
Recovery Rate from Covid-19 Pandemic:

*Comparing Recovery Rate Between the
States of Kansas and New Jersey*

Data Rangers

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Parijat “Pie Chart” Bhardwaj

Brittney “Bar Chart” Oleniacz

Timothy “Mat Plot” O'Malley



Notes:(to be deleted)

We want to start broad with impact of covid and unemployment, get more specific by industry, then conclude by showing the impact to quality of life.

1. Starting with the question/proposition "Why does NJ have a higher recovery rate?"
 2. We are going to introduce the issue of covid using quotes and headlines.[timothy/brittney]
 3. We are going to propose that NJ has been more effective at "recovering" [timothy/brittney]
 4. We will show quick facts about the states side by side [parijat]
 5. We are going to show the facts/data/graph of the number of cases by state(cum/daily)[Adrian's slides]
 6. We are going to show the data in unemployment/employment/unemployment rates (by NJ/KS when we can, otherwise national) [use slides from Cheyenne, Parijat]
 7. **We will show how separate industries were impacted more than others. - nationwide data(it looks like service industry) . . . > are we still using this info, how does this fit our proposition?**
 8. We are going to speak to/show data for/propose what NJ is doing to raise the recovery rate. [use info from Brittney and the CPD (using the data to show how NJ has impacted the other areas of life/quality of life that are a fallout of the economy being impacted. [Brittney to use 3 or 4 slides]
 9. Provide recommendations based on the data - what KS could do
-

Sporadic testing(KS)look at the data - why are there some days with low testing

4. What we say KS could diff

Introduction (to be deleted)

Visual aid: quotes from the news....*over dramatized*

“ ‘The coronavirus has crystallized in the minds of more people the absolute divisions between socioeconomic groups and between races,’ former Kansas City Mayor Sly James - timothy

“Low gasoline prices don’t do much for you if schools are closed, you cancel your trip or you’re working from home because of the virus.” — [Daniel Yergin](#), *an energy historian and vice chairman of IHS*

Why we chose this topic. -see economic impact of covid

Why did we pick Kansas and New Jersey?

Population, location, timing, deaths, differences in industry, etc.

Covid-19 Has Had a Major Impact on the Economy

Covid-19 has been, and continues to be, the defining issue of 2020; it has caused major disruption for almost any area of life, including on the nation's economy and labor market.

- “The coronavirus has crystallized in the minds of more people the absolute divisions between socioeconomic groups and between races.” — Sly James, *former Kansas City Mayor*
- “Low gasoline prices don’t do much for you if schools are closed, you cancel your trip or you’re working from home because of the virus.” — Daniel Yergin, *an energy historian and vice chairman of IHS*

Covid-19 in the Headlines:

Fed's Tom Barkin Says

Labor market's recovery is slower than anticipated

Need Sustained Support

Order to contain than expected, Richmond Fed president says

Coronavirus: U.S. Economy Drops
contraction in dec

sees sharpest

How's the
Ask

THE CORONAVIRUS CRISIS
3 Months Of Hell: U.S. Economy Drops
32.9% In Worst GDP Report Ever
Depending
Economy?

Kansas vs New Jersey

Our team wanted to know if there were any trends or conclusions we could find regarding states' responses to the pandemic.

Specifically, we chose the data from two different U.S. states to compare and contrast the impact and response of the virus.

We chose to analyze the data from Kansas and New Jersey because of differences in such as geography, population density, industries, etc.

Demographics

Kansas

Total Population - 2,908,776

Total Households - 1,124,549

Median Age - 36.5

Total Employer Establishment - 74,947

Population per square mile - 35.6

Population above 65 - 15.1%



New Jersey

Total Population - 8,881,845

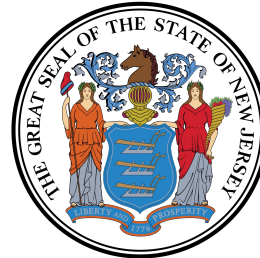
Total Households - 3,213,362

Median Age - 39.8

Total Employer Establishment - 233,907

Population per square mile - 1,215

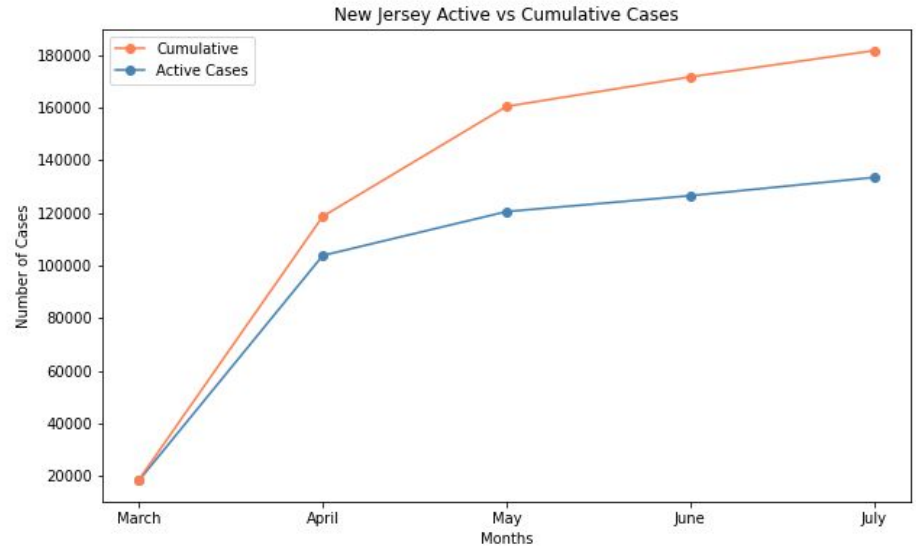
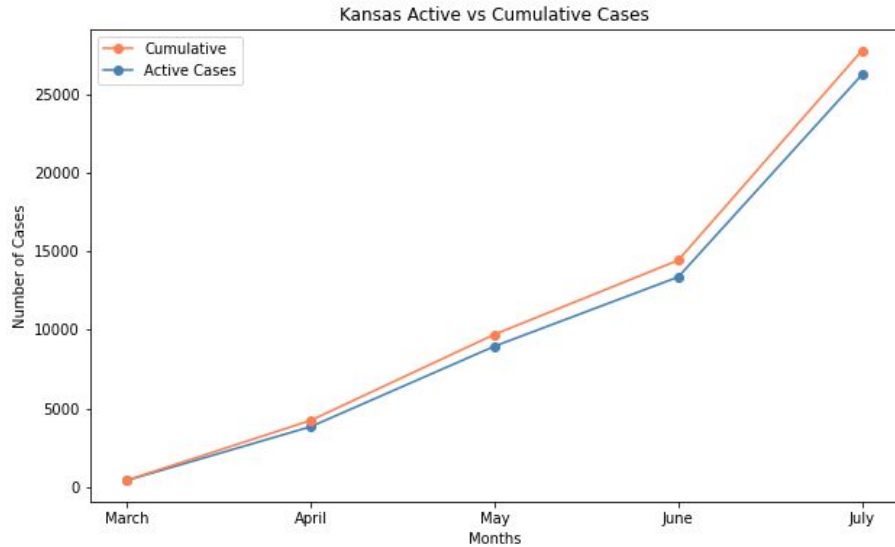
Population above 65 - 15.5%



Assumptions

- 1) The impact of the Covid-19 virus would be significantly worse in New Jersey than in Kansas by studying:
 - a) The number of cases of COVID
 - b) Unemployment factors
 - c) Impact of unemployment
- 2) Trends could be discovered regarding unemployment by industry.

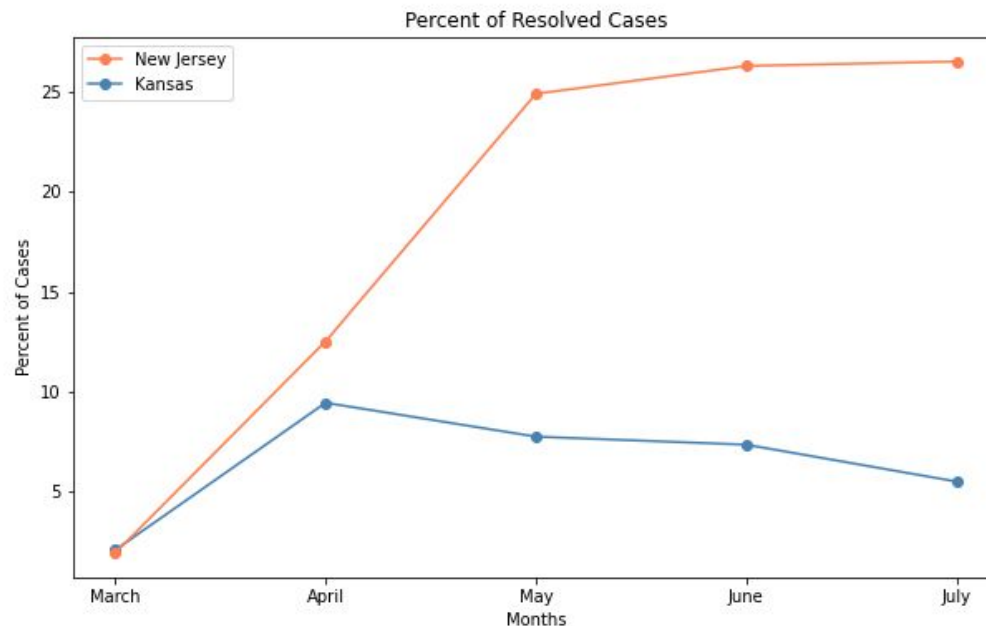
Covid Tracking Reporting: Active Cases vs Cumulative by Number



Despite a smaller population density, Kansas has **NOT** flattened the curve to reduce the spread to a stable level as of July. New Jersey appears **closer** to 'flattening the curve' if not already at this time.

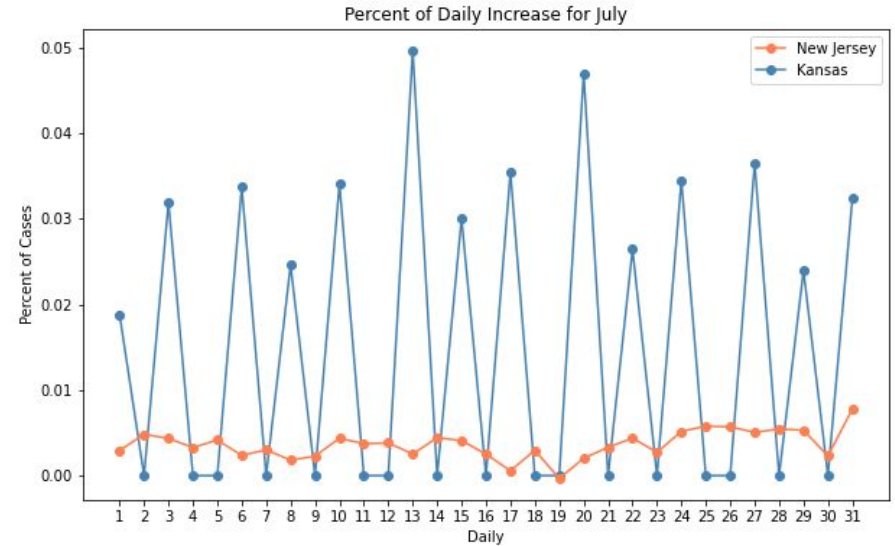
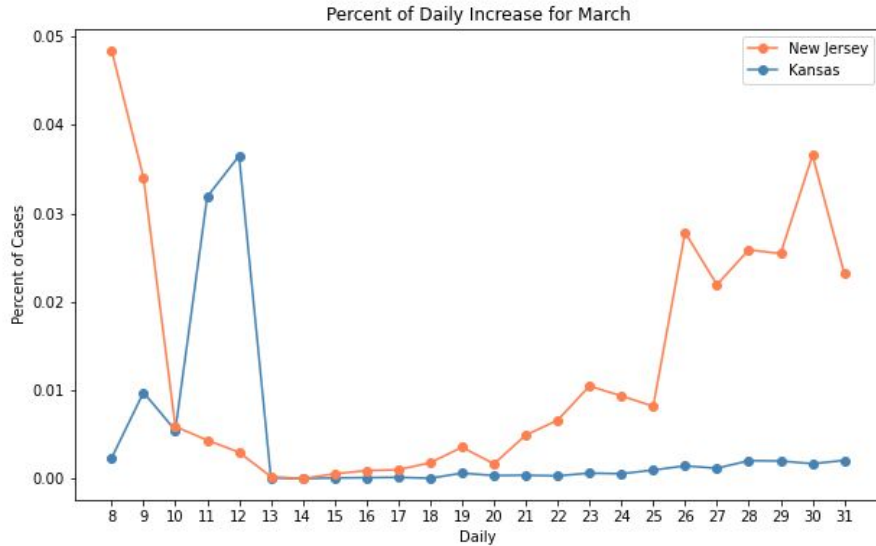
** Sources: <https://api.covidtracking.com> (data collection) & JHU - https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data (referenced for calculation accuracy)

Percent of Resolved Cases by State



New Jersey has a much higher rate of resolved case which means fewer active cases in relation to cumulative cases.

Percent Daily Increase for March & July



Between March and July, there is a vast difference in cases between the two states. Testing was hard to come by in March and was therefore prioritized in the states considered to be higher risk. This is most likely why we initially see New Jersey with far more reported cases than Kansas while the latter had a spike before appearing to stabilize. Fast forward to July and we see New Jersey reporting far more stable numbers than Kansas.

Factors to Consider

Kansas

Total Tests performed 674,350

Percent Positive Range 6 - 10%

Test rate per 100,000 - 23,161

New Jersey

Total Tests performed 2,515,101

Percent Positive Range 0-5%

Test rate per 100,000 - 28,232

[Some more] Factors to Consider

Kansas

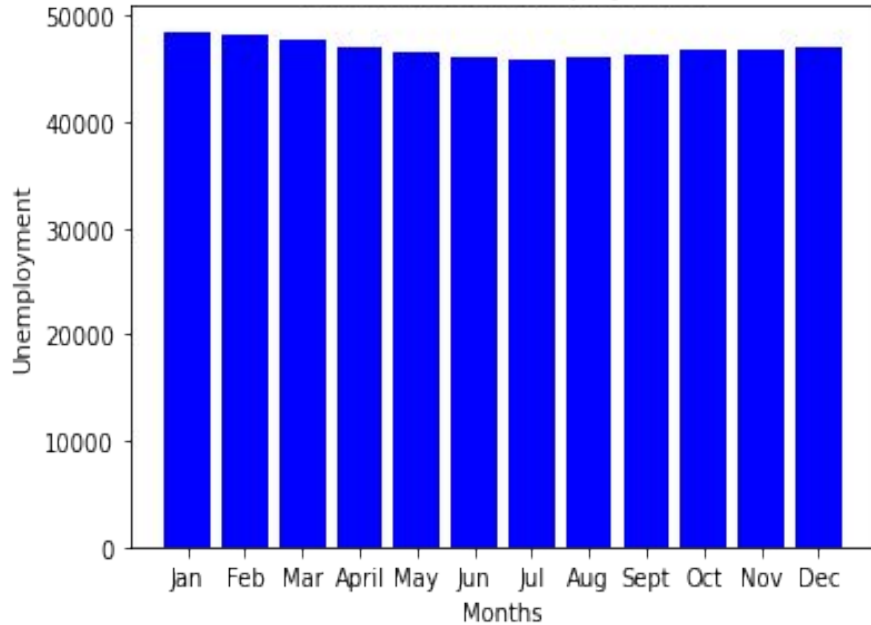
- **1,124,549** households
- **12.4%** of households had income below the poverty level in the past 12 months
- **62.7%** of them have incomes less than \$75,000 annually.
- Weekly Average Delay in medical care **37.5%**
- On an average **40%** household have experienced some loss in income
- Percent of uninsured **8.8%**
- On an average counties in Kansas have **46%** of residents with 1-2 risk factors and **24%** with 3+ risk factors

New Jersey

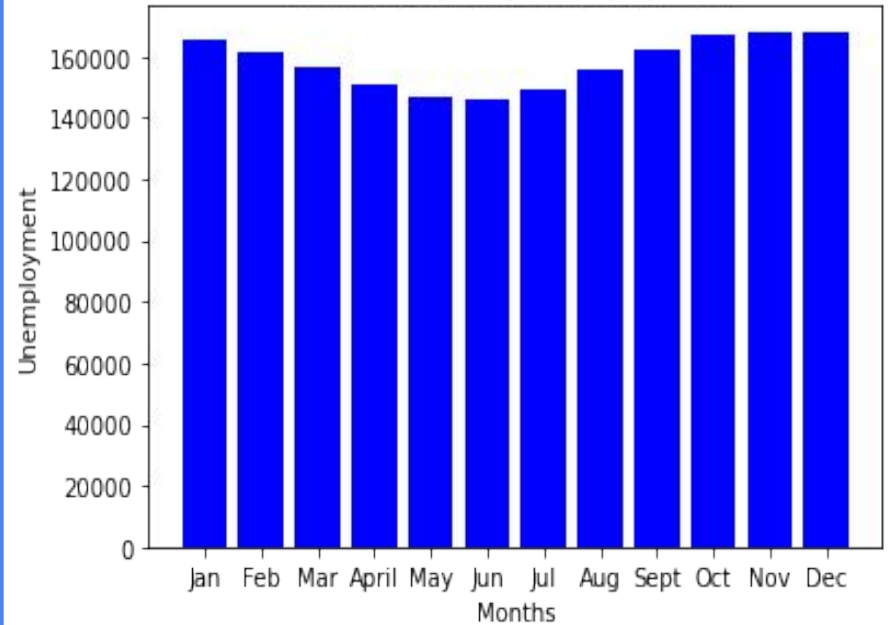
- **3,213,362** households
- **10.4%** of households in this area had income in the past 12 months below the poverty level
- **47.7%** of households have incomes less than \$75,000 annually.
- Weekly Average Delay in medical care **44.0%**
- On an average **53%** household have experienced some loss in income
- Percent of uninsured **7.4%**
- On an average counties in New Jersey have **51%** of residents with 1-2 risk factors and **25%** with 3+ risk factors

Unemployment Before Covid-19 (FY 2019)

2019 Kansas Unemployment



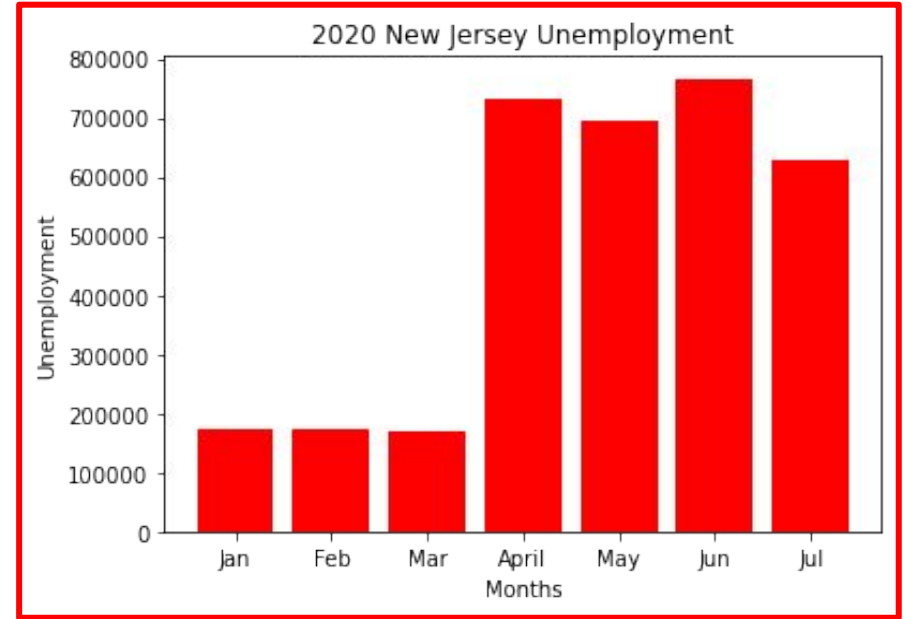
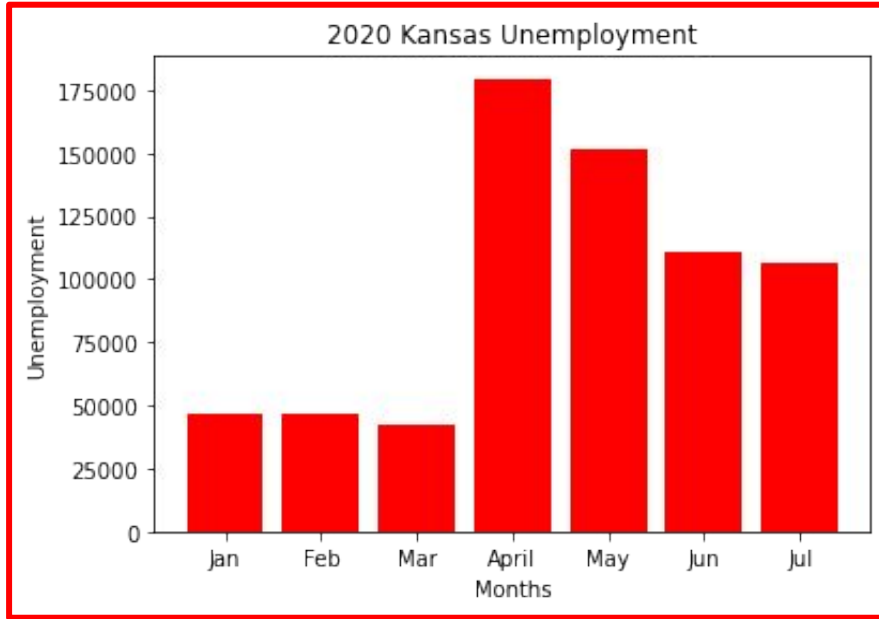
2019 New Jersey Unemployment



Source: U.S. Bureau of Labor Statistics (<https://www.bls.gov/data/#unemployment>)

During 2019, Unemployment in Kansas and New Jersey remained steady throughout the fiscal year, with no drastic changes other than seasonal changes.

Unemployment During Covid-19 (FY 2020)

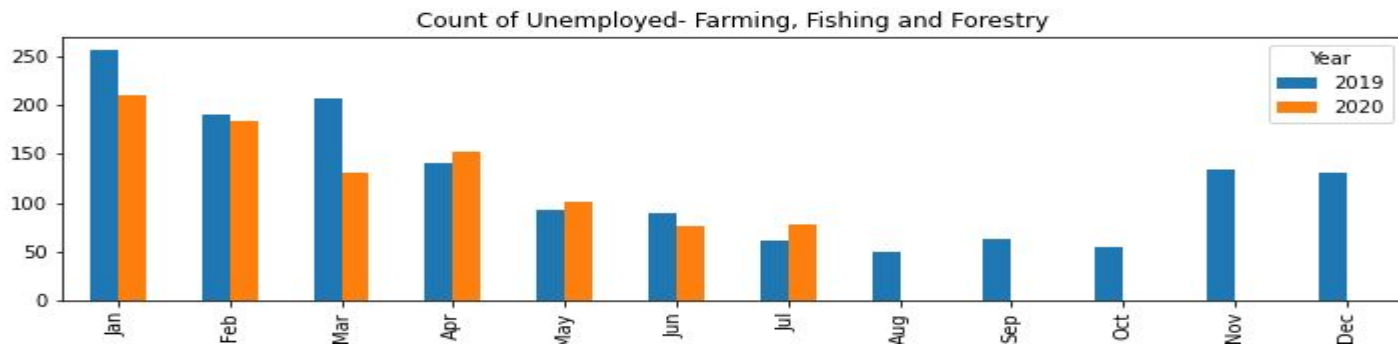
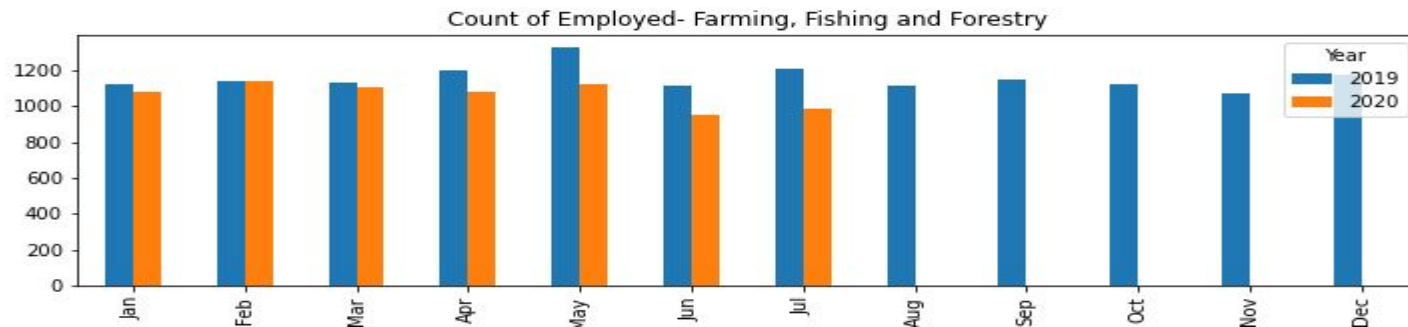


Source: U.S. Bureau of Labor Statistics (<https://www.bls.gov/data/#unemployment>)

However, during the COVID-19 pandemic, between the months of March - July, Unemployment in both states skyrocketed beyond normal seasonal averages. In NJ, unemployment jumped to 16.3% between March and April. In KS, unemployment increased to 11.9%.

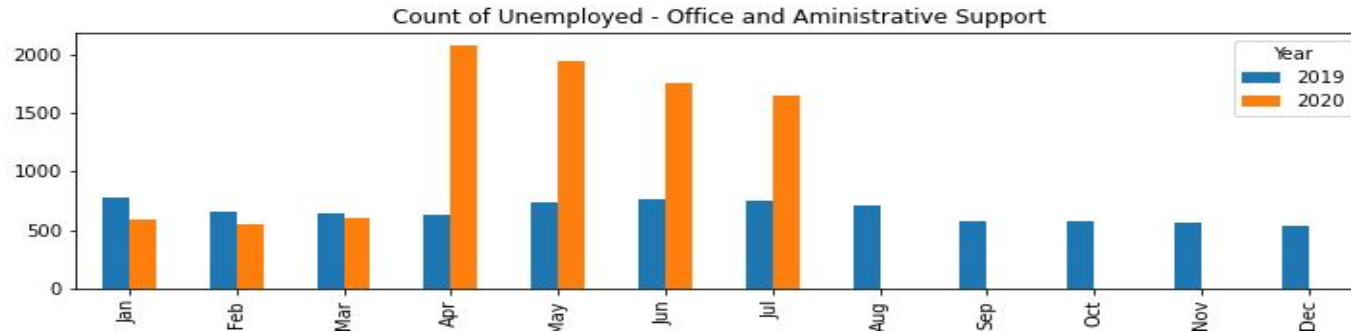
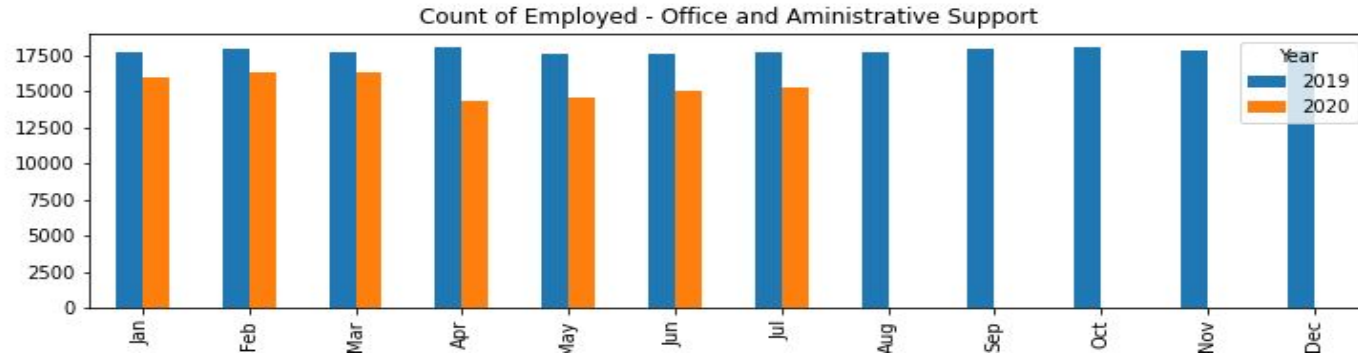
Farming Fishing and Forestry

(we discussed removing)



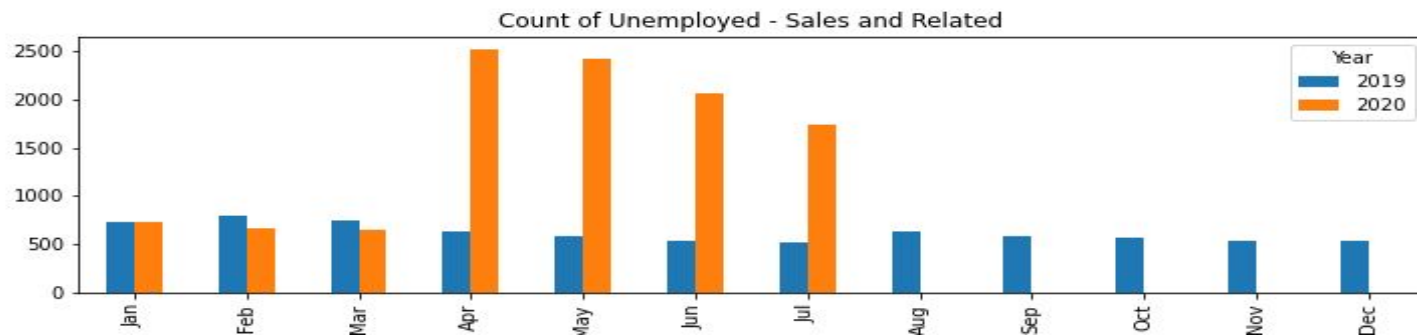
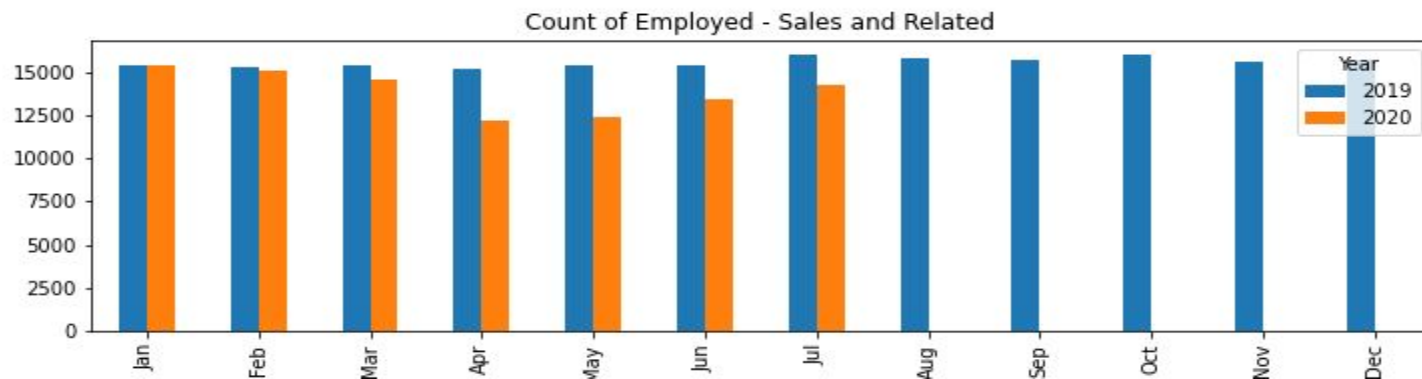
Office and Administrative

(we discussed removing)



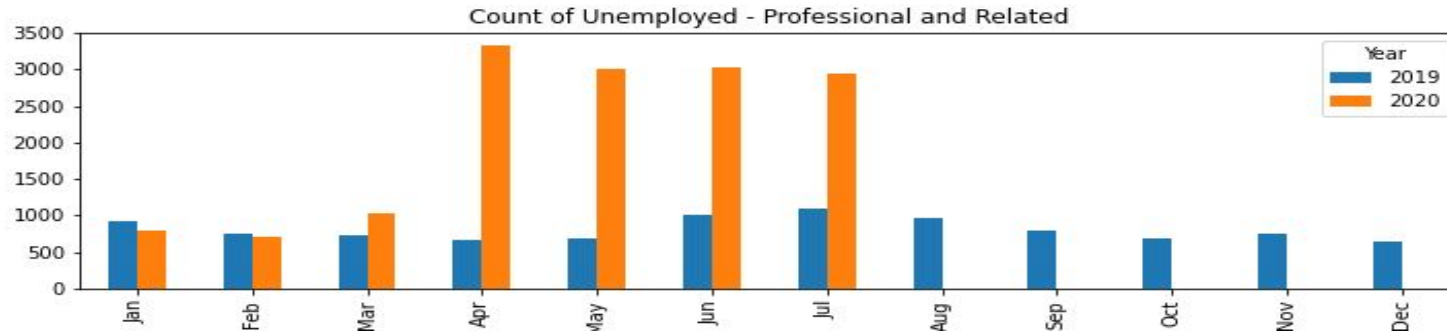
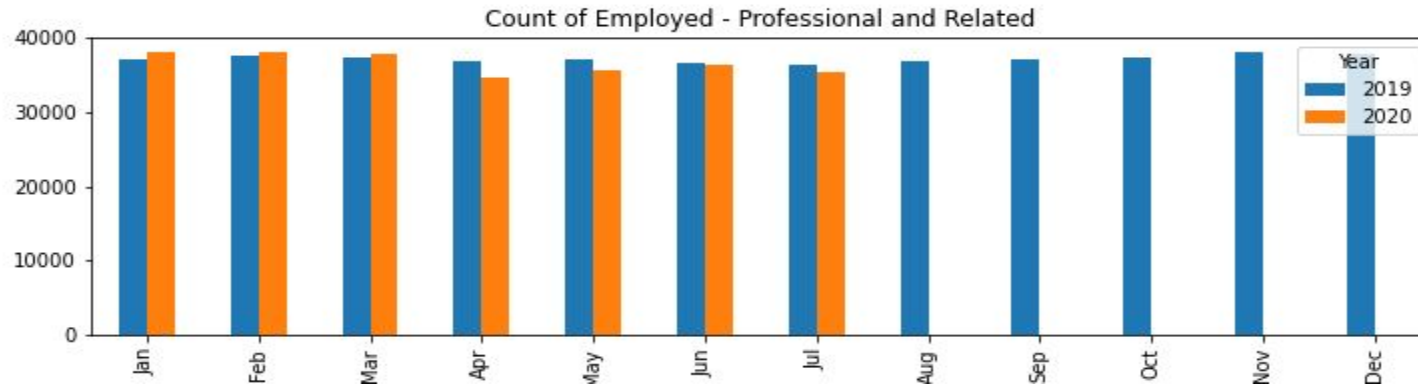
Sales and Related

(we discussed removing)



Professional and Related

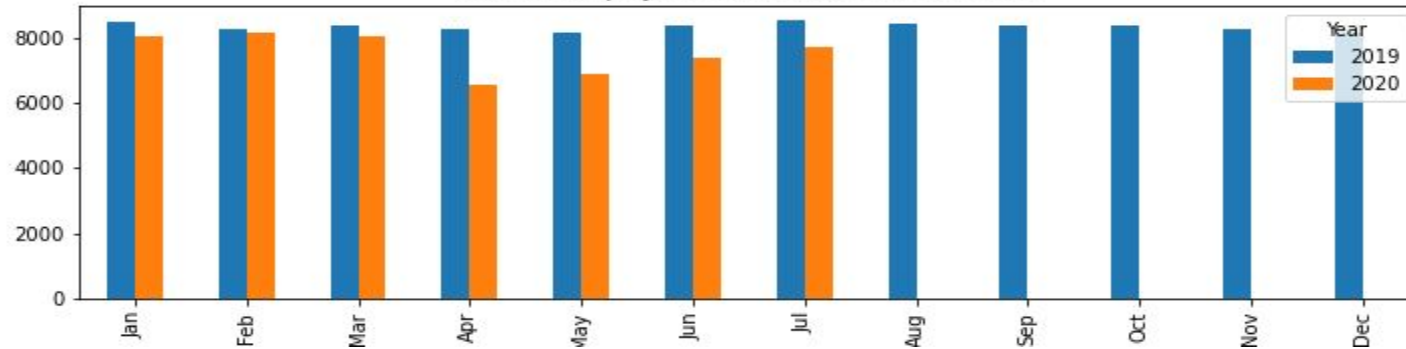
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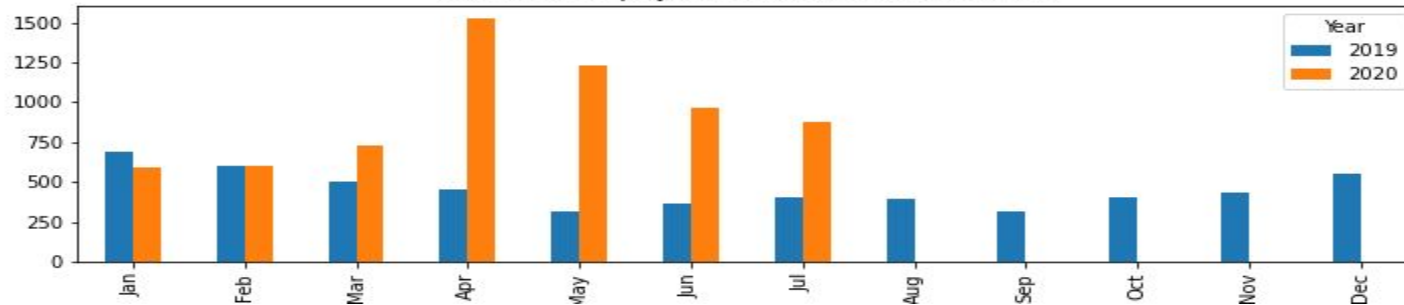
Construction and Extraction

(we discussed removing)

Count of Employed- Construction and Extraction

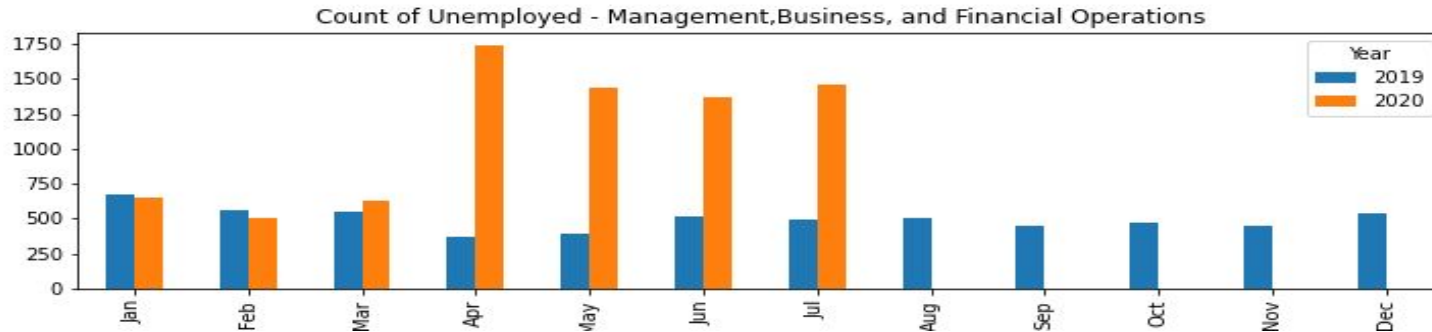
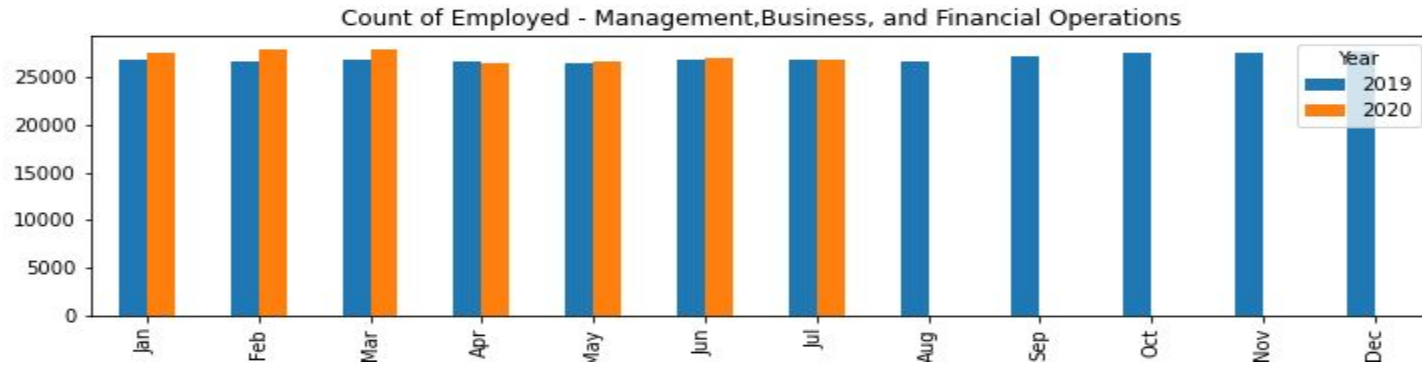


Count of Unemployed- Construction and Extraction



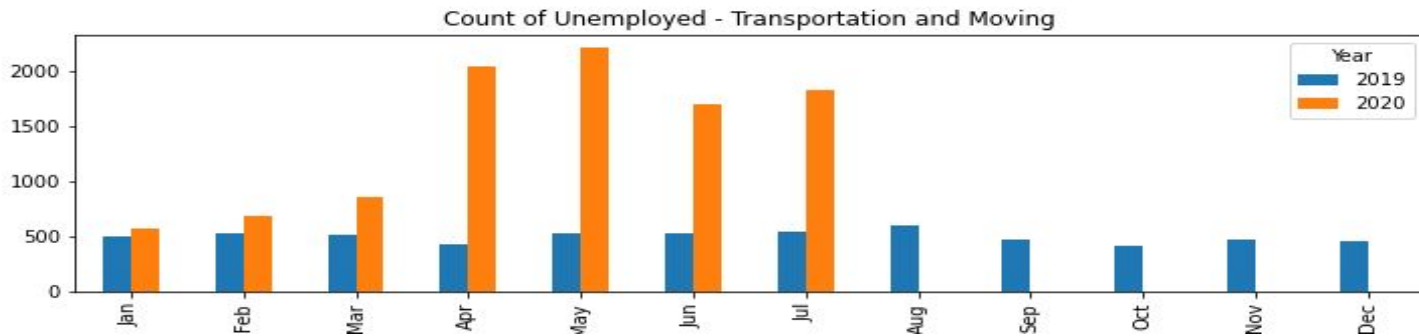
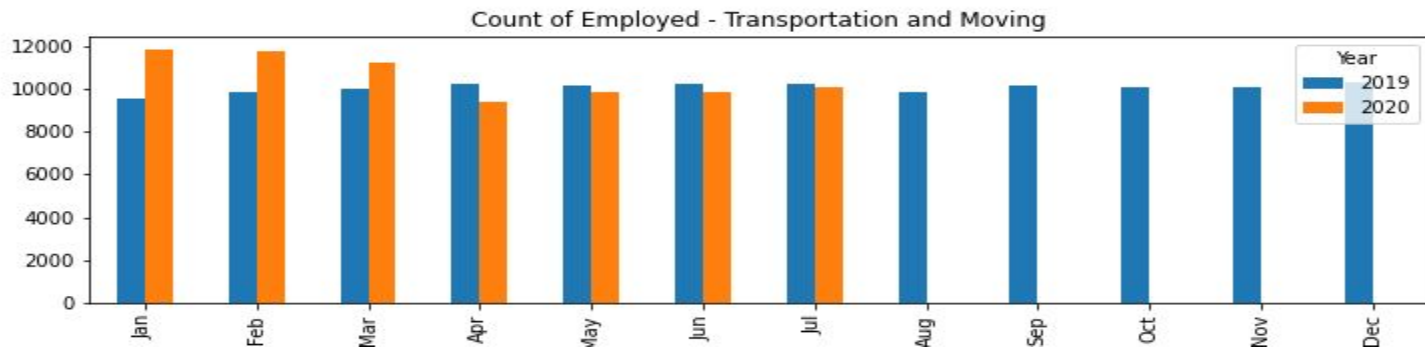
Management, Business and Financial

(we discussed removing)



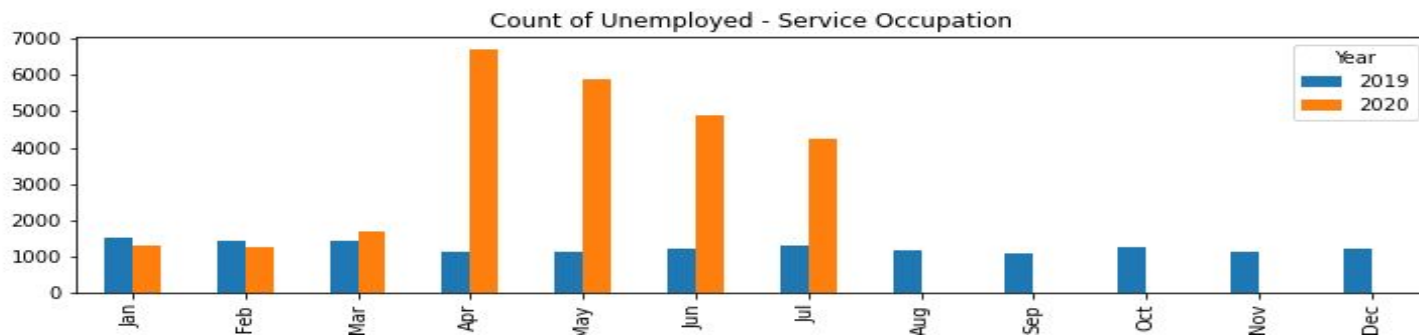
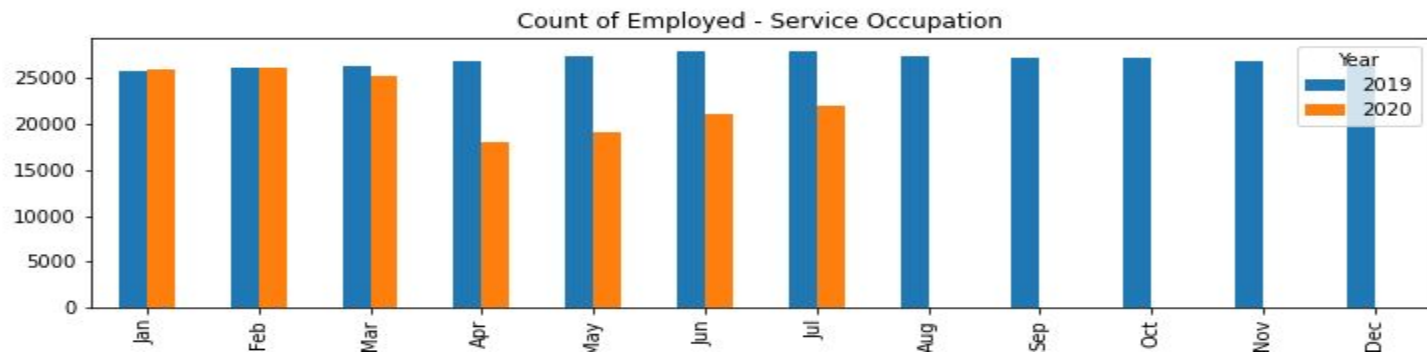
Transportation and Moving

(we discussed removing)



Service and Related

(we discussed removing)



Industry unemployment impact on lifestyle (to be deleted)

i.e. education industry taking a larger hit in NJ.....and PULSE showing change in education is higher in NJ. How much does an industry we may not think of impact our lives? (Gettin' philosophical up in herr'!

General notes/things to consider (to be deleted)

We have to cite where we got the data from!

What we expected vs. unexpected results.

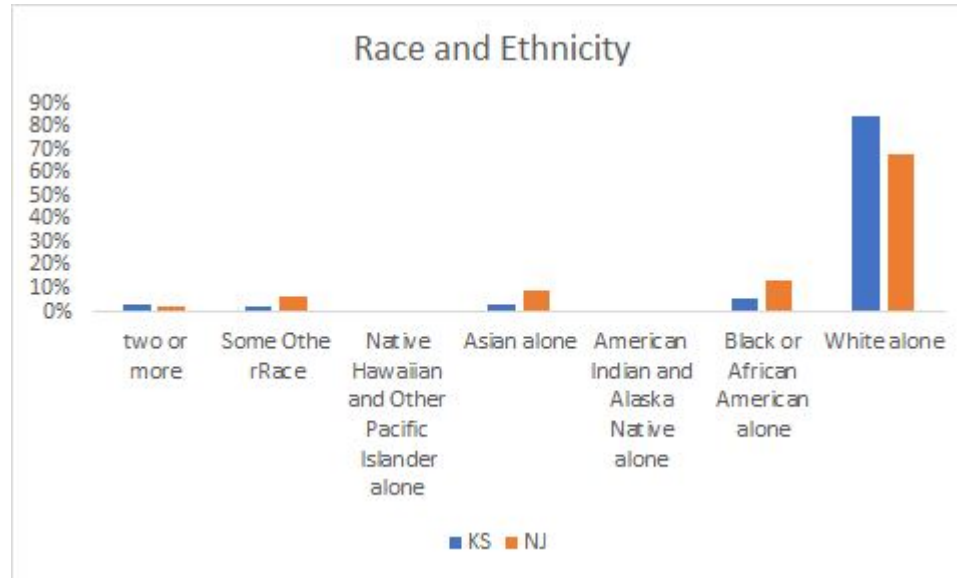
Likely causes for data anomalies

Overall conclusions

Which state is handling COVID better?

What industry needs/deserves the most help?

Factors to consider (*Better title*) (why Kansas may not be there?)



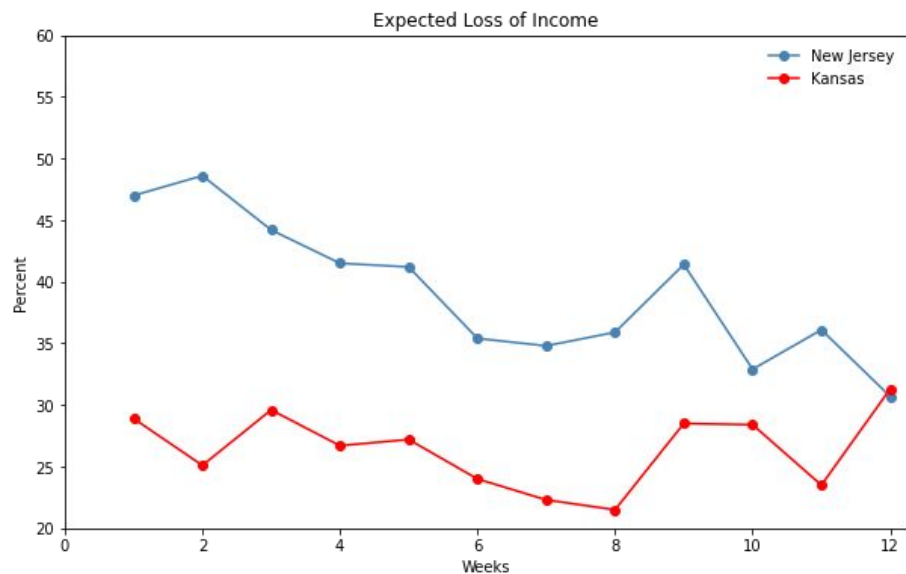
Will make this graph in jupyter notebook Race and ethnicity are risk markers for underlying conditions that impact health - including socioeconomic status, access to healthcare, and increased exposure to the virus due to occupation(e.g., frontline, essential and critical infrastructure workers)

Impact on Key Areas of Life

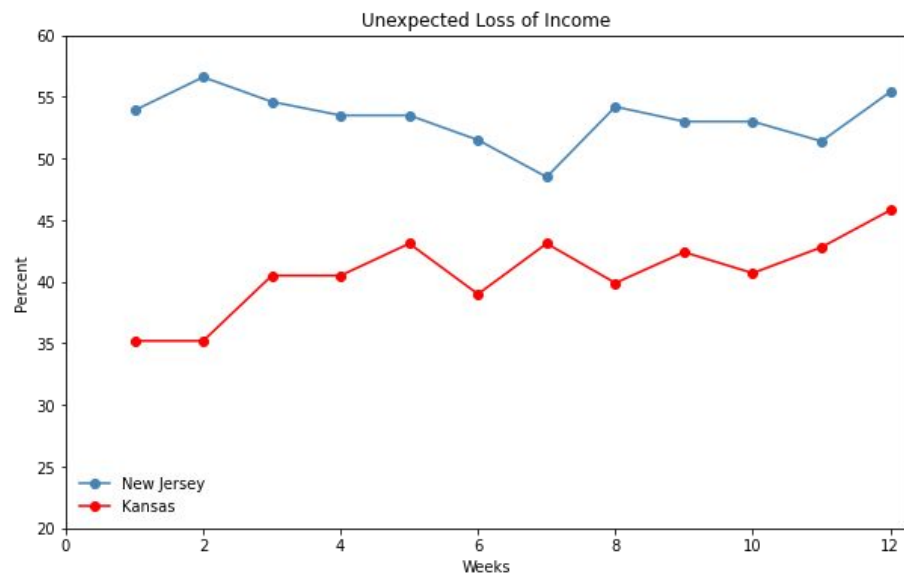
“The Household Pulse Survey will ask individuals about their experiences in terms of employment status, spending patterns, food security, housing, physical and mental health, access to health care, and educational disruption.”



Loss of Income

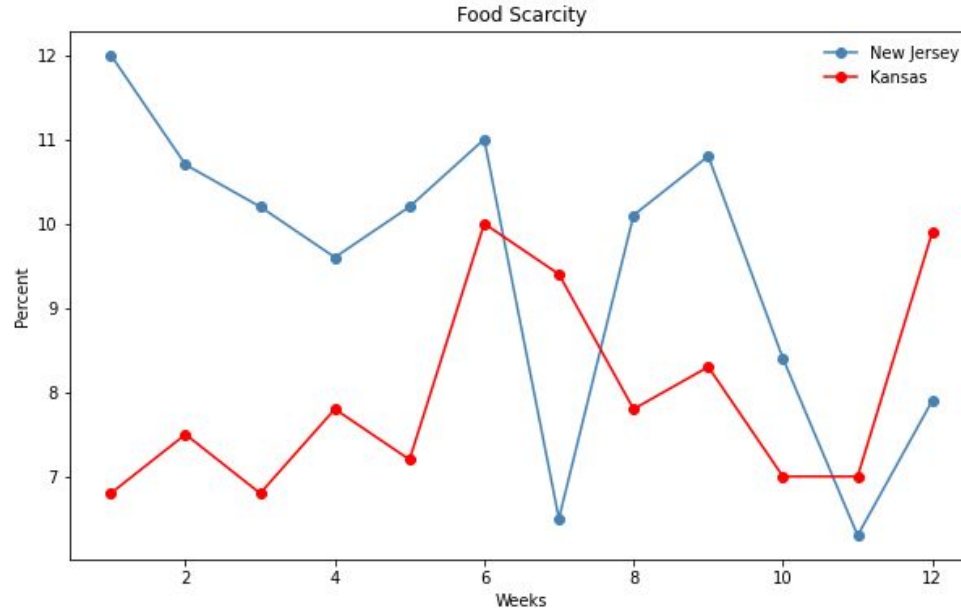


Percentage of adults who expect someone in their household to have a loss in employment income in the next 4 weeks.



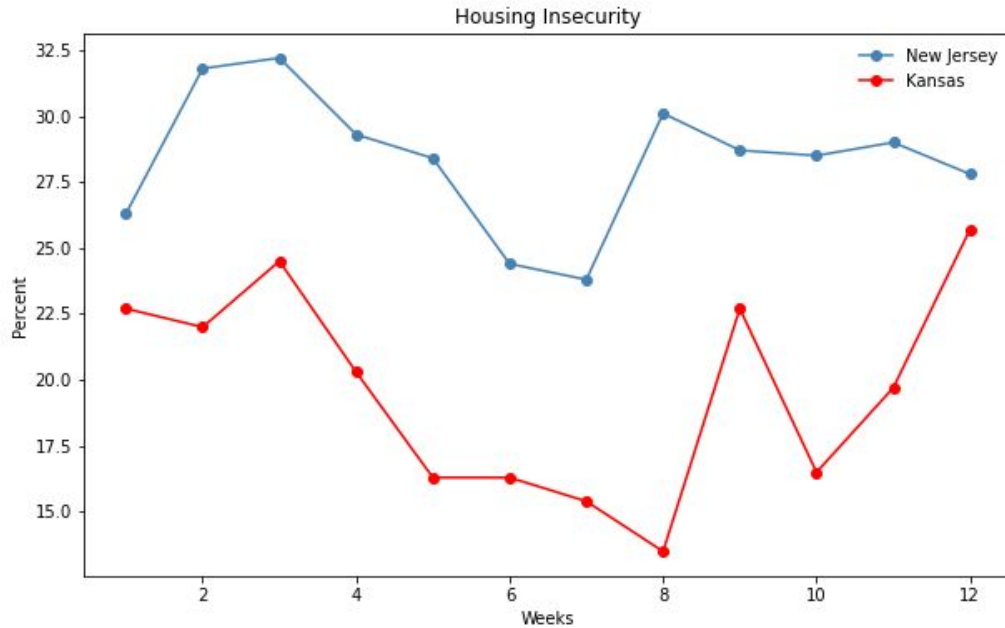
Percentage of adults who unexpectedly loss their primary source of income in the last 7 days.

Food Scarcity



Measures food sufficiency and security, asking food sufficiency for the period prior to March 13th, 2020 in addition to the last seven days and the confidence of being able to afford food over the next four weeks.

Housing Insecurity



of Renters

KS: **871,031**

NJ: **2,924,825**

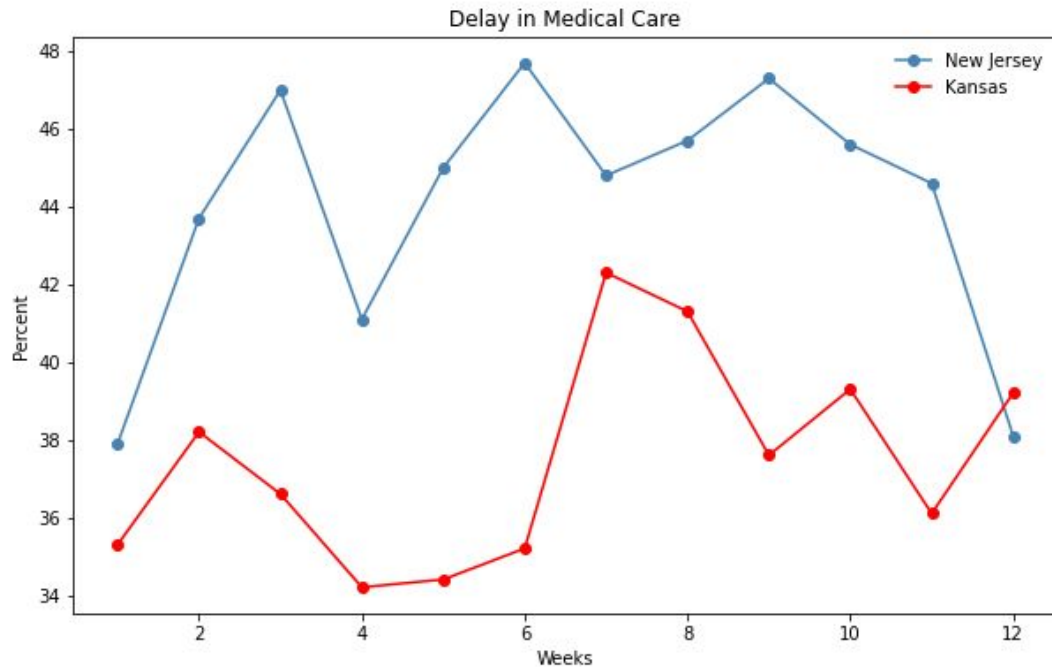
Eviction Lab Score

KS: **0.85/5.00**

NJ: **2.08/5.00**

Percentage of adults who are not current on rent or mortgage payments, or who have slight or no confidence that their household can pay next month's rent or mortgage on time.

Delay in Medical Attention



Conclusions

Despite a higher population and greater population density, it appears New Jersey has been more successful than Kansas at managing the spread of Covid-19.

This is likely based on factors such as access to medical care addressing food insecurity.

New Jersey had a greater increase in unemployment, most likely due to a larger service/retail industry.

Despite the greater increase in unemployment, the respondent impact of loss of unemployment to New Jersey households was generally less than that of Kansas.

This was a surprise as we assumed New Jersey would be worse off than Kansas.



Implications

Suggestions for Kansas:

- more consistent testing
- extend housing freeze to post-eviction notice processes
- better education on how the virus spreads
- stricter measures such as assisting the medical community and mandating self-quarantine for travelers



Finishing Thoughts ...

This was a complex issue and it was difficult to focus on our comparison between New Jersey and Kansas.

Also it was difficult to get data on specific industries for each state as most data tended to be nationwide.

The Covid-19 pandemic is ongoing and constantly changing. The current data trends presented here may not be reflected in future analyses.

