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Project 1 – Visualization and Data

Purpose: To experiment and gain experience with considerations and tools for visualization of data.

For this assignment I chose the city of Charlotte, NC because Charlotte is the largest city in the state of North Carolina and the third-fastest growing major city in the United States. This makes me curious as to why the city is growing so fast and curious about the income. I decide to look at four factors from Charlotte’s IRS data which include: Returns filed by individuals (singles), Returns filed jointly (couples), Total Salary & Wages Reported, and Total Taxes paid. This task proved a little challenging because Charlotte has a total of 24 different zip codes throughout the city.

To accomplish this task I started by first isolating the data from the IRS so that a new .csv filed was created including only the data from the zip codes in question.

Then I imported that data into my program and due to the fact that some zip codes had several filings, I created a counting function to sum together multiple filings. In oder to better visualize the data later in the program, I found it necessary to creating a sorting algorithm which sorted the zip code data based on the column that would be needed.

Once I created a bar chart to display each set of data I noticed that if really could not be compared well with the rest of the data sets so I decided to subplot the 4 sets together in the same figure window for better comparisons.

After the looking over the data visualizations I wasn’t shocked much by the outcomes. This most populous zips had the highest numbers which was no surprise. I was particularly interested to see that some zips with highest earnings reported did not necessarily pay the highest in taxes. Another point I noted was that some areas with more singles paid much higher in taxes than some other areas that were high in jointly filed returns. For the final comparison that I was interested in was how many single filings versus married and jointly filing. The numbers were surprisingly closer than I thought. I would have expected more than 62 percent singles in such a fast growing city due to the excitement of job possibilities. Ultimately, once I was able to correctly setup my bar chart, after struggling (stressing) for hours on X and Y tick labels, I was really excited to visualize the data. I definitely need more practice but can see how useful this is.