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# Pollution Dashboard

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# EPA Air Quality Index

## Common Pollutants

When this pollutant has an AQI above 100...	Groups at risk
Ozone	People with lung disease, children, older adults, people who are active outdoors (including outdoor workers), people with certain genetic variants, and people with diets limited in certain nutrients are the groups most at risk
PM 2.5	People with heart or lung disease, older adults, children, and people of lower socioeconomic status are the groups most at risk
CO	People with heart disease is the group most at risk
NO2	People with asthma, children, and older adults are the groups most at risk
SO2	People with asthma, children, and older adults are the groups most at risk

# The Data

- US Air Pollution and Air Quality by county
  - AQI
  - Pollutants: Ozone, PM2,SO2,NO2,CO
  - US County Maps
- The following sources were used
  - Pollution -US EPA
  - <https://eric.clst.org/> (County map)
- Data downloaded as CSVs of individual measurements
- Date Range - January to May 2020



# Transform & Load

- A python script using Pandas (load.py)
- Some data had to be re-arranged
  - county with fips as index– could not be loaded to database
- Data cleanup required to remove unnecessary information.
- Data collated to arrange individual measurements into county based json objects
- Database used was MongoDB
  - Multiple collections.
  - Used free MongoDB Instance on Heroku.



# The App

<https://pollutiondashboard.herokuapp.com/>

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