The Economic impact caused by Covid-19 on People's life

Project Presentation-Team 42

Project Goal (H1)

The outbreak of COVID-19 and the lockdown has dramatically affected economic activities and brought about disparate consequences across counties, cities and communities. The goal of this project is to demonstrate how hard the pandemic hurts people's well-being, in terms of the loss of lives and job opportunities, so we can explore the relationship between covid-19 and the economy in the US, and help people be better-prepared for the challenges and opportunities emerged in the aftermath of the pandemic.
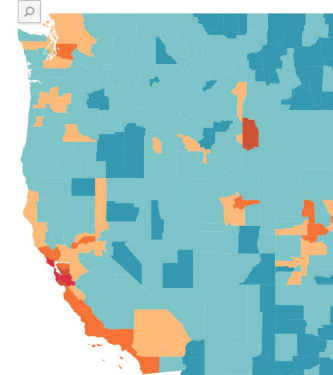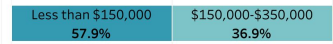
Current Work and Reviews (H2)

Most current research works are focused on separate factors , such as the transmission condition of COVID-19 or the change of house market in different areas. However, there is no research to evaluate the overall impact by considering the impact of the pandemic as well the economic environment together. We want to fill the gap!
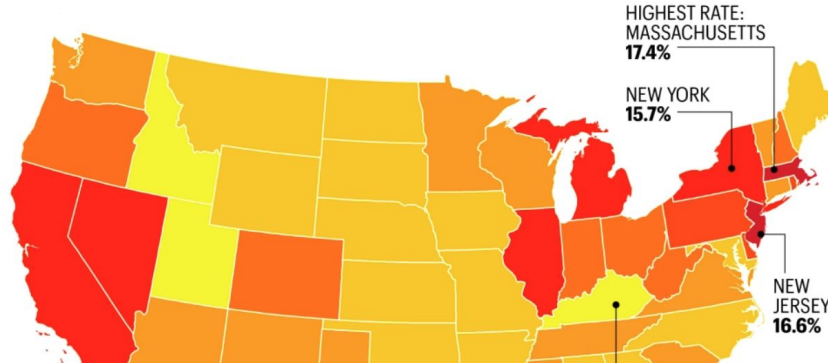

County Median Home Prices
Q3 2020

Hover over the bar to highlight. Click to filter. Press ESC to c

| Less than $150,000 | $150,000-$350,000 |
| 57.9% | 36.9% |

JUNE 2020 UNEMPLOYMENT RATES   SEASONALLY ADJUSTED

HIGHEST RATE:
MASSACHUSETTS
17.4%

NEW YORK
15.7%

NEW
JERSEY
16.6%

Current Work and Reviews (H2)

COVID-19
- A basic measurement R0 is defined to evaluate the average number of new infections created by an infectious individual in an entirely susceptible population.

House Market
- COVID-19 pandemic has disparately impacted low-resource areas and racial and ethnic minorities are experiencing the worst outcomes of this pandemic.
- There is a panel regression model and a non-parametric model to evaluate the 'Fear of Missing Out' house purchase and Other COVID-induced fundamental changes in household behavior.
- Renters are facing difficulty to pay the rent since COVID-19, and even many households are still facing difficulties to pay their mortgage, especially if they have lost jobs or seen their incomes drop dramatically.
- Demand for homes close to city centers and neighborhoods with large populations decreased.

Current Work and Reviews (H2)

Consumer Price Index
- Traditional CPI calculation methodology provided by BLS (Bureau of Labor Statistics) may not be appropriately applicable to 2020 due to COVID-19, because the spending patterns could be changed during the pandemic, like from to 'Recreation, Travel, and Entertainments' to 'Food and Beverages'.

Unemployment and Household Income
- Young workers, women, workers with low educational attainment, part-time workers, and racial and ethnic minorities have experienced the largest increases in unemployment rates in pandemic time.
- Various government policies that offset income losses from unemployment are mentioned.

Our Approach (H3)

We are trying to evaluate how the change of housing price, the spread of COVID-19, the change of the job market, and the inflation rate affect people's economic well-being during the pandemic around different regions in the US. We will explore reasonable approaches to analyze the impact of several changes on people's economic well being. Since the pandemic, the change of the job market, and the economic policies implemented by the government are interrelated, it is feasible for us to investigate the links between these factors with the help of data gathered from various sources.

People Concerned (H4)

The findings from this project would help people find out how hard the pandemic hurts people's well-being,physically and economically. So they can be well-informed of their current situation and be prepared for the challenges and opportunities emerge in the coming year.

Outcomes (H5)

The study conducted in this project would enable us to capture the interaction of several economic/financial variables and to utilize it to forecast the aggregated impact, and improve the preparedness to the aftermath of the pandemic

It would also shed a light on the current recovery and help people be better-prepared for the challenges and opportunities emerged in the aftermath of the pandemic.

Risk and Rewards (H6&H7&H8)

Currently we are taking the risks that we lack theoretical support for the method to evaluate the general impact of pandemic, inflation, fluctuation in the job market and volatility of the market. However, even the gross evaluation is still worthwhile and would provide valuable results.

The project would take approximately two month to complete, until the project due date of this course, so the primary cost is the time. In addition, we may pay service charges to obtain specific data sources or Cloud service, but this is to be determined.

Checkpoints (H9)

This project will use R0 (i.e. Rt) value to measure the severeness of covid-19 pandemic. With respect to the economy, Unemployment Rate, CPI, House Market, and household income will be used in this project. Bi-weekly Review will be applied to check the progress of the project and resolve the technical issues. At Midterm check, data evaluation and preliminary modeling work evaluation should be completed. In the Final evaluation, we will complete the final report and visualization dashboard. An anticipated result for this project is to build a dashboard or map that illustrates the relationship between economy and covid-19, with a front-end interface that allows users to do interaction with our dataset. An example of an anticipated result can be found here.