

Inflation vs. Median Income

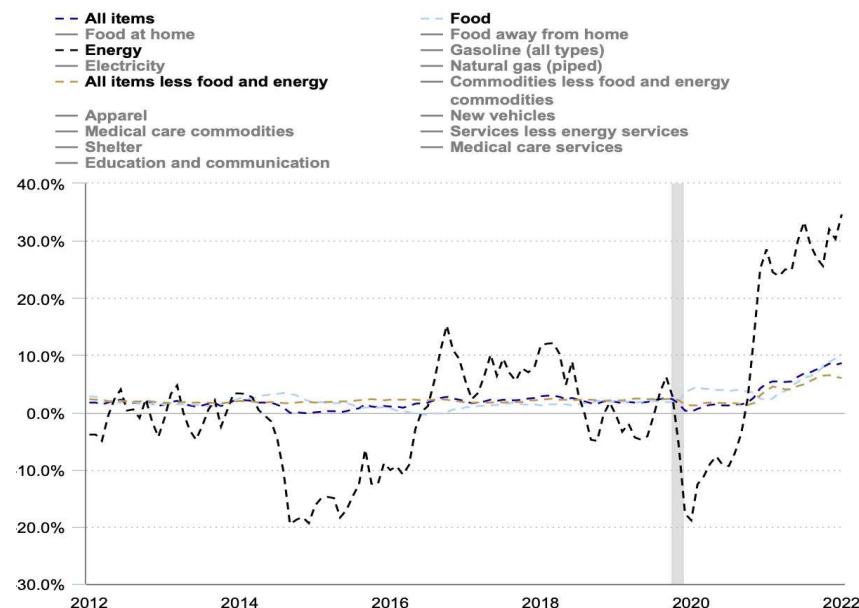
Proposal Presentation - EPPS 6356

Background

- Drastic increase in the prices of shelter, food, and medical care over the past several decades

- Inflation hit 8.3% in August
- In June, inflation hit a 40-year high of 9.1%
- Largest increase in inflation since 1990
- Median incomes in 2021 are similar to 2020

12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted



Click legend items to change data display. Hover over chart to view data.
Shaded area represents a recession as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.



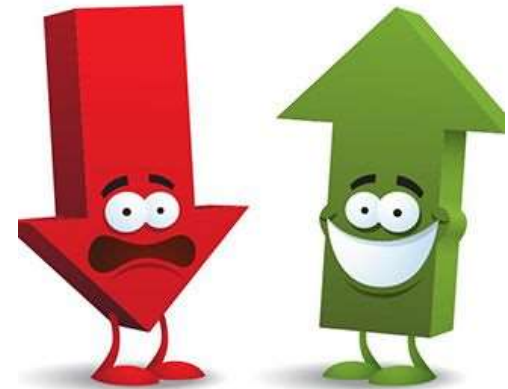
Purpose

- The goal:
 - help residents of the U.S. be better informed about the economic circumstances of their state.
- Potential earnings are a large reason for migrating to different locations in the U.S.



Hypothesis

- Have median incomes in each U.S. state kept up with the national inflation rate on a yearly basis?
- Hypothesis: Wage increases in the US have not kept up with inflation rates
- However, we do not know by how much



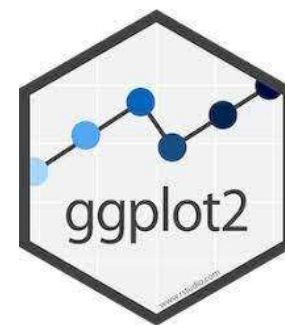
Data Visualization Methods

Main Packages We Expect to Use:

- tidyverse packages:
- ggplot2 as the main graphics engine
- gganimate as the animation engine
- dplyr to join dataframes

Datas We Expect to Use:

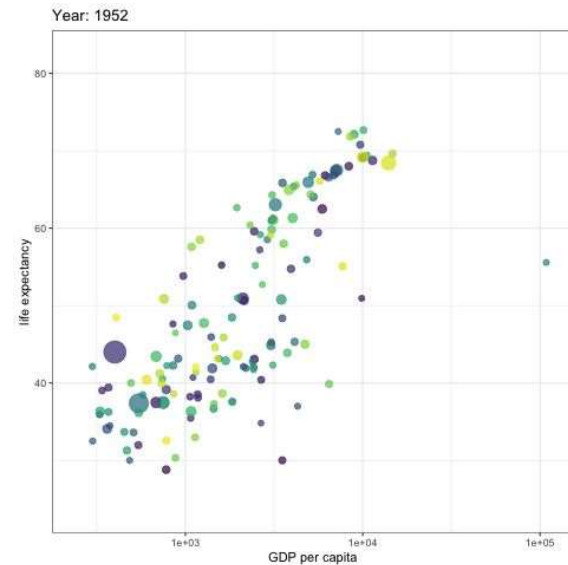
- FRED- Federal Reserve Economic Data (<https://fred.stlouisfed.org>)



Data Visualization Methods

Method #1:

- Create moving scatterplot
- Example of `transition_time()` plot: →
 - Source:
<https://www.datanovia.com/en/blog/gganimate-how-to-create-plots-with-beautiful-animation-in-r/>



```
p + transition_time(year) +  
  labs(title = "Year: {frame_time}")
```

Data Visualization Methods

Method #2:

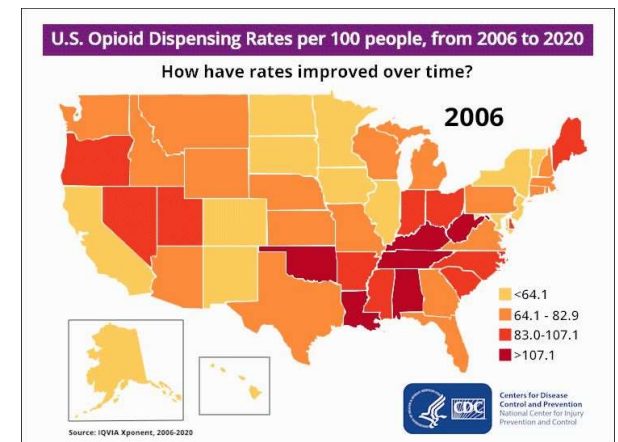
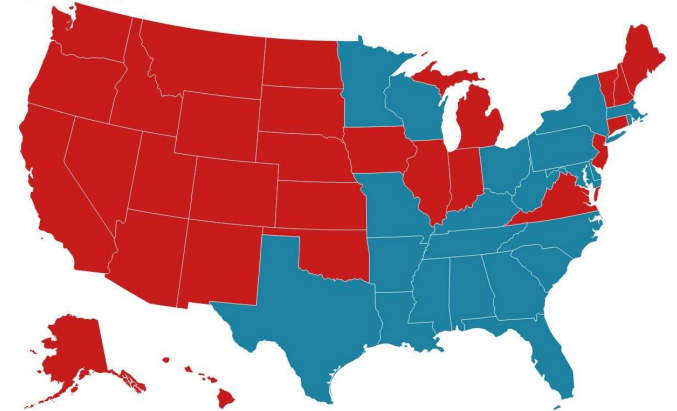
- Create animated U.S. Cartogram
- Example of what we would like to do:



- Source:
<https://www.aamlai.com/wp-content/uploads/2020/05/AnimatedMap.html>

1976

Democrat Republican



Questions?

Thank You
