

Data Analysis and Visualization

BY ZACK WEDDING

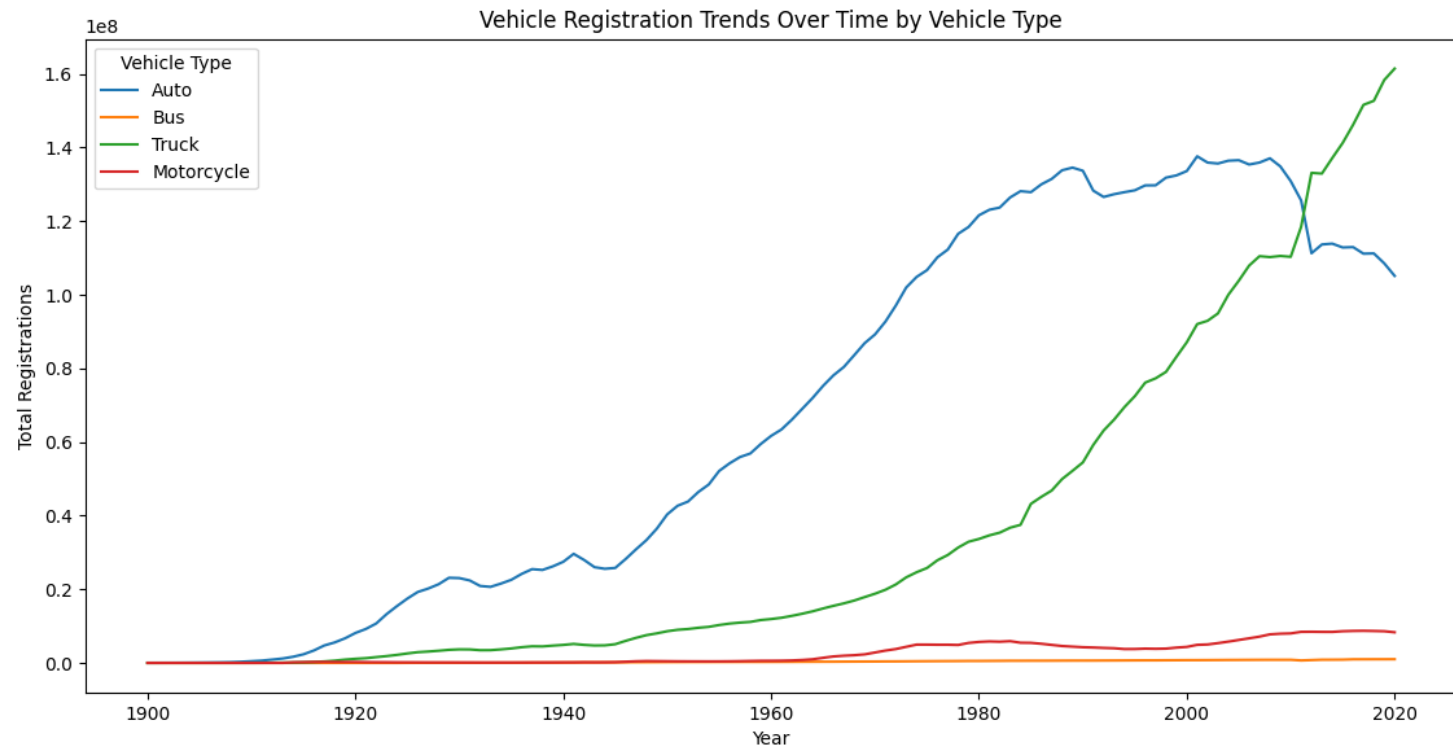
The Data at Hand

- I chose to work with data about vehicle registrations
- This interested me because of the sheer number of vehicles I see on the road every day
- I got this data from the data.gov website that was recommended
- I downloaded the data into the CSV format

Vehicle Trends from 1900 - 2020

- This angle is important because can see how each type of vehicle's registration has gone up or down over the last 100+ years. Looking at these changes can help car companies look at customer preferences.
- Some trends include the number of car registrations peaking around the year 2000 and declining ever since, the number of truck registrations seeming to grow exponentially and overpassing car registrations, the number of motorcycle registrations gradually increasing since their introduction in the 60's, and the number of bus registrations staying around the same since they were introduced

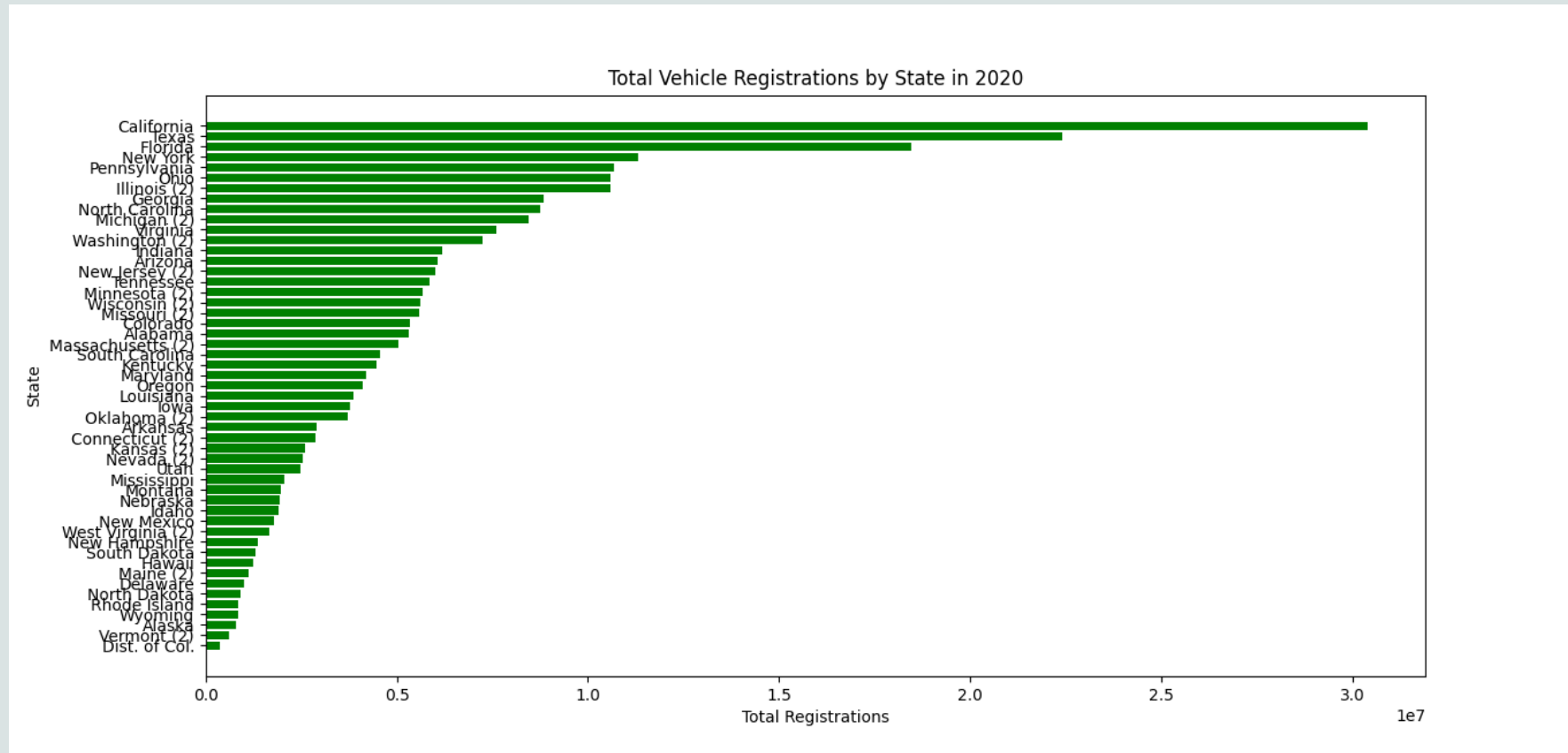
Vehicle Trends from 1900 - 2020



State-by-State Total Vehicle Registrations in 2020

- This angle is important because it gives us a good idea of which state is purchasing and registering the most cars. It makes sense that states with larger populations are registering more cars. This angle also gives an idea of how COVID impacted some states more than others.
- The states with the most vehicle registrations in 2020 (in order) include California, Texas, Florida, New York, Pennsylvania, Ohio, Illinois, Georgia, North Carolina, and Michigan
- California had over 30,000,000 total vehicle registrations in 2020, while Vermont had less than 700,000 total vehicle registrations

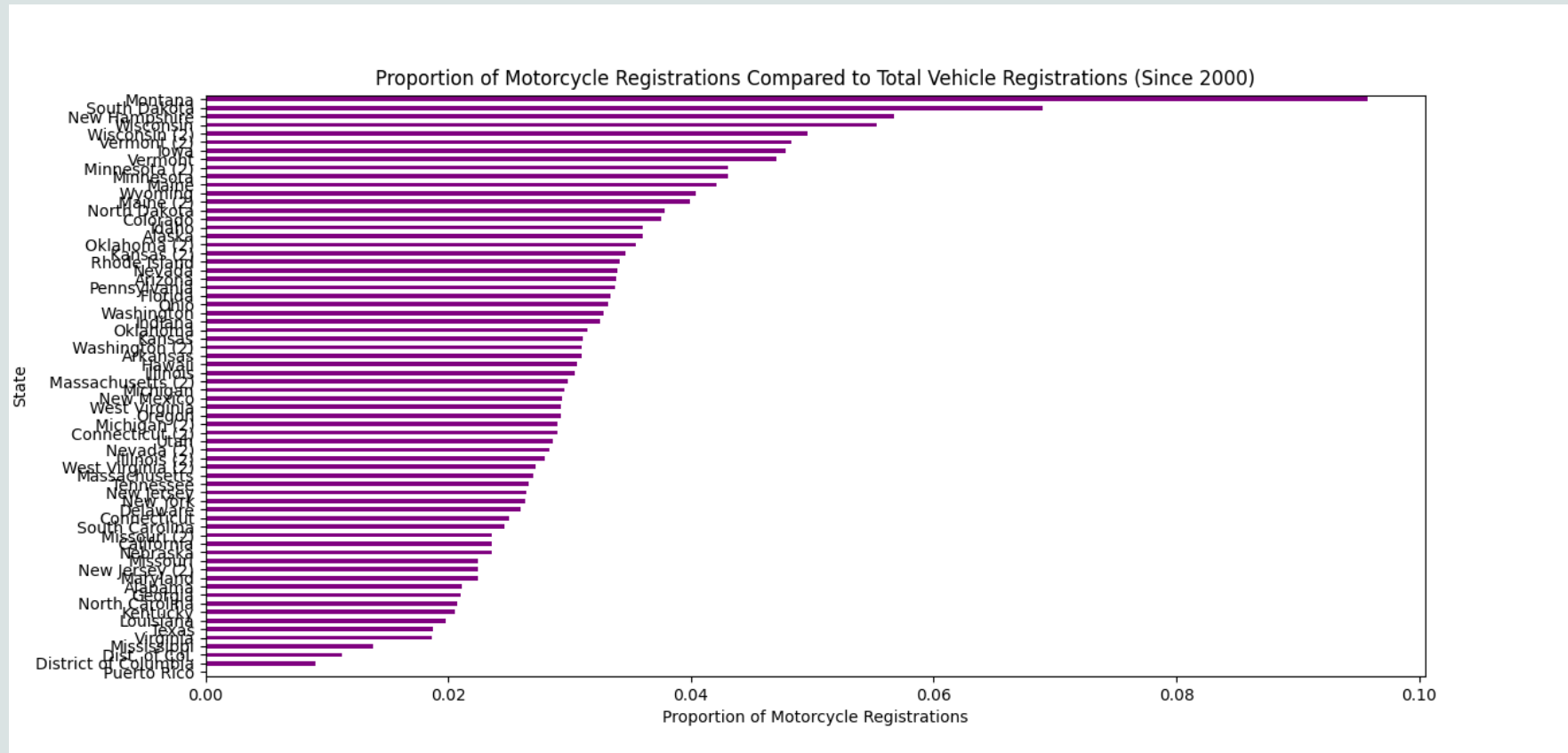
State-by-State Total Vehicle Registrations in 2020



State-by-State Motorcycle Proportions Since 2000

- This angle is important because it allows us to look at which states are using motorcycles more than anybody else. Looking at this can possibly influence the way motorcycle brands market themselves.
- Looking at the proportion the playing field since we are not using solely the total number of vehicles a state has registered
- The states with the highest proportion of motorcycles registered (in order) include Montana, South Dakota, New Hampshire, Wisconsin, Vermont, Iowa, Minnesota, Maine, Wyoming, and Colorado
- Montana's proportion of motorcycles registered compared to their total number of vehicles registered is over 9%, whereas Mississippi's proportion is around 1.5%

State-by-State Motorcycle Proportions Since 2000



Why is This Important?

- Looking at these numbers can paint a bigger picture
- Businesses can use this data to make plans when deciding what products to develop
- The data gives insight into how age can play a factor into what cars are being registered
- Looking at vehicle registration numbers tells us how people move and reflect mobility patterns

Source(s)

- https://catalog.data.gov/dataset?q=&sort=views_recent+desc