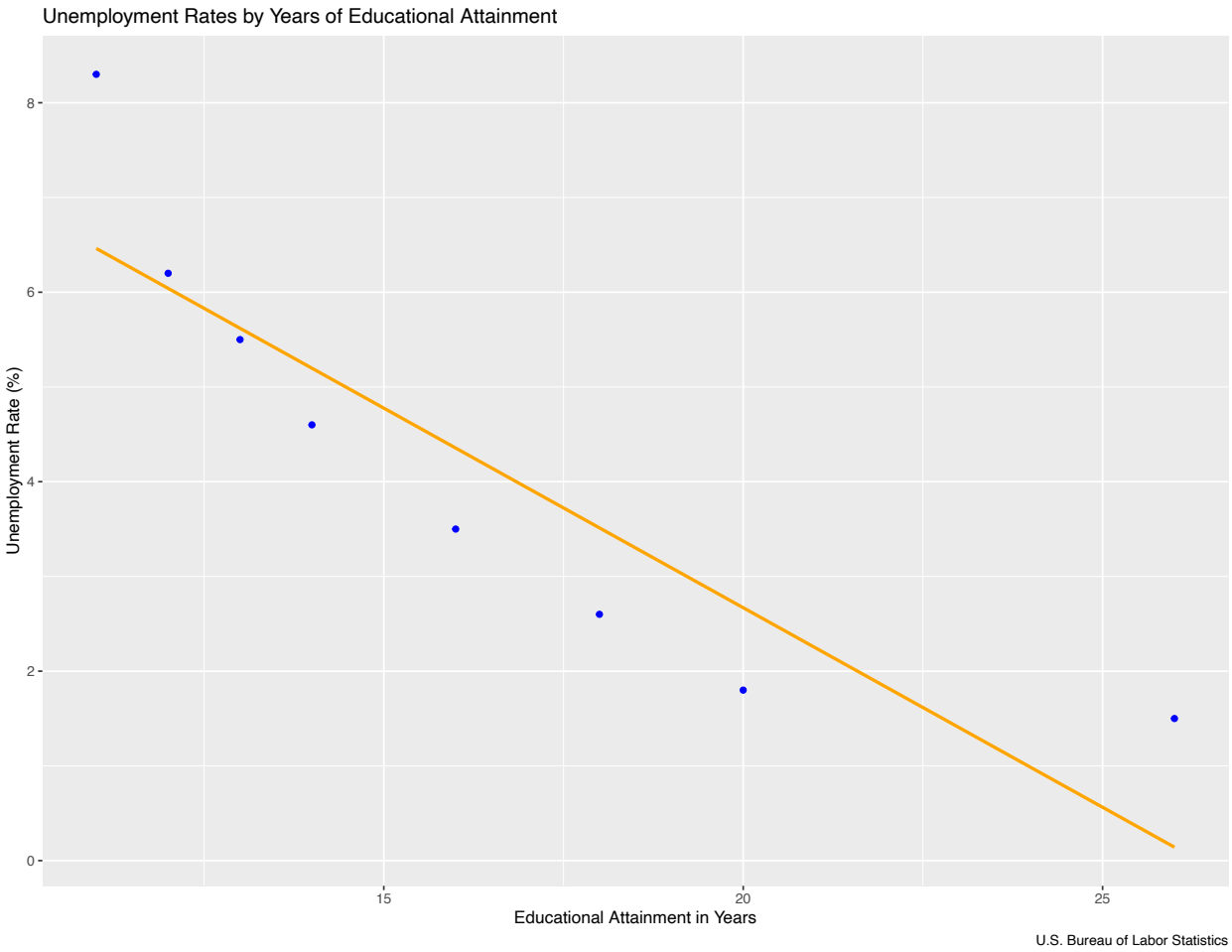
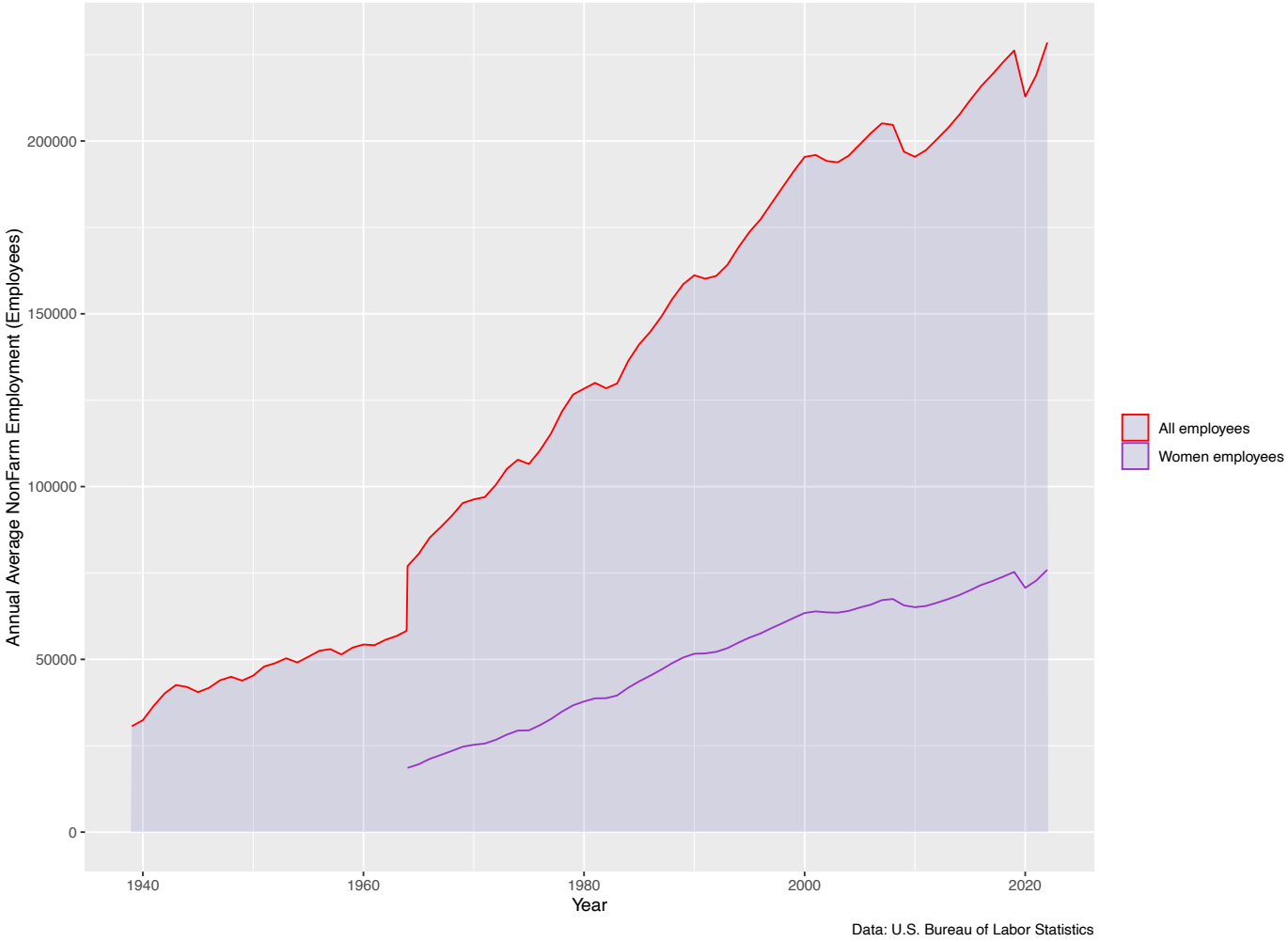
For my first visualization, I decided to create a scatterplot of unemployment rates in 2021 by number of years in school. I used data from the U.S. Department of Labor in which educational attainment was given – I equated the title of degrees with their ordinal measures of years in school (bachelor's degree = 16 total years of schooling, master's degree = 18 total years in school and so on). My purpose for this visualization was to glean information from the dataset and show a general negative trend between higher education and unemployment.


Unemployment Rates by Years of Educational Attainment
Unemployment Rate (%)
0
2
4
6
8
15
20
25
Educational Attainment in Years
U.S. Bureau of Labor Statistics

For our second assignment, I wanted to work with a fairly large dataset on labor statistics. I decided to visualize total nonfarm unemployment from 1939 to 2022. My dataset, obtained from the Bureau of Labor Statistics, had monthly nonfarm employment numbers, and annual averages. It also had a separate tracking of women's nonfarm employment. I decided to subset my data and only visualize annual averages. I visualized total nonfarm employment trends and women's nonfarm employment. The purpose of this visualization was to display a trend of employment in the U.S.

U.S. Total Nonfarm Employment from 1939 to 2022

Excluding proprietors, private household employees, unpaid volunteers farm employees, and unincorporated self−employed.

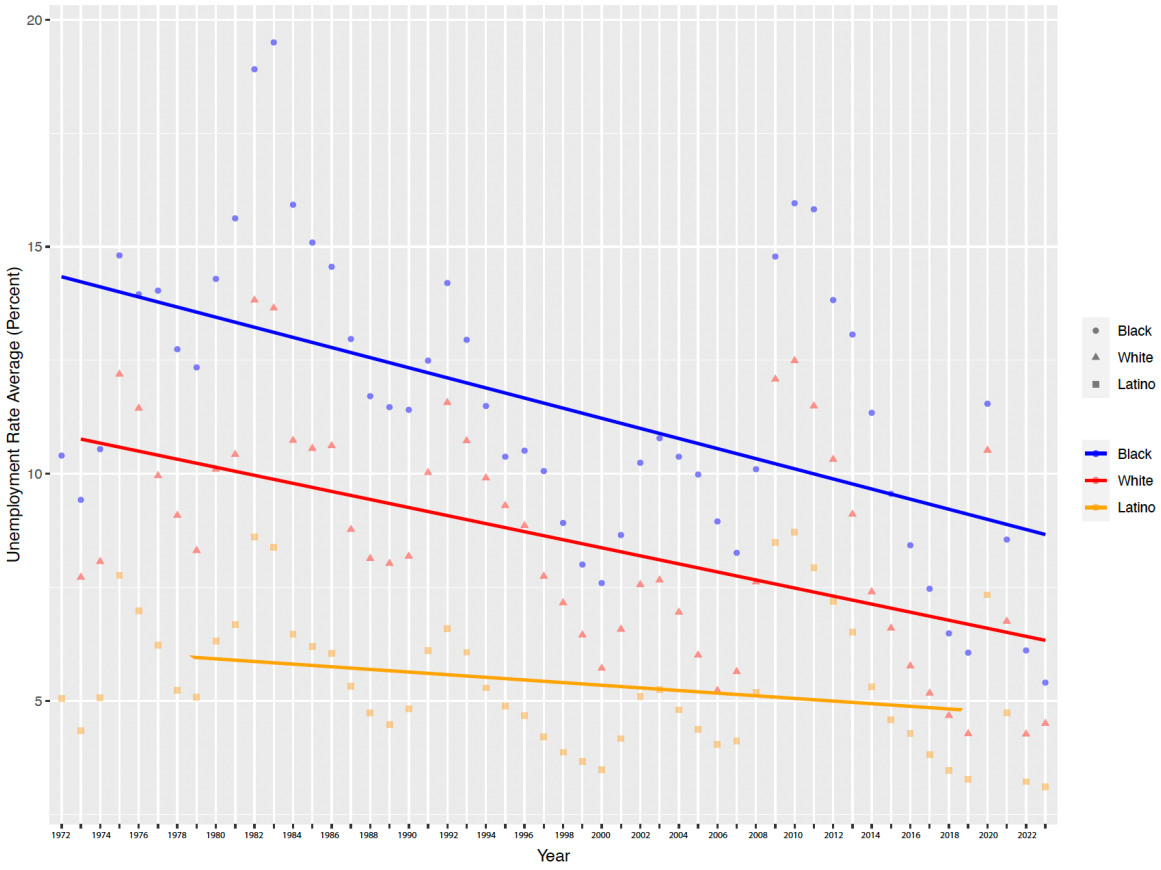


Data: U.S. Bureau of Labor Statistics

The following is the first visualization in this two-part entry. It depicts average unemployment rates among ethnicities in the United States. Essentially, this graph is supposed to take a big picture look at unemployment rates in the United States among different ethnicities. We see that unemployment rates are highest among Black Americans, and lowest among Latinos. We also see that rates ebb and flow in a similar pattern – responding to economic pressures in a consistent way. The last thing we can see from this visualization is that unemployment rates are trending downward in the grand scheme of things.

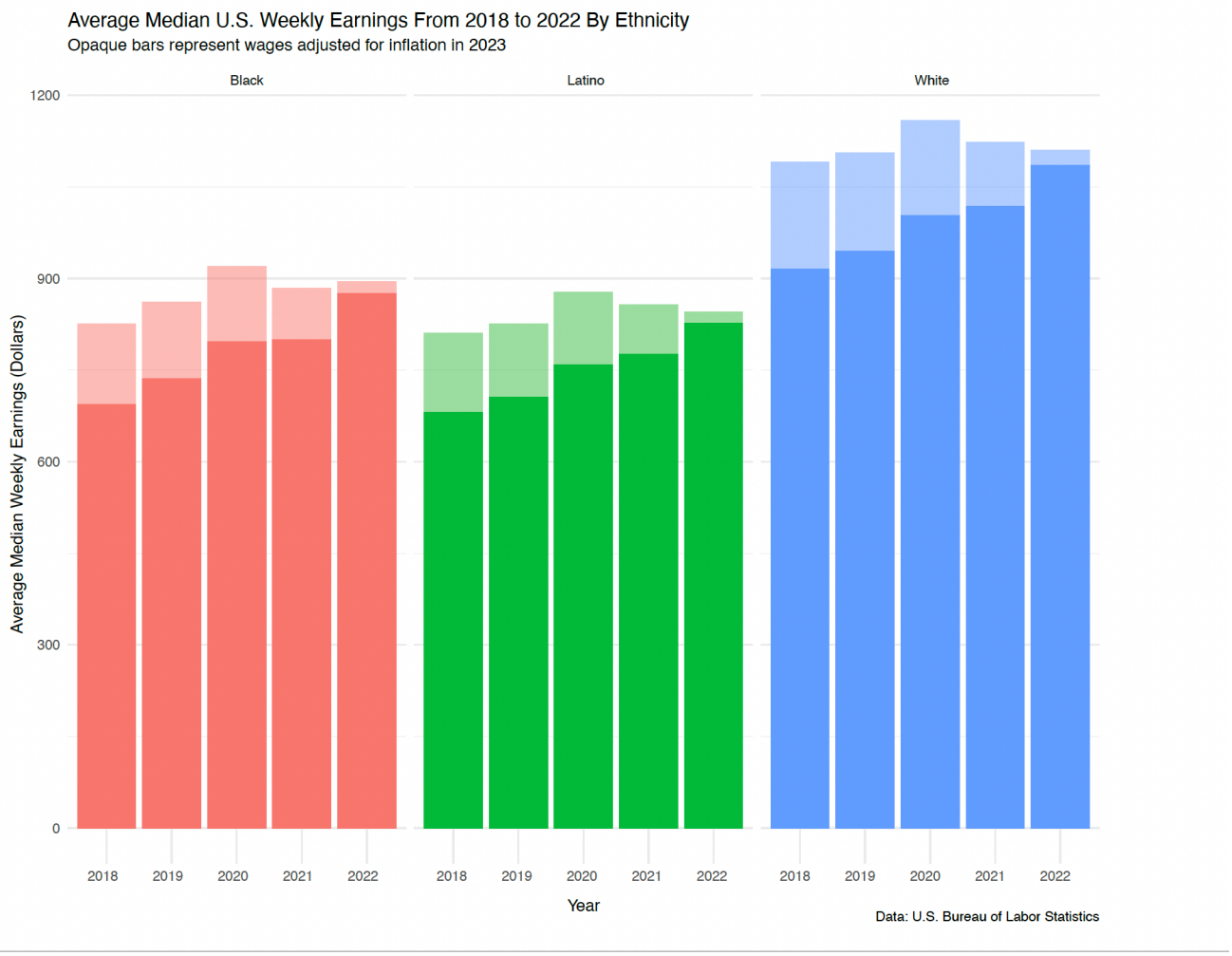
U.S. Unemployment Rates by Race and Ethnicity From 1972 to 2023

Average rates by White, Black, and Latino



Data: U.S. Bureau of Labor Statistics

This second entry in this visualization assignment shows averaged median weekly earnings across ethnicity in the United States from 2018 to 2022. This visualization takes a more specific look compared to the previous visualization. Included in the visualization are opaque bars which represent the same wage adjusted for inflation today. So, the viewer sees a steady increase in wages across ethnicity from 2018 to 2022, however when adjusted for inflation, the viewer can see an actual wage decrease across ethnicity starting from 2020 (the pandemic).


Average Median U.S. Weekly Earnings From 2018 to 2022 By Ethnicity
Opaque bars represent wages adjusted for inflation in 2023
Black
Latino
White
1200
900
600
300
0
Average Median Weekly Earnings (Dollars)
2018
2019
2020
2021
2022
Year
Data: U.S. Bureau of Labor Statistics

This first visualization is a treemap comparing average hours spent doing activities by Americans in 2003 versus average hours spent doing those same activities by Americans in 2021. Essentially, I wanted to get at what the average American worker spent their time doing. The main purpose of this visualization is to be a fun way at conceptualizing changes over time when it comes to the average American worker's life.

Americans Spend More Time Watching TV and Less Time Socializing

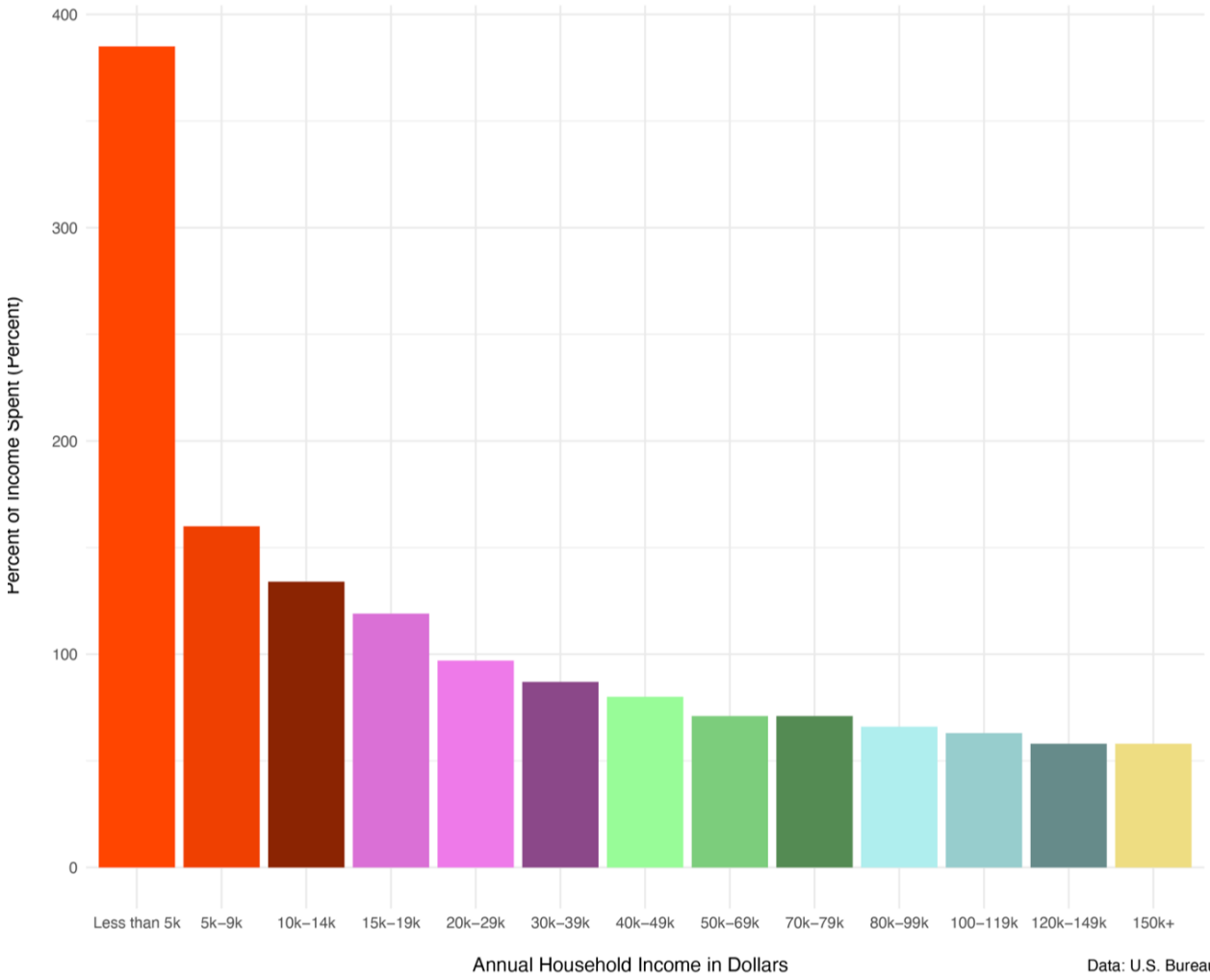
Average hours spent on activities per day by Americans in 2003 and 2021

Data: Bureau of Labor Statistics, American Time Use Survey

This next visualization is meant to gauge the spending of the American worker. It looks at spending by household incomes. As you can expect, the more people make, the more they spend – however when accounting for spending by the amount of income of each household, people making lower incomes spend more than those at the higher ends of the spectrum. I thought this was a visualization that was counterintuitive and helpful in understanding large segments of the economy.

The Less You Make The More You Spend

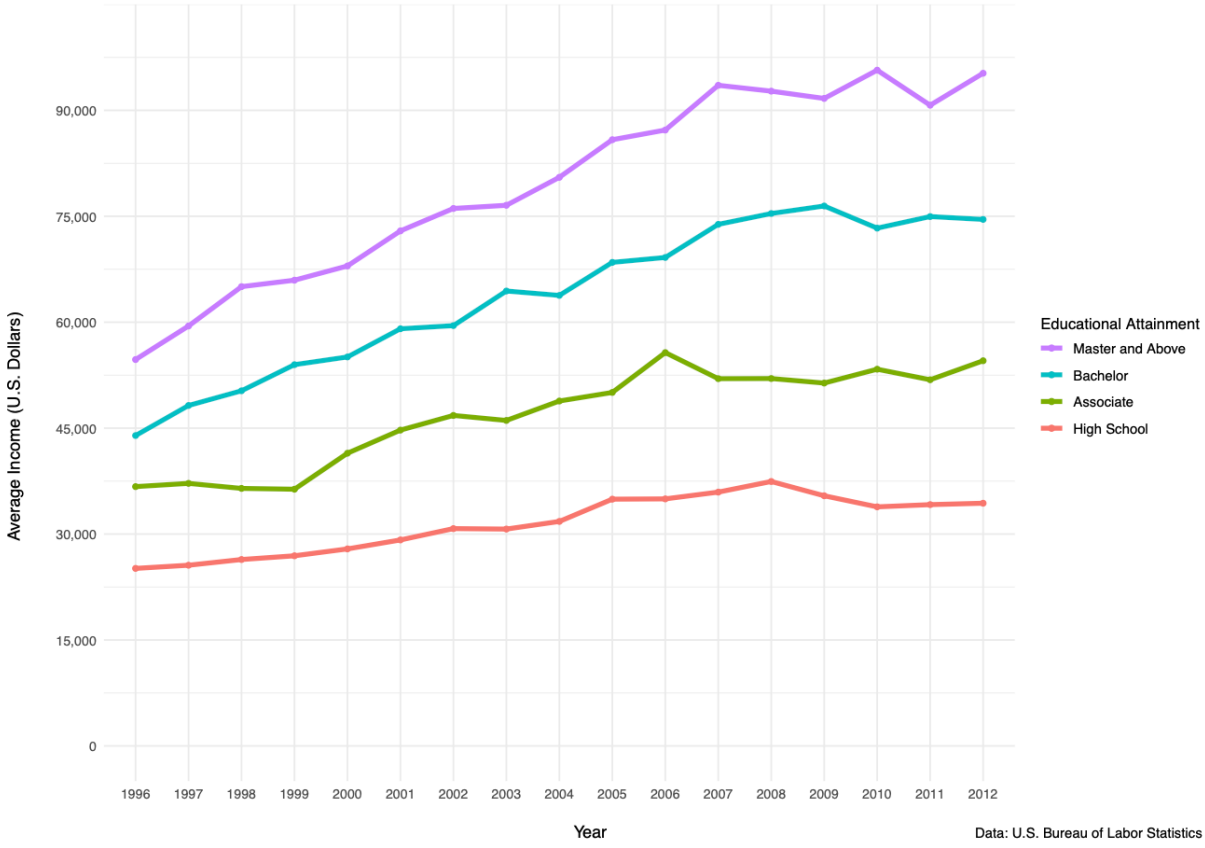
Annual average expenditures as a percent of household income in 2003 (Spending Adjusted for Income)



For this first visualiza/on I wanted to visualize the rela/onship between higher educa/on and the earnings associated with it. I only had data for each category from 1996 to 2012. My main goal for this was to get the basics of the visualiza/on right.

Higher Education Associated With Higher Earnings on Average

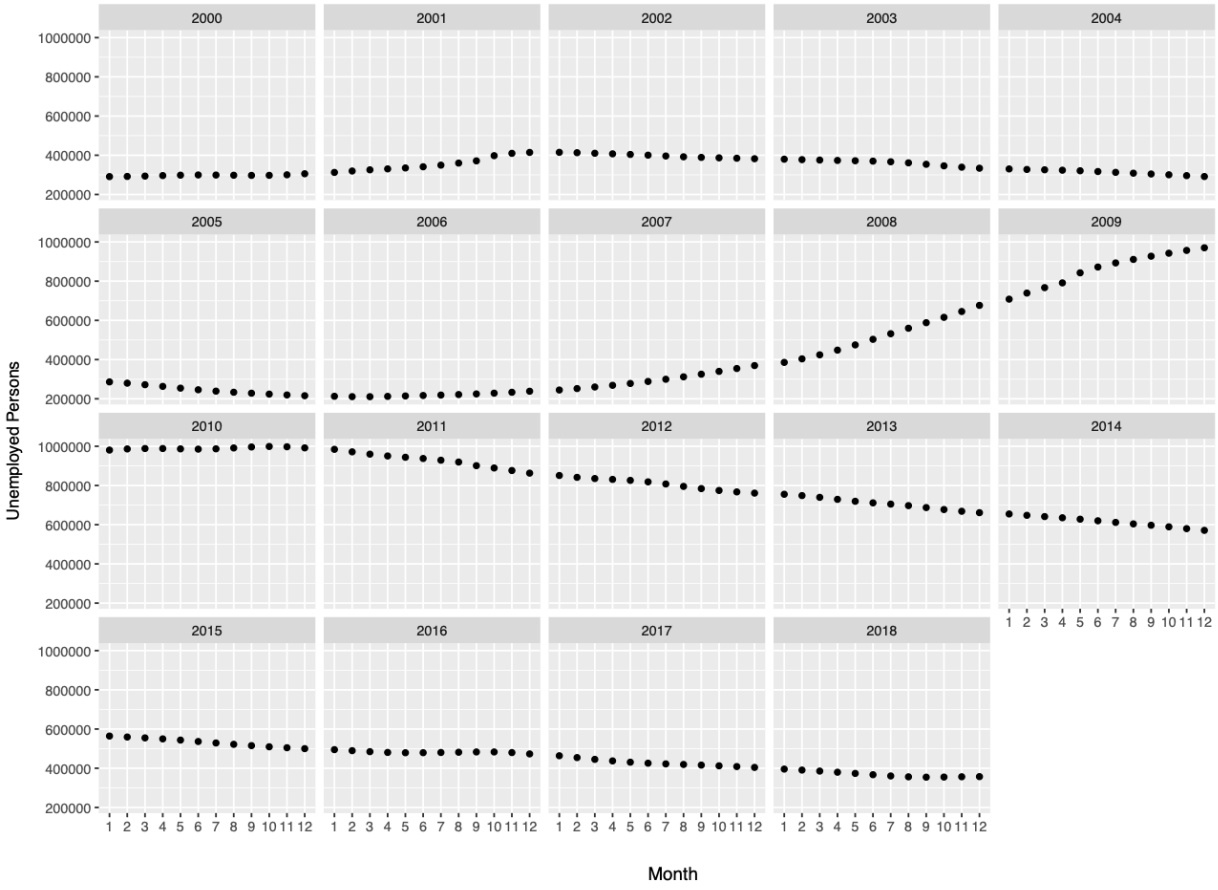
Average Salary in the U.S. by Education from 1996 to 2012



For this second visualiza/on I wanted to try to get a grasp at unemployment trends in the state of Florida. I thought that I would see cyclical trends in the unemployment rate but it looked like a slight increase, subtle decrease and an exponen/al increase. Im not sure it was as cyclical as I thought it would be. I was hoping to see cyclical changes by month but I did not.

Unemployment in Florida

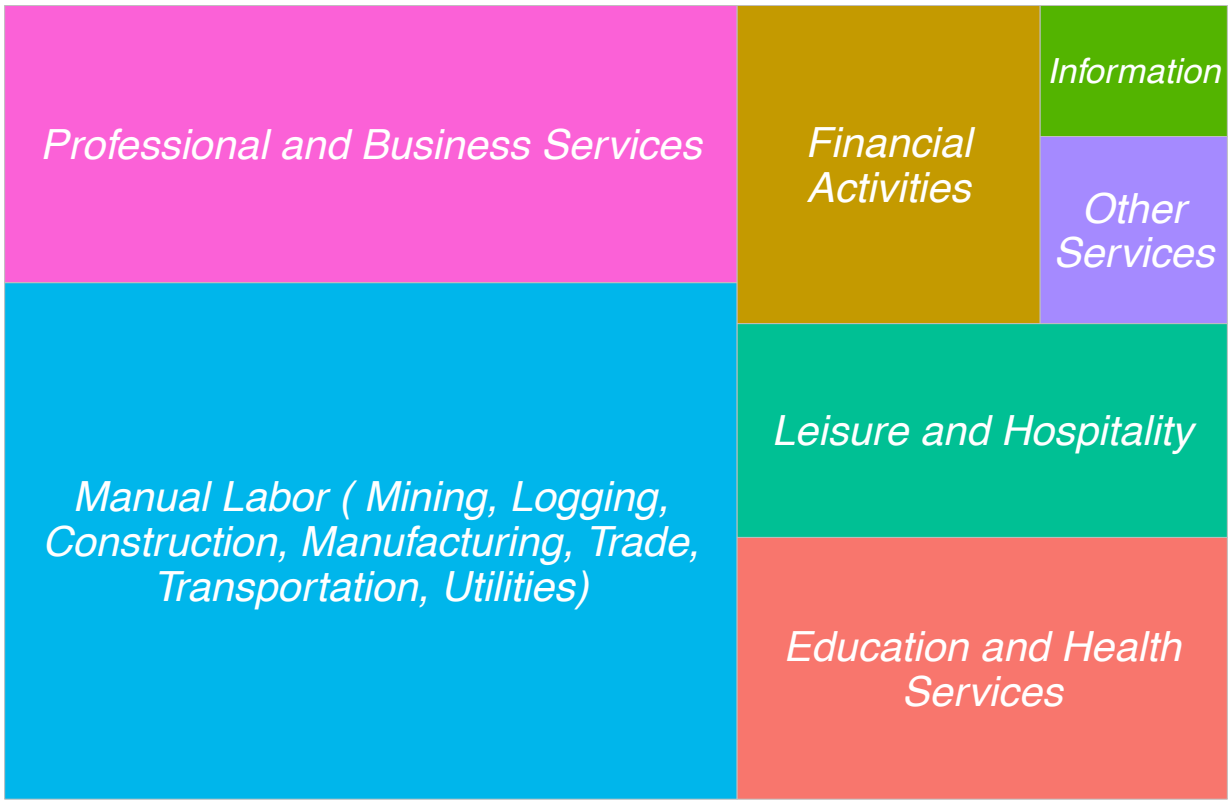
Total Number of Unemployed Persons in Florida from 2000 to 2018



Data: U.S. Bureau of Labor Statistics

This following visualization shows the representation of labor in the dallas labor market.

Size of Industries in Dallas, Texas as of February 2023



This next visualization is supposed to stand as a comparative to the one above. This visualization maps instead the size of labor industries in Texas as a whole.

Size of Industries in Texas as of February 2023