Low-Income Jobs Lost to COVID-19

Week 1 – Yarra Abozaed, Janelle Acob, Tim Chen, Zach Johansen

DAT 4500

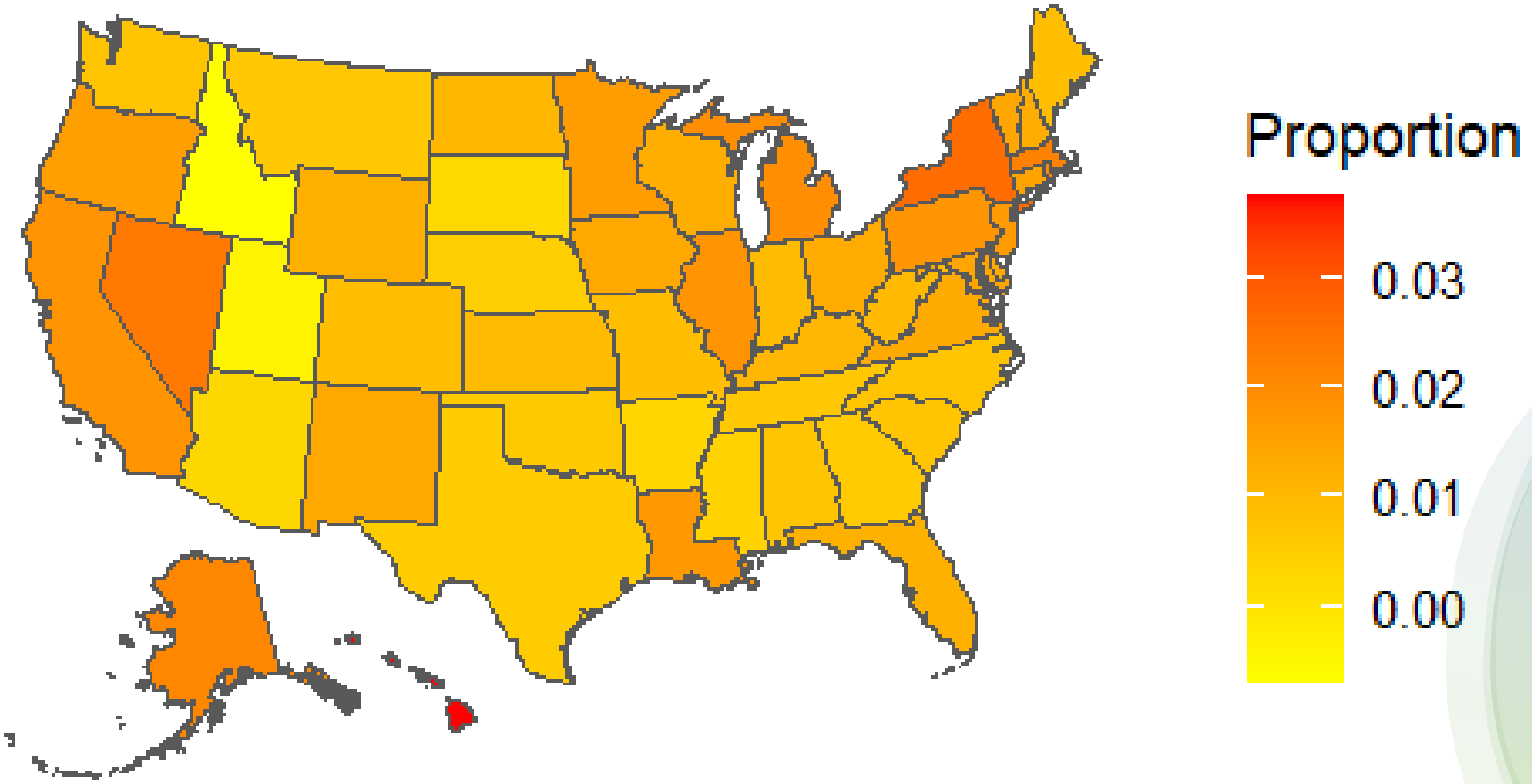
Progress Overview

- Understanding the context of the data and getting familiar with it
- Wrangled data to make it look acceptable
- Able to see high- and low-density areas
- Brainstormed research ideas and questions
- Started working on the Quality of Life (QoL) index data

Description of The Data & Context

- The Urban Institute data science team used data from the US Bureau of Labor Statistics, IPUMS 2012-2018 ACS microdata, and Urban's 2018 Census LODES data, in order to estimate the number of low-income jobs lost because of COVID-19 by industry for every census tract in the US based on the residence of workers. Low income those with (<$40,000 salary).
- Within the data, it provides 20 names of the different work industries so that we can compare the job loss index by state and by county across the country and see how they're different to each other.
    - The numbers represent the count workers who live in which state, county, and the CBSA (Core-based statistical area: which is the geographic area that consists of one or more counties) who lost their job.

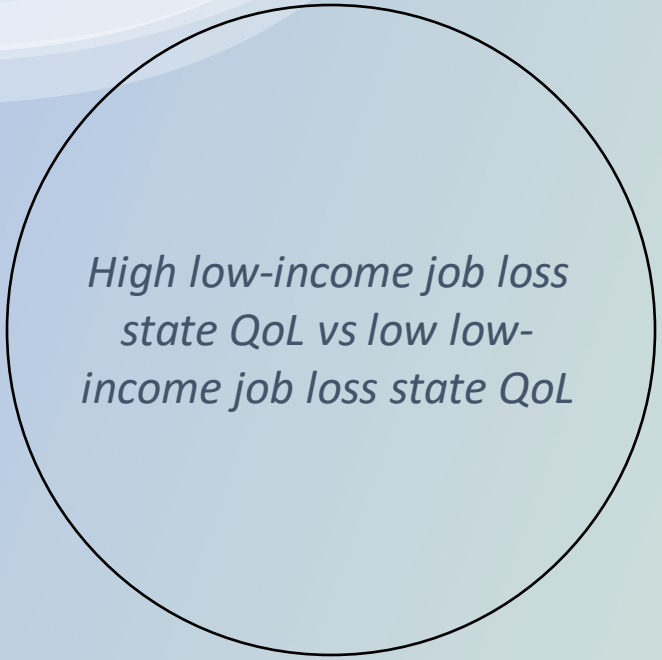
Initial Results & Visualizations



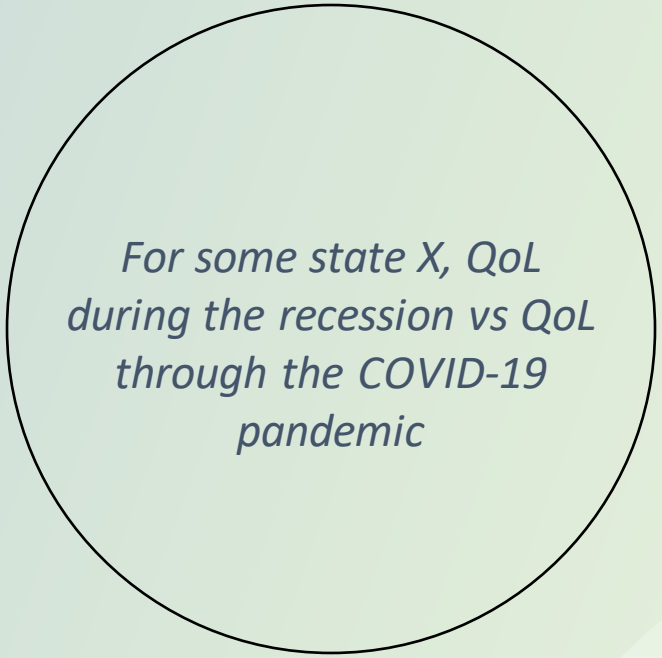
Research Ideas

- Considering trends per state (by industry and overall), analyzing anomalous states → *Why does this state have significantly higher jobs lost compared to others?*
- Analyzing data in the state of Washington and comparing it to other states
- Looking at changes in *Quality of Life (QoL)* per state and how job-loss impacted the QoL of the state as a whole
  - Measuring quality of life (QoL Index):
    - Considering the following variables (World Population in Review):
      - Healthcare
      - Education
      - **Economy → GDP growth, migration, new business (overlaps with job-loss)**
      - Infrastructure
      - **Opportunity → poverty rates, cost of living, housing costs, social considerations (overlaps with job-loss)**
      - Fiscal stability
      - Crime and corrections (public safety)
      - Natural environment (quality of air, water, etc.)
- Comparing jobs lost in the 2008 recession and the changes in QoL per state for both periods

Research Directions Summary



Can we prove that low-income job loss had a significant or insignificant impact on the QoL of the state as a whole?



Can we quantify the impact of job-loss vs the COVID-19 virus on QoL?

Challenges and Obstacles

- Finding a reasonable scope for the project (is it better to focus on the state level or the county level?)
- How to categorize specific states as anomalous (is looking at the sum of jobs lost good enough?)
- We expect the economy and opportunity metrics to worsen in states with higher job loss
- How do we quantify the impact of the economy and opportunity metrics on the QoL of the state?
  - *i.e., can we measure the impact of job-loss on all other variables in the index, and by how much does job-loss (via analysis of the economy and opportunity metrics) impact the QoL index?*

Plan for Next Week

- County maps for Hawaii, Utah, Idaho, Washington, Florida, New York.
- QoL index dataset for each metric.
- QoL visuals.

Questions?