

# Data 205 Capstone Rockville City Health

## Power Bi Dashboard

Walter Hinkley 5/12/2025

# What is a Healthy City

A "healthy city" is a city that actively works to improve its physical and social environments, providing residents with access to quality housing, healthcare, green spaces, safe transportation, and opportunities to promote their wellbeing

## Key Aspects of a Healthy City

- **Physical environment:** Clean air and water, access to green spaces, well maintained infrastructure, safe walking and cycling paths, reduce noise pollution.
- **Social environment:** Strong community connections, diverse population, low crime rates, opportunities for social interaction and participation.
- **Economic Factors:** Affordable housing, diverse employment opportunities, good quality education and healthcare access.
- **Governance and Policy:** Active policies promoting health and sustainability, community engagement in decision making and integrated urban planning
- **Health outcomes:** Helping and focusing residents to maintain a consistent healthy lifestyle

# Project Goals:

- Create an addition to the Rockville city characteristics dashboard that has already been created.
- Determine if Rockville City is a healthy city for current and new potential residents.



- **Sources**

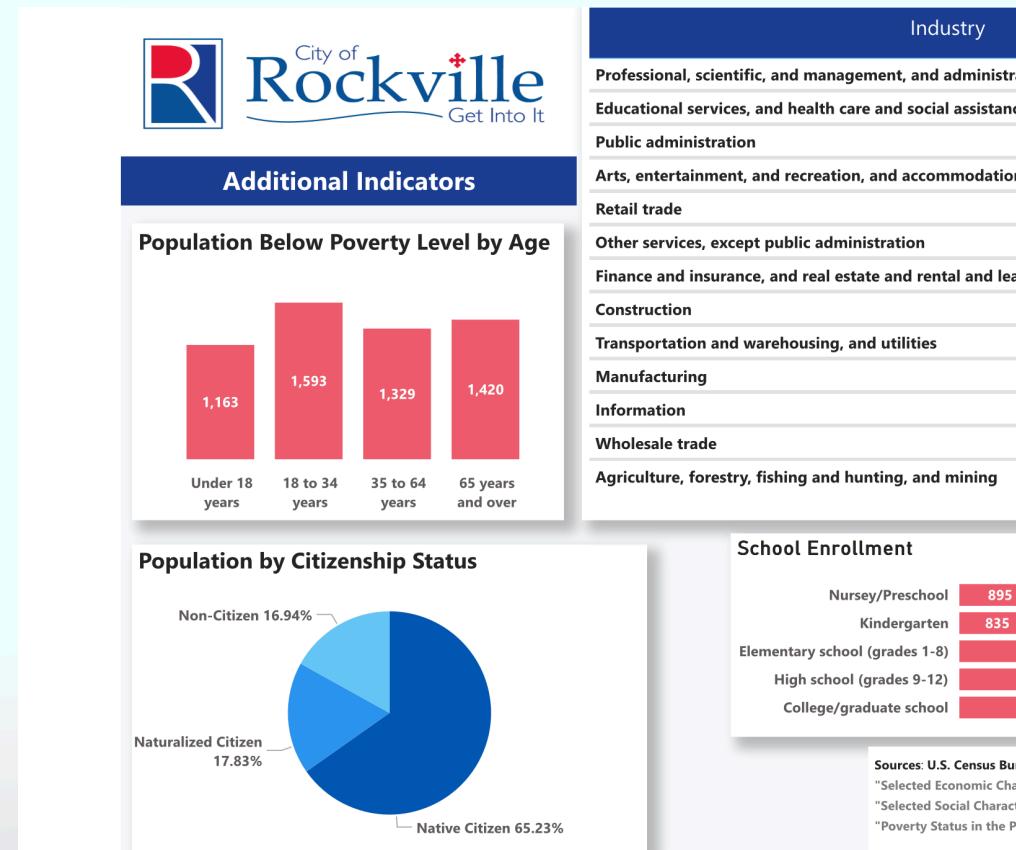
Department of Population Health, NYU Langone Health. City Health Dashboard. <https://www.cityhealthdashboard.com/>

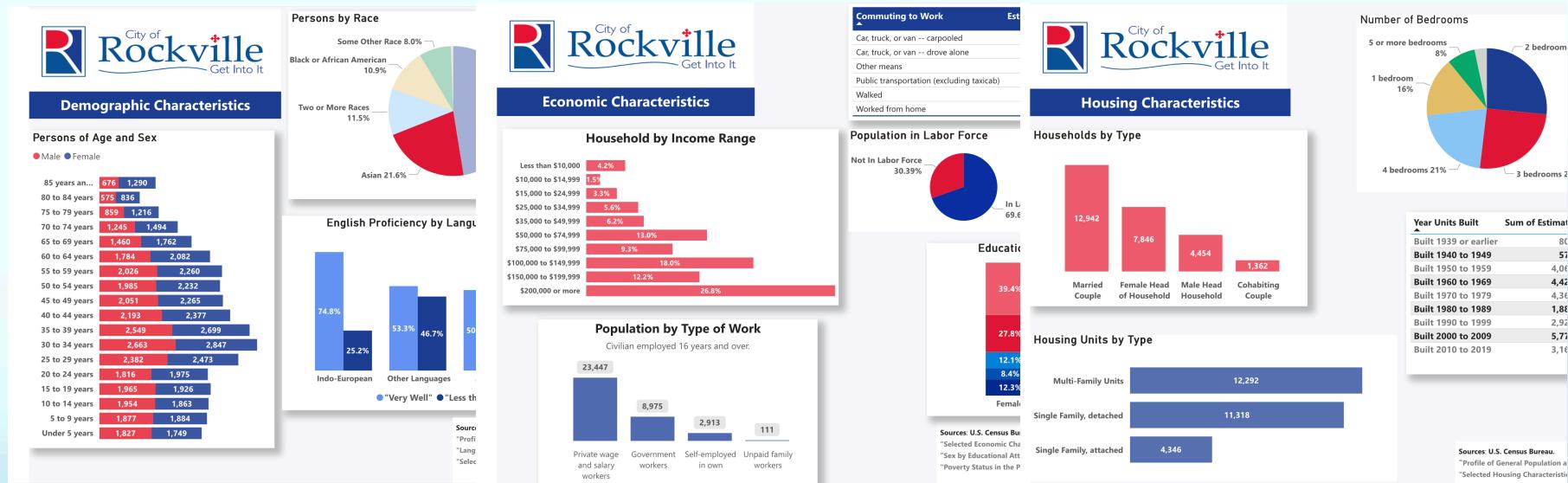
University of Wisconsin Population Health Institute. (2025). County Health Rankings & Roadmaps. <https://www.countyhealthrankings.org>

[NeighborhoodScout.com](https://NeighborhoodScout.com) (2025, May 11). Neighborhood Scout Rockville, MD. [NeighborhoodScout.](https://NeighborhoodScout.com)

# Rockville City

## Demographic Economic Social Characteristics Dashboard

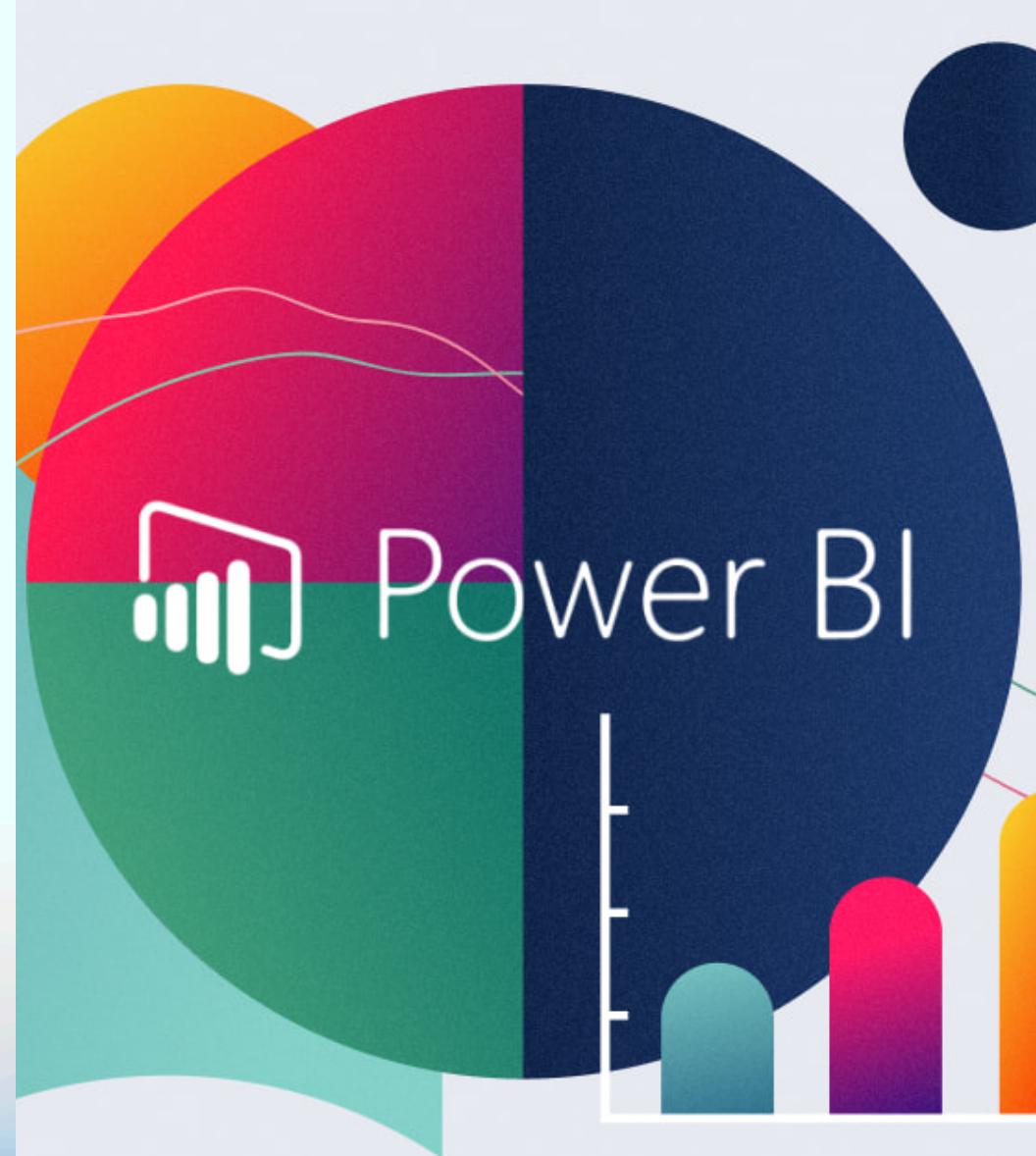




## Project tools:

Power Bi, by Microsoft

Is a business intelligence and analytics tool to transform data into charts, graphs, and visualizations



# Power Bi

## Types of data visualizations

Bar graphs : plotting social factors, health outcomes, physical environment metrics, and clinical care metrics. (With a slicer to help compare rockville to other cities in MD.)

Statistics cards with National average comparisons.

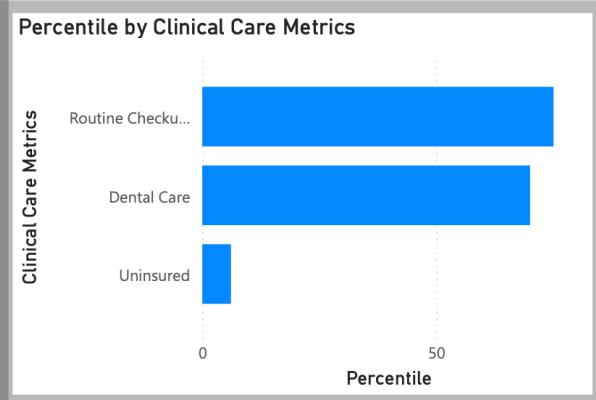
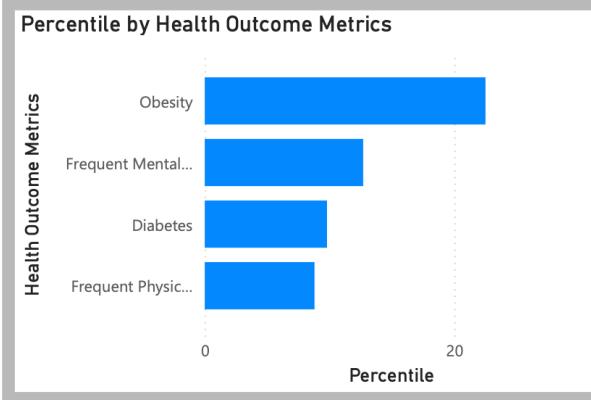
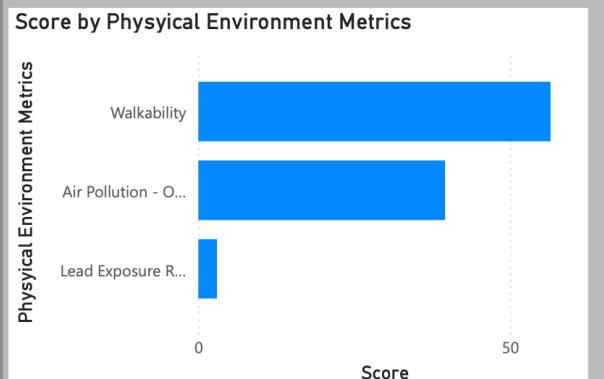
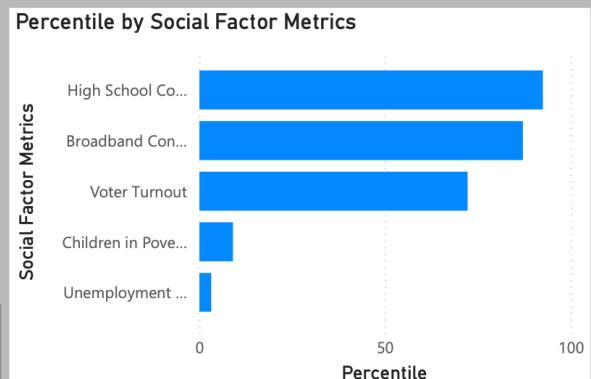
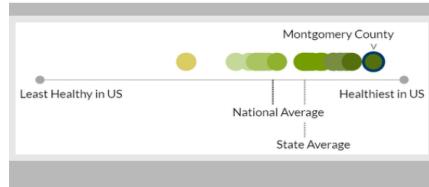
Map with tool tip pop up to highlight city metrics of additional health outcomes.

Interactive maps of park locations, county rankings, crime levels, bike paths and traffic forecasts.



**City of**  
**Rockville**  
Rise Together

## Rockville City Health Dashboard



**geo\_name**

Aspen Hill
Baltimore
Bel Air South
Bethesda
Bowie
Columbia
Dundalk
Ellicott City
Frederick



**City of  
Rockville**  
Rise Together

## Rockville City Health Dashboard

**83.20**

Life Expectancy

**28.20**

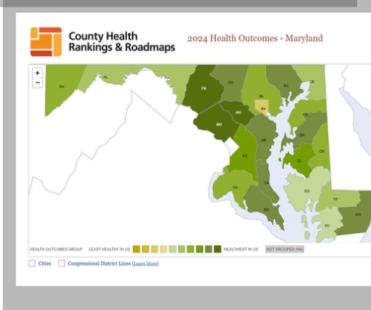
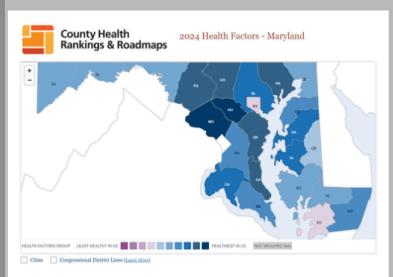
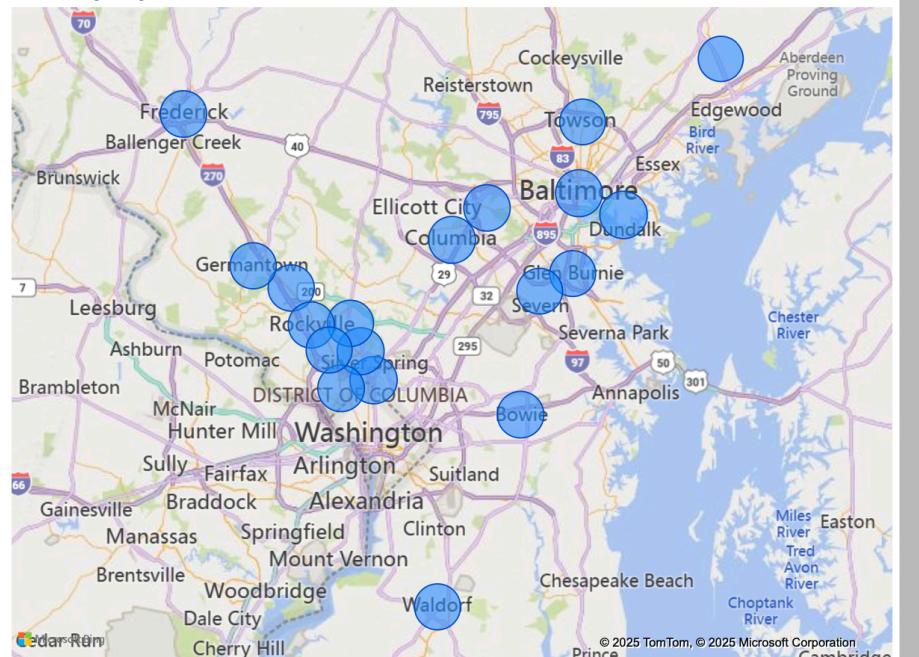
High Blood Pressure %

**22.50**

Obesity Rate %

National avgs 78.9, 31.20, 32.5

### Metric by City



**12.7**

Frequent Mental Distress  
%

**7.3**

Frequent Physical  
Distress %

**City of Rockville**  
Rise Together  
**Rockville City Health Dashboard**

**93.30**

Park Access %

**7.41**

Air Pollution - Partic...

**18.05**

Physical Inactivity %

**71.60**

Cardiac Deaths

National avgs:

**59.7**

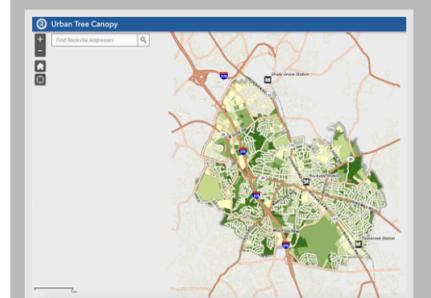
**8.6**

**24.1%**

**210.4**

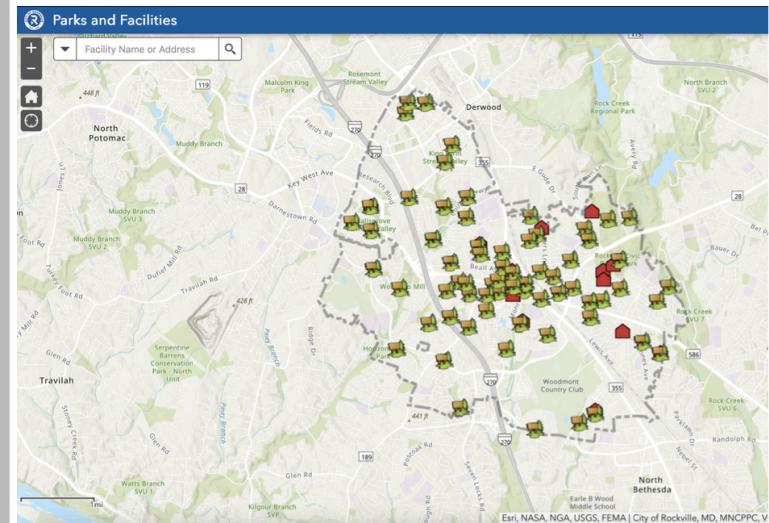


Explore Rockville City Parks



**Air Quality Index  
Forcaster**

**Rockville City Park Locations**





# City of **Rockville** Rise Together

## Rockville City Health Dashboard

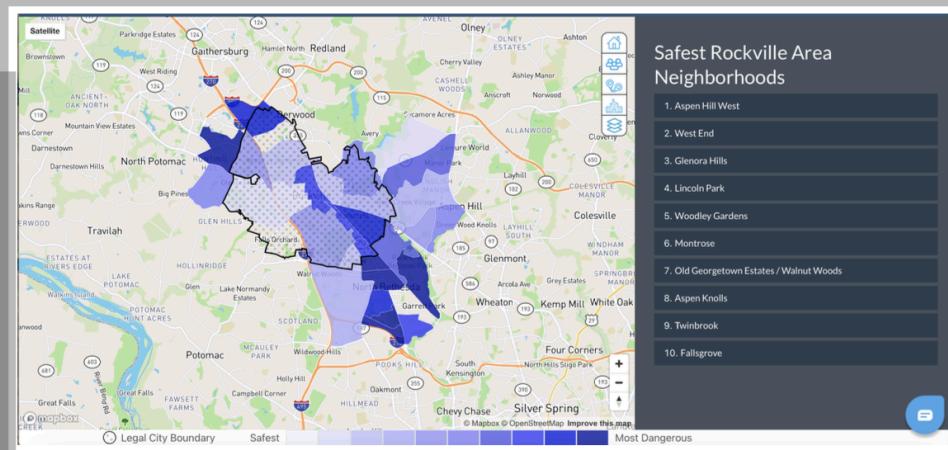
**10.20**

Opiod Deaths

**2.60K**

Premature Deaths

National  
Avgs:  
**23.5**  
**8.23K**



Rockville Violent Crimes

	Murder	Rape	Robbery	Assault	Population: 67,297
Report Total	0	11	29	54	
Rate per 1,000	0.00	0.16	0.43	0.80	

United States Violent Crimes

	Murder	Rape	Robbery	Assault	Population: 334,914,895
Report Total	19,252	127,216	222,795	884,550	
Rate per 1,000	0.06	0.38	0.67	2.64	

**2024**

**499**   **2107**   **77**  
**Crimes Against People**   **Crimes Against Property**   **Crimes Against Society**

**2023**

**454**   **1,863**   **92**  
**Crimes Against People**   **Crimes Against Property**   **Crimes Against Society**



**56.50**

Walkability

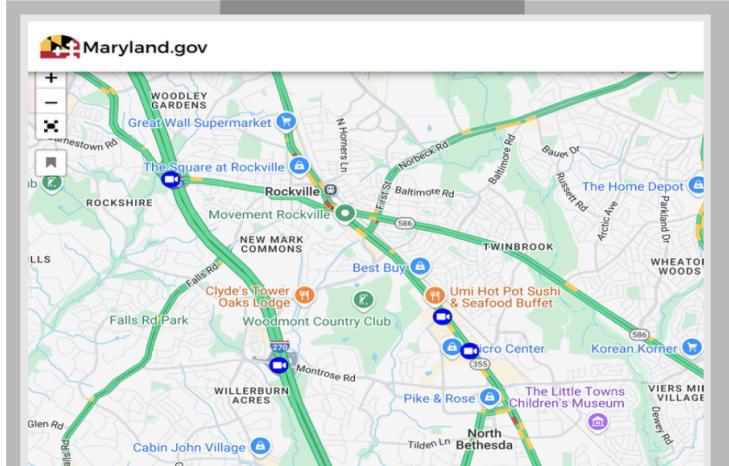
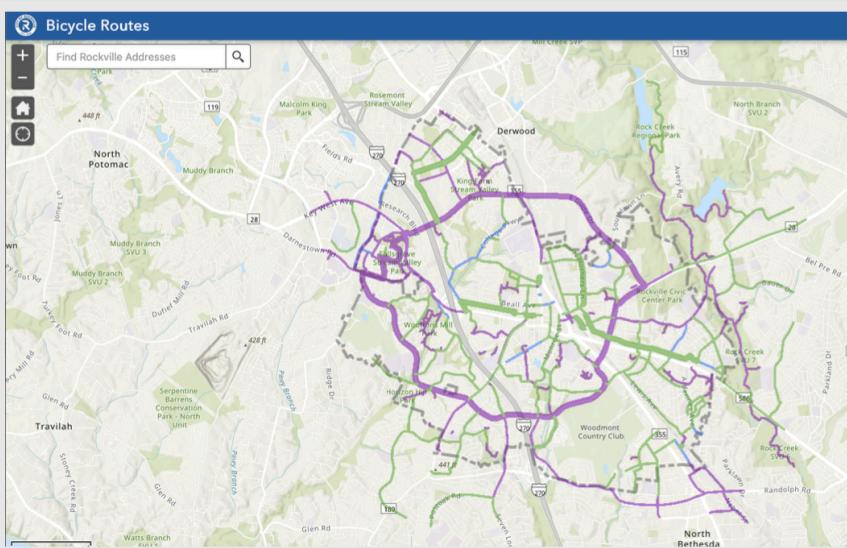
**National Avg:**  
**40.7**

**218.0...**

First Traffic Volume

**National Avg:**  
**108**

## Traffic



40.7

Sources: [City Health Dashboard](#)

[County Health Rankings](#)

[Neighborhood Scout](#)

[Rockville City](#)

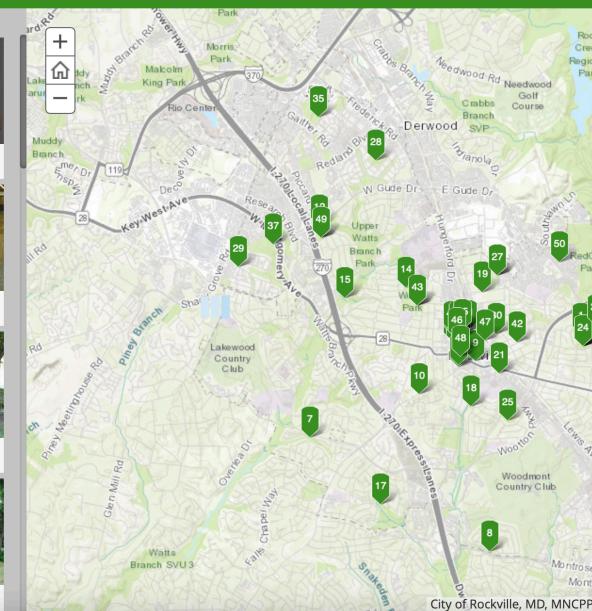
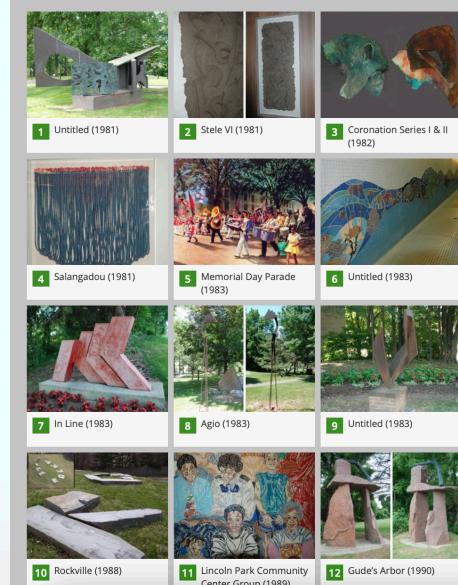
# Arts

## Rockville Public Art Spaces

- The arts are an integral part of a healthy city.
- Helps to foster ones creativity, individuality, and can inspire for the future.
- Also helps communities connect and gives people a sense of belonging.

Rockville Arts in Public Places

Art in Public Places Map



# Is Rockville Healthy?

Short answer is yes

- In almost every metric compared to other Maryland and U S Cities is was better. In the residents Health Scores and Social Factors, and Physical Environment, Rockville rates higher.
- The one negative that Rockville and pretty much all of Montgomery county gets is Traffic, about double the national average. This is true of the entire belt way area though.
- Rockville is a Healthy City and is a place I look forward to continue to be connected to.

# “Rise Together”

Rockville’s Motto which reflects its focus on community

Reference: Microsoft Learn, Power Bi tutorial

# Acknowledgments

- Rockville City Sponsors : Manisha Tewari, Abe Bruckman
- Capstone Prof Perine : Thank you for such strong guidance and encouragement
- MC Data Science dep: Prof Mohamed and Prof Alaree
- Special Thanks to Prof Saidi: Your support, advice, instruction, and counseling has helped to steer me through a very new stage of my life. You have given me a clear and positive view of my future.