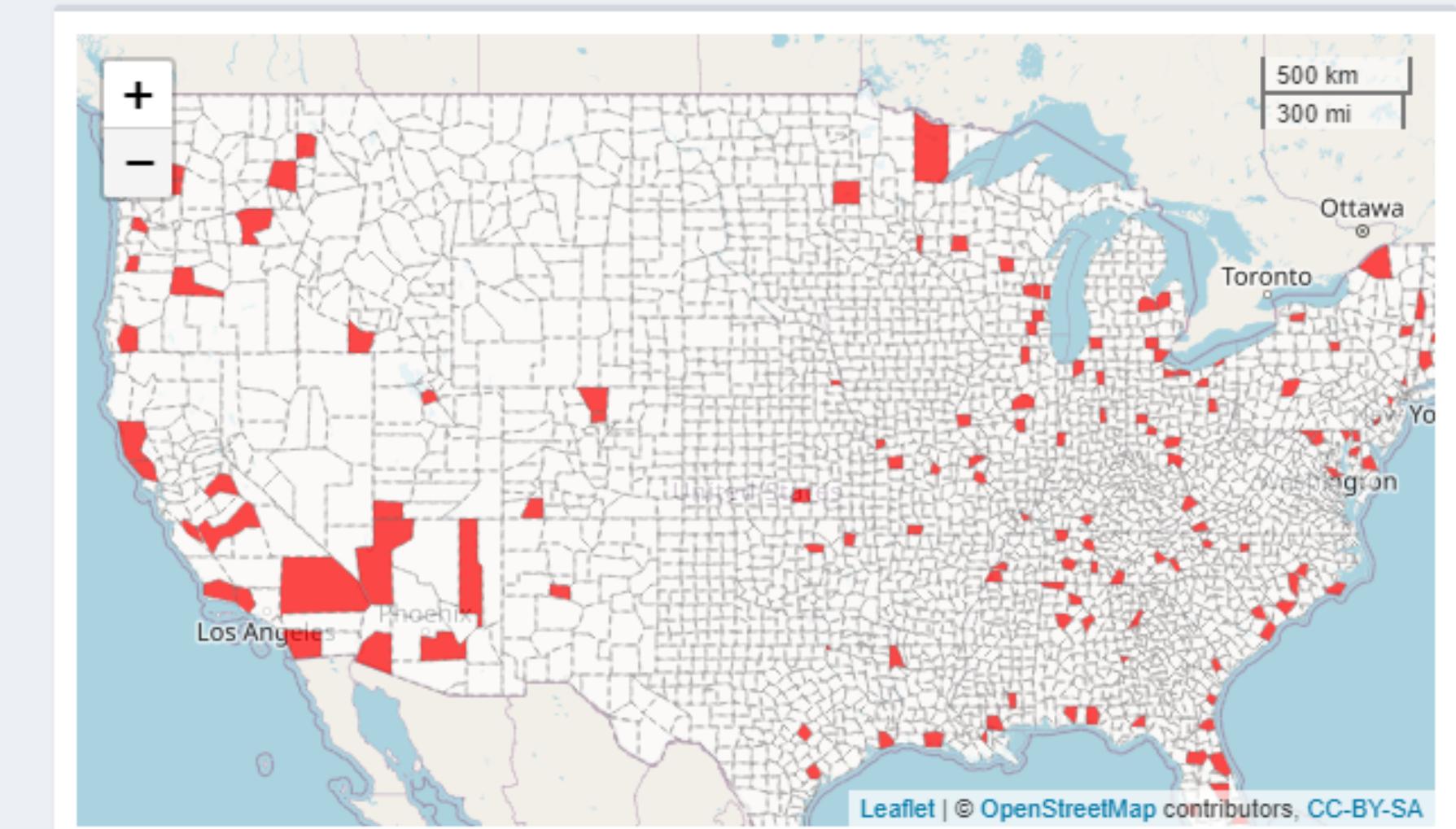
- 80 miles
- 100 miles
- 120 miles

Choose coverage ratio:

- 98 %
- 99 %

Choose minimum population size:

- 40 000
- 50 000
- 60 000



Sensitivity analysis



City
Population



Reach

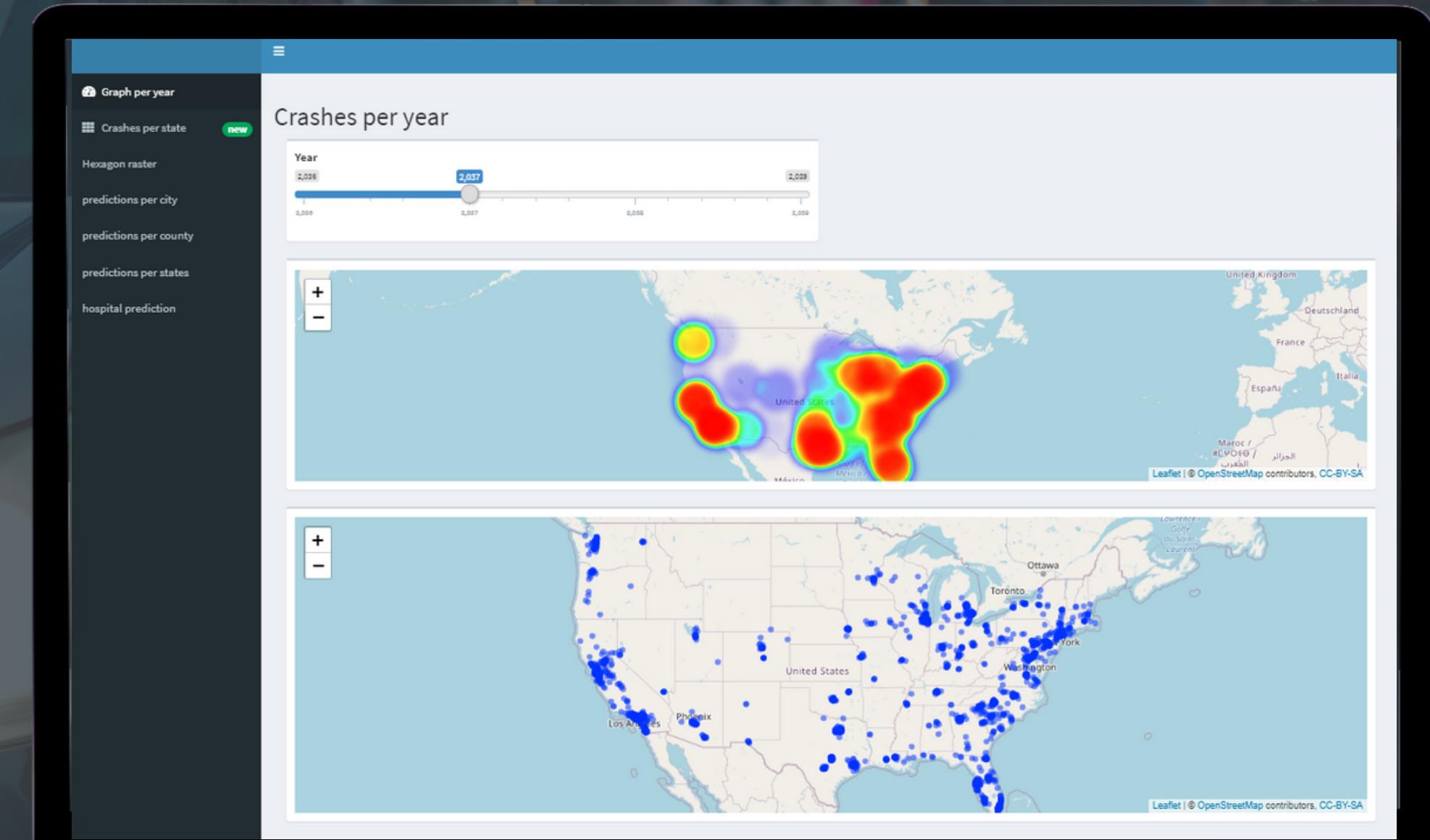


Coverage



Investment
spread over
time

DEMO



TECHNICAL SUBSTANTION

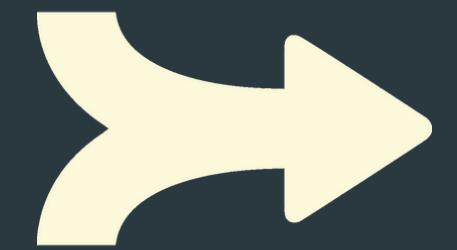
Data

FUTURE ACCIDENTS

CITIES

Forecast

DIFFERENT METHOD(S)



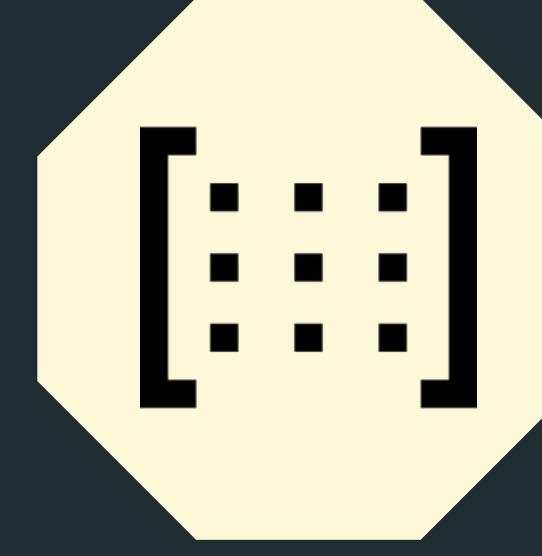
ENSEMBLE

Genetic algorithm

Rbga.bin



Coverage



From-to
matrix



Suggestion

R shiny app





A dark, atmospheric cityscape at night. In the foreground, a road with blurred red and green lights suggests motion. Several tall buildings are visible, with one prominent skyscraper on the left and others in the background. Streetlights and other city lights provide some illumination against the dark sky.

**THANK YOU FOR
YOUR
ATTENTION**