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**Natural Disaster Conclusions and Analysis**

* + **Gas Price Analysis**

In general, annual average gas prices increase as the number of annual natural disasters does. This trend can be seen in the graphs of the top five most disaster prone states, and is corroborated numerically by the average slope of the line of best fit for each state, 2.08. On a per state level, it’s clear that this trend isn’t always the case however; Florida, the state with the second most natural disasters, actually exhibits a negative association, and there are more states with slightly negative slopes as well. Our analysis does not dive deep enough to uncover the root cause of these negative trends in certain states. All we can say for certain is that there is a reasonable positive trend across all states as a whole.

Sources/Data: <https://www.eia.gov/> <https://www.fema.gov/>

* + **Natural Disaster Frequency and Cost**

According to the FEMA data from 1998-2020, the top five state with the highest frequency of natural disasters are: Texas, Missouri, Florida, North Carolina and Georgia. In terms of how much money these natural disasters have cost over the same time period, the most expensive states are: New York, Louisianna, Florida, Texas, and California. It is important to note that the frequency of natural disasters does not necessarily equate to cost. The costs of the natural disasters over time seem to be relatively constant with a few spikes in cost for some years. Each state seem to have a different constant values and spike values.

Sources: <https://www.fema.gov/>

* + **Natural Disaster effects on Temperature and Precipitation**

In analyzing the data for disaster by state and year, the states from 1990-2010 that had the highest disasters were: Texas, Missouri, Florida, Kentucky, and Oklahoma. I collected historical weather data for this 20 year span and evaluated the average yearly temperature for each state and compared that to the number of natural disasters each state had in that year. Each state tended to have a pretty regular correlation of either temperature spikes and drops or precipitation spikes and drops that matched the corresponding number of disasters in the given years. A more detailed analysis of each state over the specific span of time the disasters occurred as well as information on the specific type of natural disaster occurred would be needed to make further analysis.

Sources: [https://www.visualcrossing.com/weather/](https://www.visualcrossing.com/weather/weather-data-services#/) <https://www.fema.gov/>