Week 11 Diary Entry
Describe the data of your project and the visualizations you plan to use. Attribute anything you plan to use from somewhere else. Report the errors and challenges you are facing.

Data: (From Q2 and 5 of Week 10)

The dataset features historical income tables of census data, categorized by age, race, origin, education and more, from the United States Census Bureau.
Link: https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-people.html

Datasets extracted for project:
- Table P-2. Race and Hispanic Origin of People by Median Income and Sex
- Table P-16. Educational Attainment—People 25 Years Old and Over by Median Income and Sex
- Table P-40. Women's Earnings as a Percentage of Men's Earnings by Race and Hispanic Origin

The dataset features women's CPS earnings data in 2020, from the US Bureau of Labour Statistics.
Link: https://www.bls.gov/opub/reports/womens-earnings/2020/home.htm

Tables used for project:
- Table 2 - Median usual weekly earnings of full-time wage and salary workers, by detailed occupation, 2020 annual averages [Numbers in thousands]
- Table 7 - Median usual weekly earnings of full-time wage and salary workers, by marital status and presence and age of own children under 18 years old, 2020 annual averages

To emphasize the trend in gender wage differences across various factors, we can have a general view, education view and racial view of differences in wages.

- Table P-2. Race and Hispanic Origin of People by Median Income and Sex
  - Table for 'All Races', filtered the median income for males and females
  - Plotted 'General View' line chart: Median income for males and females from years 2000-2021.
- Table P-16. Educational Attainment—People 25 Years Old and Over by Median Income and Sex
    - Table for 'Bachelor Degree or Higher', filtered the median income for males and females
    - Plotted 'Educational Attainment View' line chart: Median income for higher-institution-educated males and females from years 2000-2021.
  - Table P-40. Women's Earnings as a Percentage of Men's Earnings by Race and Hispanic Origin
    - Tables for White alone, non-Hispanic (31)/Black alone(33) /Asian alone (34)/Hispanic (any race) (4)
    - Plotted 'Race view' chart:

- 1) Percentage earnings of females to males line chart from years 2000 – 2021, by race
- 2) Percentage earnings bar chart in year 2021 only by race

To delve deeper into the reasons, we will explore: 1) occupational segregation and 2) motherhood penalty. Occupational segregation is the theory where women self-segregate into lower-paying jobs for more temporal flexibility. Motherhood penalty is the penalties that mothers incur in their wages when they leave the workforce to take care of children. Men do not suffer the same penalty.

- Table 2 - Median usual weekly earnings of full-time wage and salary workers, by detailed occupation, 2020 annual averages [Numbers in thousands]
  - Filtered the number of workers for men and women in several occupations that are usually classified as 'women's work' and 'men's work'. This includes: Management, business, and financial operations occupations/Professional and related occupations/Computer and mathematical occupations/Education, training, and library occupations/Healthcare practitioners and technical occupations/Service occupations/Sales and office occupations/Office and administrative support occupations/Natural resources, construction, and maintenance occupations/Production, transportation, and material moving occupations
  - Calculated the % of women and men in each of the occupations to view the concentration of women in each industry

- Table 7 - Median usual weekly earnings of full-time wage and salary workers, by marital status and presence and age of own children under 18 years old, 2020 annual averages
  - Median weekly earnings from married men and women with children under 18 and 6 years

Errors and Challenges:
- Trying to get my buttons to toggle between different chart views
- Deciding if I should do a zoom in function where you click on a point and it brings you to statistical data for that year.
- Chart layout is a little funky as I downloaded CSS template from online and it sometimes does not fit the chart I'm making.