



Bridging the Gaps: An Environmental Justice Analysis of The University of Maryland, Baltimore (UMB)

By Ben Eglash

Presentation Overview

- UMB Background
- My Fellowship Experience
- Baltimore's History of Environmental Injustices
- Recommendations
- Next Steps



About the University of Maryland, Baltimore (UMB)

- Opened in 1807
- Maryland's public health, law, and human services university
- UMB enrolls nearly 7,000 students in six professional schools — dentistry, law, medicine, nursing, pharmacy, and social work — and an interdisciplinary School of Graduate Studies
 - **90** doctoral, master's, baccalaureate, and certificate programs
- About 8,000 employees; 3,500 faculty
- Located in Downtown Baltimore, the campus consists of 71 acres with 6.9 million gross square feet of space in 60+ buildings



UMB Core Values

 RESPECT and INTEGRITY	 WELL-BEING and SUSTAINABILITY	 EQUITY and JUSTICE	 INNOVATION and DISCOVERY
RESPECT AND INTEGRITY We value each other and hold ourselves accountable for acting ethically and transparently using compassion and empathy.	WELL-BEING AND SUSTAINABILITY We care about the welfare of our people, planet, communities, and University.	EQUITY AND JUSTICE We embrace and are committed to diversity, and we value inclusive and just communities. We oppose racism and oppression in all their forms.	INNOVATION AND DISCOVERY We imagine and explore new and improved ways to accomplish our mission through education, research, clinical care, and service.



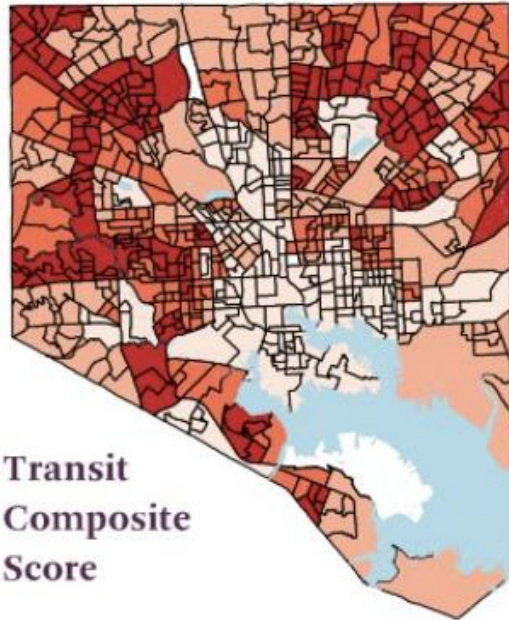
About my Fellowship

Baltimore's History of Environmental Injustices

Baltimore's Relativity to Pollution



Determining Baltimore's Highest Need Neighborhoods

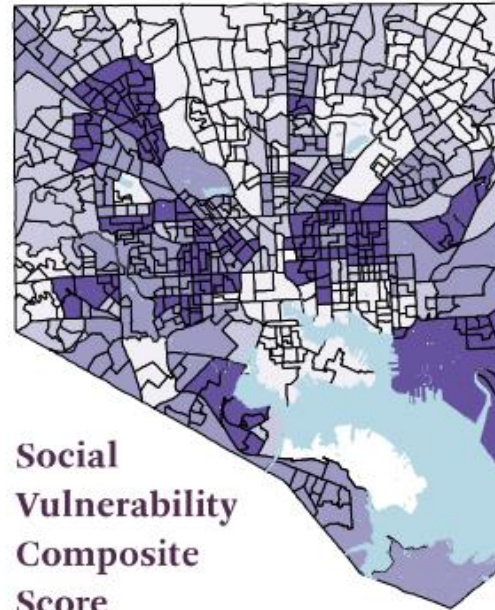


Transit Composite Score

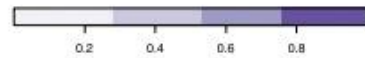


Inputs

- Estimated average commute time
- Percent of population commuting by public transit
- Percent of population commuting by transit whose commute is >45min
- Estimated difference between average commute by public transit versus by car
- Number of transit stops in census tract (*reversed in percentile)
- Distance over a quarter mile to high frequency transit routes

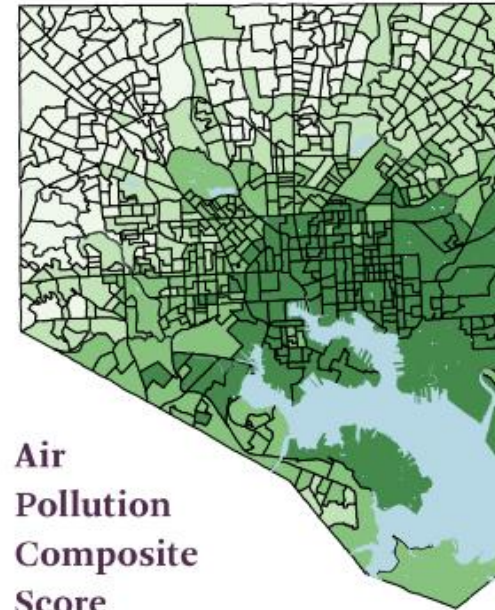


Social Vulnerability Composite Score

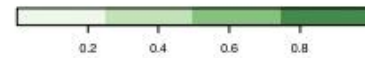


Inputs

- Minority & Language Composite Score
- Socioeconomic Statue Composite Score
- Housing Type & Transportation Composite Score
- Houshold Composition & Disability Composite Score

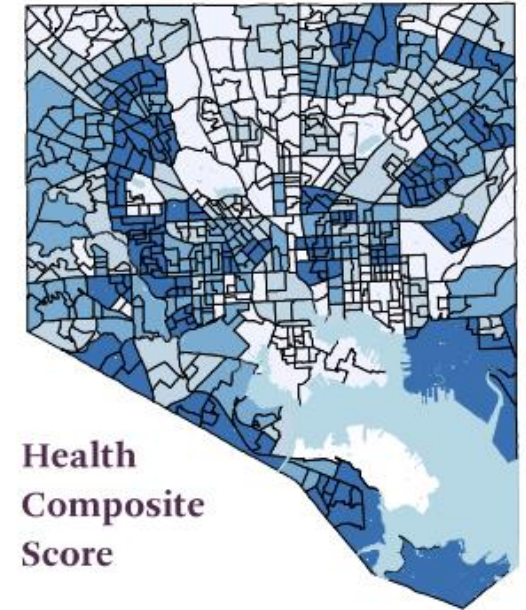


Air Pollution Composite Score



Inputs

- PM 2.5
- Ozone
- NATA Diesel PM
- NATA Respiratory Hazard Index
- Traffic Proximity

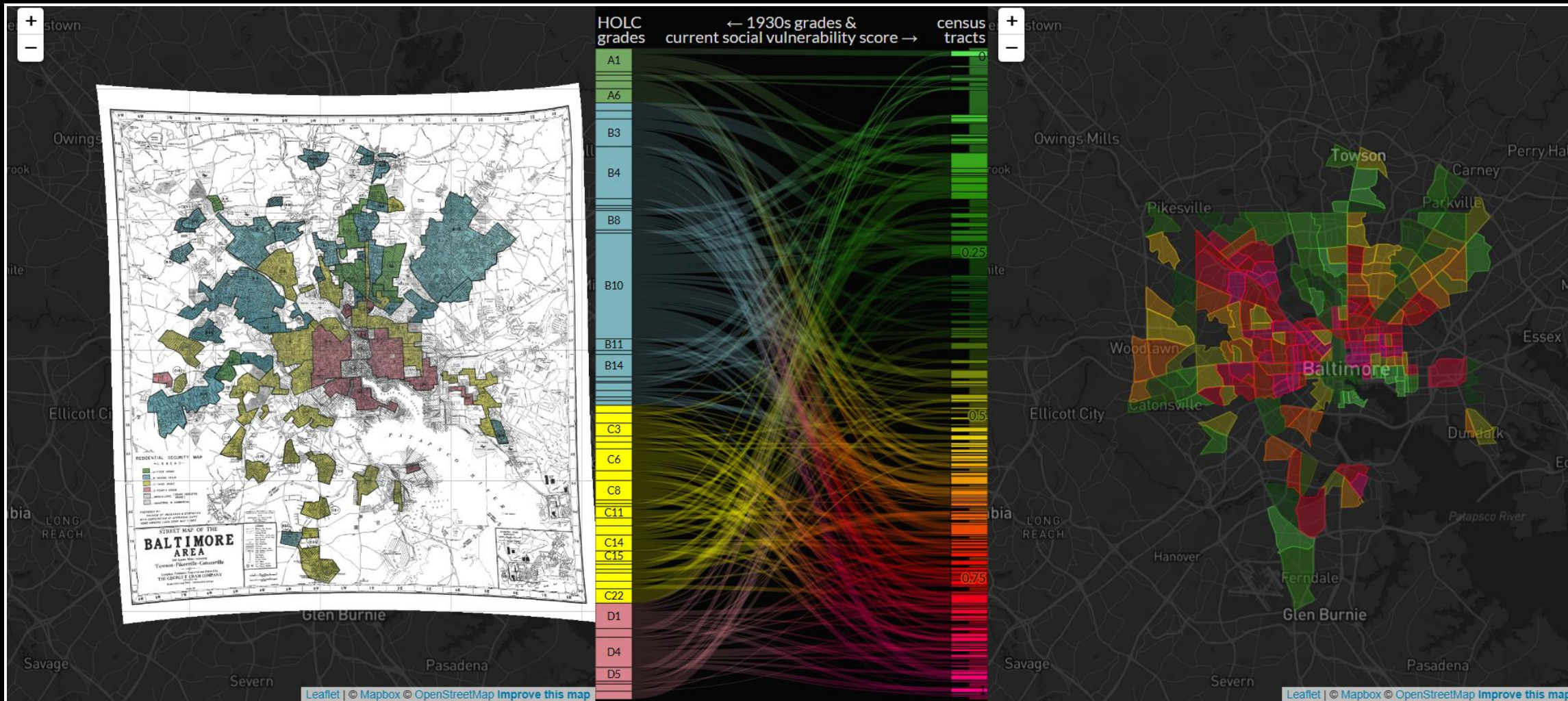


Health Composite Score

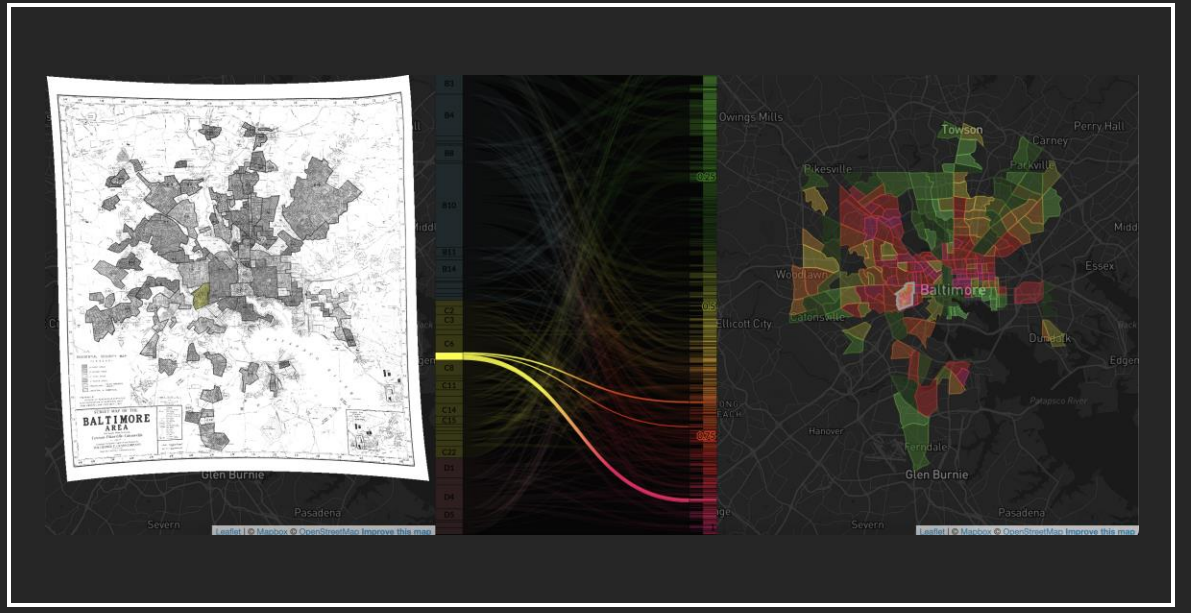
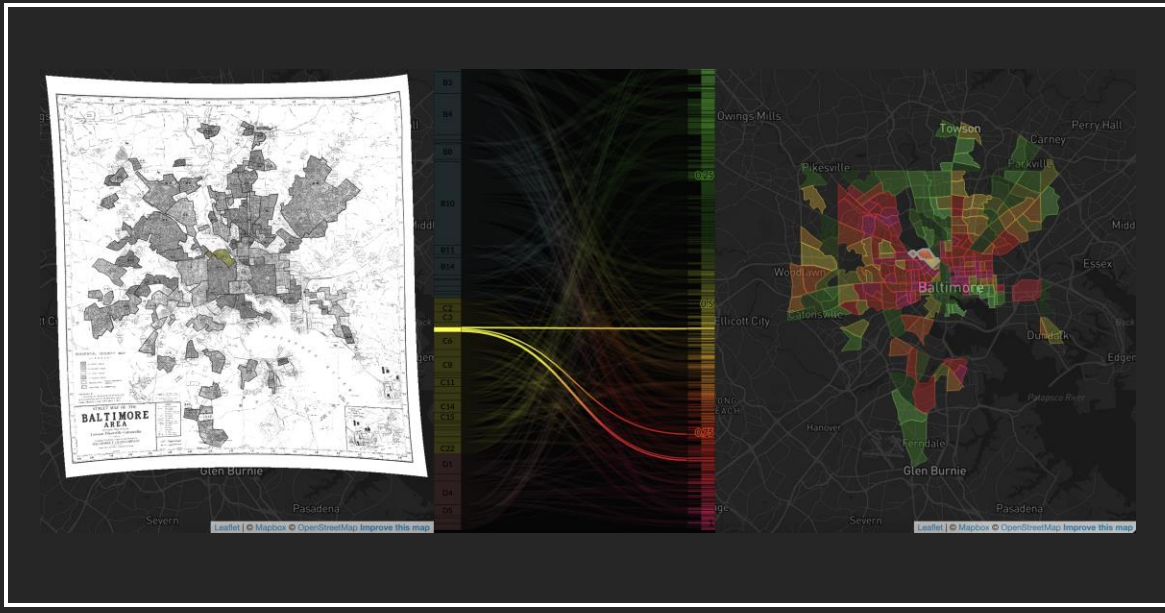


Inputs

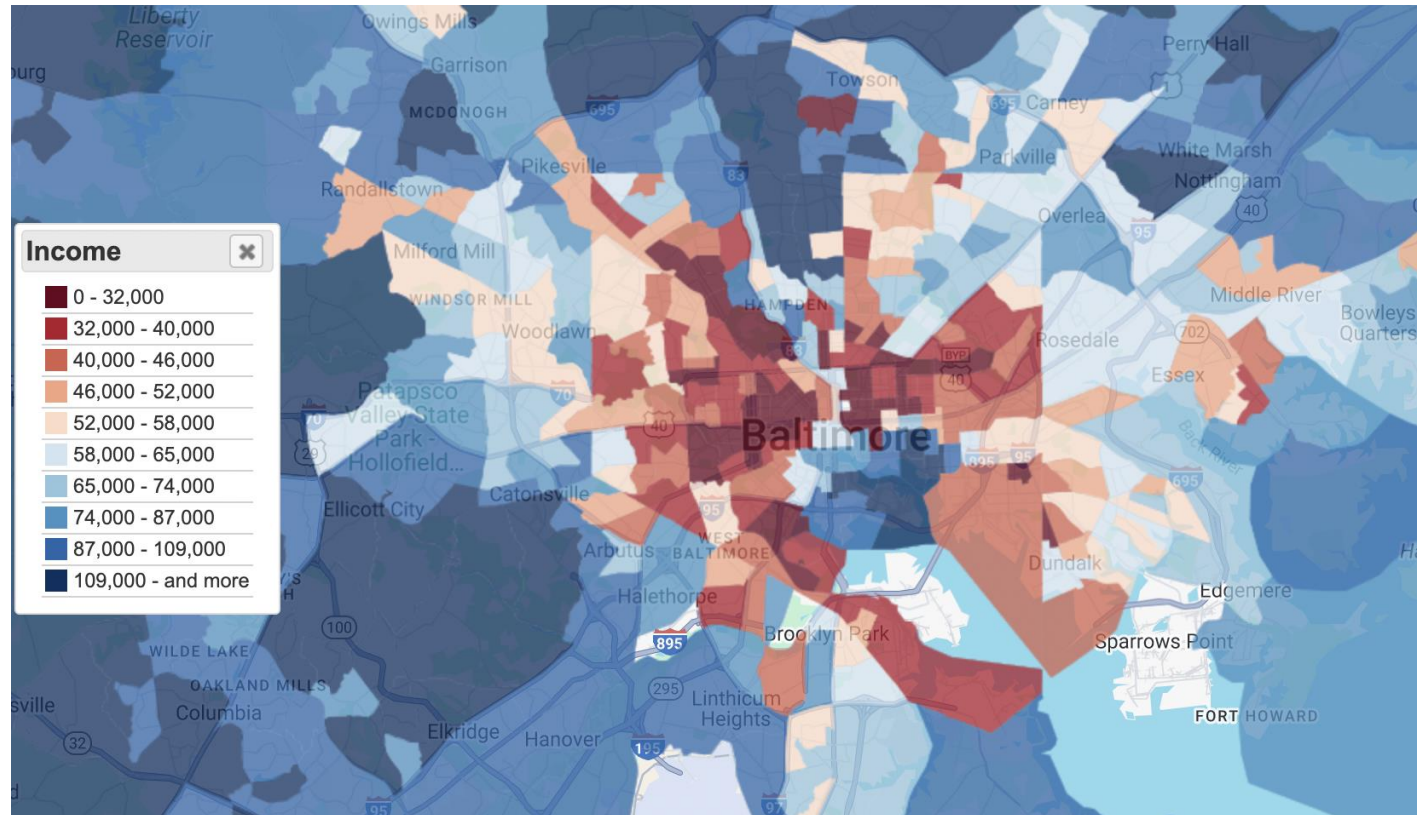
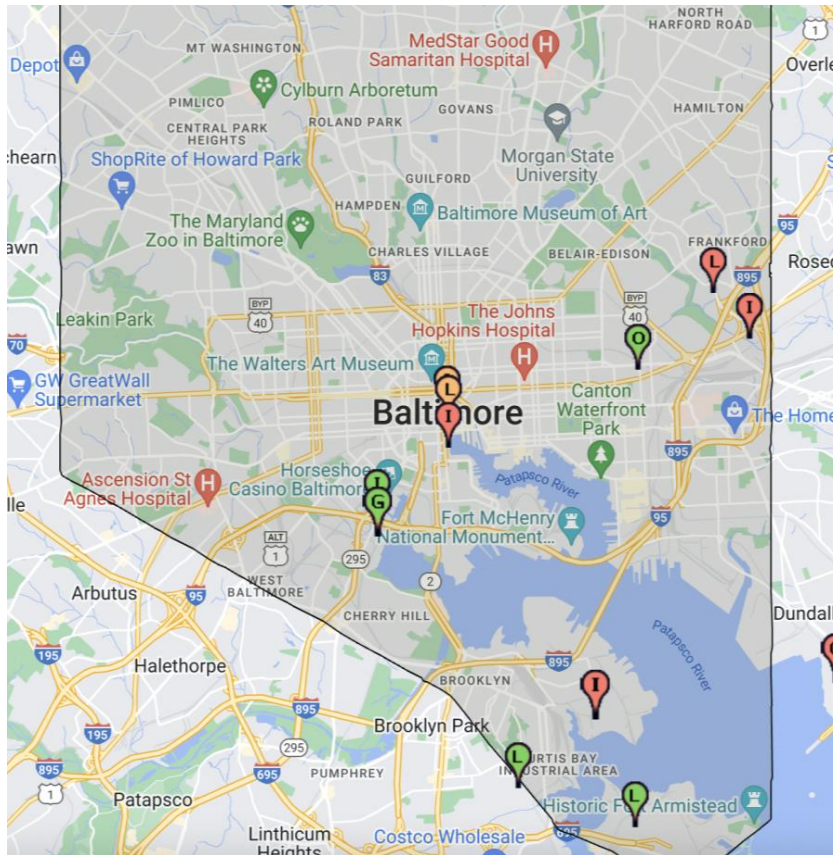
- Asthma
- COPD
- Lung Cancer
- COVID-19
- Myocardial Infarctions
- Low Birth Weight



Redlining: A Legacy of Racism in Baltimore



Companies Choose to Pollute in Low-Income Areas



Asthma Disparities in Baltimore are Tied to Air Pollution

Figure ES-3. 2011 Comparison of Respiratory Risks from Toxic Air Pollution (left) to Asthma Hospitalization Rates (right)

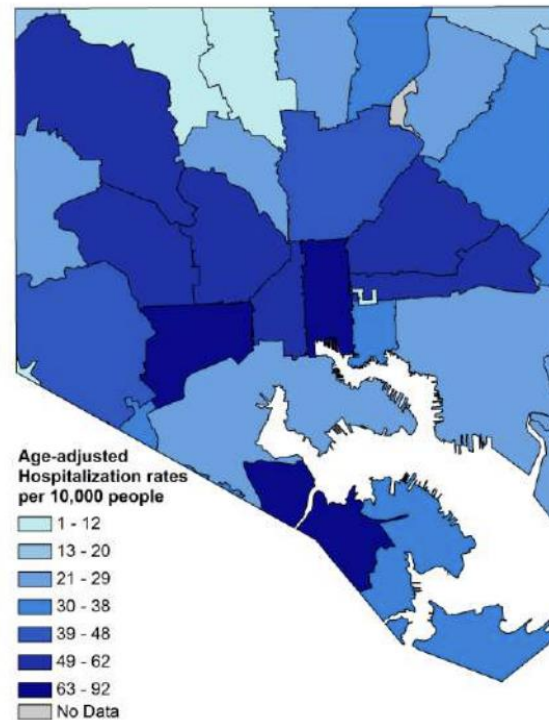
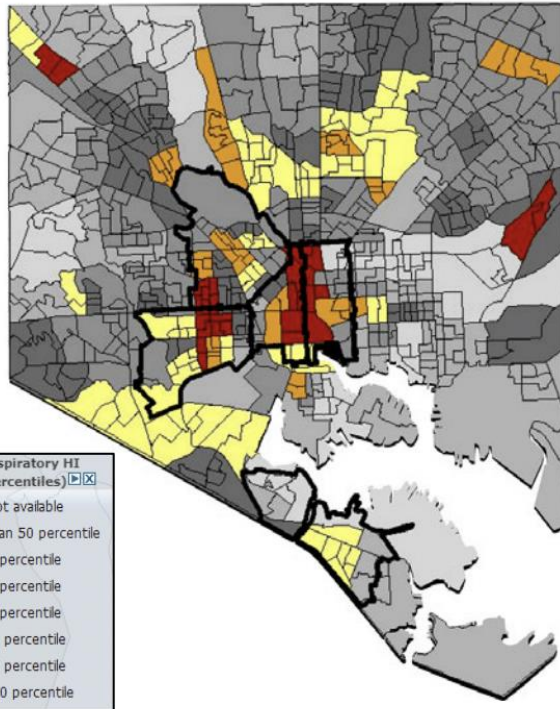
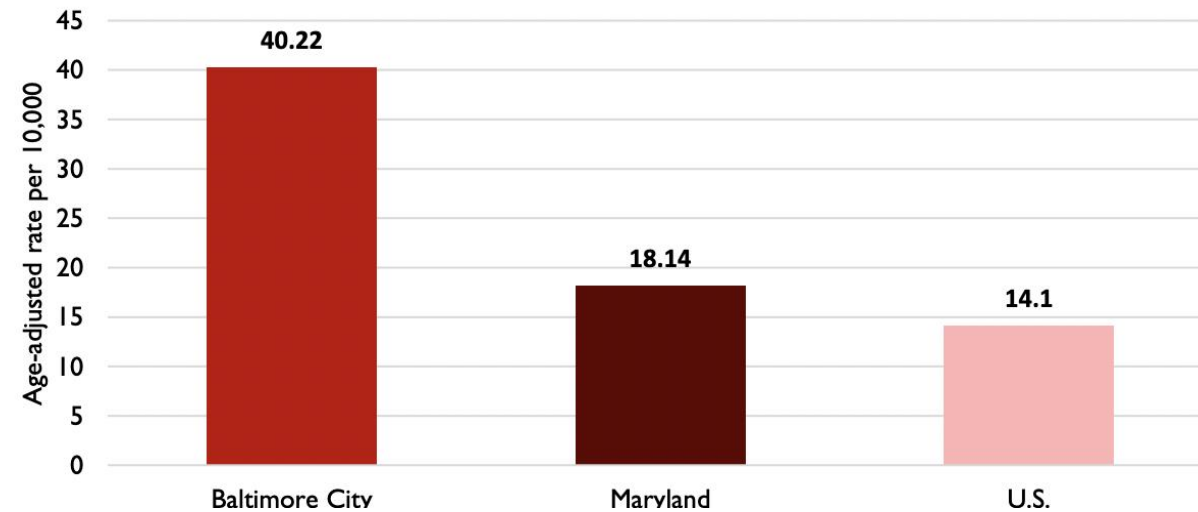
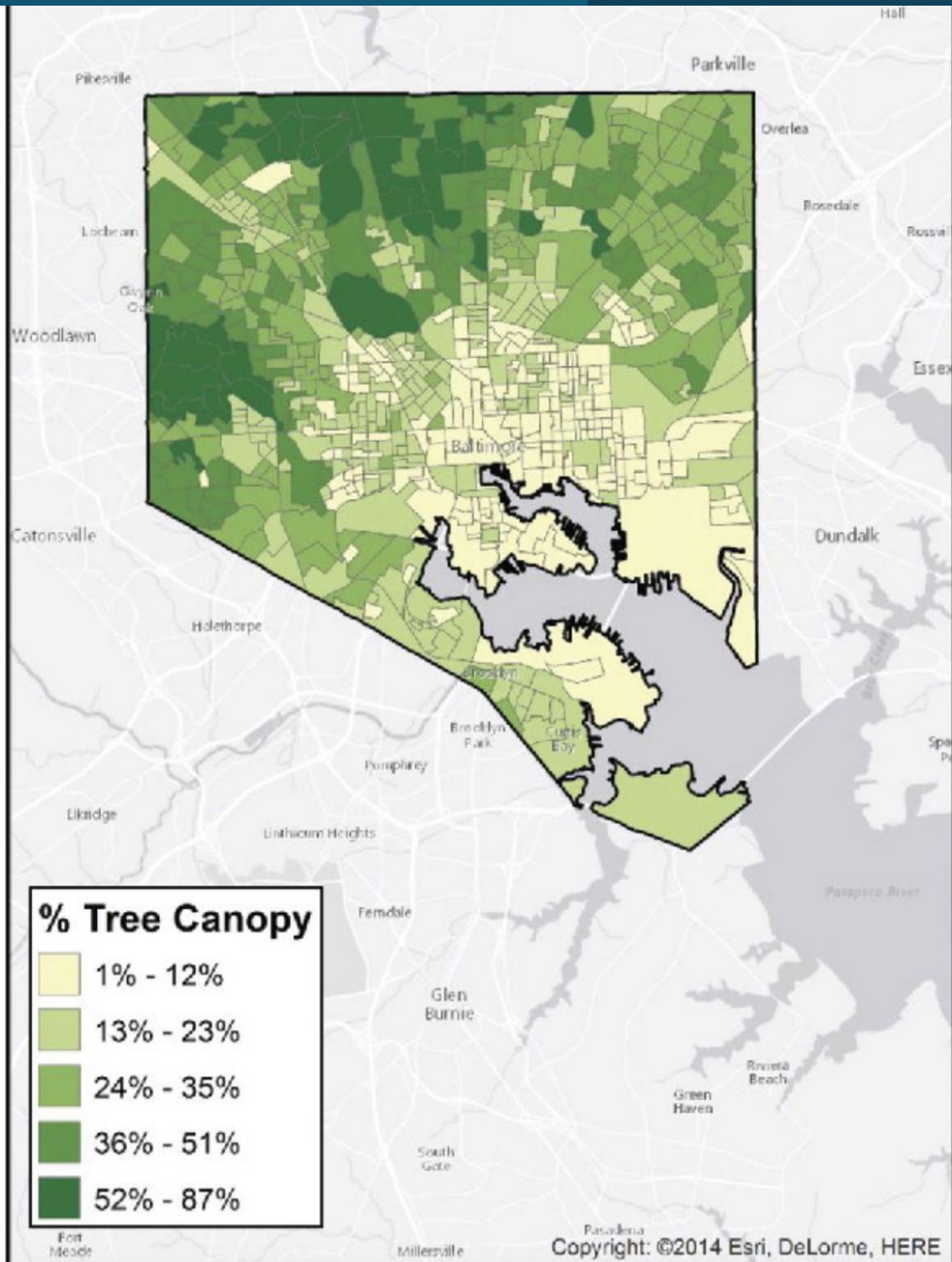
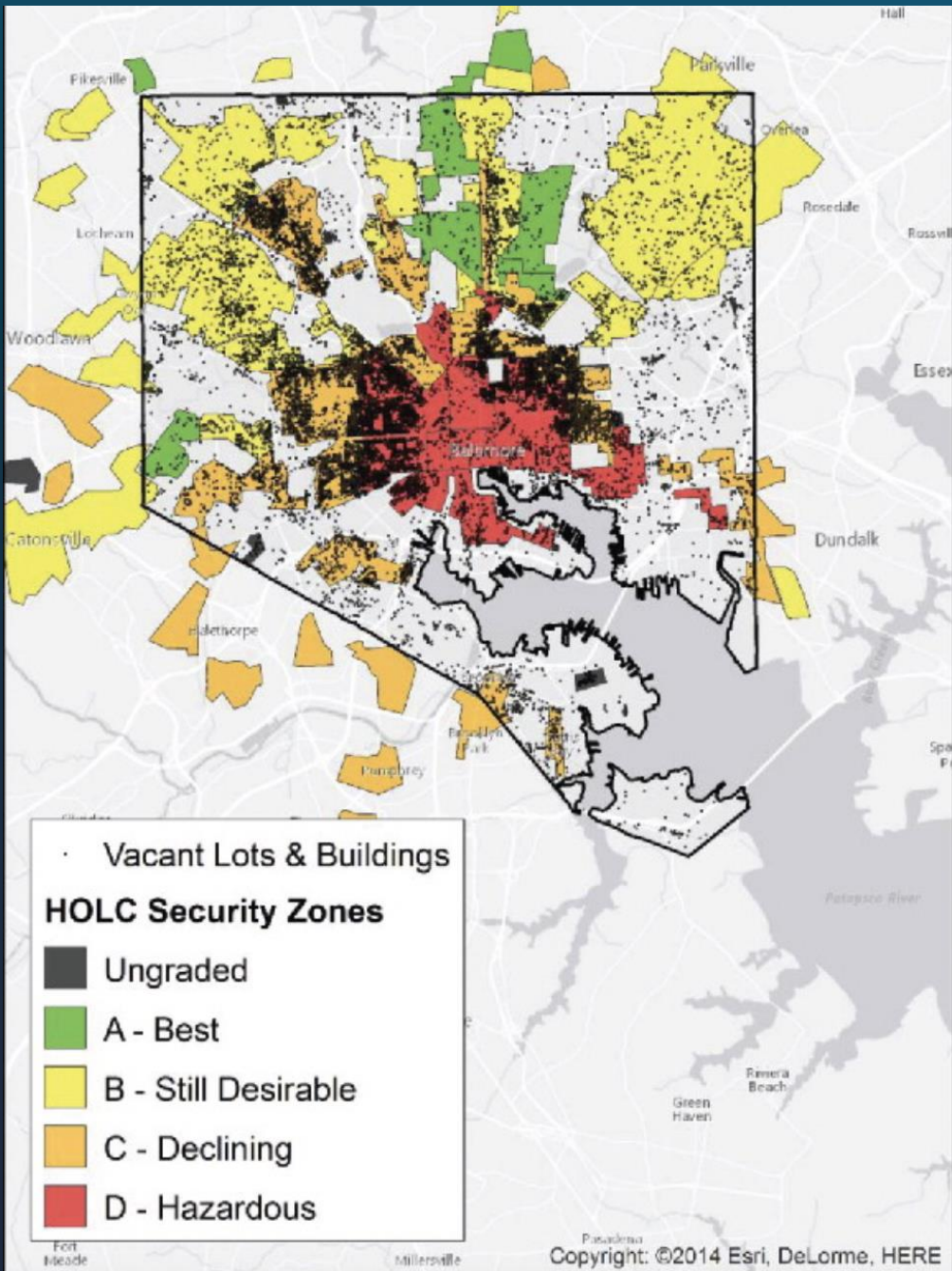


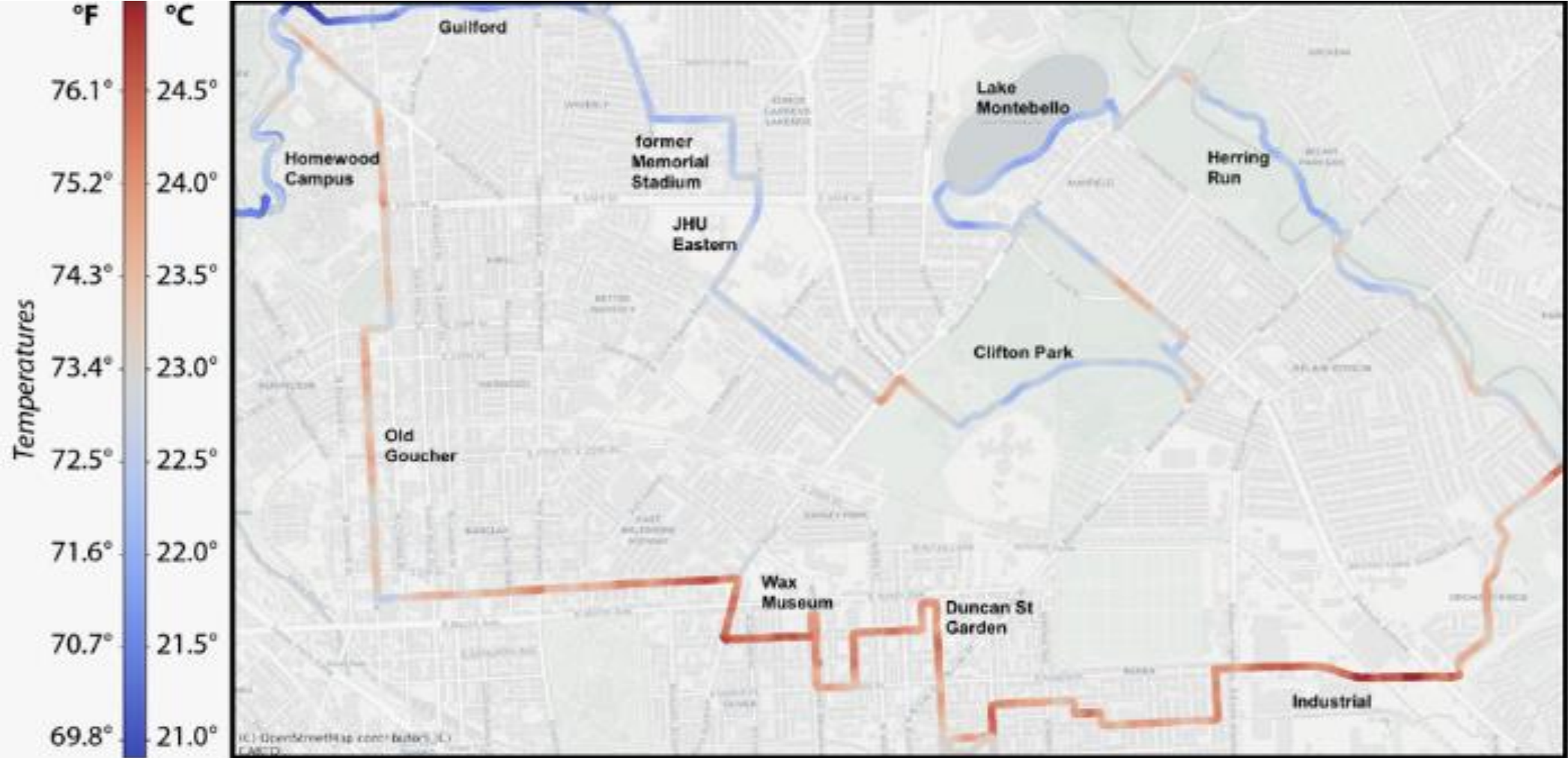
Figure I. Comparison of Asthma Hospitalization Rates in Baltimore City, Maryland, and the United States (2010)⁶²



Note: Bold boundaries on Respiratory Risk map highlight zip codes with the five highest asthma-related hospitalization rates in 2011.



Urban Heat Island Effect Presents a 17° Difference in Greened vs Urban Areas

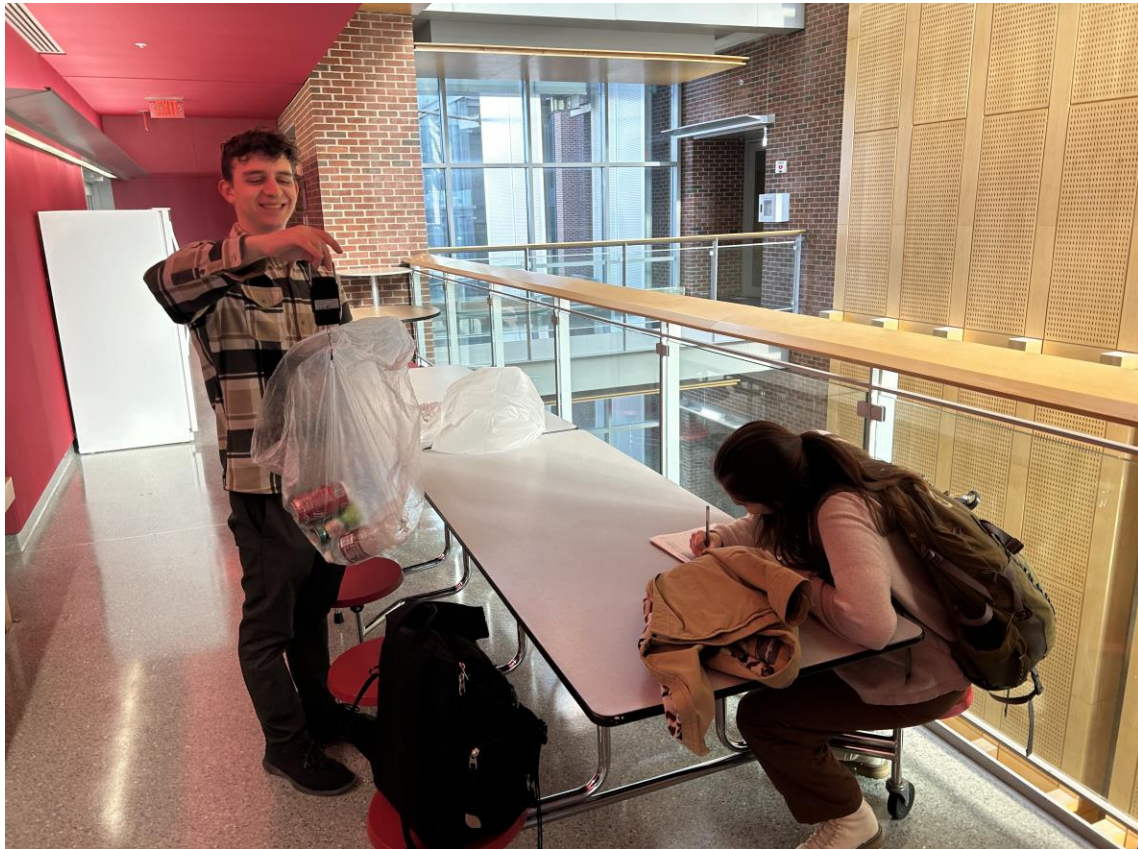


Recommendations

Recommendation 1

Continue to improve air quality and access to green spaces for all UMB students, employees, and communities on or near campus

Continue to Improve Air Quality



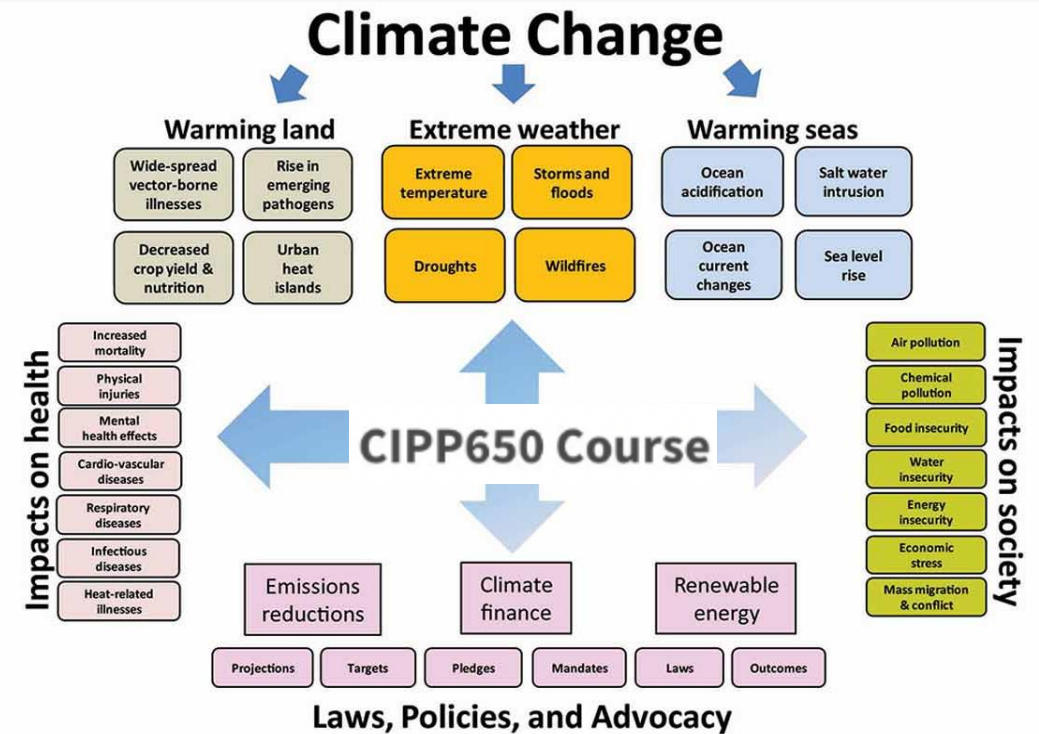
Advance Green Space Accessibility



Continue to Promote and Advance Sustainability Education



Climate Change, Health, and Society

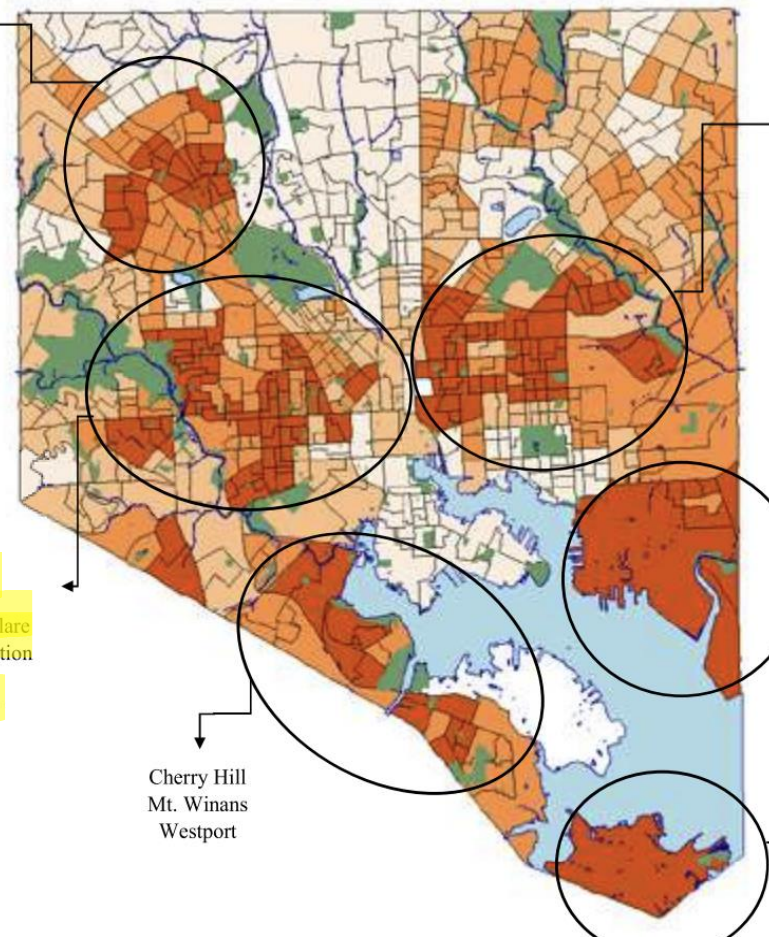


Recommendation 2

Continue support to Southwest Baltimore (SOWEBO) and advance community partnerships

Analyze Barriers to Entry for SOWEBO Residents

- Callaway-Garrison
- Central Forest Park
- Central Park Heights
- Dorchester
- Forest Park Golf Course
- Langston Hughes
- Levindale
- Lucille Park
- Parklane
- Towanda-Grantley
- West Arlington



- Armistead Gardens
- Belair-Edison
- Biddle Street
- Broadway East
- Dunbar-Broadway
- Eager Park
- East Baltimore-Midway
- Four by Four
- Gay Street
- Johnston Square
- Madison-Eastend
- Milton-Montford
- Orangeville
- Oldtown
- Oliver

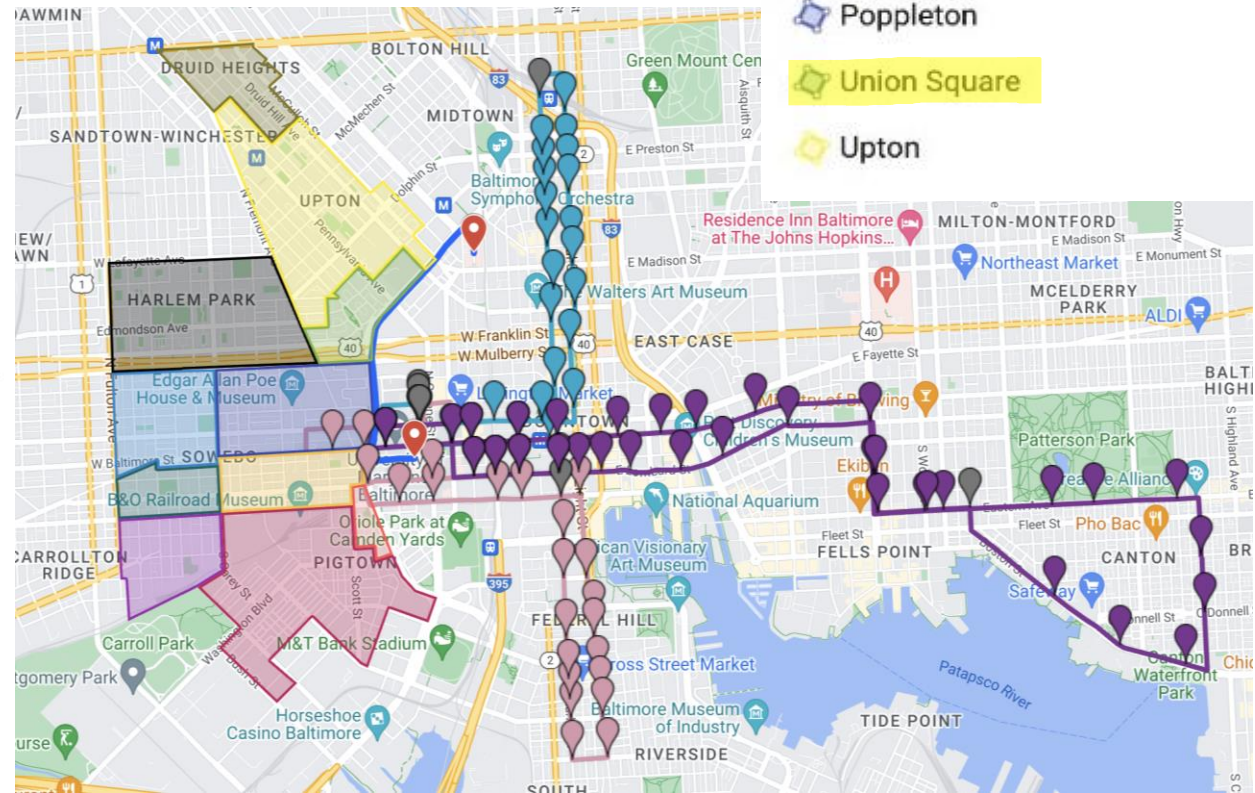
- Carrollton Ridge
- Franklin Square
- Franklintown Road
- Harlem Park
- Midtown-Edmondson
- Millhill
- New Southwest/ Mount Clare
- Northwest Community Action
- Rosemont
- Sandtown-Winchester
- Union Square
- Violetville
- Winchester

- Cherry Hill
- Mt. Winans
- Westport

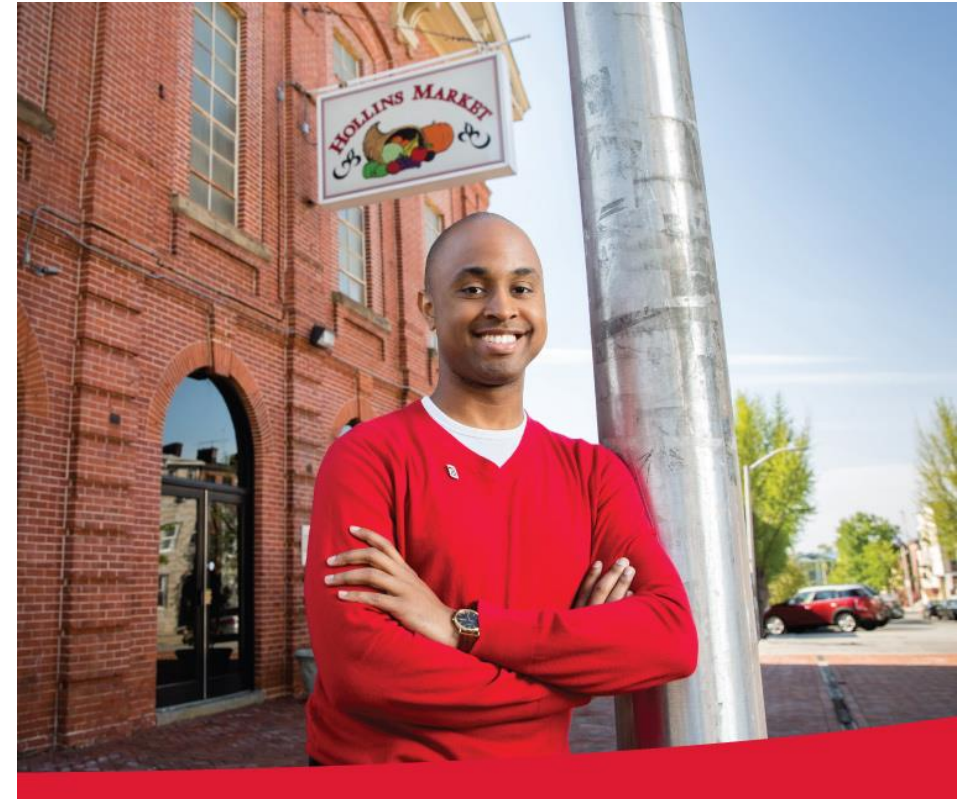
Canton Industrial Area

Brooklyn Curtis Bay

- ### Neighborhoods
- Barre Circle
 - Druid Heights
 - Franklin Square
 - Harlem Park
 - Heritage Crossing
 - Hollins Market
 - New Southwest/Mount Clare
 - Pigtown/Washington Square
 - Poppleton
 - Union Square
 - Upton



Expand Local Business Discounts and Local Procurement Initiatives



Advance Partnerships with the Community Engagement Center

Baltimore Colleges and Universities for a Sustainable Environment



Central Baltimore Partnership
Galvanizing the renaissance of Central Baltimore



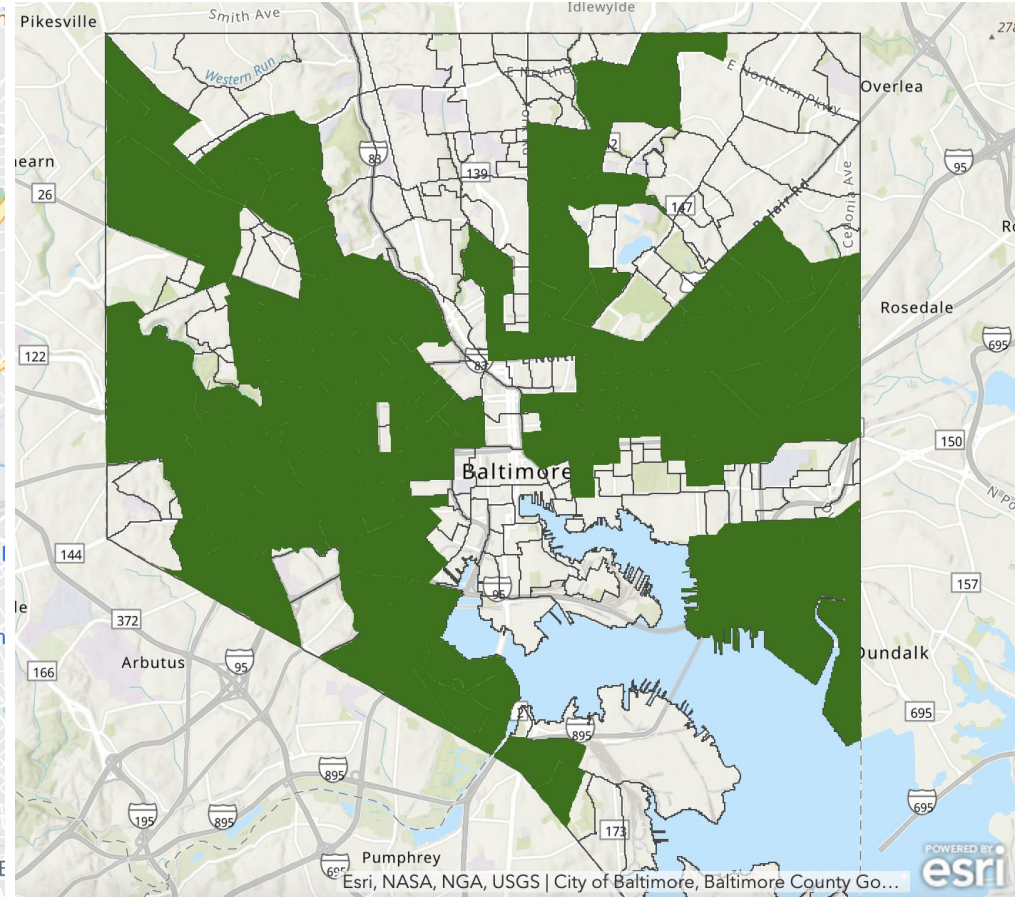
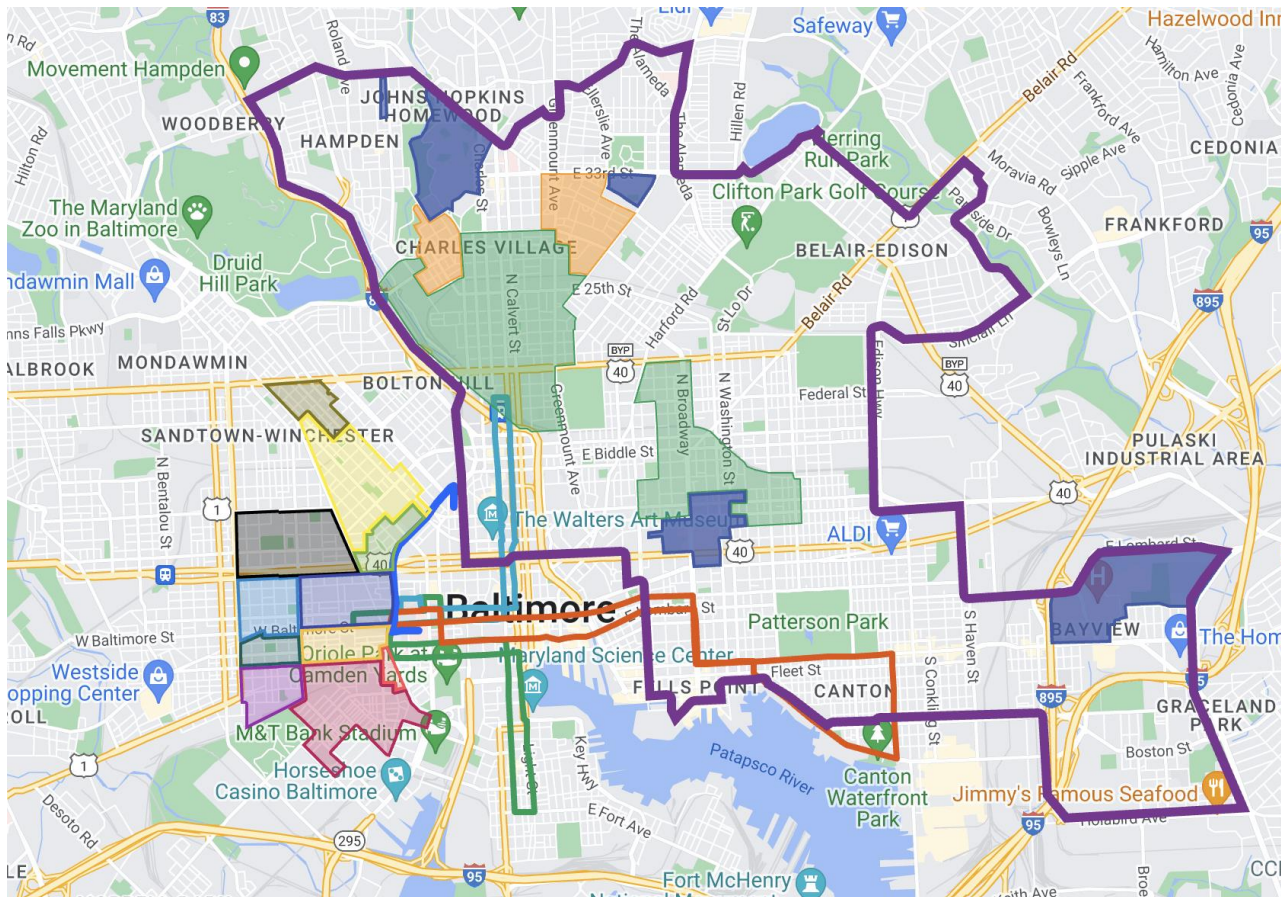
Recommendation 3

Continue supporting current staff, students,
and faculty on campus

Celebrate and Empower Our Staff Through Surveys and Resources



Expand Live Near Your Work and Promote Symbiotic Financial Opportunities



Next Steps

- Present this report to people on campus that have helped me build this report
 - Reciprocally, this report can provide context and rationale to improve environmental justice conditions on campus
- Compile campus-wide surveys and engage departments to attempt to send surveys consistently each year to build and improve upon metrics
- Share this report electronically via newsletter and posted on UMB OS website
- Engage with specific departments on who will be responsible for acting upon these recommendations

***Thank you for
viewing this
presentation!***

***Special thanks to The HASI
Foundation, Strategic Energy
Innovations, The Office of
Sustainability, and every
person at The University of
Maryland, Baltimore.***



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