Handout for March 2018 Newsletter
Change in Employment Figures in FRED®

Purpose.
1. Create a plot of total nonfarm payrolls and total nonfarm private payroll employment.
2. Change the graph's date range to show figures over the last 12 months.
3. Describe and discuss highlights and patterns in the evolution of payroll and employment figures over time.

Pedagogical Rationale. This assignment requires that you first search for data online, select a specific series, and plot it into a graph. Next, you will change the date range in the graph and add a second series to it. Lastly, you will describe and discuss highlights and patterns in the evolution of the data series. These tasks will develop your proficiency in searching for, transforming, and interpreting data.

Grading. Your grade will be determined by (a) how precisely you complete the search and transformation data tasks and (b) how accurately you interpret the data.

Steps to Search for and Transform the Data.
1. Access https://fred.stlouisfed.org/ and search for "All Employees: Total Nonfarm Payrolls (PAYEMS)."
2. Select "Thousands of Persons, Monthly, Seasonally Adjusted" by clicking on the box to the left of the series name.
3. Plot the data series by clicking on "Add to Graph."
4. Click on "1Y" above the graph to limit the data range to the past 12 months.
5. Click on the "EDIT GRAPH" orange button and select the "ADD LINE" tab.
6. Search for "Total Nonfarm Private Payroll Employment (NPPTTL)."
7. Select "Thousands of Persons, Monthly, Seasonally Adjusted" and click on "Add data series."
8. Select "Units: Change, Thousands" and click on "Copy to all."
9. Click on the "FORMAT" tab and select "Graph type: Bar."

Writing Prompts. Answer the following questions:
1. When was the largest change in total nonfarm payrolls, as reported by the U.S. Bureau of Labor Statistics, recorded? How many employees were added or subtracted from payrolls?
2. When was the smallest change in total nonfarm payrolls, as reported by the U.S. Bureau of Labor Statistics, recorded? How many employees were added or subtracted from payrolls?
3. Compare the change in total nonfarm payrolls, as reported by the U.S. Bureau of Labor Statistics, with the change in total nonfarm private payroll employment, as reported by Automatic Data Processing, Inc. Are they similar, on average, in magnitude? Do they tend to change in the same direction from month to month?
(EXTRA CREDIT) Read the "NOTES" below the graph. Compare the methods employed by the U.S. Bureau of Labor Statistics and Automatic Data Processing, Inc., to generate their data. Are they similar? Are they different?