Unemployment in US during Covid-19/2020-2021

Main Goals

- Use covid data to find the 10 worst states, then use unemployment data to analyze the unemployment rate, and visualize these analyses. We can see how the spread of covid affects the unemployment rate.

Also want to do:

- Cumulative number of diagnoses and deaths by state in the United States
- Find the 10 most diagnosed states in the United States
- Find the 10 states with the fewest diagnoses in the United States
- National and state rates of illness and death
- **Comparing the current unemployment situation to the 2008**

Data set

- **Unemployment Insurance Weekly Claims Data**

https://oui.doleta.gov/unemploy/claims.asp

- **US counties COVID 19 dataset**

https://www.kaggle.com/fireballbyedimyrnmom/us-counties-covid-19-dataset

Some info：Both data are from government data and each row and column is very clear and can be used effectively for analysis. I also found a chart of Covid vs. weather, and if I can accomplish the first few predetermined goals, I'll analyze the impact of weather as well.

State	Filed week ended	Initial Claims	Reflecting Week Ended	Continued Claims	Covered Employment	Insured Unemployment Rate
New York	1/4/20	44,846	12/28/19	181,668	9,351,620	1.94
New York	1/11/20	23,314	1/4/20	184,283	9,380,736	1.96
New York	1/18/20	17,823	1/11/20	164,588	9,380,736	1.75
New York	1/25/20	15,022	1/18/20	164,044	9,380,736	1.75
New York	2/1/20	16,545	1/25/20	165,715	9,380,736	1.77
New York	2/8/20	15,010	2/1/20	163,393	9,380,736	1.74
New York	2/15/20	14,333	2/8/20	164,111	9,380,736	1.75
New York	2/22/20	14,144	2/15/20	163,220	9,380,736	1.74
New York	2/29/20	31,208	2/22/20	182,691	9,380,736	1.95
New York	3/7/20	14,035	2/29/20	161,892	9,380,736	1.73
New York	3/14/20	14,272	3/7/20	158,268	9,380,736	1.69
New York	3/21/20	79,999	3/14/20	167,214	9,380,736	1.78
New York	3/28/20	366,595	3/21/20	314,710	9,380,736	3.35
New York	4/4/20	344,451	3/28/20	712,544	9,380,736	7.6
New York	4/11/20	394,701	4/4/20	1,121,191	9,408,510	11.92
New York	4/18/20	205,184	4/11/20	1,354,496	9,408,510	14.4
New York	4/25/20	219,413	4/18/20	1,616,809	9,408,510	17.18
New York	5/2/20	195,110	4/25/20	1,749,571	9,408,510	18.6
New York	5/9/20	199,419	5/2/20	1,846,154	9,408,510	19.62
New York	5/16/20	229,524	5/9/20	2,142,949	9,408,510	22.78
New York	5/23/20	189,698	5/16/20	2,008,463	9,408,510	21.35
New York	5/30/20	82,326	5/23/20	1,799,136	9,408,510	19.12
New York	6/6/20	94,167	5/30/20	2,204,180	9,408,510	23.43
New York	6/13/20	95,559	6/6/20	1,958,856	9,408,510	20.82
New York	6/20/20	89,299	6/13/20	1,837,451	9,408,510	19.53
New York	6/27/20	90,083	6/20/20	1,722,331	9,408,510	18.31

Example data

Solution

- Using python spark
- For these problems I describe, visualizing the data is the best solution, and due to the reliability of the numbers, I can also make some predictions with FbProphet.
- There are many different forms of visualized data that can be presented with seaborn.