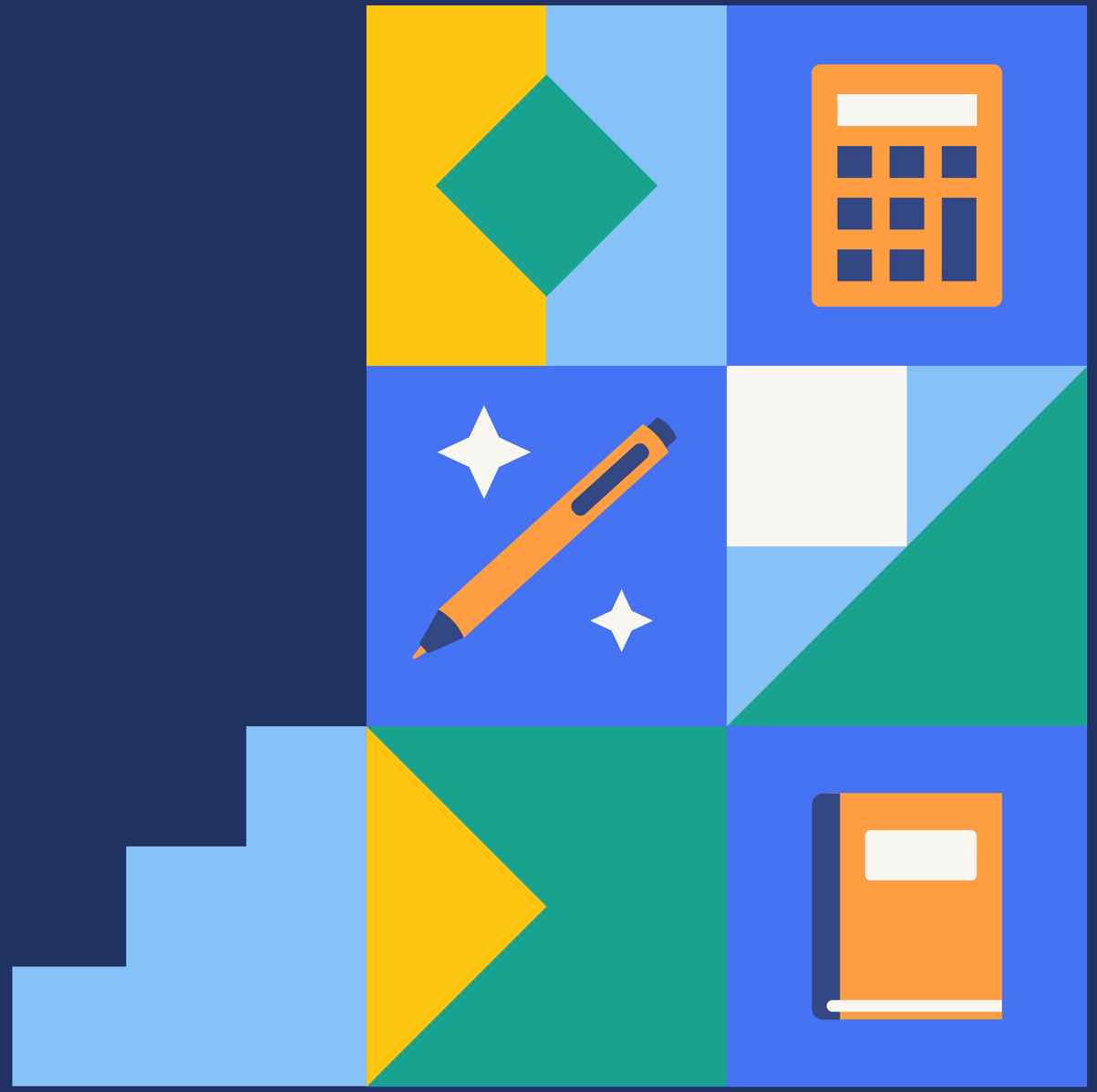
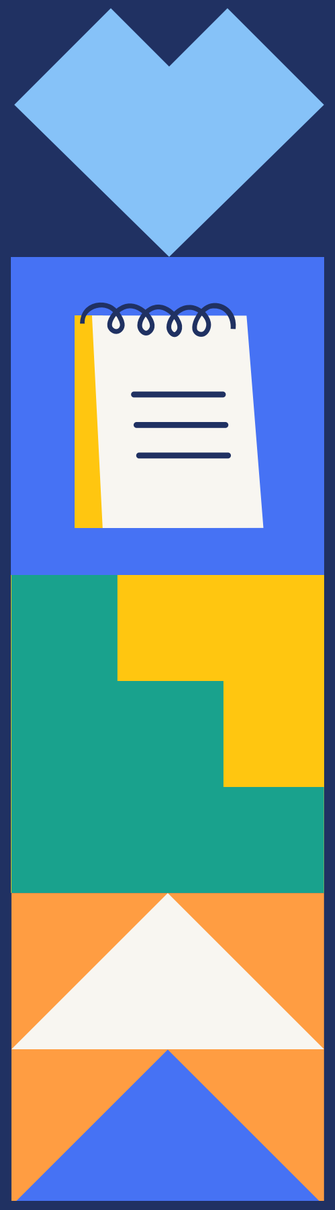
MY CHi
MY FUTURE

Sherry Chen



INSPIRED BY mathspace



Agenda

Data Prep

- Selection
- Cleaning
- Preparation

Summarizing Results

- Density Plot
- EDA Plots

Background

Cost

1. 1/3 of income
2. Early Head Program 15%

Transportation

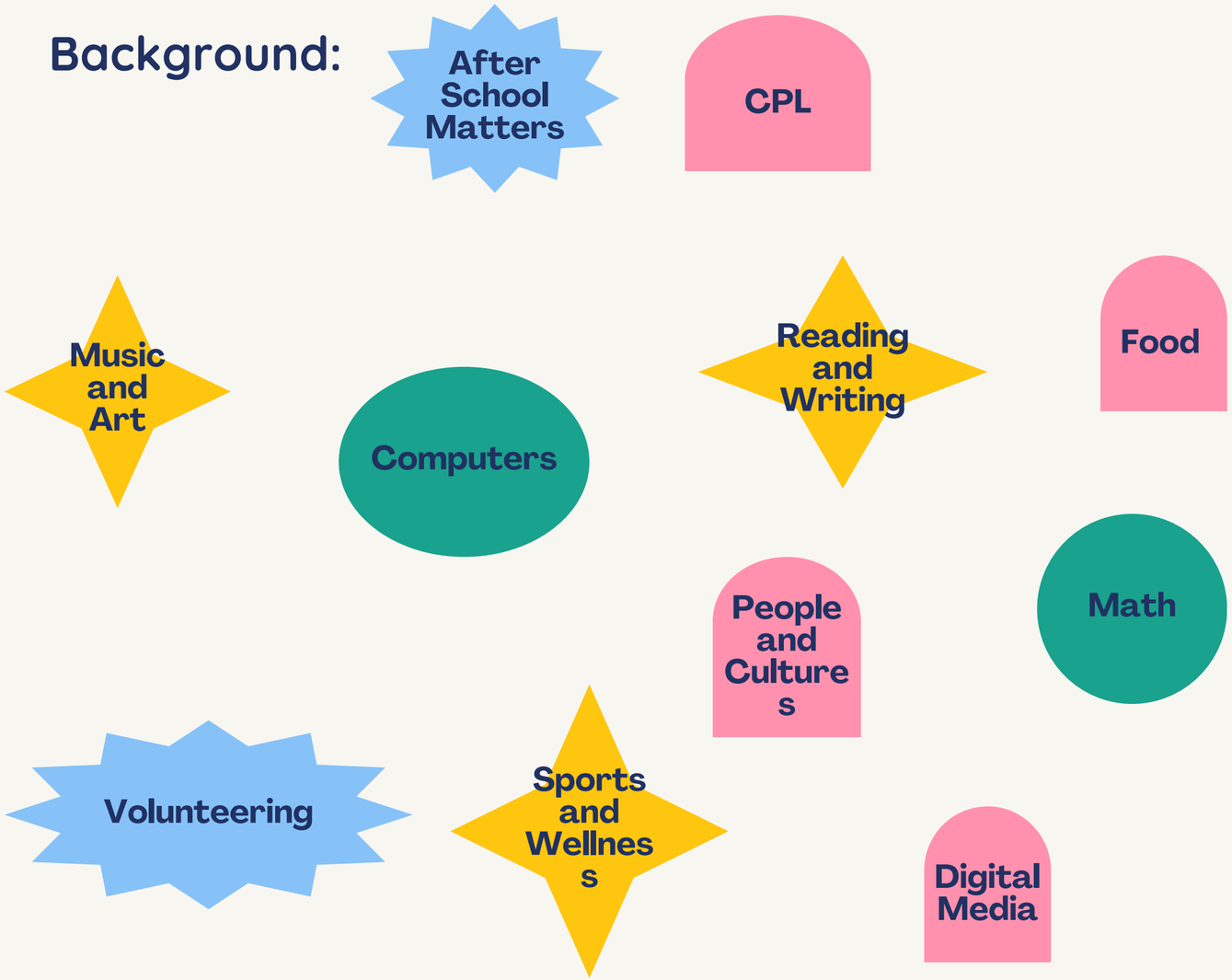
housing and transportation can exceed 50% of yearly income

Economic

career interruptions reducing lifetime income by 19%

Problem Statement

Background:



I aimed to explore how communities with high needs, characterized by factors such as poverty and low income, influence the diversity of available program offerings.

Data Selection

Census Data

US Neighborhood Data

Map Data

Teen Econ

Data Preparation

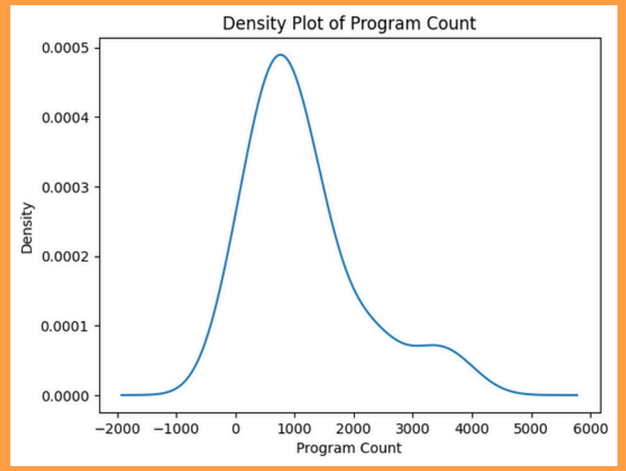
Data Cleaning

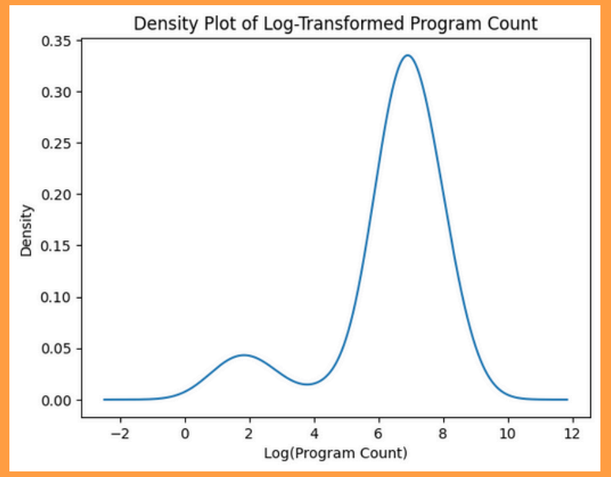
What variables did I choose to keep?

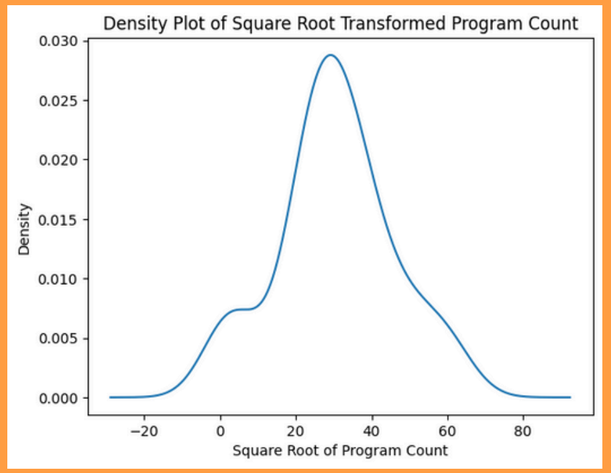
Program Data	Census Data	Neighborhood Data
program_id, zip_code	neighborhood	city
program_name, category_name	zip _code	lat and lon
long, lat	population	
org_name	med_income	
free_food, transportation	poverty count for teens	
scholarship available		

Density Plots

Program Count

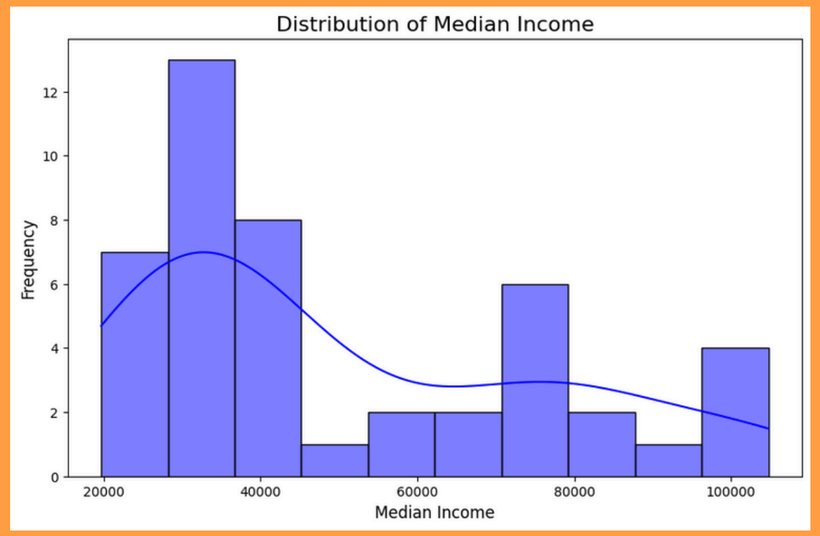


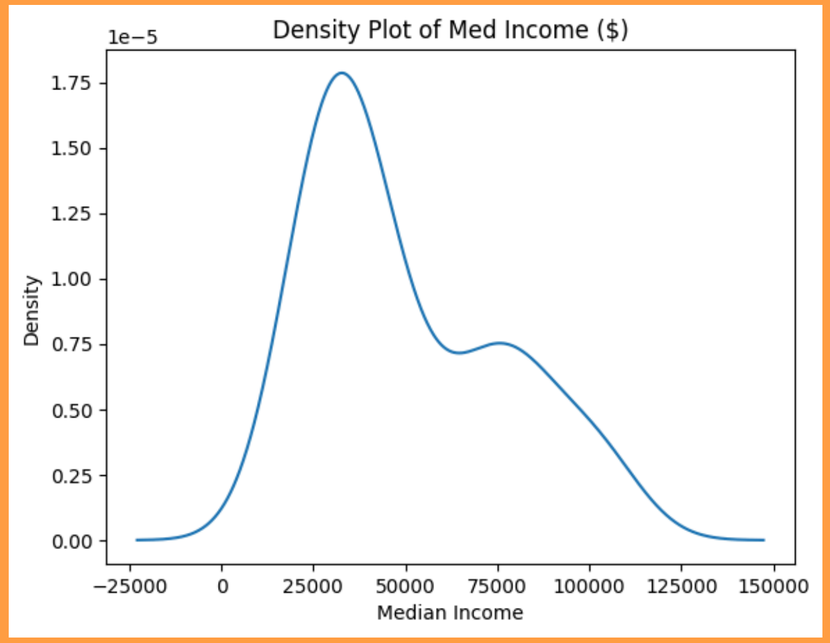




Density Plots

Median Income





Data Preparation

Median Income

Groups

STEM

Transportation(yes/no)

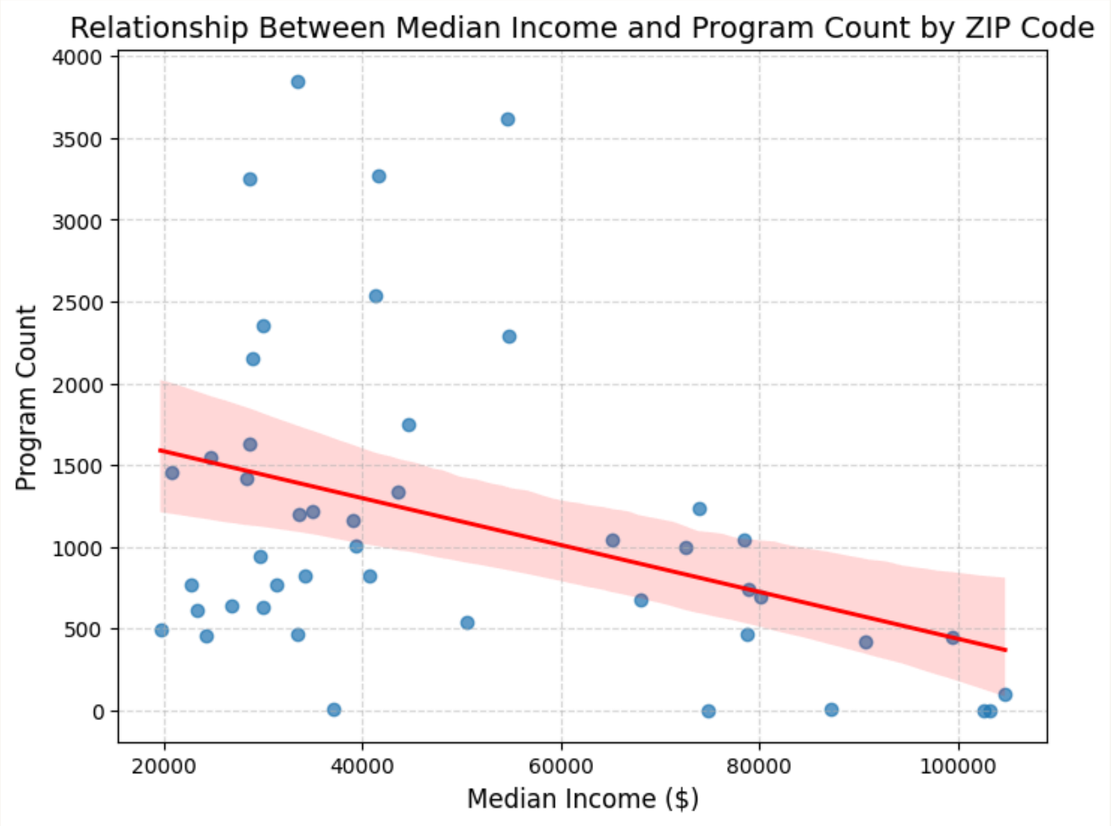
Free Food

Scholarship

All determined by ZIP_Code!

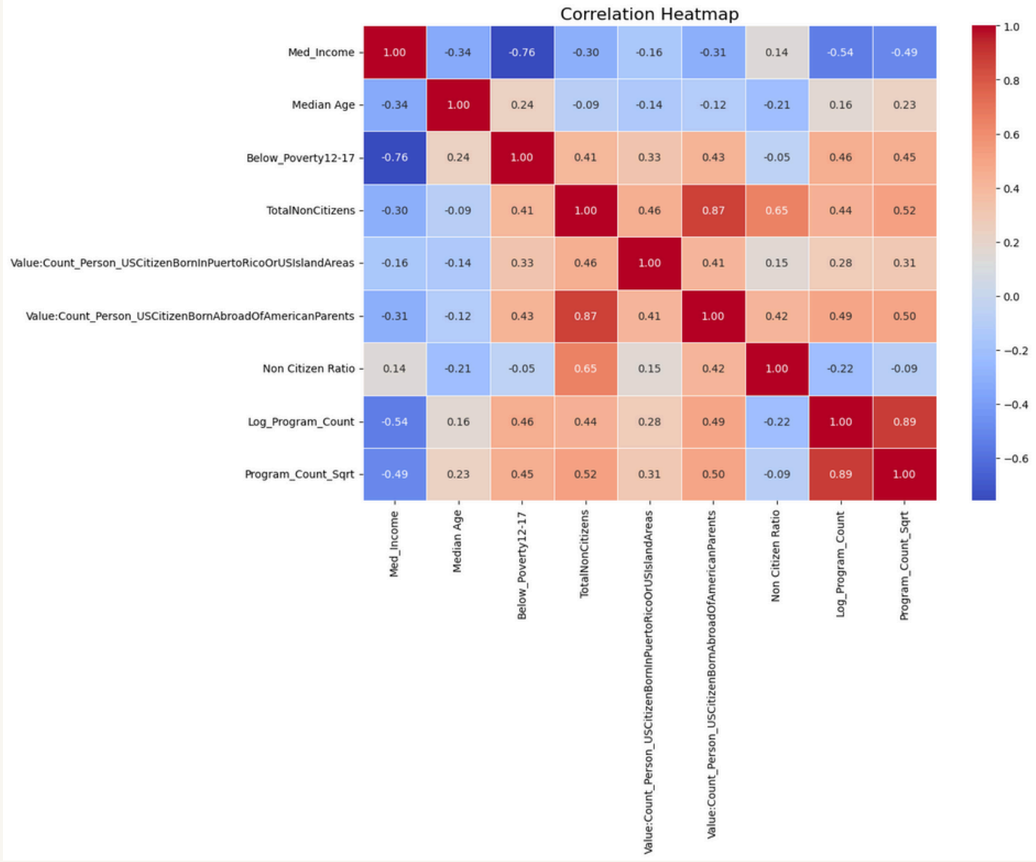
Scatterplot (Income by Program)

- neighborhoods with lower median incomes tend to have higher program counts, while higher-income neighborhoods have fewer programs.



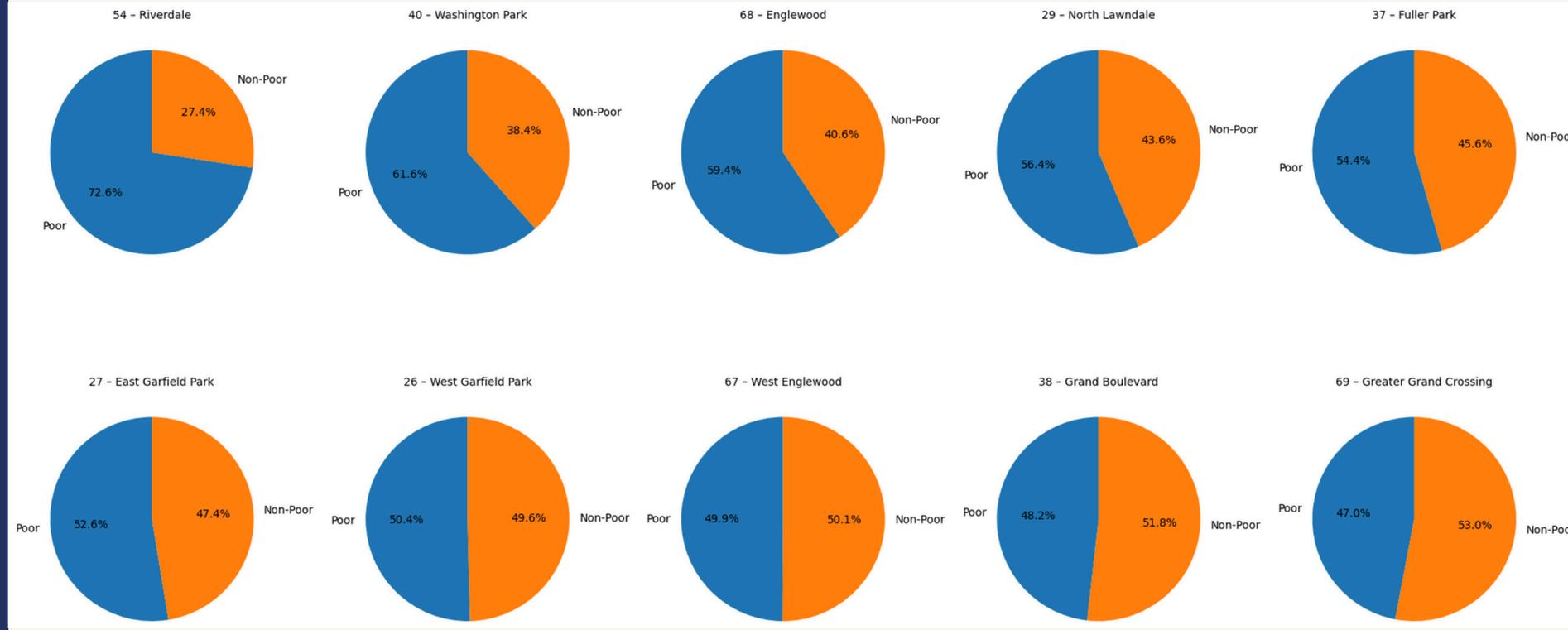
Correlation Matrix

- high negative correlation of -0.76 between median income per neighborhood and poverty counts for teens.
- median income of a neighborhood increases, the number of teens living in poverty tends to decrease significantly.



Pie Chart Facet Grid

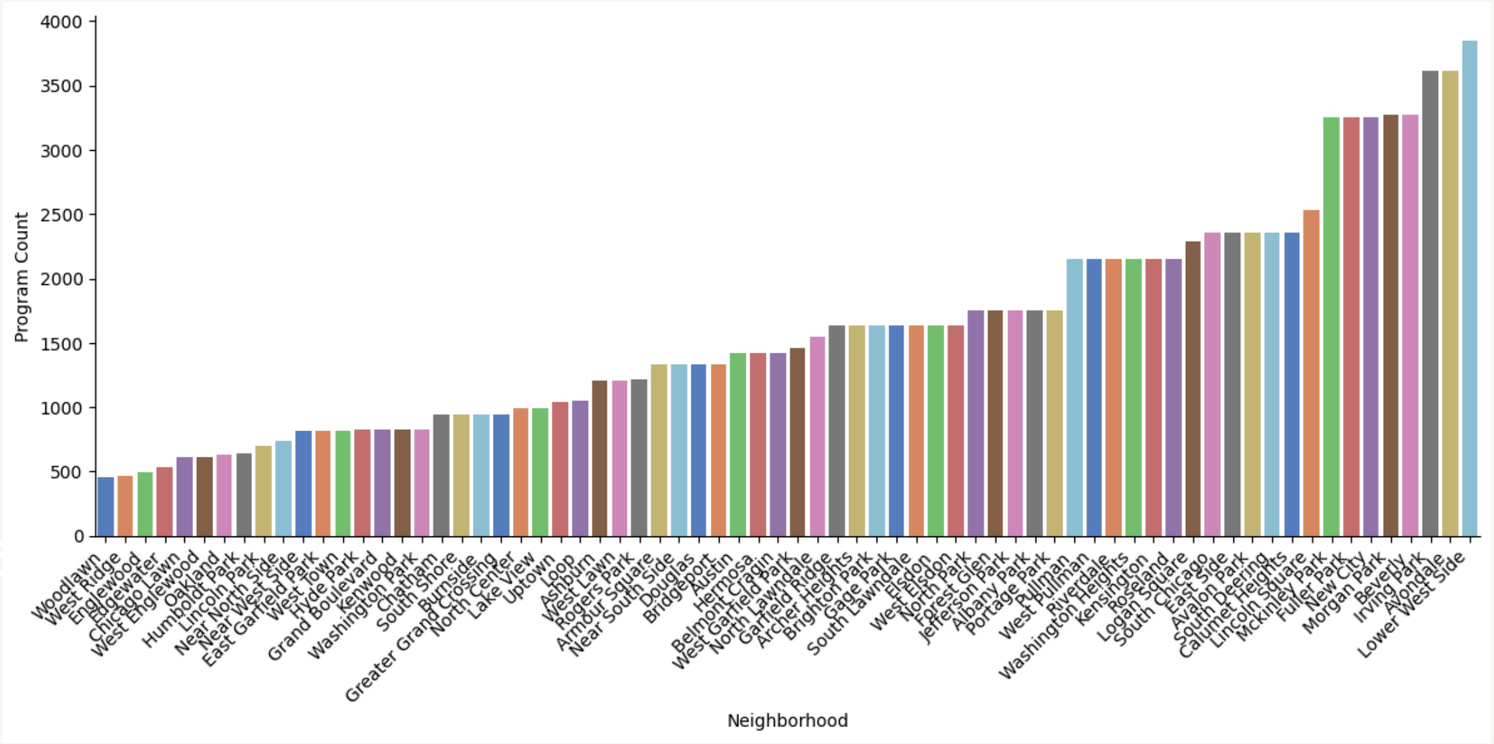
1. River Dale
2. Washington Park
3. Englewood
4. North Lawndale
5. Fullter Park



EDA

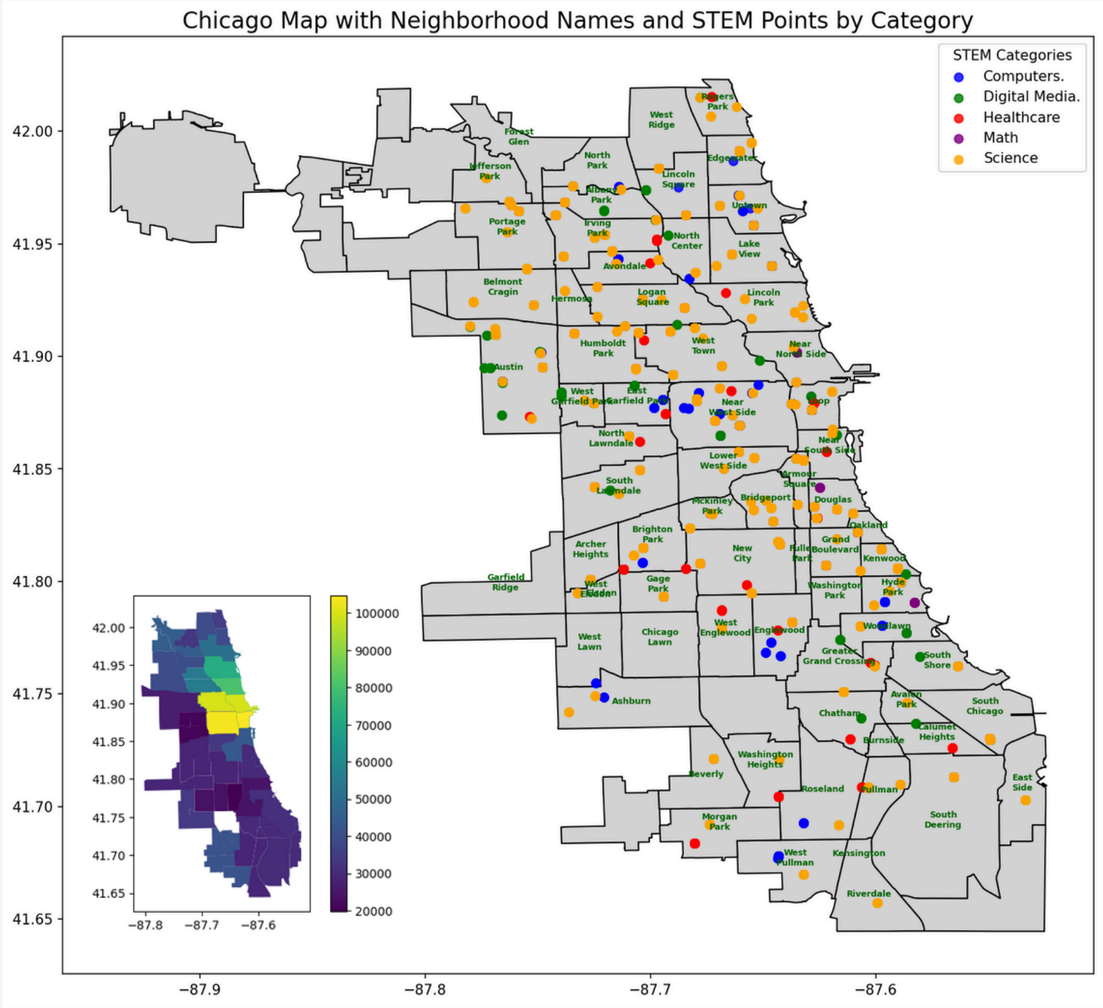
Bar Plot Sorted

1. The modes of the data set are 2 and 5
2. There are 12 students in the class.



STEM Availability

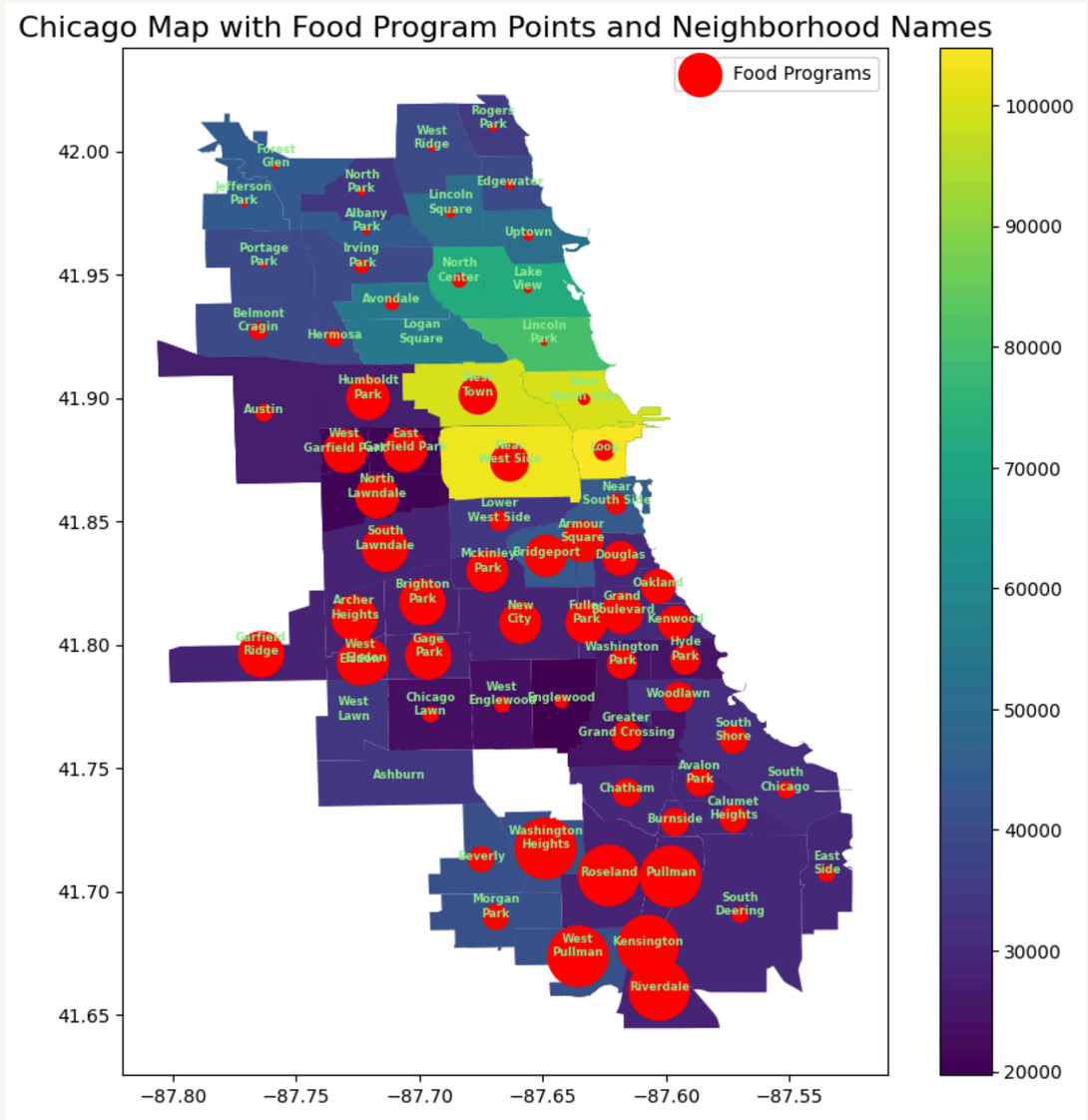
1. STEM graduates earn 87% more than non-STEM graduates
2. Math, Healthcare, and other computer-related fields are notably absent.



Food Availability

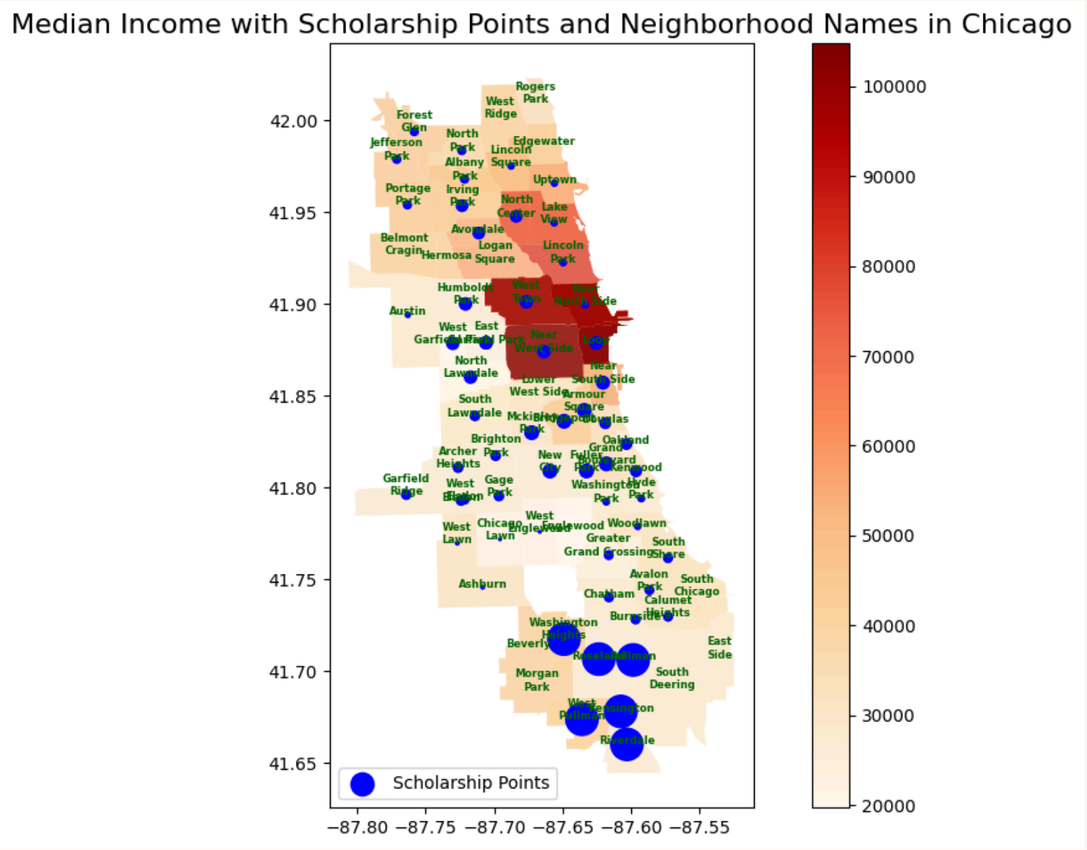
1. Chicago Lawn
2. West Englewood
3. South Deering

face critical gaps in accessibility



Scholarship Availability

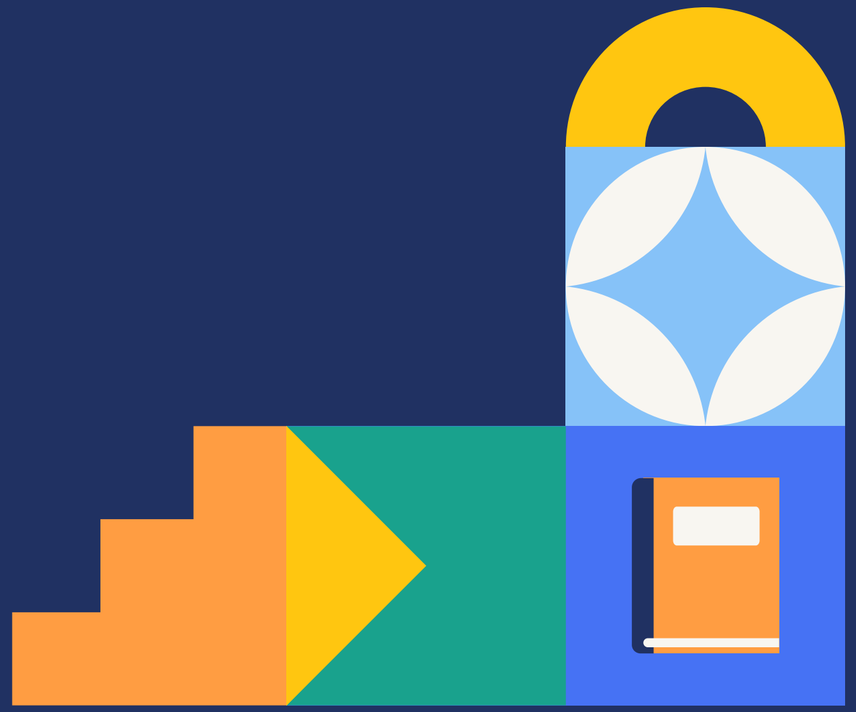
- Everywhere except Far South



Conclusion

- limited access to programs,
- scholarships
- STEM opportunities
- transportation.

Organize, summarize, and present the data you collected in a poster.



Recommendations

Targeted Funding

Englewood and Washington Park, and focus on high impact programs.

Scholarship Allocation

low-income neighborhoods to reduce financial barriers to education.

Collaboration

local organizations, working with local leaders, schools, businesses

Data

Continue finding the correlation between resource allocation and poverty reduction.

Reference

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