

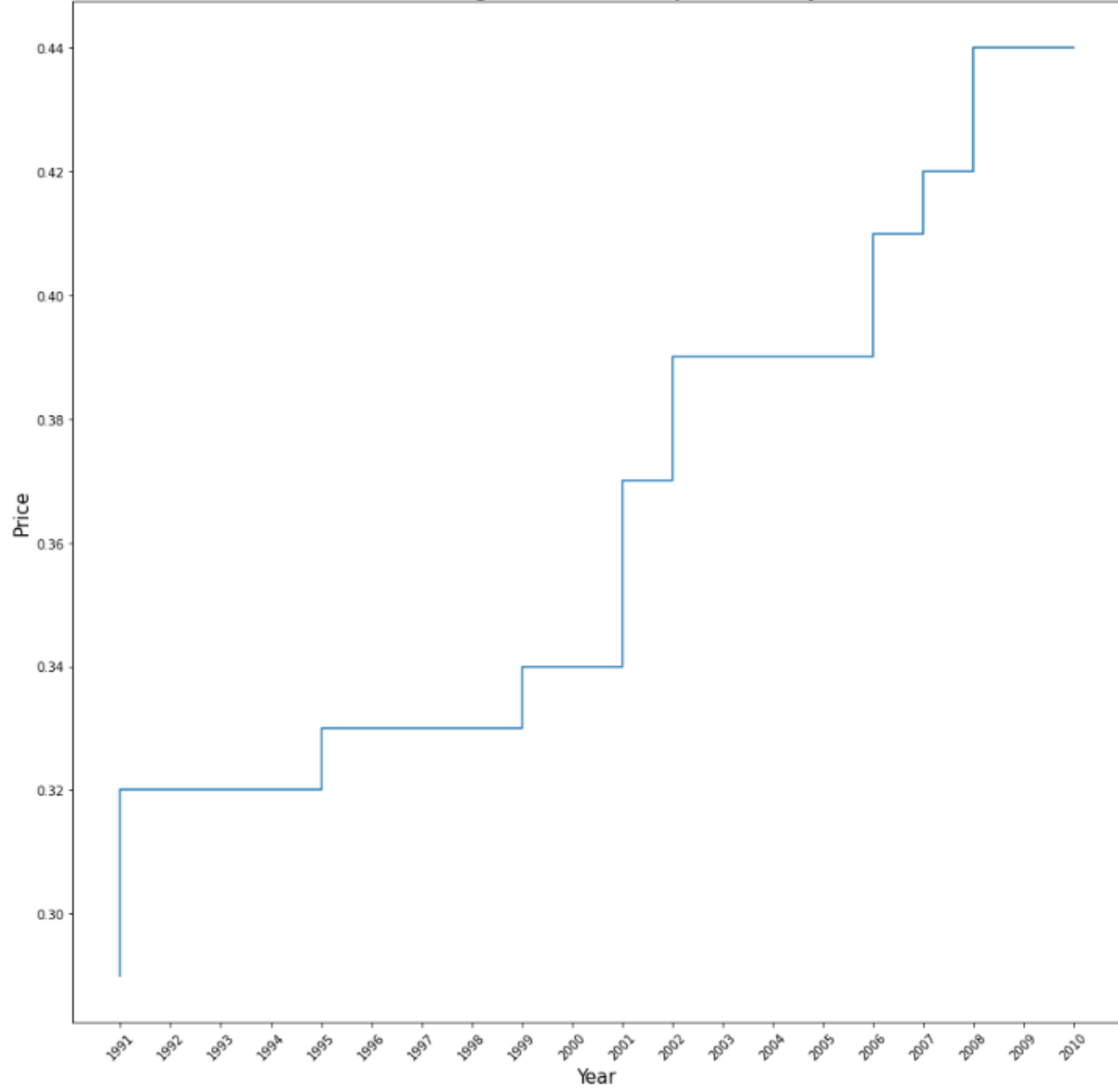
2.2 Exercises (Tree Map, Step Chart, Area Chart, Stacked Area Chart)

Python Visualizations

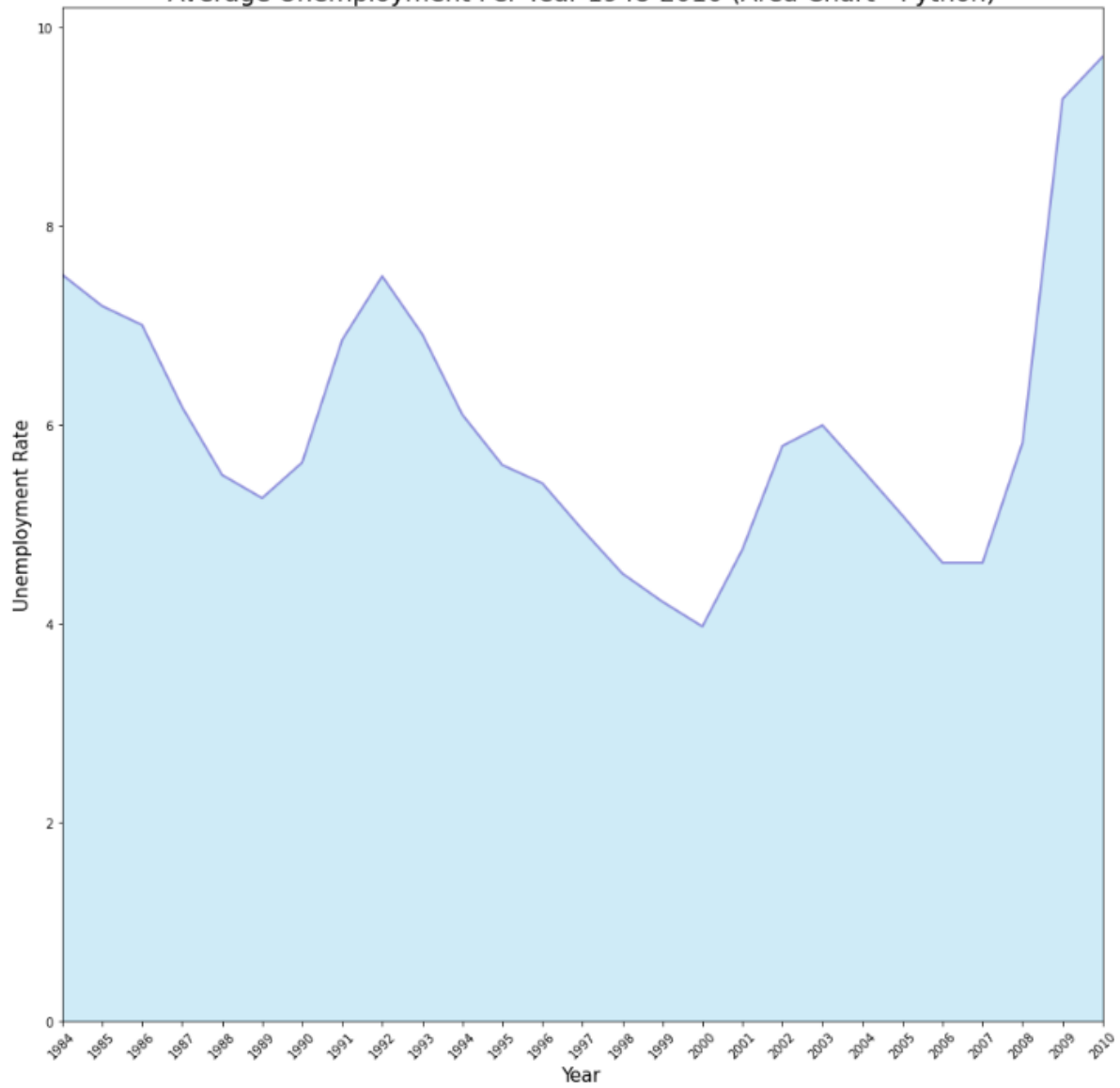
Percent Expenditures by Category (Tree Map - Python)



Price of Postage Per Year (Step Chart - Python)



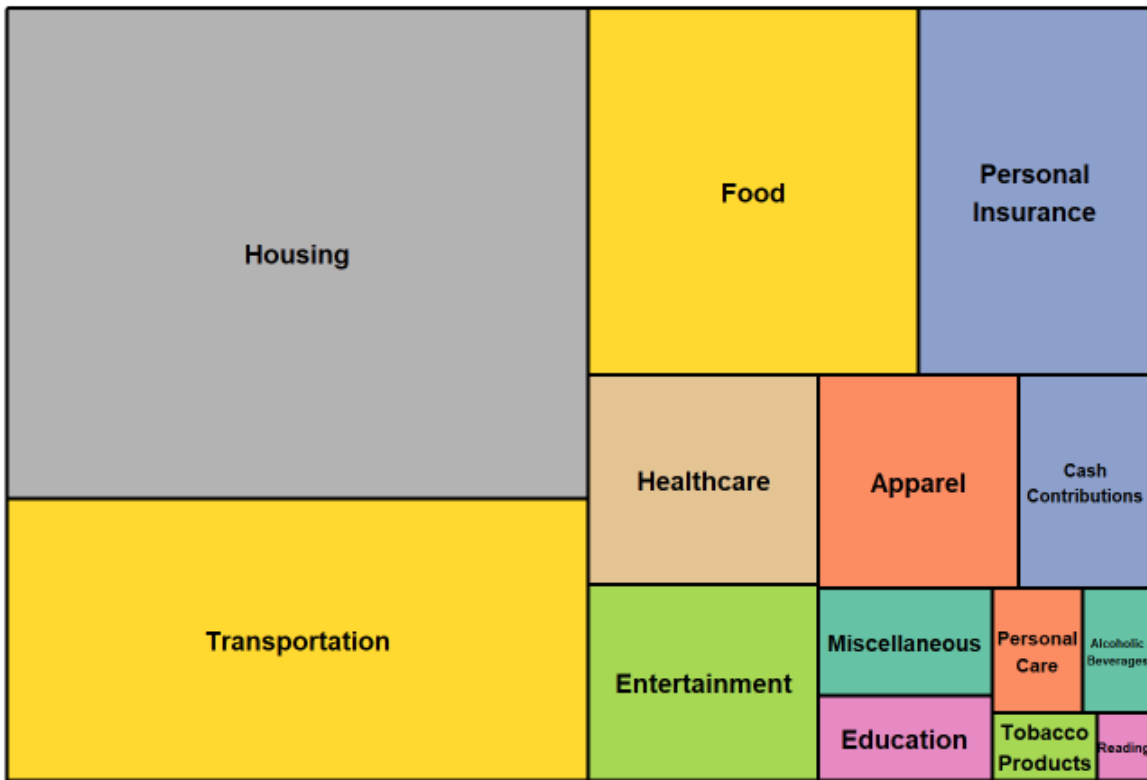
Average Unemployment Per Year 1948-2010 (Area Chart - Python)



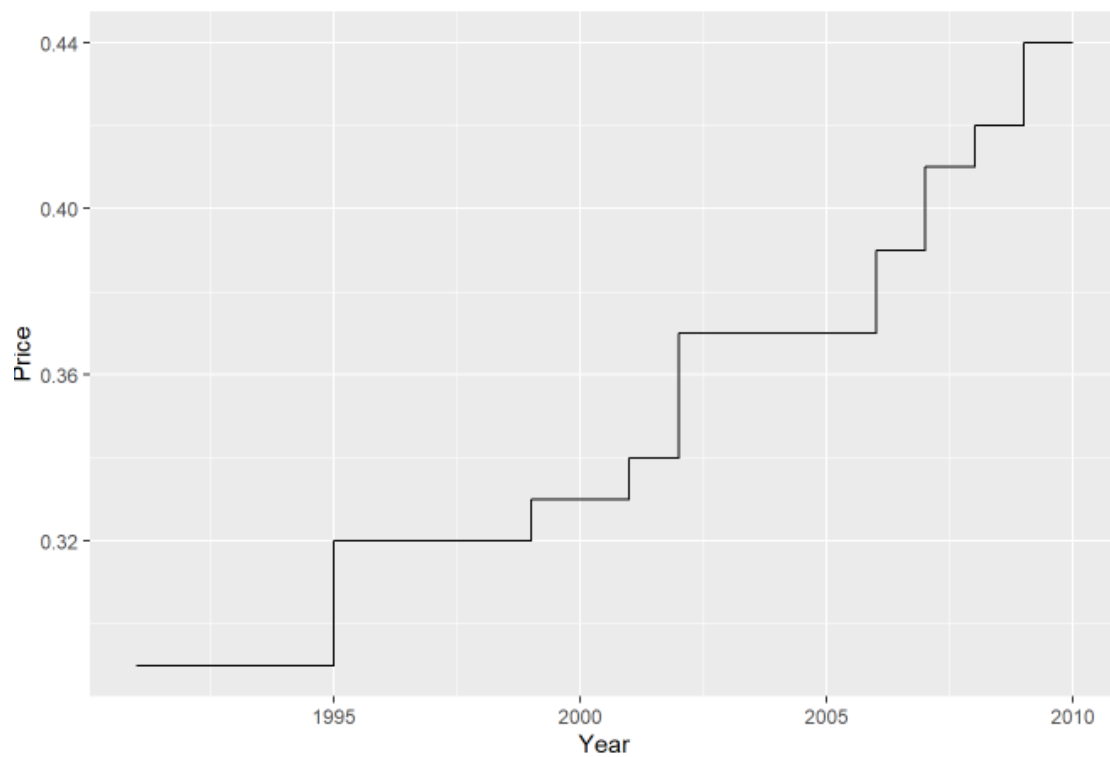
The chart displays the cumulative expenditure in dollars from 1984 to 2008, categorized into 14 different areas. The y-axis represents the cumulative expenditure in dollars, ranging from 0 to 50,000. The x-axis represents the year, from 1984 to 2008. The categories are stacked from bottom to top: Food (blue), Alcoholic Beverages (orange), Housing (green), Apparel (red), Transportation (purple), Healthcare (brown), Entertainment (pink), Personal Care (grey), Reading (yellow), Education (cyan), Tobacco Products (dark blue), Miscellaneous (light orange), Cash Contributions (dark green), and Personal Insurance (dark red). The total expenditure shows a steady increase over the 24-year period, with a significant acceleration in growth starting around 2003.

R Visualizations

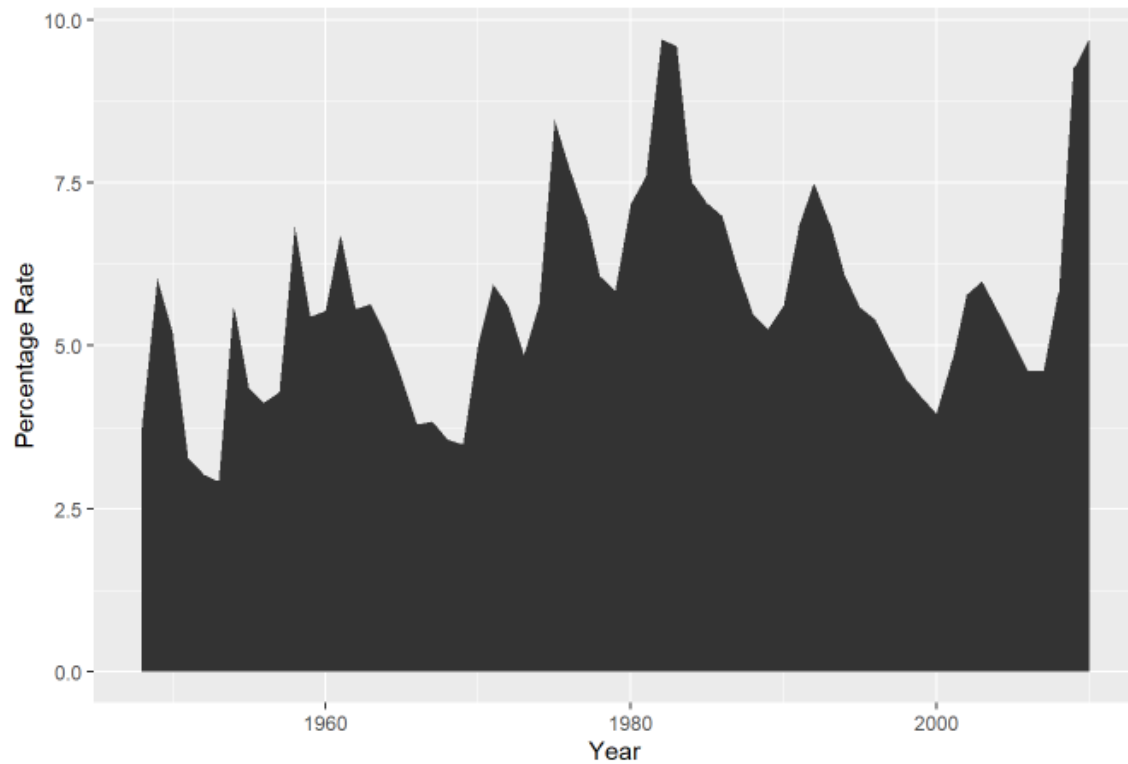
Percent Expenditures by Category (Tree Map - R)



Price of Postage Per Year (Step Chart - R)



Average Unemployment Rate 1948-2010 (Area Chart - R)



Cumulative Expenditure Per Year (Stacked Area Chart - R)

