

POPULATION SIZE AND CARBON EMISSIONS



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INTRODUCTION



- Population projections from the US Census Bureau predicts population growth
- Does the size of a region's population significantly influence car emissions?

STUDY

- In our study we looked at CO2 emissions by region & population by year.
- We gathered population data for 2017 from the U.S Census Bureau and total carbon emissions for all 50 states from 2010 - 2017 from the U.S. Energy Information Administration.
- We hypothesized that there is no difference between carbon emissions and population size.

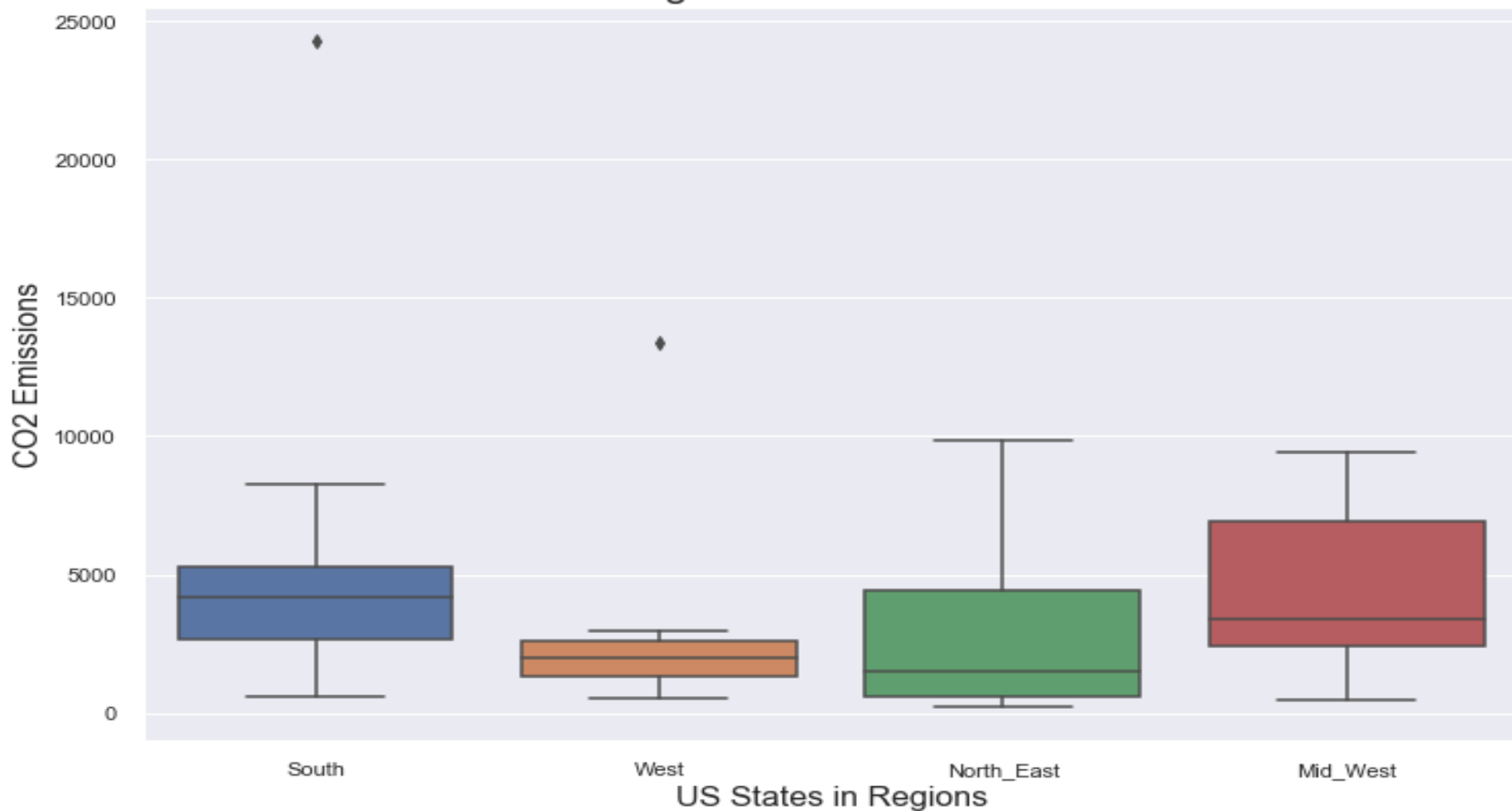
<https://www.eia.gov/opendata/qb.php?category=2251604>

<https://www2.census.gov/programs-surveys/popest/tables/2010-2019/state/totals/nst-est2019-01.xlsx>

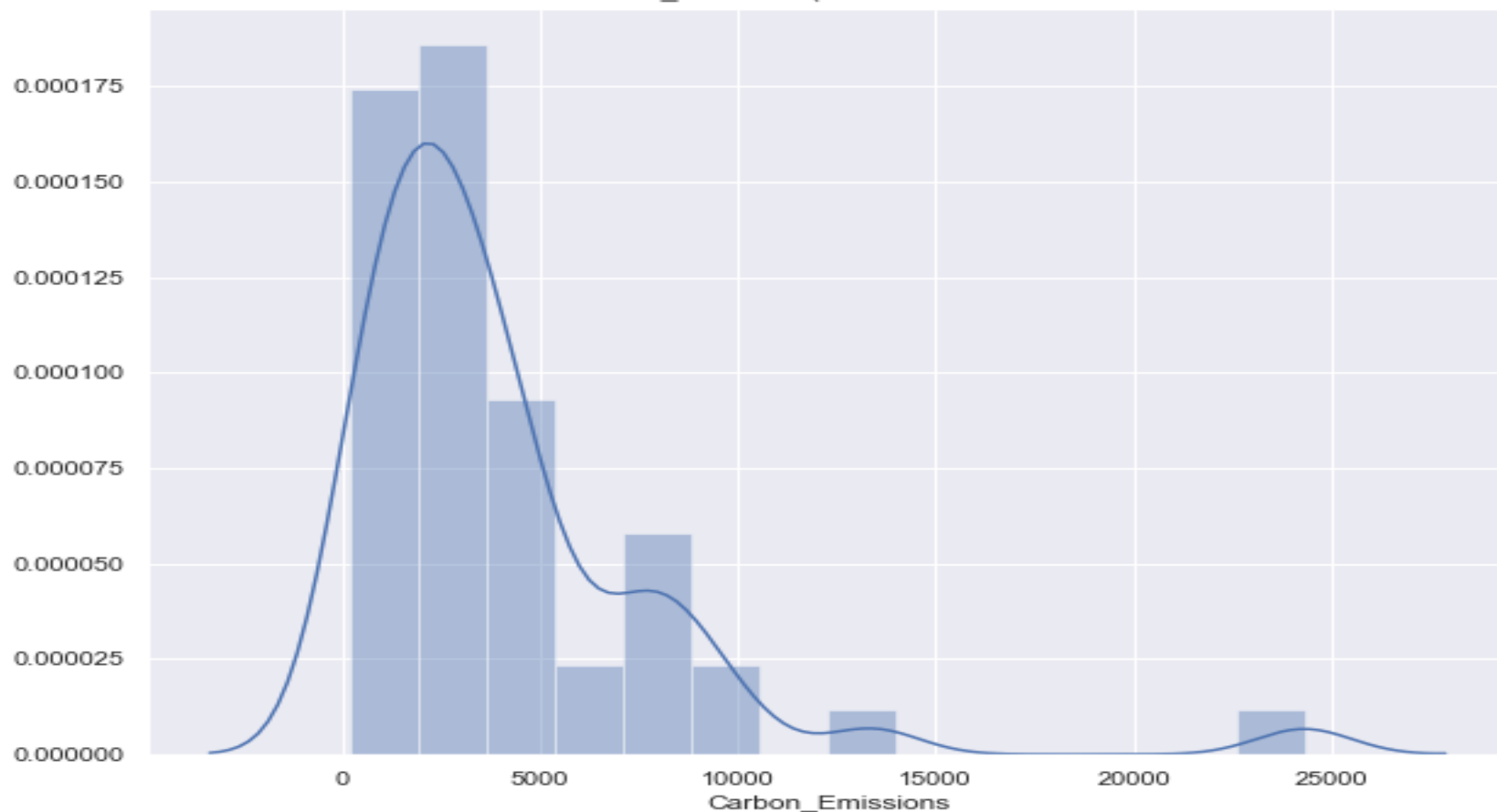
REGIONS OF THE USA



US Region's Carbon Emissions

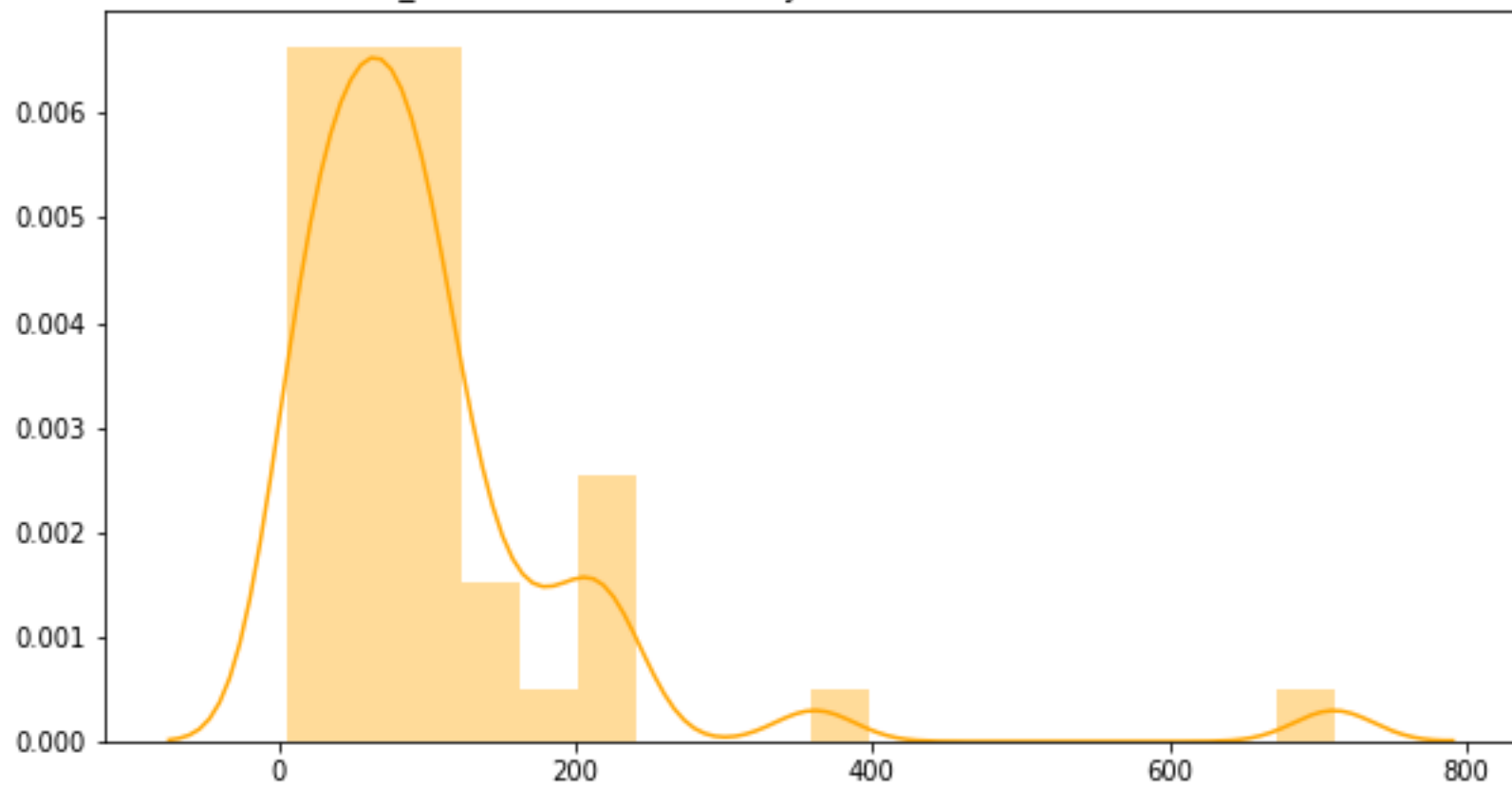


CO2_Emissions(million metric tons)



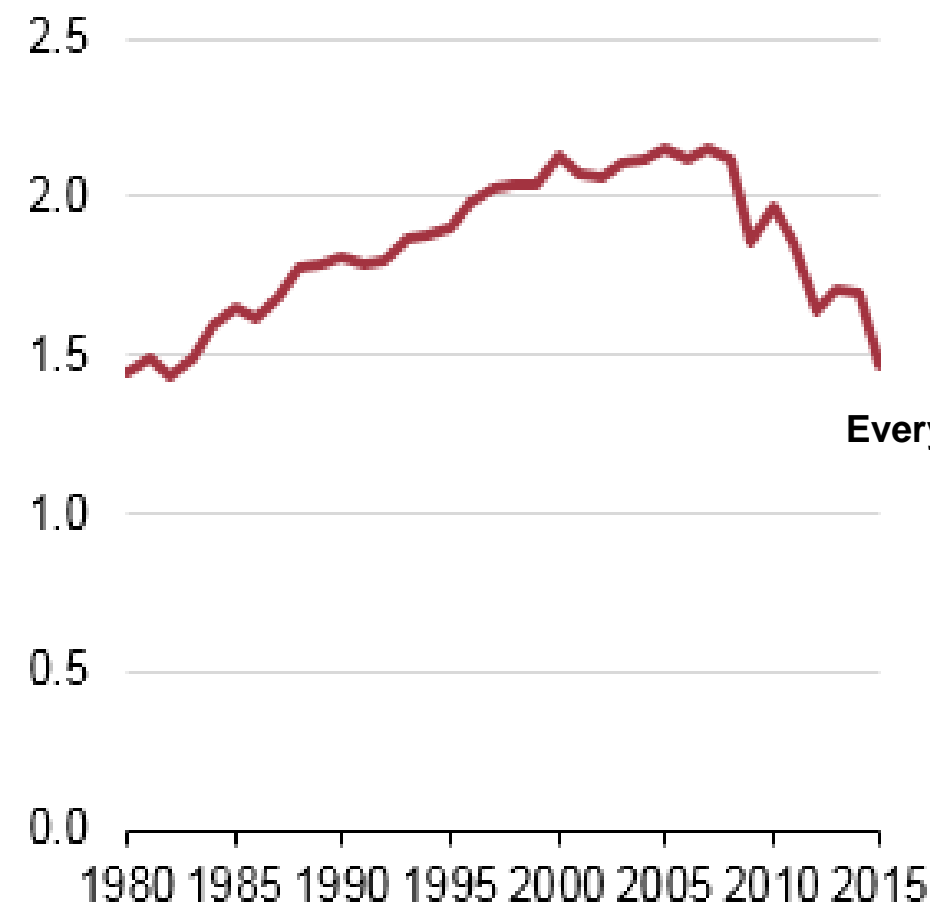
Sum carbon emissions distribution by state from 2010 - 2017

CO2_Emissions Distribution by State(million metric tons) 2017

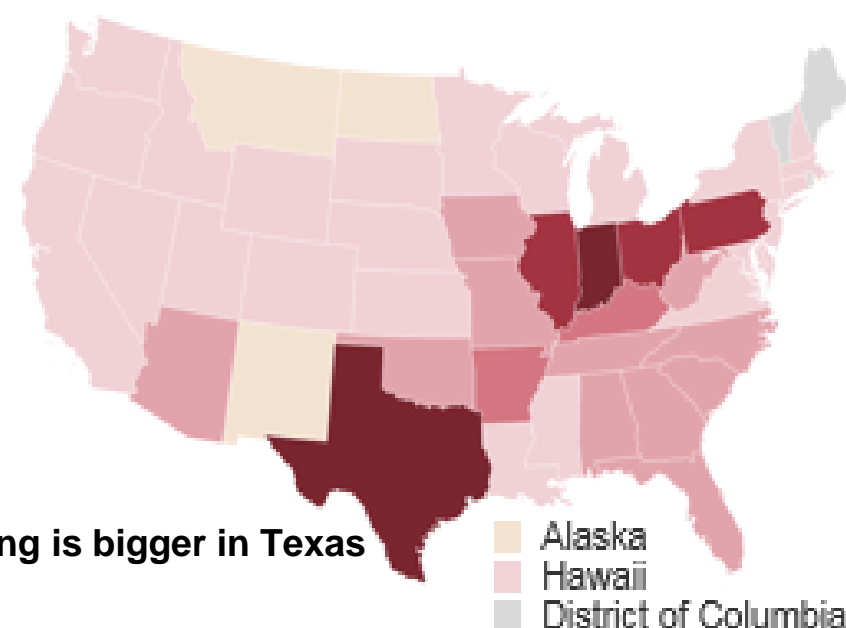


Energy-related coal emissions (1980-2015)

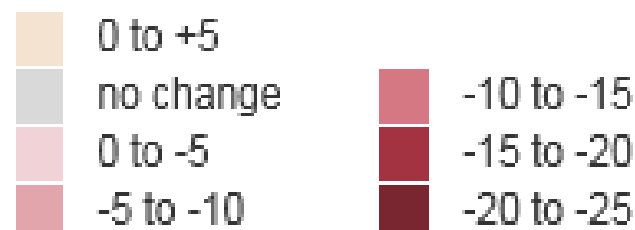
billion metric tons of carbon dioxide



Everything is bigger in Texas



Annual change in 2015
million metric tons CO2



CONCLUSION

- Measuring the population percentile for south, west, mid-west, north-east regions were 37%, 23%, 21%, 17%, respectively.
- The carbon emission proportions showed no correlation with population leading us to say the population size does not have a significant effect on the carbon emission.

A photograph of two large, white, hyperboloid cooling towers of a nuclear power plant. The towers are set against a dramatic sky at sunset or sunrise, with the sun low on the horizon creating a golden glow. Thick plumes of white steam or smoke rise from the top of each tower. In the foreground, a dirt path leads towards the towers, flanked by dry grass and some green shrubs. A chain-link fence runs across the middle ground. The word "QUESTIONS?" is written in a large, white, handwritten-style font across the center of the image.

QUESTIONS?

A handwritten signature in black ink, located in the bottom right corner of the image. The signature is stylized and appears to be a combination of letters, possibly "A" and "R" or similar, enclosed within a circular loop.

A