DATA VISUALIZATION

GROUP PROJECT

DOES BEING POOR SUCK?

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01

Data Set

Description of the Data Set by Samson Rozansky

Our Dataset

- Our dataset, sourced from countyhealthrankings.org
- covers all 100 counties in North Carolina alphabetically.
- It includes various measures such as teen births, children in poverty (%), food environment index, and more.
- Curated the dataset from 2015 to 2022 for a focused and comprehensive analysis.

What Headers did we use?

Headers we used

- Median Income: Median income of a county
- ——————————————————————
- # of Single Parents: Number of single parents where it is defined where one adult takes care of kid(s)
- ——————————————————————
- Mentally Unhealthy Days: Average amount of days people reported they were mentally unhealthy
- ——————————————————————
- % Insufficient Sleep: What percent of Adults get insufficient sleep (under 8 hours)
- Population: Population of a county
- ——————————————————————
- # of Drug Deaths:Number of report Drug Deaths in a county
- ——————————————————————
- % Children in poverty: What percent of children live under the poverty line
- ——————————————————————
- Graduation Rate: What rate students graduate from high school

02

Problems

problems of the dataset and how they were handled by Navina Abbi

Problems in the Dataset

Subjective Data/ Inconsistencies	Weighting and Visualizing	Missing/limited Data
- Potential bias (sampling/ uncontrolled) - Potential discrepancies in data collection	- Fluctuation in population over years - Weighting of counties in visualizations	- Limited demographic information - Missing years/counties in measures requiring normalization of data

03

Questions

The 4 questions, and how they are interesting by Josh Ashik

Question 1

Does Poverty Rate affect graduation rates?

Understanding the correlation between poverty rates and graduation rates can provide insights into the impact of economic conditions on graduation and educational performance. This information is useful for policymakers and educators to fix and support systems in order to address disparities

Question 2

Does being poor make you more likely to be a single parent

Exploring the connection between poverty and single parenthood is essential for identifying potential patterns and challenges. This information can inform social policies related to family support, childcare, and economic assistance.

Question 3

Does Being poor affect you mentally?

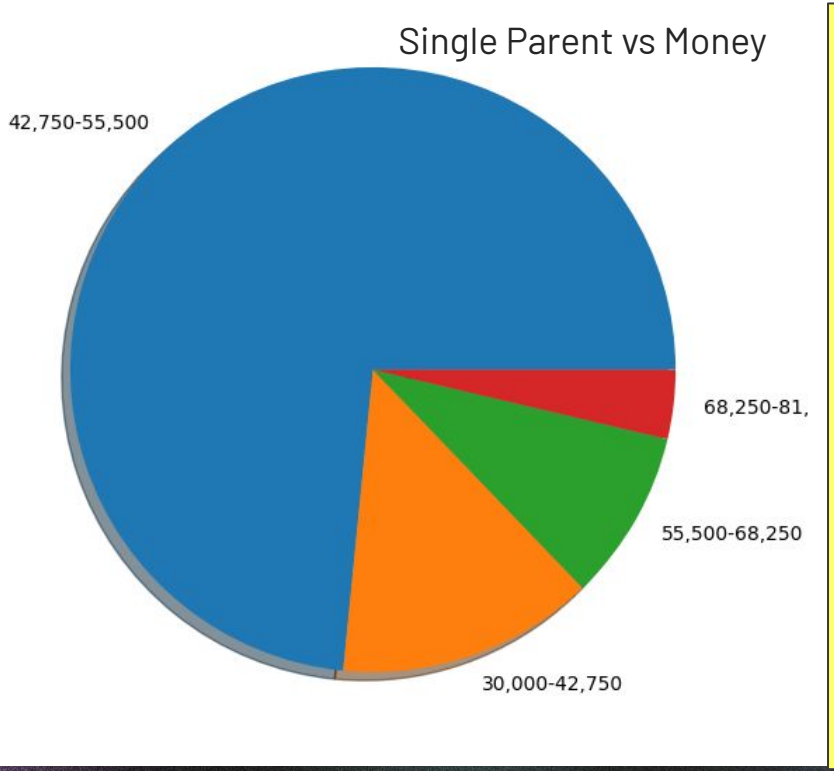
Investigating the mental health impact of poverty is critical for public health and social welfare efforts. Understanding the relationship between economic conditions and mental well-being can guide mental health policies, resource allocation, and support services for individuals and communities experiencing poverty.

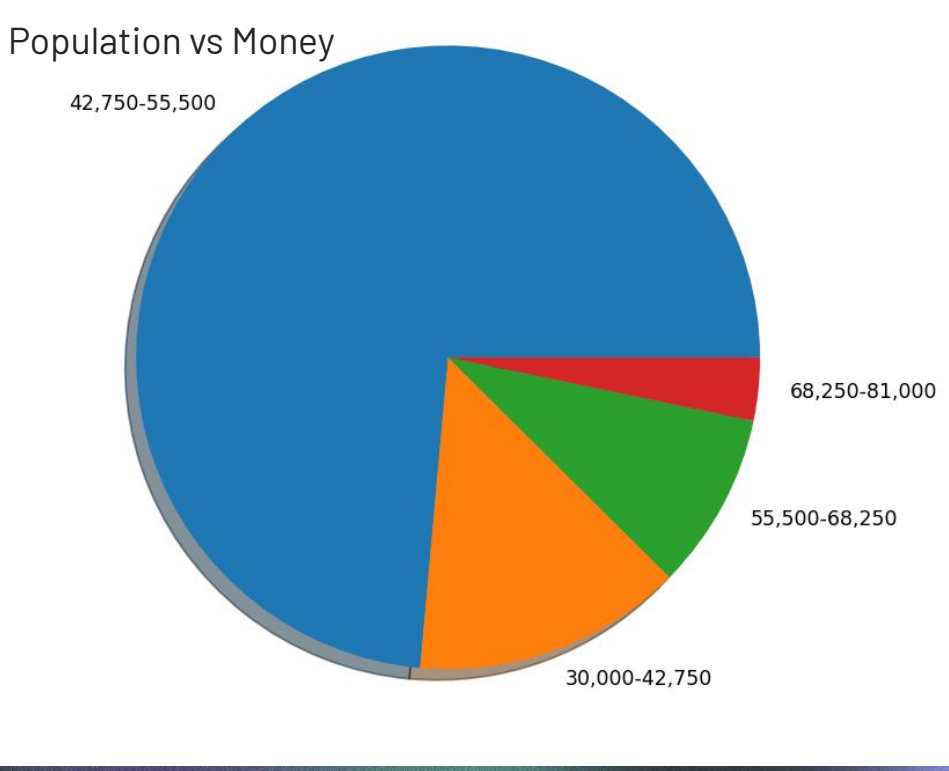
Question 4

How does poverty affect drug death rate?

Examining the connection between income and drug use is good for law enforcement strategies. Insights from such studies can lead to the creation of substance abuse prevention programs and policies.

Does being poor result in being single?

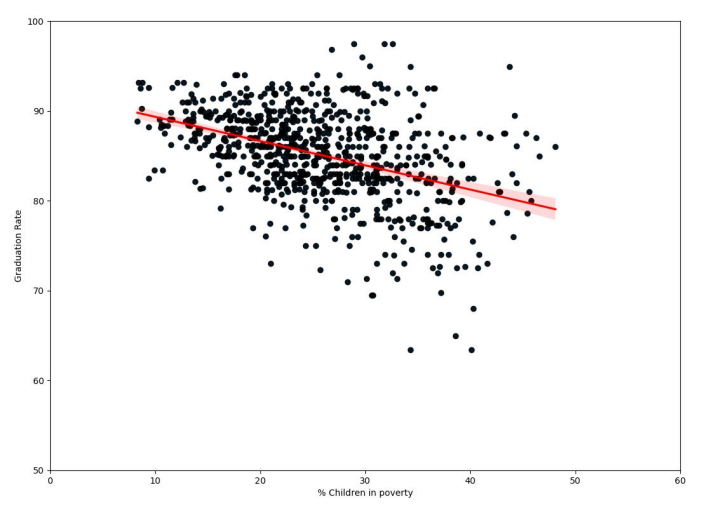




There is a slightly larger population of single parents between 30-42k but almost insignificant

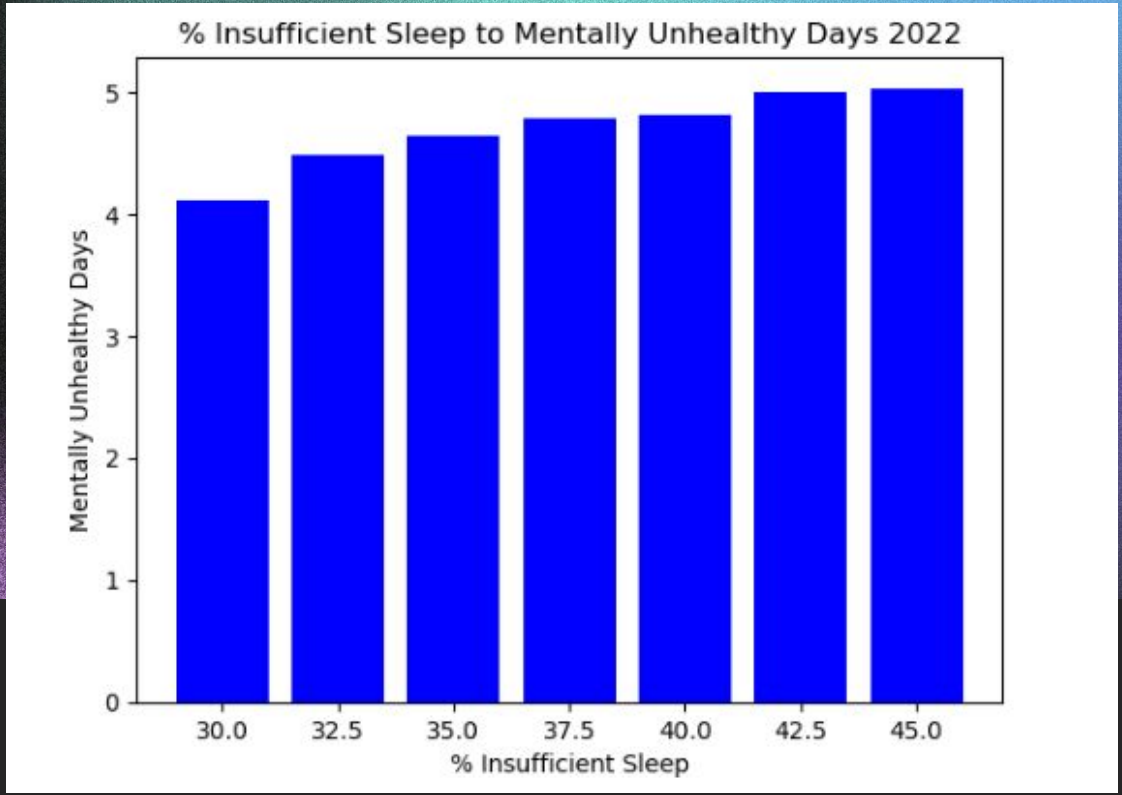
Children in Poverty vs. Graduation Rate

```
2015 33.9 84.0
2016 38.2 87.0
2017 34.5 87.0
2018 32.5 87.0
2019 43.7 94.9
2020 34.3 94.9
2021 30.4 95.0
2022 29.7 96.0
Greene
```



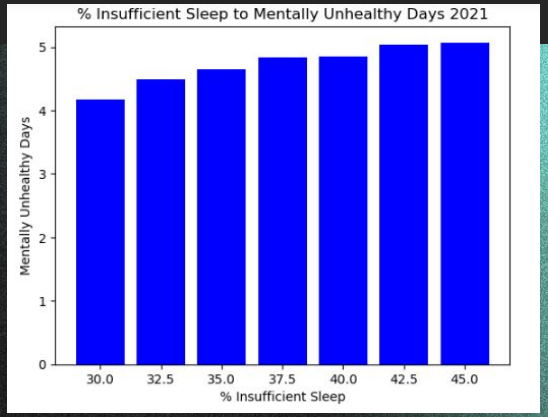
Correlation Coefficient:
-0.41258287

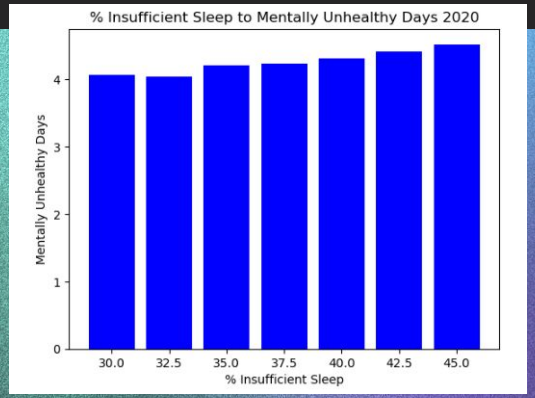
How Does Sleep Affect Mental Health?

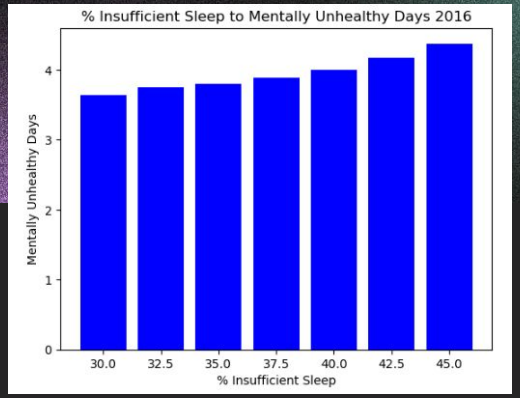


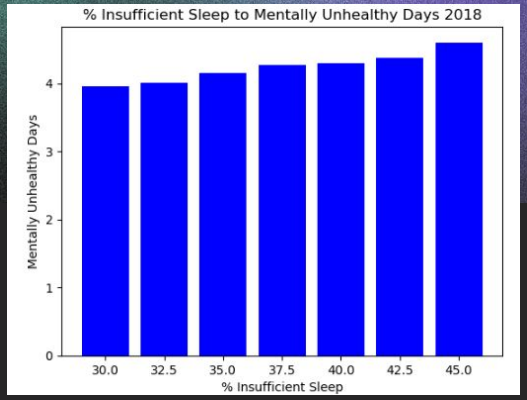
- Mentally Unhealthy Days are measured as self-reported poor mental health out of 30 days.
- Insufficient sleep is measured as percent of adults in the county who reported sleeping <8 hours
- Lack of sleep and worse mental health have a positive correlation

How Does Sleep Affect Mental Health?









- We can see that a similar correlation exists throughout several years

2022 Analysis

Mentally Unhealthy Days

Max: Rockingham County (4.989 Days)

Min: Currituck County (3.871 Days)

Insufficient Sleep

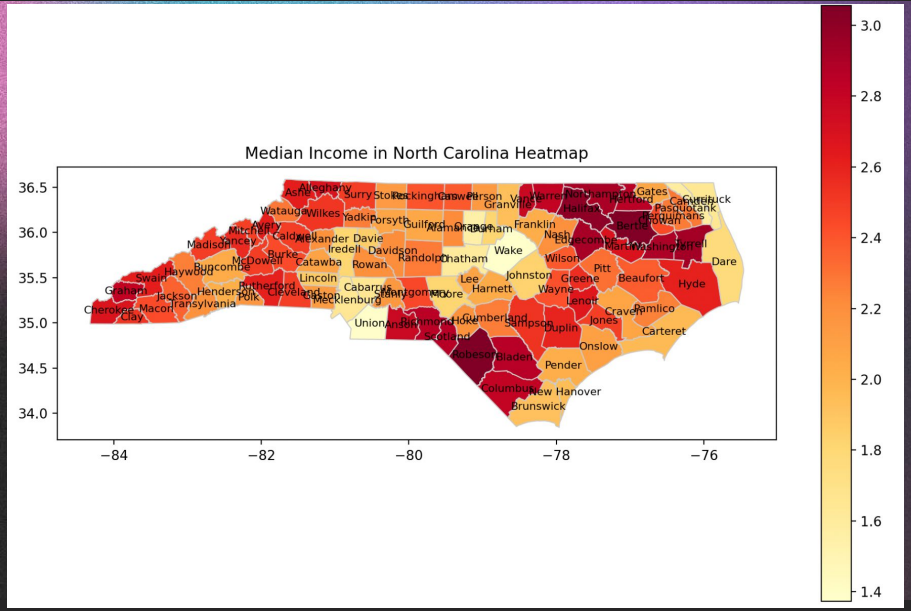
Max: Rockingham County (45.885%)

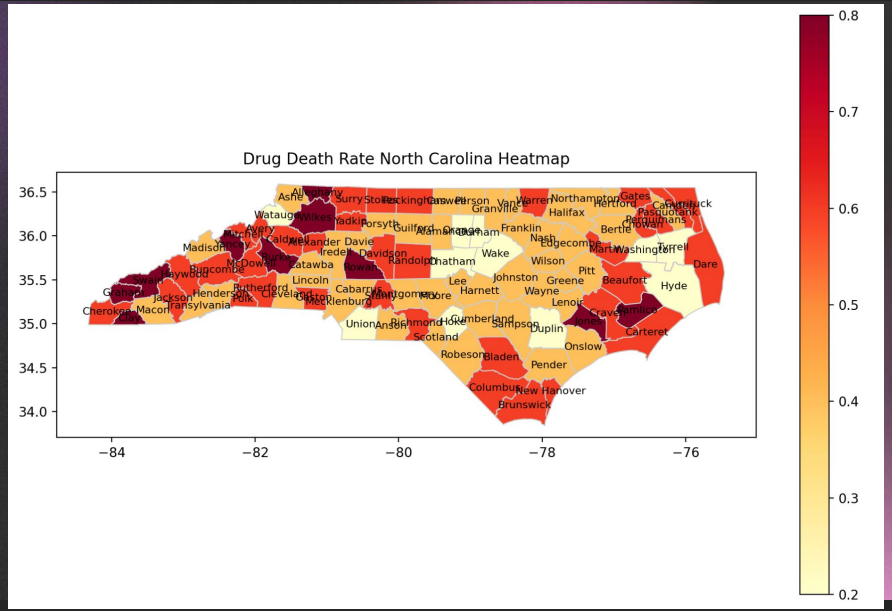
Min: Buncombe County (30.9566%)

How does poverty affect drug death rate?

Kirtan Sangani

Median Income vs Drug Death Rate





Median Income vs Drug Death Rate

- **Darker color seen on western part of North Carolina**
  - The counties with the highest drug death rates are the most rural parts of North Carolina, with little to no access to adequate health care.
  - Graham County has 0 Critical Access Hospitals while having a 19.4% drug death rate
- **Counties with higher drug rates and lower median household income are dominated by rural farmlands and small towns**
  - Due to the dominance of farmlands in western and southern North Carolina, there are little to no unique job opportunities compared to those found in larger cities.
  - Small towns usually have lower income rates compared to larger cities, leading to higher poverty rates in these areas
- **The lower the median household income, the higher the drug death rate seen**
  - Counties such as Graham, Swain, and Burke all have lower household incomes compared to counties with large cities such as Wake and Mecklenburg.
  - These same counties all experience the highest drug death rates in the state. It could be that those in poverty are relying on drugs for money and for mental support

04

Conclusion

What more information we would’ve liked and Conclusion

Kirtan Sangani

Conclusion: What We Would've Liked

Better drug death information	**Better Demographic information.**	**Information on how the data was collected**
Conclusion: Poverty leads to many social and medical problems to those experiencing it and are forced to work harder than others to maintain a healthy lifestyle		

THANK YOU