Variables outside of Pulse

Phase 3.0 Pulse Survey – Week 22 to Week 26
- Week 22: January 6 - January 18
- Week 23: January 20 - February 1
- Week 24: February 3 - February 15
- Week 25: February 17 - March 1
- Week 26: March 3 - March 15

Covid rates by state

- Used data from Johns Hopkins University, which aggregates cases reported by health departments in each state.
  - More information on how JHU sources its data can be found here.
- For each state, I got the number of new cases per 100,000 people. Used population estimates from the Census Bureau to obtain this variable.
- For each day, I averaged over it and the previous six days to get a 7-day rolling average.
- I took the average of each day in the Census weeks (e.g., January 6 – January 18 for Week 22) to get an overall covid rate per state for that week.

Vaccination rates by state

- Used data from the CDC, obtained through Our World in Data's repository.
- For each state, I get the daily cumulative number of people who have received at least one dose of the vaccine per 100 people in the total population of the state. OWID uses the same population data from the Census to perform this calculation.
- As above, I took the average of each day in the Pulse weeks (e.g., January 6 – January 18 for Week 22) to get an overall vaccination rate per state for that week.

Vaccination rate by demographic

- Used data from the CDC to obtain demographic trends of vaccination rates by age, race and ethnicity, and sex.
- For each of these, I get the daily cumulative number of people in that group who have received at least one dose. I also get the daily percentage of people in that group with at least one dose.
- I average across each day in the Pulse week, just as above.

Unemployment rate by state

- Used data from the Opportunity Insights' Economic Tracker which provides daily unemployment estimates. I chose this data over BLS data because it is updated more frequently and I was worried that for Phase 3.1, we wouldn't have unemployment data pertaining to the weeks of the survey.
- Unemployment data is sourced using data from Earnin, Intuit, Kronos, and Paychex. It is calculated as the percent change relative to mean values in January 2020.
- As above, daily data is averaged to obtain the unemployment rate for a given Pulse week.

Unemployment rate by industry

- I also obtained unemployment levels by industry from the economic tracker.
- Industry unemployment rates are only available at the national level. Data is available for the following industries:
    - Professional and business services
    - Retail and transportation
    - Education and health services
    - Leisure and hospitality
- Since Phase 3.1 files have not been released, I haven't been able to merge this data with the survey files which is why it isn't a variable in the data frame.
- Some notes on this variable:
    - Matching certain survey responses to their corresponding industry is not immediately obvious to me. Specifically, I am not sure how I would categorize the following potential responses from the Pulse survey:
        - First response (police or fire protection)
        - Agriculture, forestry, fishing, or hunting
        - Food and non-food manufacturing
        - USPS
        - Other
    - OI has not released industry unemployment data since March 10. I couldn't find information on whether we should expect a data refresh soon, so I reached out to ask.

Unemployment rate by state and income

- I wanted to add that the Economic Tracker also has information on unemployment by income at the state-level. This variable wasn't in the original list we agreed upon, but I wanted to ask if you think it would be valuable to include it.