

# Comparative analysis of traffic and accident indicators on Brazilian highways

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**Abbreviated abstract:** The objective of this study was to verify if there was a change in the traffic indicators in Brazil and to check if the country is following the global trend, both due to the transformations of the COVID-19 epidemic and the UN goals.



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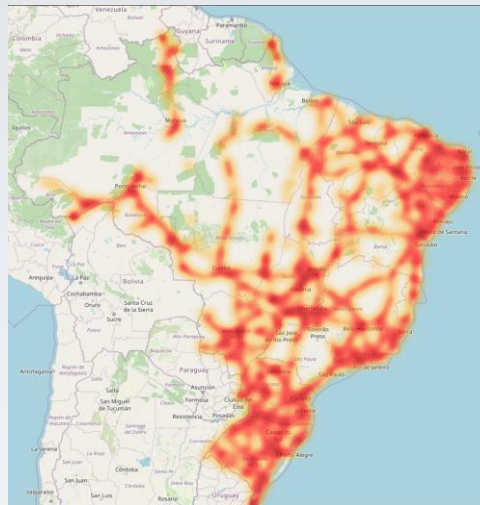
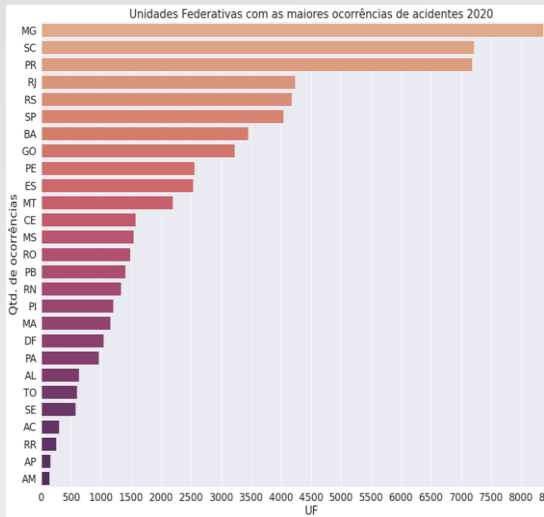
# Problem, Data

- At the beginning of the century, the United Nations Organization (UN) had set as a goal to reduce by half the global number of traffic deaths and injuries.
- In the year 2020, in an atypical year due to the COVID-19 pandemic, the configuration and dynamics of the national traffic was changed.
- The objective of this study was to verify if there was a change in the traffic indicators in Brazil and to check if the country is following the global trend, both due to the transformations of the COVID-19 epidemic and the UN goals.
- Accidents grouped by people with all the causes and types of accidents, made available by the Federal Highway Police (PRF) for the period from 2019 to 2020.
- IBGE with the Brazilian population estimate.
- Ministry of Infrastructure with the vehicle fleet by states



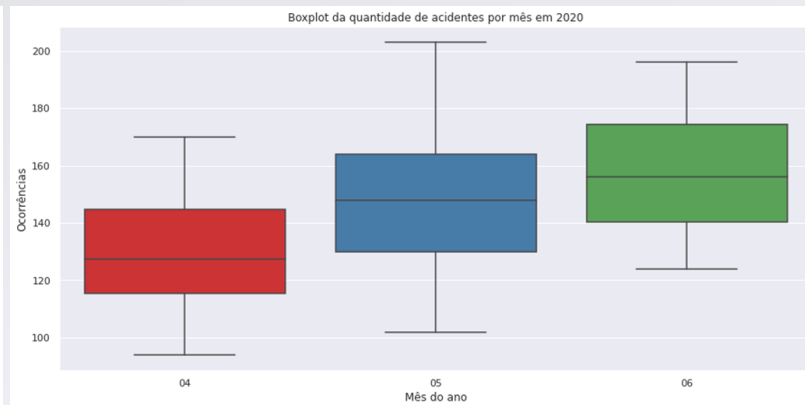
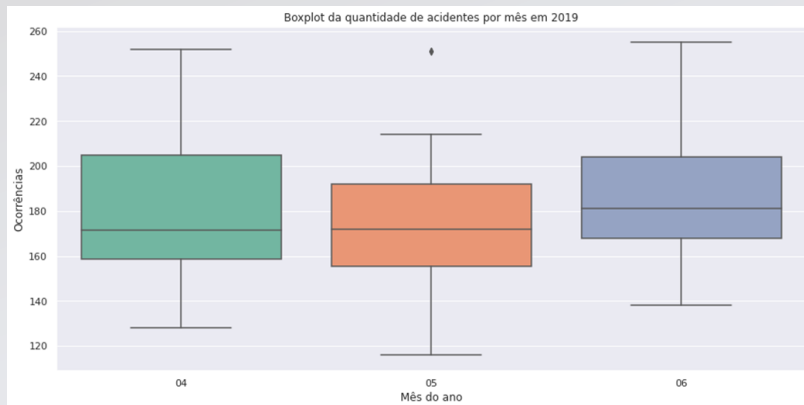
# Methods, Results

- Quantitative analyzes by federative unit.
- Accident mapping using geolocation data.
- Comparisons of data grouped by periods of most severe restrictive measures



UF	Acidentes 2019	Acidentes 2020	Diferença	Diferença %
SC	2113	1666	-447	-21.15
SP	1090	749	-341	-31.28
RJ	1099	807	-292	-26.57
PR	1924	1633	-291	-15.12
RS	1215	936	-279	-22.96
MG	1958	1690	-268	-13.69
PE	664	485	-179	-26.96
GO	850	672	-178	-20.94
ES	724	561	-163	-22.51
BA	856	717	-139	-16.24

# Results and Conclusions



The number of deaths showed a reduction, but did not follow proportionally the decrease in number of accidents. Brazil is not yet following the trend of several countries in the world that are approaching the UN goals.