

Analyzing The Extent of Financial Wealth Distribution Regionally in Chicago

Keyan Dunmore, Data Engineering Intern



Who am I?

- Keyan Dunmore (17)
- Senior - attending the Illinois Mathematics and Science Academy (Aurora, IL)
- Intend to Major in Engineering Physics, Computer Science, or Data Science

Question: What is the Extent of Regional Financial Wealth Distribution in Chicago?

Why is this Important?

- Understanding the distribution of wealth among different demographics can highlight disparities and systemic issues.
- Policymakers can benefit from such analysis to design targeted interventions.
- Knowing which areas of Chicago are financially underserved can present opportunities for both public and private investments.
- I personally live in the Chicago suburb, Bolingbrook.

Approach: Analyze the distribution of wealth regionally by examining different Income/Salaries & Wages rates - use python to visually represent and understand the data.

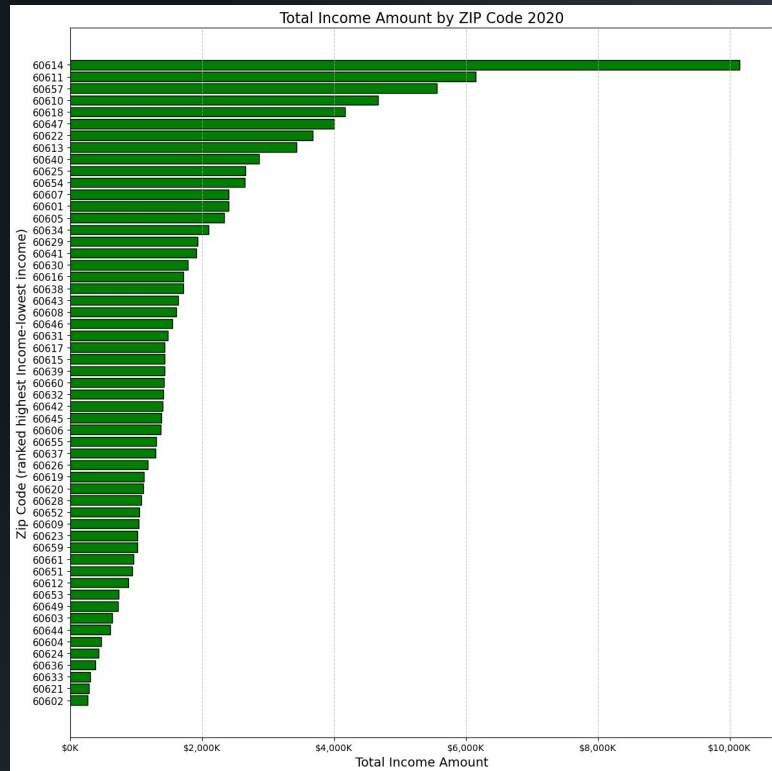
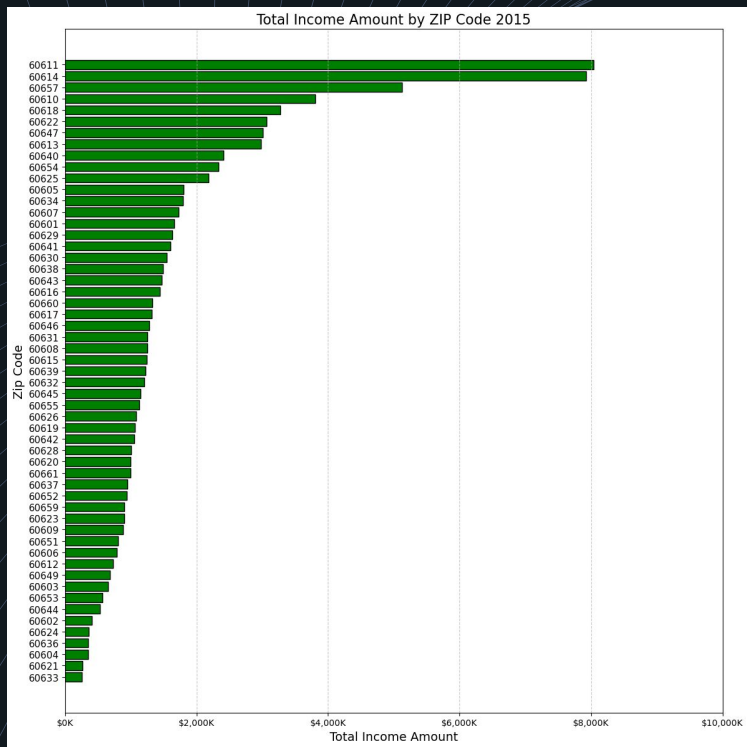


Figure 1: Highest-lowest income amounts in Chicago by Zip Code (2015)

Figure 2: Highest-lowest income amounts in Chicago by Zip Code (2020)

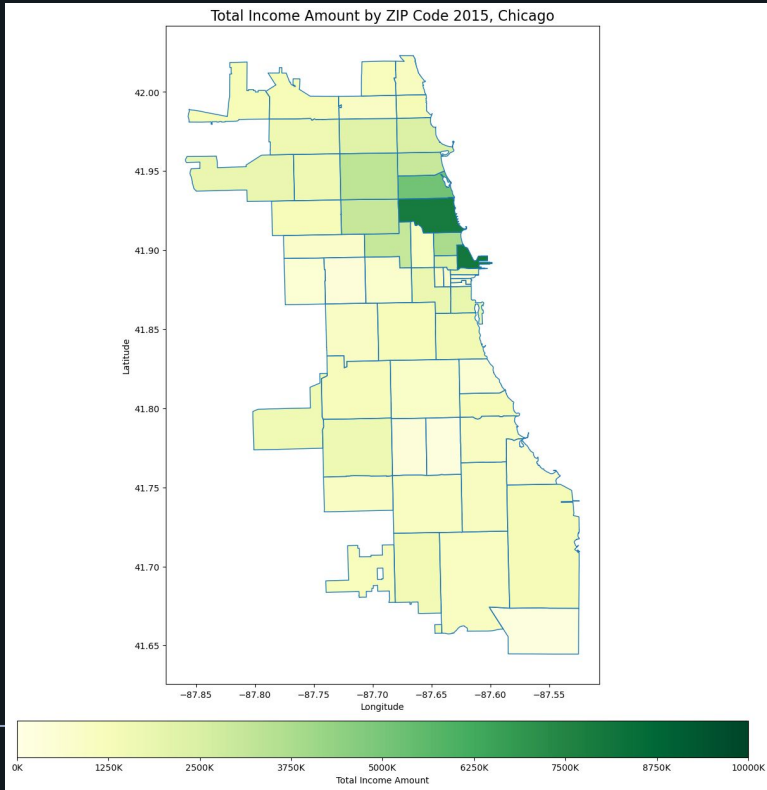


Figure 5: Income amounts in Chicago by Zip Code (2015)

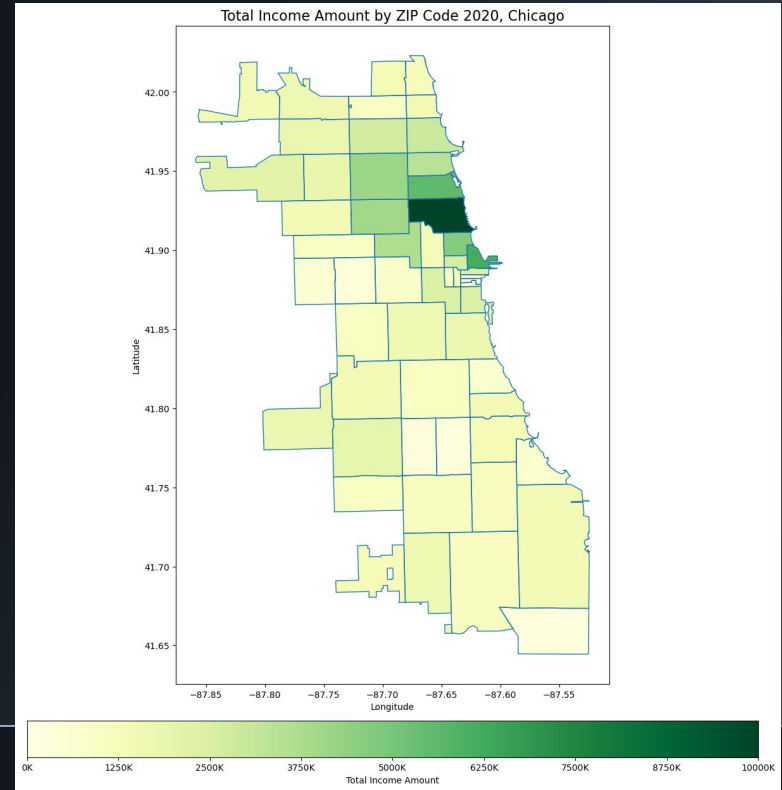


Figure 6: Income amounts in Chicago by Zip Code (2020)

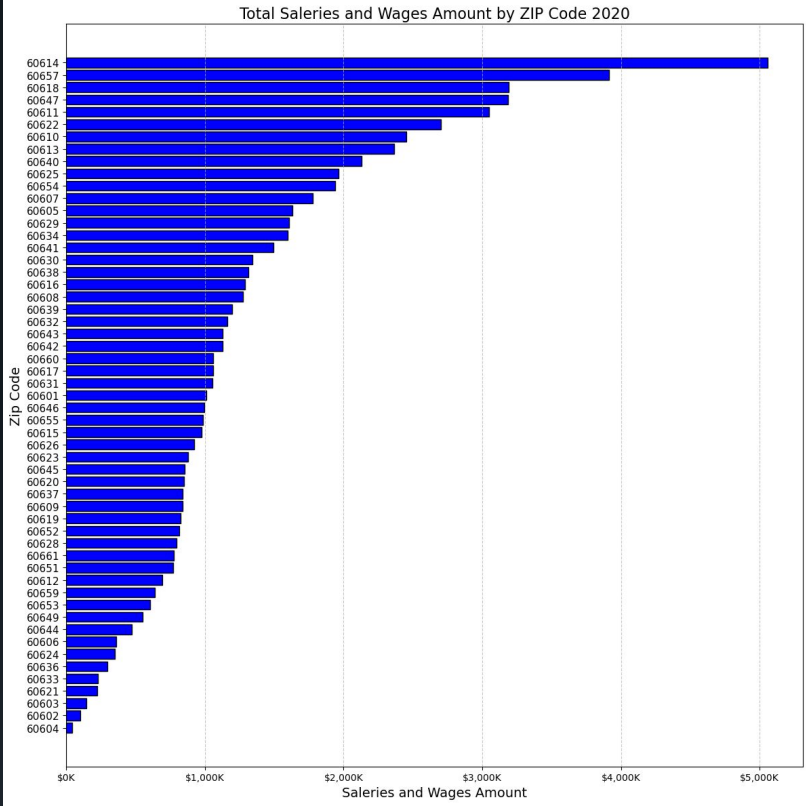
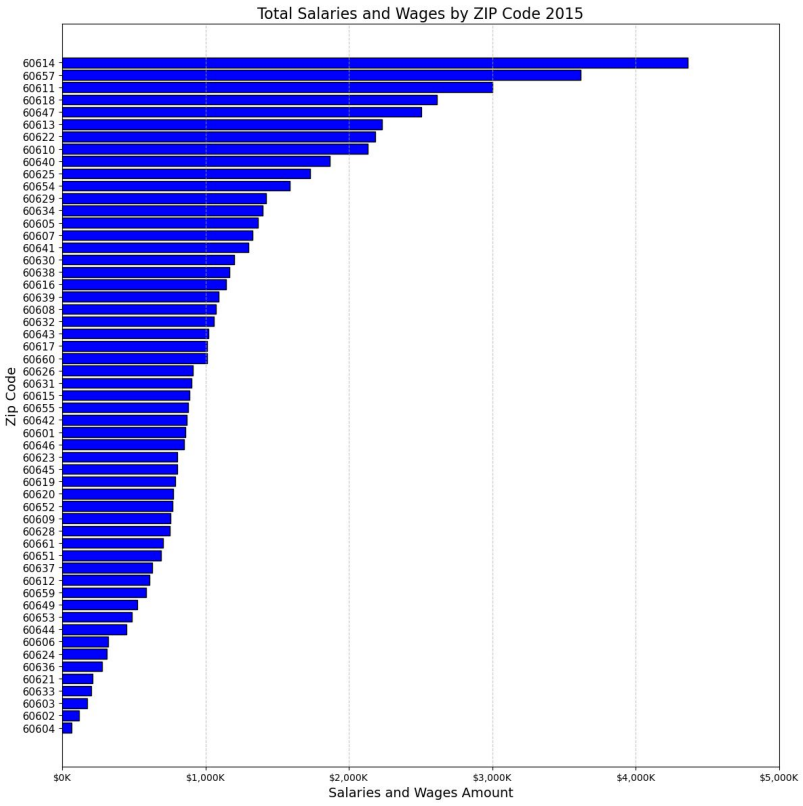
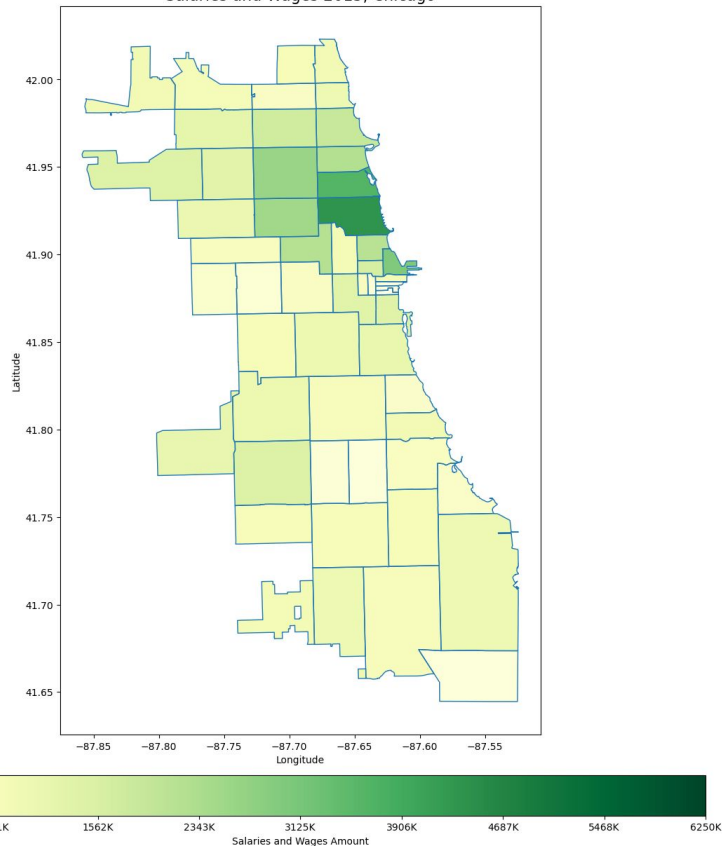


Figure 3: Highest-lowest Salaries and Wages amounts in Chicago by zip code (2015)

Figure 4: Highest-lowest Salaries and Wages amounts in Chicago by zip code (2020)

Salaries and Wages 2015, Chicago



Salaries and Wages Amount 2020, Chicago

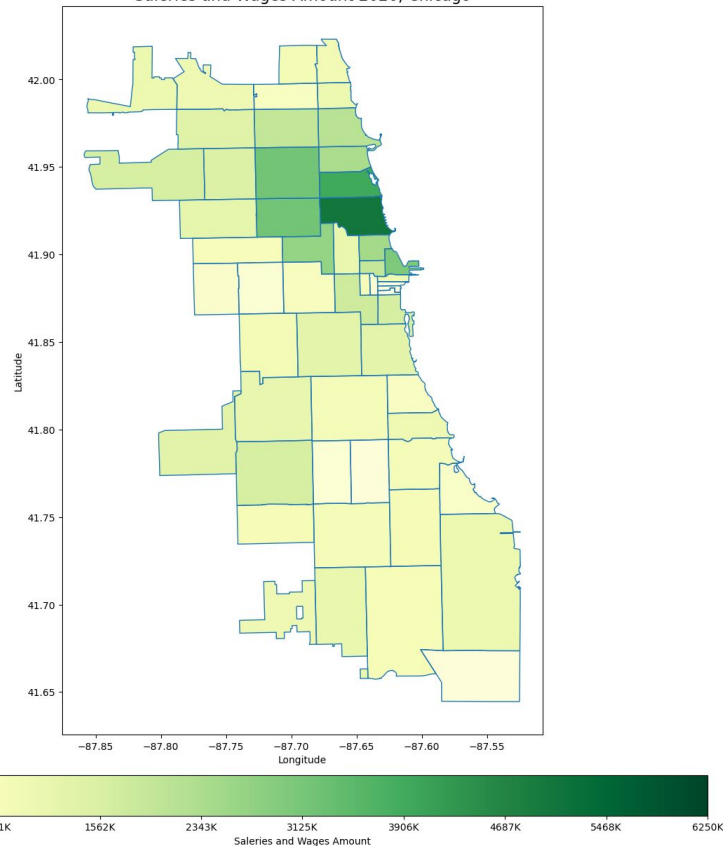


Figure 7: Salaries and Wages amounts in Chicago by Zip Code (2015)

Figure 8: Salaries and Wages amounts in Chicago by Zip Code (2020)

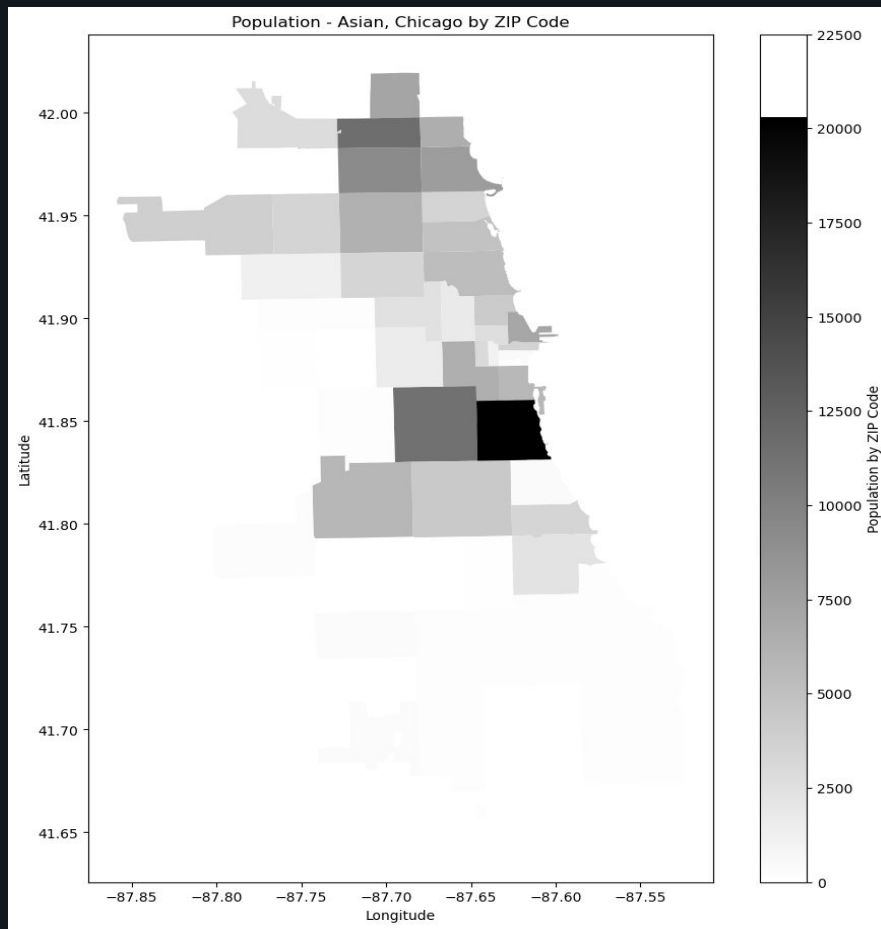


Figure 9: Asian Population in Chicago by Zip Code

Income reference

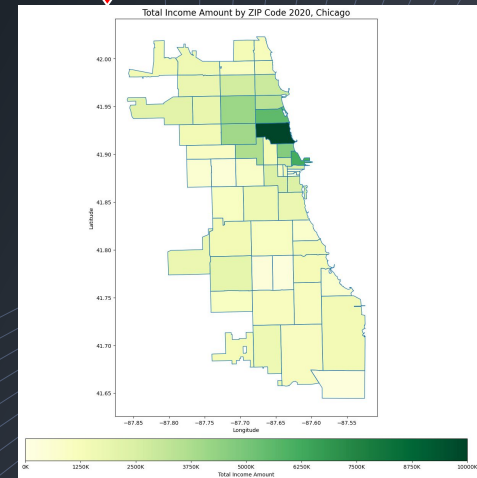


Figure 6: Income amounts in Chicago by Zip Code (2020)

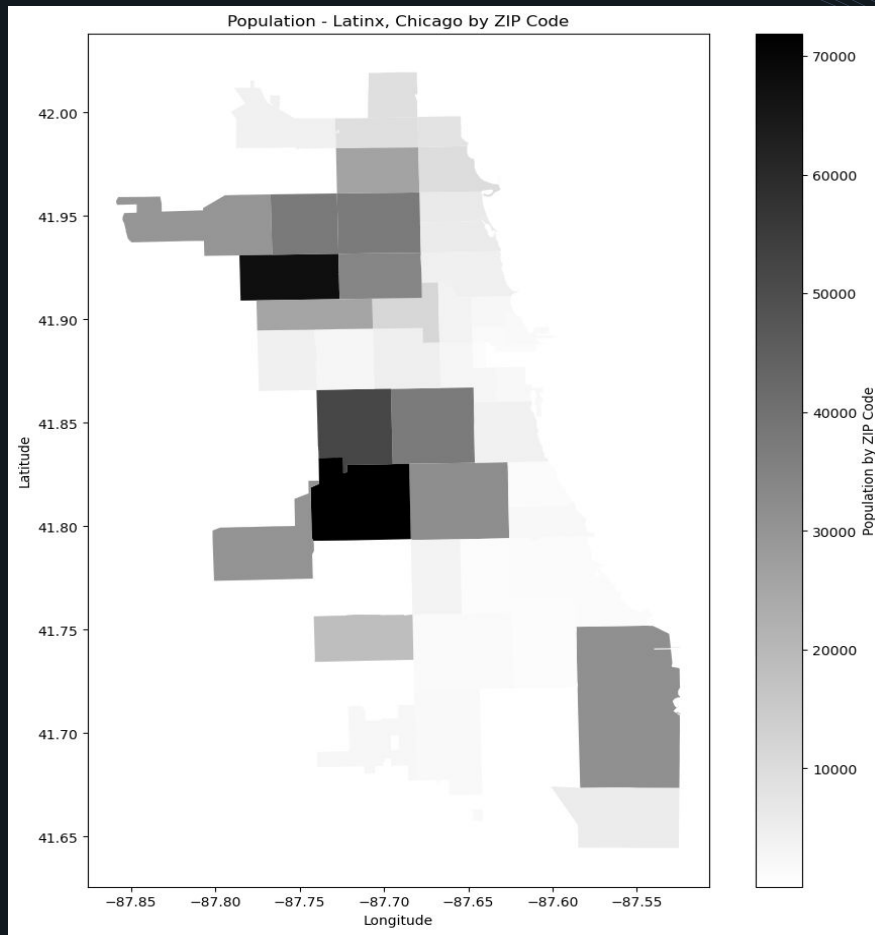


Figure 10: Latinx Population in Chicago by Zip Code

Income reference

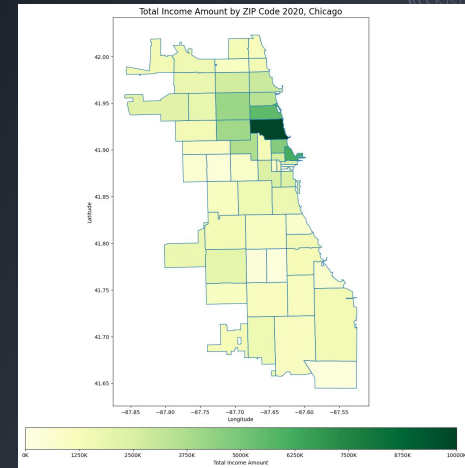


Figure 6: Income amounts in Chicago by Zip Code (2020)

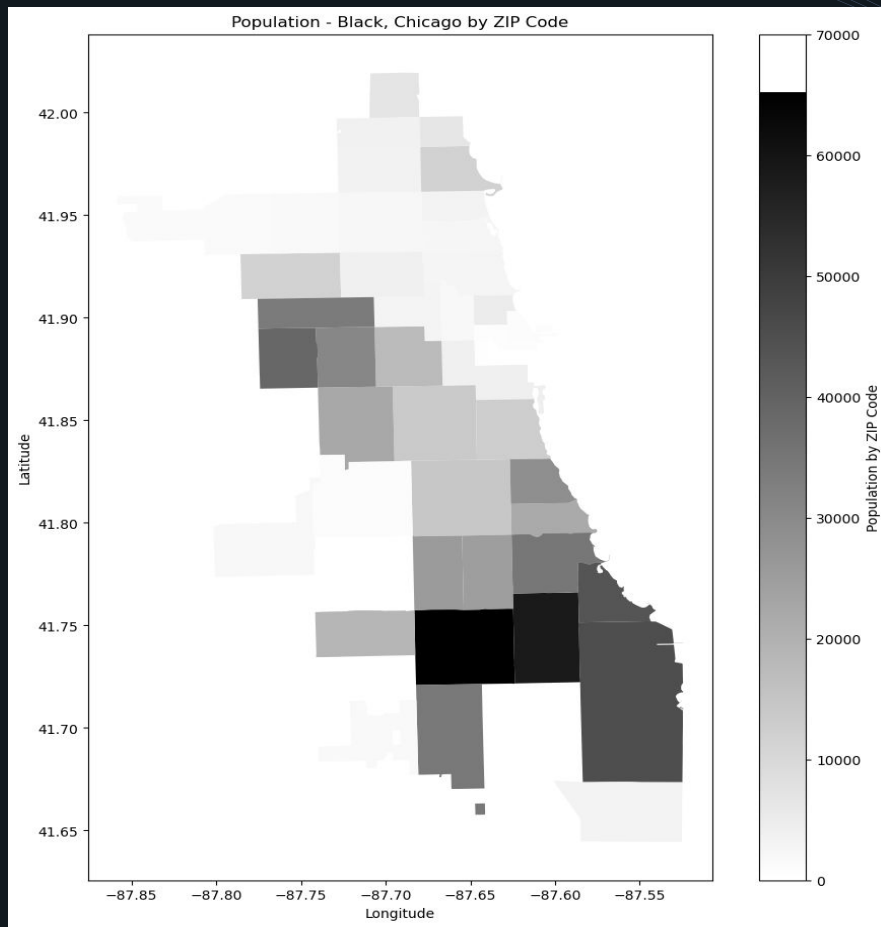


Figure 11: Black Population in Chicago by Zip Code

Income reference

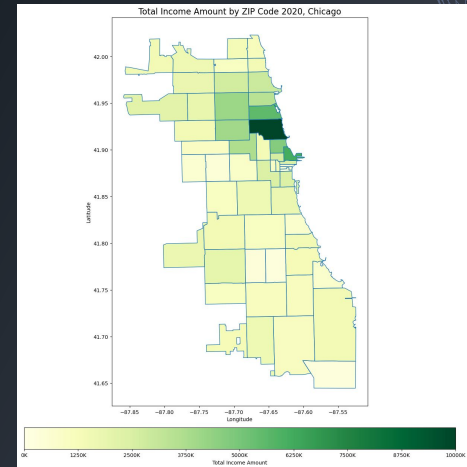


Figure 6: Income amounts in Chicago by Zip Code (2020)

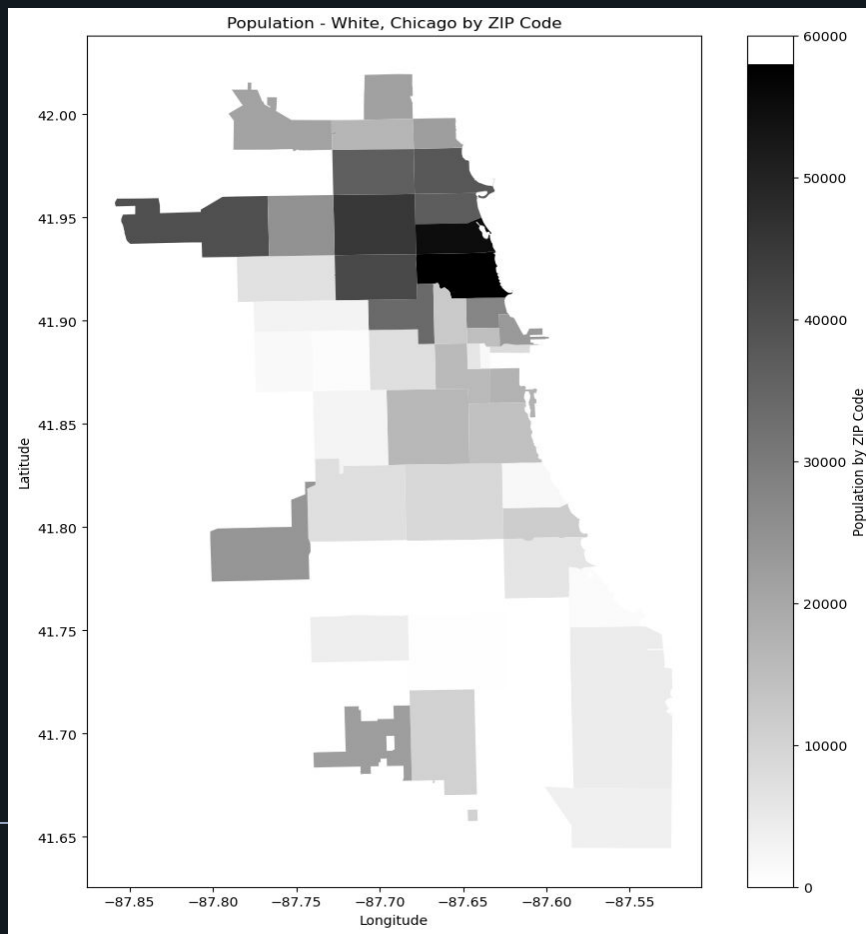


Figure 12: White Population in Chicago by Zip Code

Income reference

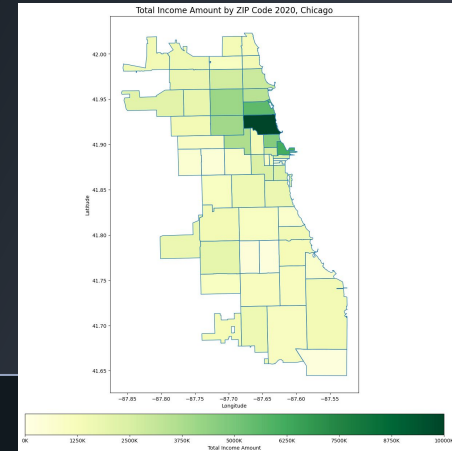


Figure 6: Income amounts in Chicago by Zip Code (2020)

Data Takeaways

- Wealth in Chicago is concentrated in certain areas/zip codes (eg. Lincoln Park, the Loop, Gold Coast, etc)
- Areas with the greatest wealth have higher concentrations of the White population, while marginalized groups such as Black and Latinx occupy areas of lesser wealth.
- Although financial trends over the past 5 years reveal fluctuations in income and wages, the overall distribution of wealth has remained largely consistent.

Program Takeaways

- Understanding of how Python 3 and Pandas streamline the data processing and manipulation process.
- Learned to manipulate and present geospatial data
- GeoPandas was my primary tool, but I also explored other visualization libraries in Python, like Matplotlib, Seaborn, and pyfinance.

**Thank you,
Renaissance EXL**

An abstract graphic design featuring a dark blue background. On the right side, there is a series of thin, light blue lines that curve and fan out, creating a sense of motion and depth. The lines are arranged in a way that they appear to be part of a larger, curved structure, possibly representing a stylized 'R' or a modern architectural element.