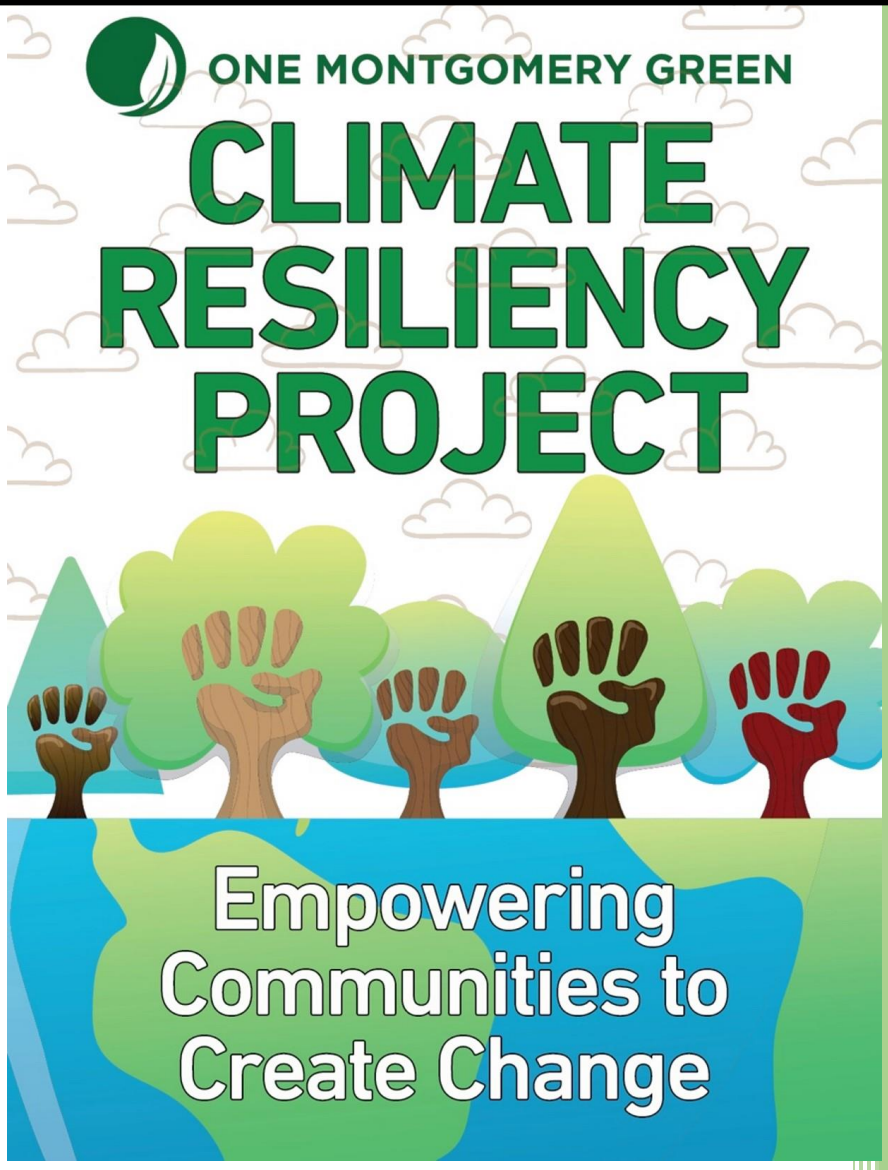
2022

Climate Resilience Assessment



Nathan McMullen

One Montgomery Green

8/31/2022

INTRO

Climate Change and its impacts are here, extreme weather events are already more frequent and more intense across Montgomery County (Montgomery County, 2021). While the effects of extreme weather are felt across a wide geographic and socio-economic range, the impacts are more intense in communities with heightened vulnerability to extreme weather. Montgomery County is a leader in the state developing climate change strategy, the recent County Climate Action plan being a great step forward in the discussion on this issue. However, more action is needed to ensure that the most vulnerable have a seat at the table when discussing climate strategy.

At its core, OMG's Climate Resilience Project is an environmental justice initiative. With this project, OMG brings a stakeholder centered approach to developing strategies that mitigate the impacts of the greatest challenge of our lifetime. Central to this project is the idea that communities know what they need. Stakeholders' lived experience is the best foundation for building resilience that is both effective and relevant to community members. This project seeks to identify communities with elevated vulnerability to the impacts of climate change (specifically extreme weather events) and collaborate with stakeholders in these communities to develop the resilience that they need.

In developing resilience to the impacts of climate change, planners often focus on engineering better infrastructure to withstand the impacts of extreme weather. These methods are effective; however, the planning and implementation of these tactics often leaves community input as a lower priority. OMG advocates for the elevation and inclusion of input from the communities most impacted by these extreme weather events. Montgomery County needs comprehensive climate resilience strategy that centers the real lived experience of vulnerable stakeholders. By centering stakeholder perspectives, we can develop climate change strategies that are effective and relevant to the communities in which they are implemented.

GOALS

Following this theme of stakeholder-centered resilience, OMG developed this Climate Resilience Project. This project sought to identify communities with elevated vulnerability to climate change and collaborate with stakeholders in these communities to develop the resilience that they need.

OMG's Climate Resilience Project was conducted in Montgomery County with a focus on North Silver Spring and Wheaton MD (20902, 20904, 20906). Thanks to the generous support of PEPCO Sustainability Grants, and in collaboration with local governments, nonprofits, businesses, and community members. This report provides a comprehensive overview of the project, our data science process, and the results of our community outreach. The overarching goals of One Montgomery Green's Climate Resilience Project are summarized as follows:

- Develop a replicable framework for building climate resilience in communities across the state, region, and nation.
- Increase resilience to the impacts of climate change in Montgomery County. Specifically, this project focused on the impacts of extreme weather events such as extreme heat, torrential rain, and high-speed winds.
- Engage stakeholders at the community level to establish priorities for climate action.

BACKGROUND

Firstly, it is essential for the Climate Resilience Project to define resilience and vulnerability. According to a Vulnerability Assessment published by the Society for Protection of Nature in Lebanon, resilience can be understood "as the capacity to cope, address and overcome adverse impacts from external factors." (SPNL, 2013). Additionally, the Dictionary of Energy, defines vulnerability as "the degree to which a system is susceptible to and unable to cope with adverse effects of climate change, including climate variability and extreme conditions. It is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity" (Cleveland & Morris, 2006). With this definition in mind, strategies for decreasing vulnerability to extreme weather should emphasize decreasing exposure and sensitivity, while increasing the adaptive capacity of a given community.

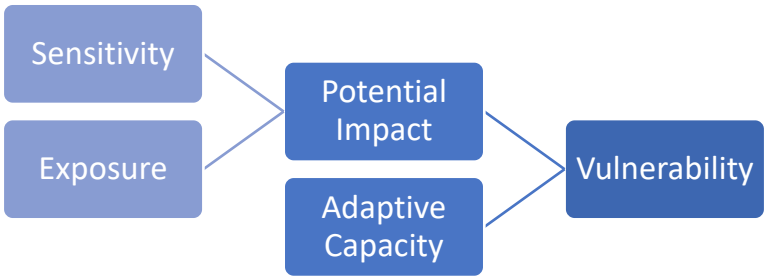


Figure 1: Vulnerability

Consider an extremely hot day, a phenomenon that has become increasingly intense and common in recent years. The exposure to heat is the same for a wide geographic area, however sensitivity factors like access to fresh drinking water, cooling infrastructure, and shelter can increase or decrease the potential impact of that heat. Likewise, adaptive capacity can impact a community's vulnerability after the extreme weather has occurred. The livelihood asset index model pictured below illustrates the five asset categories that form the adaptive capacity of a community.

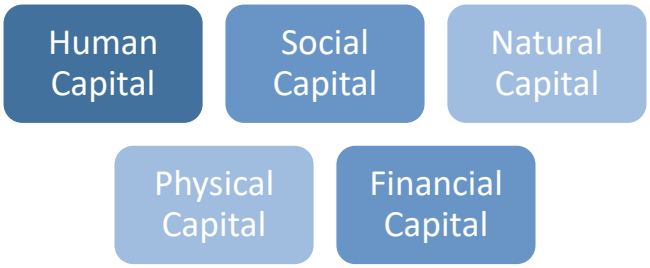


Figure 2: Livelihood Asset Index

For example, in the event of extreme heat, access to financial capital to develop infrastructure, or social capital to relocate somewhere safe. These elements of adaptive capacity makeup the framework in which communities can identify their needs and priorities. Identifying the asset categories that stakeholders value is essential for developing action plans that increase adaptive capacity.

Weather is an excellent device to illustrate the impacts of the various factors of vulnerability. Stakeholders can often relate their own personal experience with extreme weather. These real impacts of climate change are the type of lived experiences OMG's climate resilience project seeks to elevate. Community members often gloss over when faced with a discussion on more nebulous concepts like "climate change" or "green-house gas emissions". Extreme weather events are tangible, with real impacts on the financial, physical, and social well-being of community members.

DATA SCIENCE METHODOLOGY

To meet our goal of developing a reusable framework for building climate resilience at the community level, it was essential to establish a transparent, and replicable data science workflow for the Climate Resilience Project. Throughout the data science process, community stakeholder input was essential for identifying high priority data and effective outreach strategies. The following model (figure 3) illustrates the data science workflow used in the Climate Resilience Project.

Figure 3: Data Science Workflow

The first phase "Acquire" involves identifying the data most relevant to achieving the goals of the project (Specify) followed by the development and implementation of outreach strategies to gather that data (Collect). The "Explore" phase involves collating outreach results into processable data tables, identifying themes (Summarize) and developing visualizations communicate results to decision-makers (Visualize). The "Utilize" phase involves presenting the results of the outreach efforts, with standout themes and potential courses of action to decision-makers (Communicate). OMG leadership in collaboration with community stakeholders will then develop an action plan that both reflects the priorities of the community and leverages OMGs strengths as an organization (Decide). Throughout the data science workflow, the Climate Resilience Project monitors successes, and challenges, to apply lessons learned on a rolling basis throughout the process.

PHASE 1 – ACQUIRE

Before the Climate Resilience Project could begin, One Montgomery Green Asked the question: "How can we best build resilience to the impacts of climate change in vulnerable communities?" The overwhelming answer was, "Ask the community!". People know what they need, real lived experience is the best starting point for identifying the strengths and weaknesses of a given community. To reach the people living in high vulnerability communities and ask them for their input, Climate Resilience Project first had to identify where these communities are.

Climate Resilience Project identified high vulnerability areas within Montgomery County by analyzing public data sets that address the components of vulnerability previously discussed in this paper. Socio-economic makeup, access to infrastructure, as well as potential exposure to extreme weather impacts like flooding or urban heat islands all factored in to identifying the target area for the Climate Resilience Project. The CDC vulnerability index was an essential tool for this step because the index combines many metrics of vulnerability such as socio-economic makeup, household composition, minority status, language proficiency, housing type, and transportation method.

North Silver Spring and Wheaton Maryland (20902, 20904, 20906) were identified as the target area for Climate Resilience Project. This geographic area exhibited high vulnerability relative to the county baseline (figure 4). Once the target area was identified, One Montgomery Green began gathering a group of "representative stakeholders" that live in and around the area. Communities know what they need, and One Montgomery Green seeks to provide the platform through this project to elevate those priorities in the discussion on climate change.

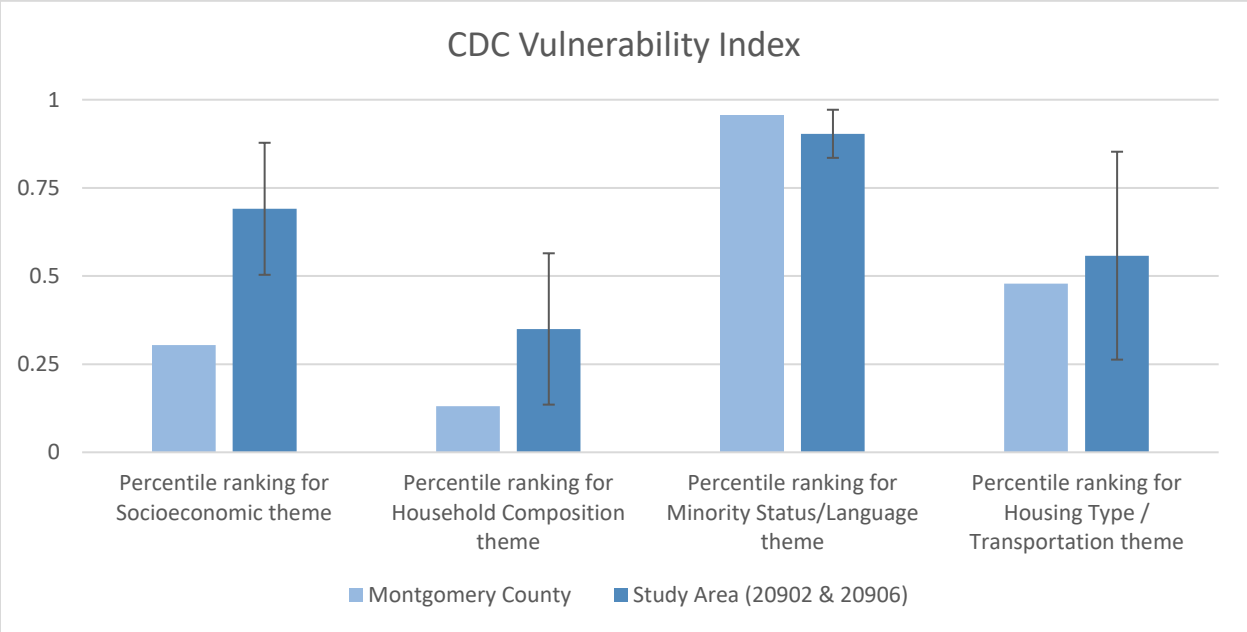


Figure 4: CDC Vulnerability Index, County vs Study Area.

SPECIFY

The Climate Resilience Project's overall goal of developing resilience depends on the identification of community priorities for action. In the context of extreme weather, communities have pain points and strengths. Identifying stakeholders' priorities for addressing pain points, bolstering strengths, and developing resilience to the impacts of extreme weather is the main goal of the "Acquire" phase of the project.

After the study area was selected, the Climate Resilience Project reached out to a cohort of "Representative Stakeholders" from the area to make comments on the early phases of the project. The cohort was made up of local government, small business owners, and other non-profits active in the area. Representative Stakeholders provided valuable feedback on the Climate Resilience Project concept at a pivotal stage in the project's development. Discussion was

centered around the impacts of extreme weather on their lived experience, and outreach strategies for reaching the people in their community. A strong theme was that in North Silver Spring and Wheaton, community members had been "surveyed to death". No one wanted to sit through a 20-question survey about their vulnerability to extreme weather. With this feedback in mind, the Climate Resilience Project shifted towards a more conversational outreach strategy emphasizing short answer responses.

It was essential in the view of the representative stakeholders that any outreach conducted in their community should emphasize face to face conversations. Conversational interactions would yield detailed responses as well as foster trust in the community. Additionally, face to face interactions were essential for reaching community members with limited access to technology. Community buy-in to the Climate Resilience Project requires trust in the process, and genuine communications with community members are the foundation of that trust.

COLLECT

Thanks to feedback from the representative stakeholder group, The Climate Resilience Project was able to develop a short questionnaire to deploy in the community (See Appendix). The questions were based on the livelihood asset index model (figure 2) to capture a comprehensive assessment of the needs and priorities of the community. The first set of questions was very conversational, with five open ended questions, one for each category from the livelihood asset index and one final question asking, "What would you like to see more or less of in your community?". The purpose of the final question was to center the interaction in the goal of developing a plan for increasing resilience in the community.

Climate Resilience Project took the questionnaire out into the communities of North Silver Spring and Wheaton, attending as many outdoor public events as possible. Unfortunately, the project began during the 2020 COVID-19 outbreak, so opportunities for in-person outreach were limited. Whenever possible, outreach was conducted at outdoor community events, food distribution events, and digitally through the OMG website. The questionnaire was printed out and conducted orally whenever possible, emphasizing the importance of conversation with community members. Community members also had the opportunity to visit the questionnaire in the form of a google survey on One Montgomery Green's website. Oral responses were recorded by hand and then submitted to the same online questionnaire. Zip-code was the only required field for identifying each response. This was to encourage as many responses as possible, as some community members may be put off by requiring contact information such as a phone number or email.

PHASE 2 - EXPLORE

Once data was collected, the Climate Resilience Project began the important step of exploring the data. The main objective of phase 2 was to identify common themes throughout the communities' responses. These themes would form the basis for the draft action plan moving forward. Responses were downloaded from the online questionnaire and collated using Excel and organized by zip-code. One benefit of having zip-codes identifying each response was that responses from outside the study area could still be accepted by the form but were easily filtered out. Additionally, comparing responses from the study area to those in less "vulnerable" communities was eye opening.

Once sorted by zip-code, the results were categorized and sorted. Each response was hand labeled with a code that represented which livelihood asset index categories that responses highlighted. Many responses covered multiple categories and were categorized as such. Once coded and sorted, visualizations were developed to communicate the results of this exploration phase to the project team and community stakeholders. Figure 5 illustrates the strongest themes and the frequency with which they occurred in the outreach responses.

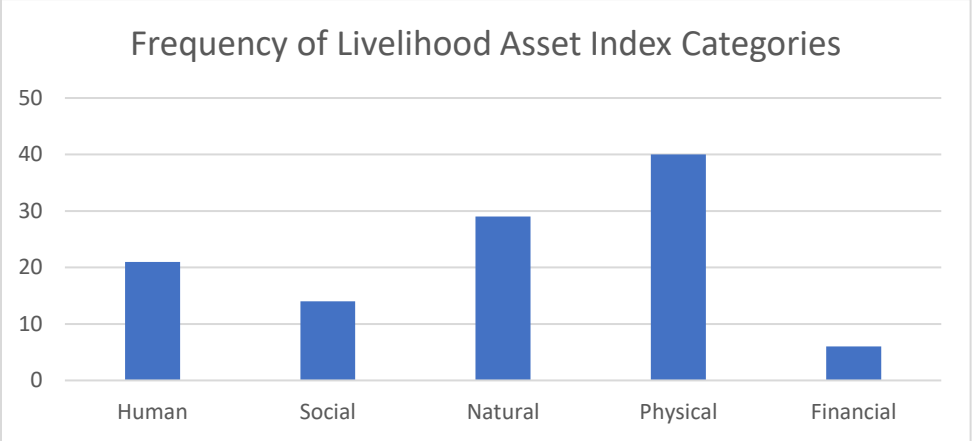


Figure 5: Frequency of Livelihood Asset Index Categories

The livelihood asset index categories that were the most frequently represented in community members responses were: Human, Physical, and Natural. Within these categories, standout themes included:

- Safety
- Flooding Concerns
- Childcare/Programs for Youth
- Litter/Cleanliness
- Green Spaces/Recreation

“Safety” and “Flooding Concerns” are self-explanatory within the context of extreme weather. Torrential rain and flooding can be devastating for both the physical and financial well-being of vulnerable communities. These events, especially when they occur in communities with elevated sensitivity and limited adaptive capacity must be considered when attempting to develop resilience to extreme weather.

“Childcare and programs for youth” stands out as not being explicitly related to extreme weather. This is valuable insight that highlights a community priority that could have otherwise been missed when thinking narrowly about resilience in the context of environmental impacts. The presence of childcare and youth programs in the standout themes also emphasizes the importance of diverse strategies when attempting to develop resilience at the community level.

“Litter/Cleanliness” is also a theme that is not directly related to extreme weather. Litter was an important subject for many of the community members surveyed, stakeholders felt that litter in the community decreased their quality of life and voiced concern for litter’s impact on local watersheds.

PHASE 3 – UTIILIZE

COMMUNICATE/DECIDE

With these standout themes identified, the Climate Resilience Project began work on drafting an action plan to increase resilience in the event of extreme weather. OMG's current draft action plan is an after-school program for 9th-12th grade students, dubbed "Climate Explorers". The program will leverage One Montgomery Green's past success with programs like "Clean Headwaters", while also addressing high priority themes from the result of Climate Resilience Project outreach.

The Climate Explorers Pilot Program is a 6-session 8-hour, afterschool program to be offered to students throughout Montgomery County Schools in Spring 2023 in partnership with school-based educators, community leaders and experts in climate change. The pilot will introduce students to core climate change concepts and the primary ways Montgomery County contributes to the climate change crisis as well as support students in developing plans to reduce greenhouse gas emissions (GHG) at their high schools.

The 6 session program:

- Session 1. Introduction.
    - Key concepts and expectations, Montgomery County CAP and MCPS sustainability policy, climate change and projected impacts, CAPA urban heat island study.
- Session 2. Personal Solutions.
    - Local Expert Presentation, energy home audit, action plan components.
- Session 3. Local Solutions.
    - Local Expert Presentation, energy Alternatives.
- Session 4. Global Solutions.
    - Local Expert Presentation, green building alternatives, walkable/bikeable neighborhoods.
- Session 5. Heat island study field trip.
- Session 6. Takeaways from field trip, mitigation, adaptation, resilience.

Additionally, Students will design school-based climate change plans, drawing on information from the course, goals and targets for energy conservation and sustainability from the Montgomery County Climate Action Plan and from the new Montgomery County Public School's policy on energy conservation and sustainability. They will develop plans based on existing data and their assessment of school energy use and measures their school could take to reduce its carbon footprint.

EVALUATE

Throughout the process of the Climate Resilience Project lessons are constantly being learned and applied to the data science framework. This section will review some of the biggest lessons learned and attempt to advise on future iterations of the climate resilience project.

In discussion with representative stakeholders the overwhelming response for outreach strategy was to be as conversational as possible. Encouraging short response answers to get qualitative feedback on community priorities for the action plan came with its challenges and benefits. Benefits included robust discussion with community members. These discussions resulted in useful data for planning next steps and contributed to a stronger connection to the process within the community. Pursuing meaningful conversations with community members aligned strongly with the goal of collaborating with community members to build resilience.

However, the conversational style of outreach did come with its challenges. Namely in processing results from the outreach into coherent themes. A major benefit of more limited answer choices is the ease of which one can create a tidy usable dataset from the results. Extremely qualitative, short answer responses required hand sorting of responses into codes that was very time intensive. Considering these challenges in the data science process, a second questionnaire was developed that is now live on the One Montgomery Green website. This second iteration uses sliding scale responses that allow community members to indicate a more nuanced perspective than a multiple choice datapoint, while still allowing for more easy processing.

The second iteration of the questionnaire still has space after each question for more detailed feedback, and in person the conversation should emphasize that field. It bears repeating that it is essential to build trust in the community through meaningful conversations about their lived experience. Without the qualitative feedback of community members, action plans will not be as relevant to the priorities of the community.

Additionally, a major lesson learned throughout the outreach phase of the project was that the covid-19 outbreak severely limited in-person outreach opportunities. As a result, there were fewer responses to the questionnaire than what was initially projected at the planning stages of this project. Unfortunately, this means that our sample results are most likely not fully representative of the entire study area. In future iterations of the Climate Resilience Project, it would be ideal to conduct more outreach and acquire a larger sample to better represent the population of the study area.

NEXT STEPS

Next steps for the project are to secure funding for the after-school program “Climate Explorers” and to seek more stakeholder feedback about curriculum. Faculty at schools in the target area will be essential stakeholders to seek out and get feedback from about the curriculum and the program’s potential impact on their community. Additionally, the current iteration of the outreach questionnaire will continue to be administered at outdoor events and online. Rolling analysis of themes will help inform the “Climate Explorers” initiative.

APPENDIX

QUESTIONS FOR OUTREACH ROUND 1

The questions from round one of the Climate Resilience Project were developed in collaboration with the representative stakeholders group. Multiple sessions of brainstorming questions yielded a short questionnaire with a very conversational tone. Surveyors administering these questions were encouraged to ask to follow up questions and invite dialogue from respondents. Respondents were asked to share their zip-code for organizational purposes, but all other contact information was optional.

What do you think about this crazy weather going on?

- Center Discussion on extreme weather.

In the event of extreme weather...

QUESTIONS FOR OUTREACH ROUND 2

Climate Resilience Project

Empowering Communities to Create Change

* Required

We are focused on the weather, and extreme weather events. For example, intense heat, strong wind, heavy rain. And the effects of these events in your community.

1. Name

2. Zipcode *

3. Email/Best Contact

4. Have you noticed a difference in the weather from year to year? 10 years, 5 years, 1 year ago was it better or worse? *

5. In the event of an extreme weather event: High Heat, High Wind, Heavy Rain... Rate how safe or prepared do you feel in your community... *

Mark only one oval.

	1	2	3	4	5	
Unsafe	◯	◯	◯	◯	◯	Safe

6. In the event of an extreme weather event, rate your access to information... *

Mark only one oval.

	1	2	3	4	5	
Poor Access to Information	◯	◯	◯	◯	◯	Very good access to information

7. In the event of extreme weather (for example flooding), and your home becomes uninhabitable, what would you do? *

Help us understand the resources you value: Do you like where you live? Why do you live here?

8. How do you feel about the natural spaces (parks, trails, etc.) in your community? *

Mark only one oval.

	1	2	3	4	5	
Very Unsatisfied	◯	◯	◯	◯	◯	Very Satisfied

9. How do you feel about the physical infrastructure and resources in your community (grocery store, community center, public transit, hospital, clinic, etc.)

Mark only one oval.

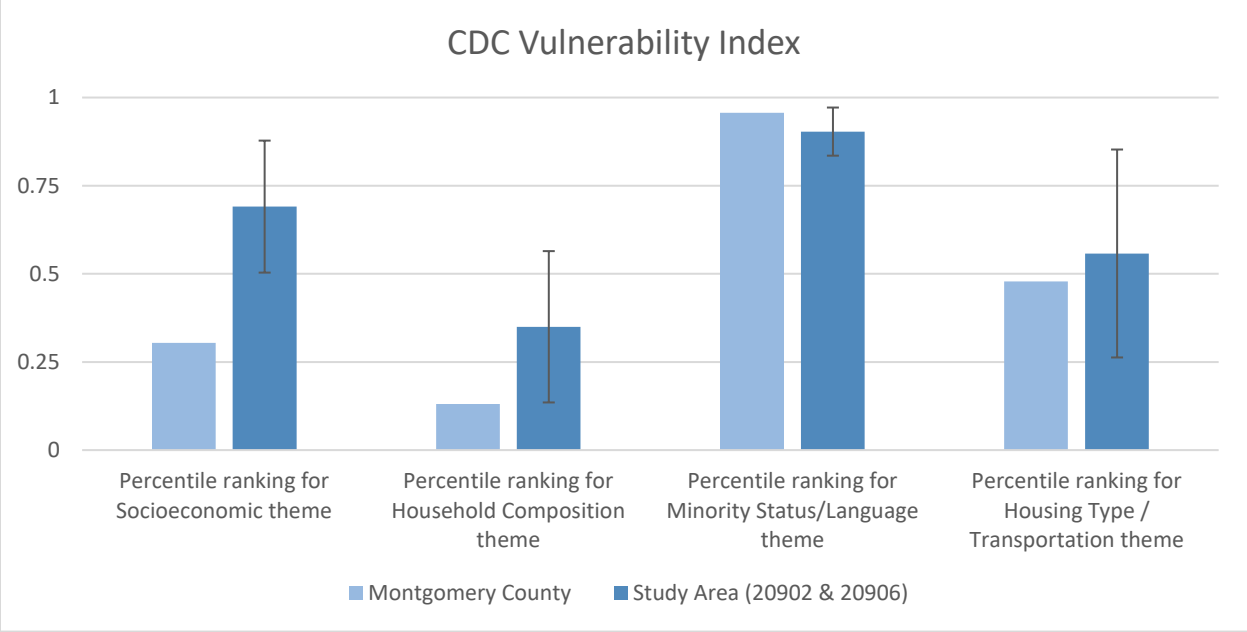
	1	2	3	4	5	
Very Unsatisfied	◯	◯	◯	◯	◯	Very Satisfied

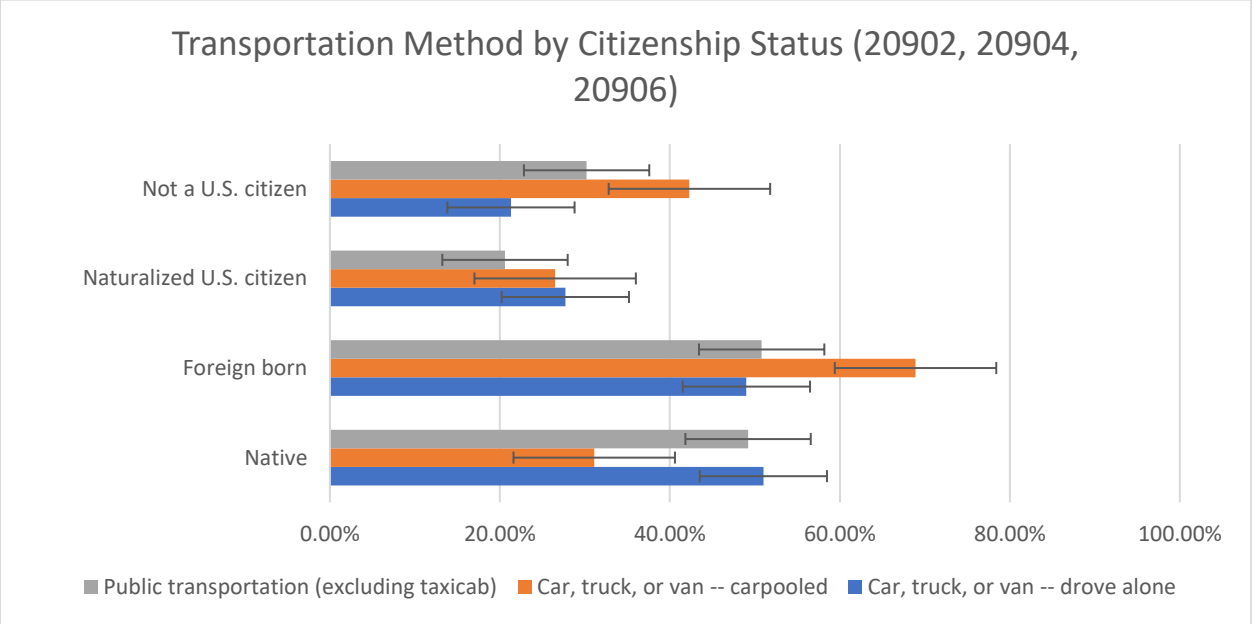
10. What would you like to see more (or less) of in your community? *

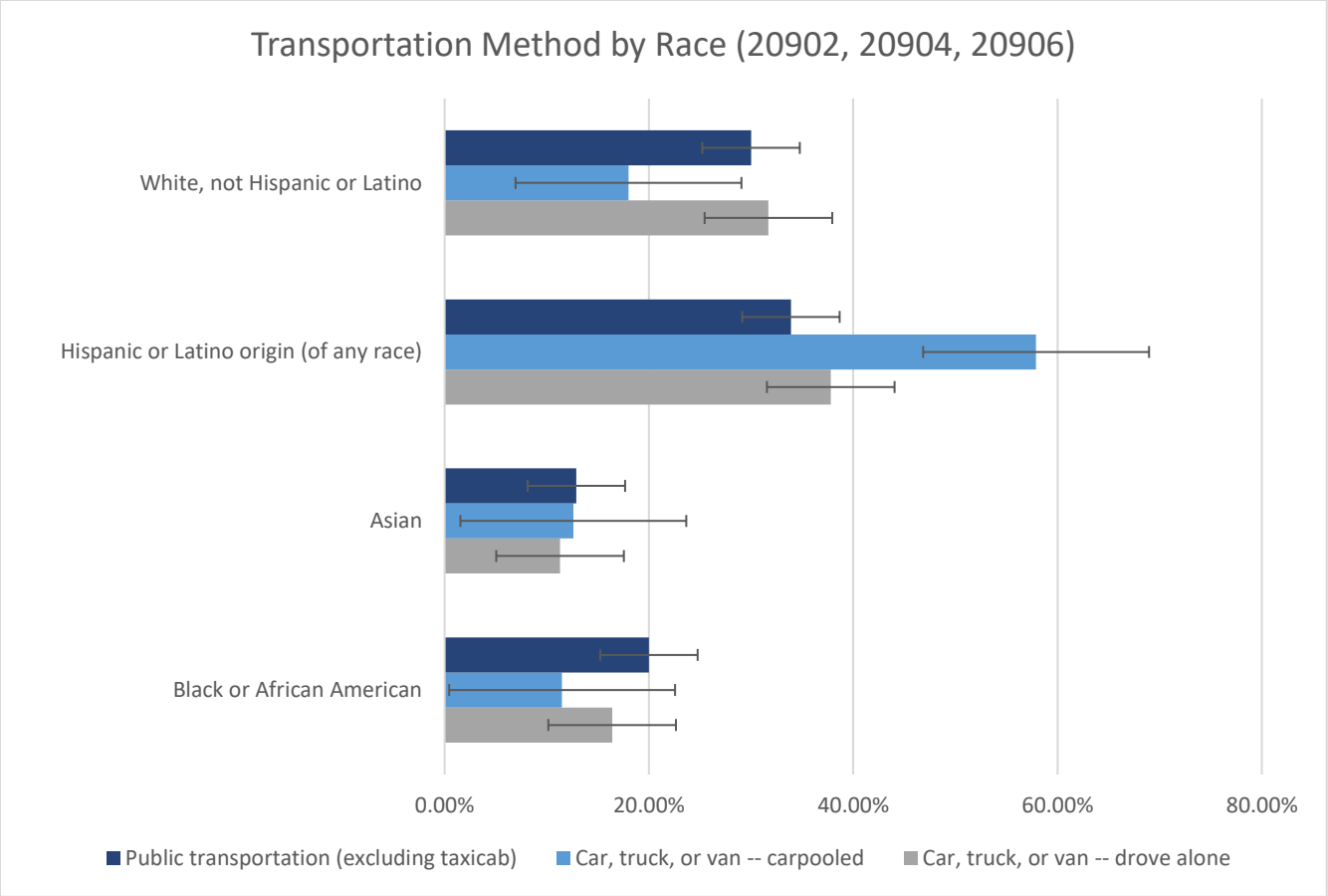
Thank you for taking the time to answer these questions!

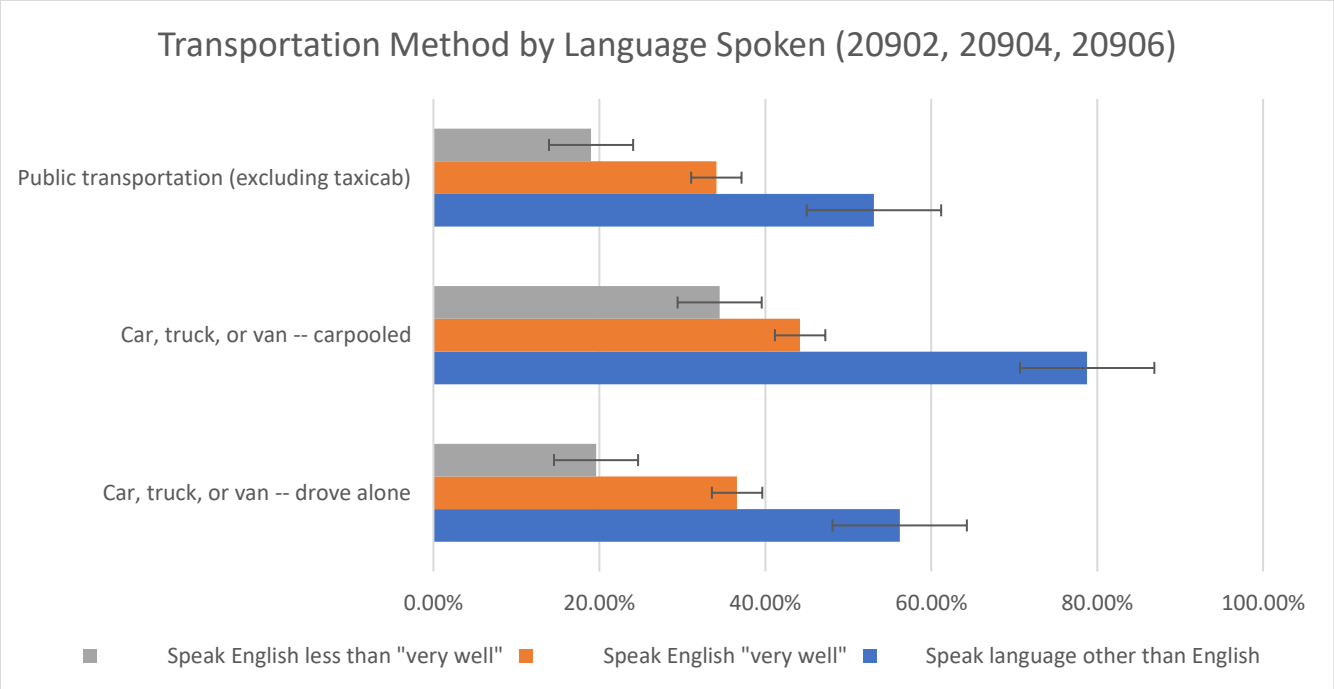
RESEARCH ON SENSITIVITY AND EXPOSURE

Preliminary research for the Climate Resilience Project involved building an understanding of the target area. Using data from the Census' American Community Survey, CDC vulnerability index, and a service called Flood Factor API, the Climate Resilience Project attempted to the capture some of the ways that the socio-economic makeup of the target area could be impacted by increasing extreme weather events. Transportation method was an item of interest early one, with roadways increasingly impacted by torrential rains and flooding, different methods of transportation may be impacted disproportionately. Additionally, economic, and educational makeup of the community was important to understand the socio-economic setting that extreme weather's impacts are experienced.



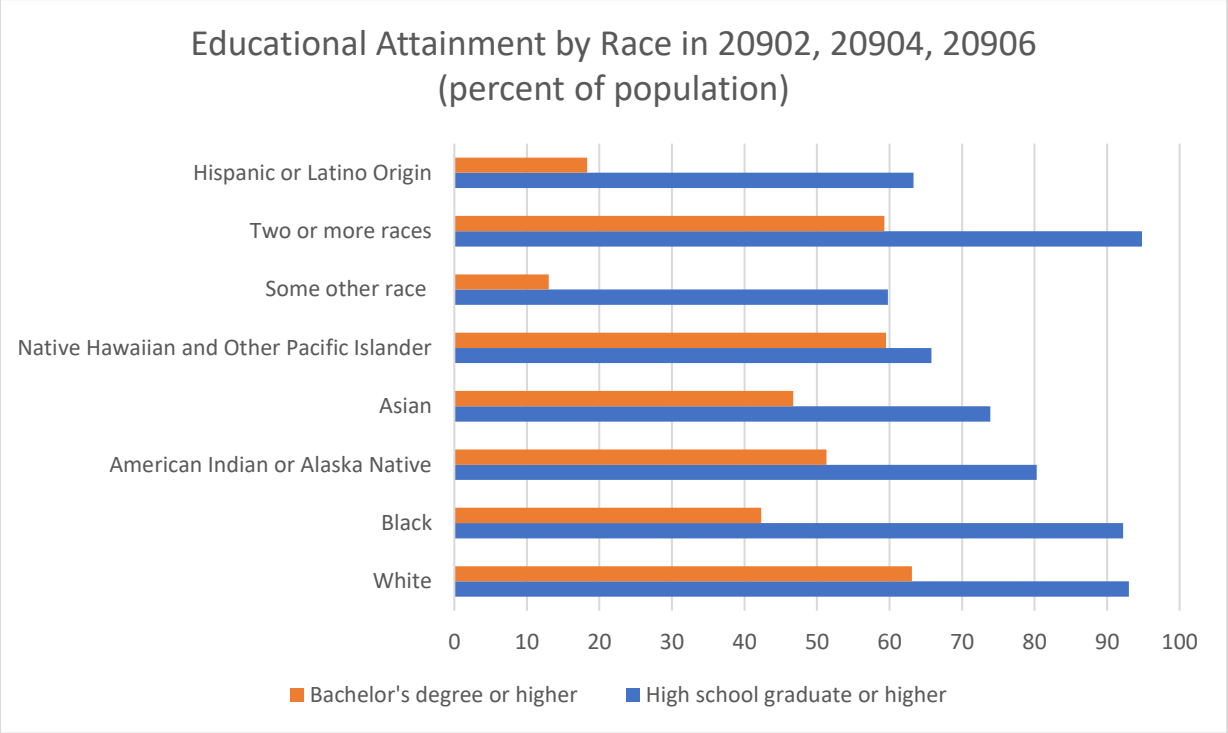



Transportation Method by Race (20902, 20904, 20906)
White, not Hispanic or Latino
Hispanic or Latino origin (of any race)
Asian
Black or African American
0.00%
20.00%
40.00%
60.00%
80.00%
Public transportation (excluding taxicab)
Car, truck, or van -- carpooled
Car, truck, or van -- drove alone


Transportation Method by Language Spoken (20902, 20904, 20906)
Public transportation (excluding taxicab)
Car, truck, or van -- carpooled
Car, truck, or van -- drove alone
0.00%
20.00%
40.00%
60.00%
80.00%
100.00%
Speak English less than "very well"
Speak English "very well"
Speak language other than English

Census, ACS

EDUCATIONAL ATTAINMENT

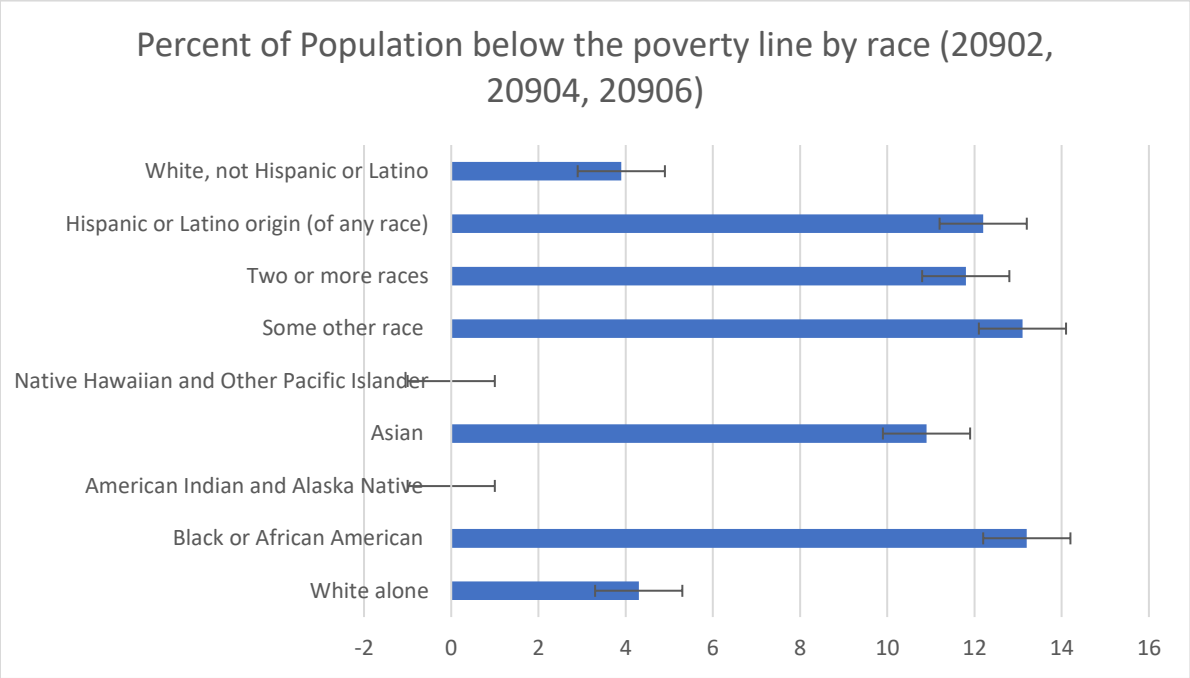


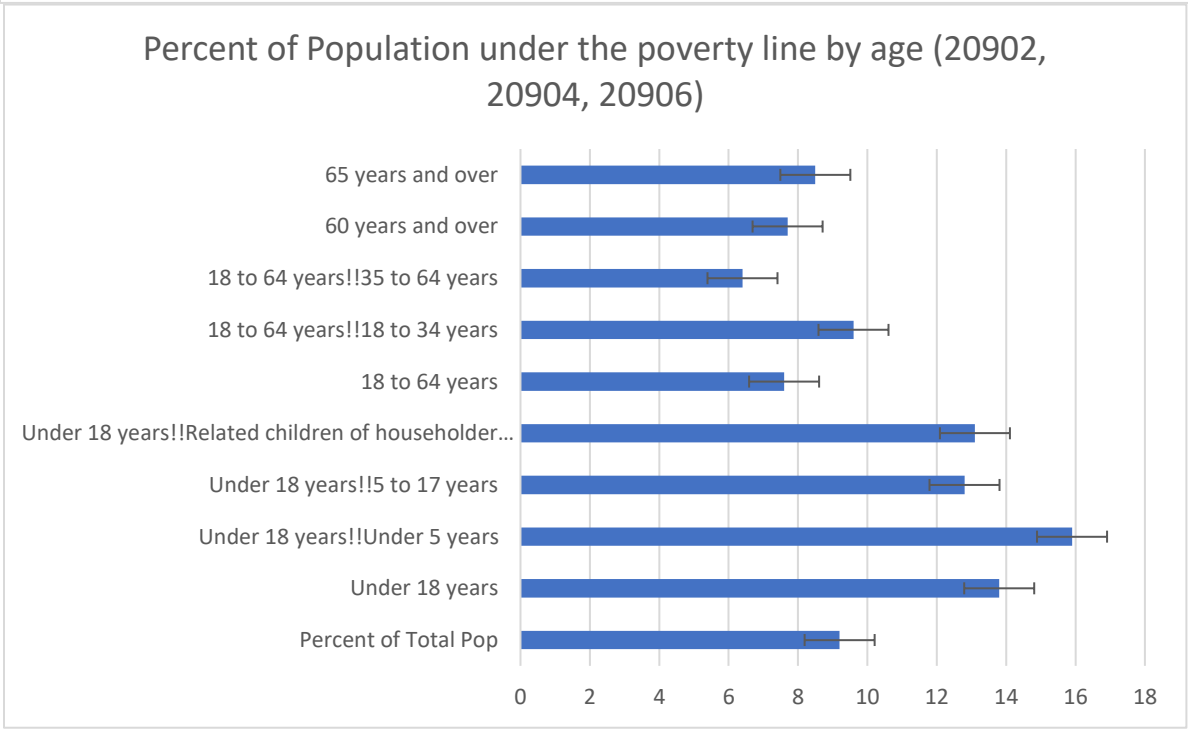
Census, ACS

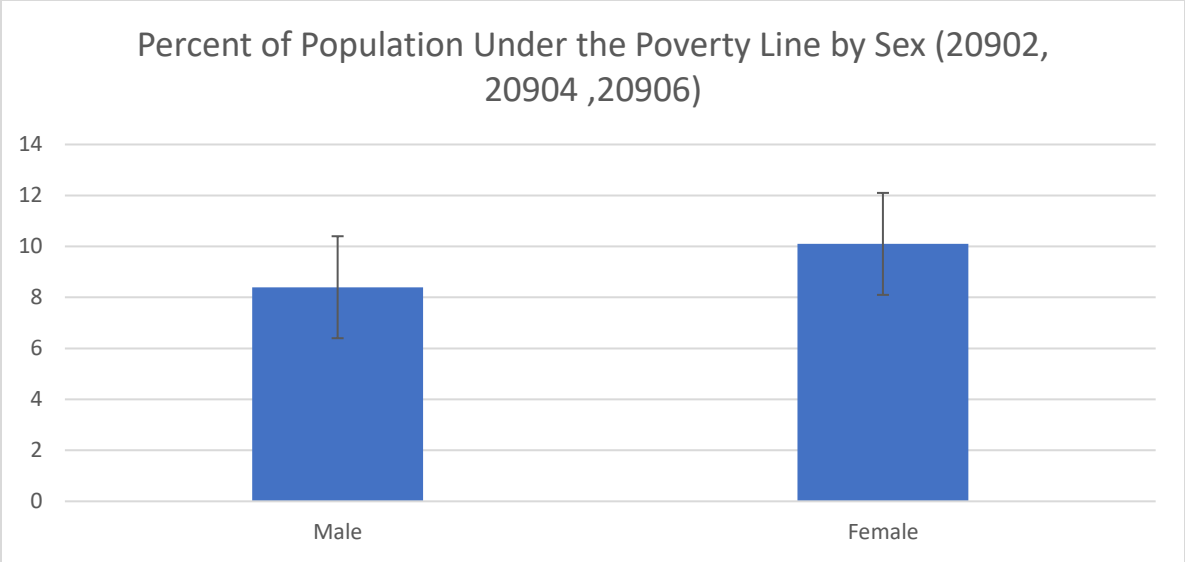
WORK

Census ACS

POVERTY


Percent of Population below the poverty line by race (20902, 20904, 20906)
White, not Hispanic or Latino
Hispanic or Latino origin (of any race)
Two or more races
Some other race
Native Hawaiian and Other Pacific Islander
Asian
American Indian and Alaska Native
Black or African American
White alone
-2
0
2
4
6
8
10
12
14
16


Percent of Population under the poverty line by age (20902, 20904, 20906)
65 years and over
60 years and over
18 to 64 years!!35 to 64 years
18 to 64 years!!18 to 34 years
18 to 64 years
Under 18 years!!Related children of householder...
Under 18 years!!5 to 17 years
Under 18 years!!Under 5 years
Under 18 years
Percent of Total Pop
0
2
4
6
8
10
12
14
16
18



Census, ACS

These charts highlight the highest percentage of the population of the study area under the poverty line categorized by demographic.

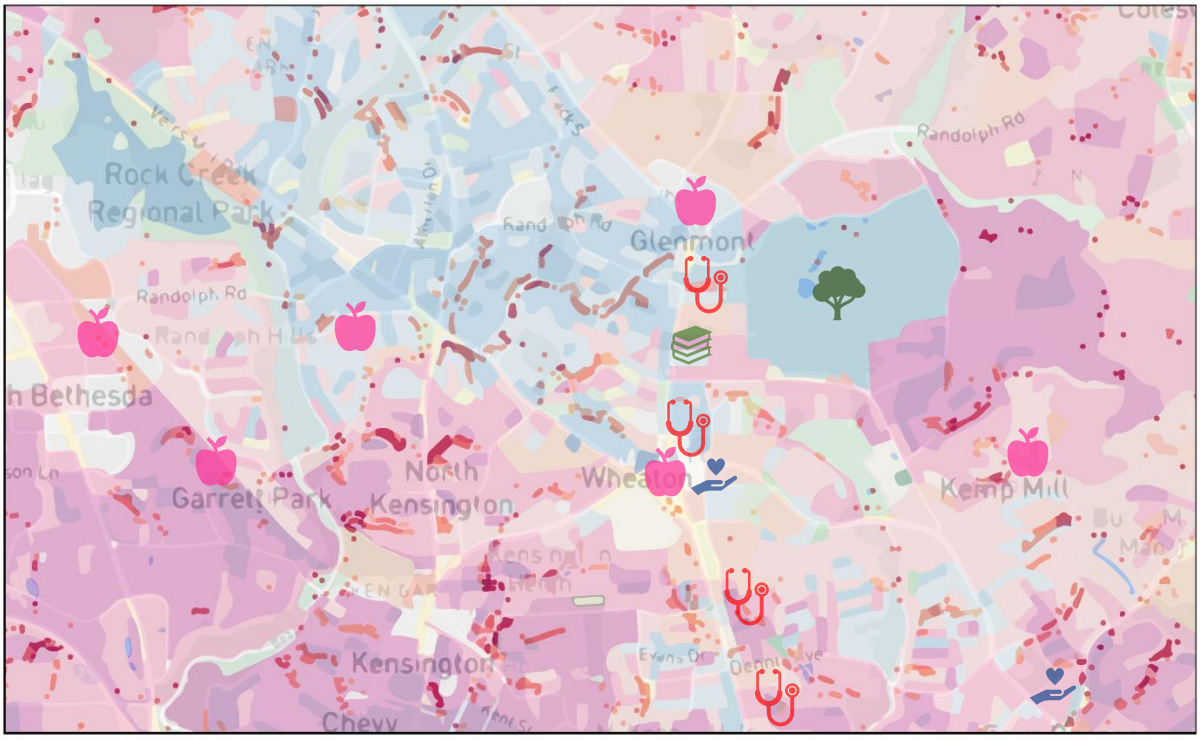
Age: Children under 5 years are the highest percent under the poverty line.

Sex: Women are the highest percent under the poverty line.

Race: Black and African American individuals are the highest percent under the poverty line.

Education: 25 years and over with less than a high school graduate level of education are the highest percent under the poverty line.

EXPOSURE



LEGEND

Blue area: Hispanic or Latino majority population

Orange: Black or African American majority population

Magenta: White majority population

Green: Asian or Pacific Islander majority population.

DARK RED LINES: These indicate instances of severe flooding in the past 10 years.

COMMUNITY ASSETS

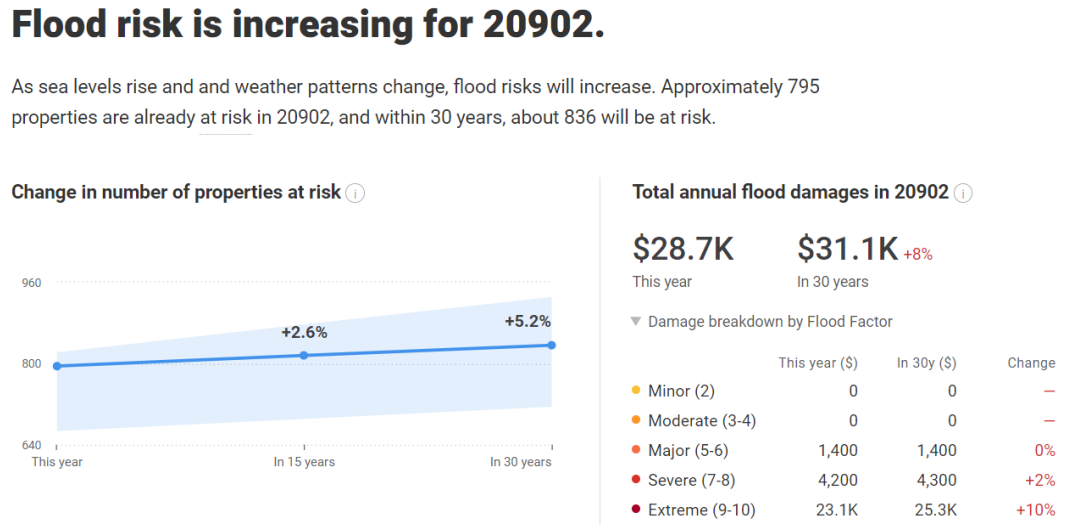
Three main clusters of grocery stores. Clusters are located near the Wheaton and Glenmont Subway stations, and the Kemp mill center. Food is clustered around Georgia Avenue and is central to the study area geographically. However, it is not central to the Hispanic majority area.

Food assistance locations are highly concentrated around Georgia avenue. Food assistance is also largely faith organizations with nonprofits being the most concentrated around the Wheaton subway station. There is also a cluster of FA locations in the four corners area.

The Wheaton Library is also on Georgia Ave.

Health care is also clustered around Georgia Ave with Holy Cross Hospital the nearest Hospital.

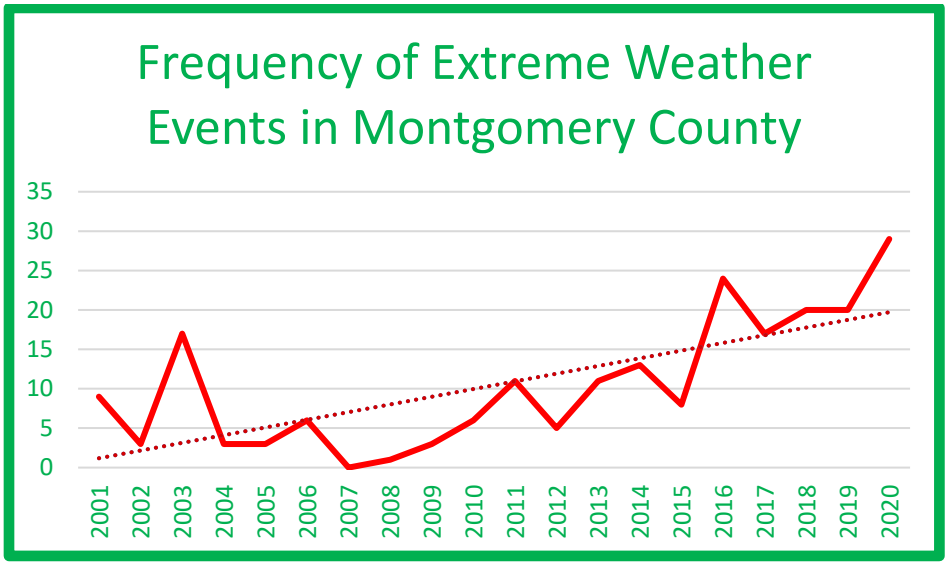
Wheaton Regional Park.



Flood Factor API

CHANGING WEATHER

As extreme weather events continue to increase, their impact on vulnerable communities will increase as well.



NOAA

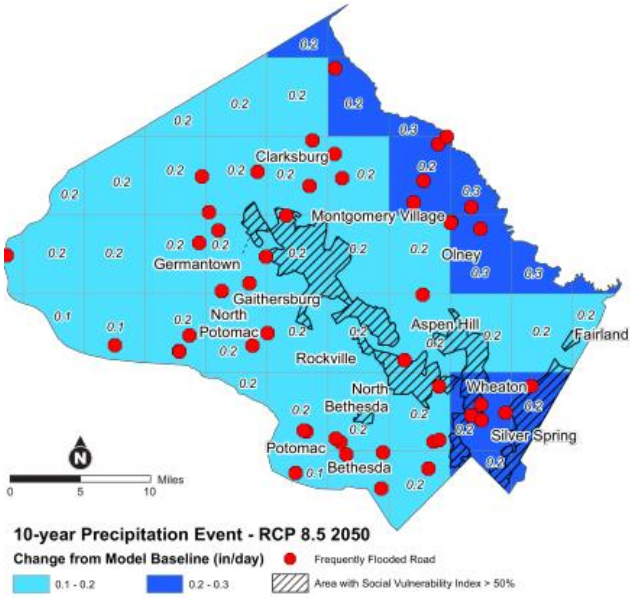


Figure 12: Projected increase in the 10-year precipitation event for 2050 and climate scenario RCP 8.5 outlining areas ranked in the top 50% most vulnerable by the CDC social vulnerability index

MC CAP

The Montgomery County Climate Action Plan Appendix had a lot of useful data for the Climate Research Project. The above visualization represents frequently flooded roads as well as predicted increases in precipitation events. Part of the appendix detailed bus routes within these predicted impact areas, with 45% of the bus routes servicing the study area of 20902, 20904, and 20906.

WORKS CITED

Cleveland, C.J. and Morris, C. 2006. Dictionary of Energy, Elsevier, Amsterdam, 502pp.

Health Resources and Services Administration. HPSA Find. Retrieved January 20, 2021, from https://data.hrsa.gov/tools/shortage-area/hpsa-find

Maryland-National Capital Park and Planning Commission, Montgomery Parks' Trailheads and Parking. Updated June 26. Retrieved January 20, 2021, from https://www.montgomeryparks.org/resources/montgomery-parks-trailheads-and-parking/

Montgomery County Department of Environmental Protection. County Programs. Retrieved January 20, 2021, from https://mygreenmontgomery.org/county-programs/

Montgomery County Government. Neighborhood Projects. Retrieved January 20, 2021, from https://www.montgomerycountymd.gov/DGS-BDC/NeighborhoodProjects.html

Montgomery County Food Council. Food Assistance Resource Map. Retrieved on 3/27/2021 from: https://mocofoodcouncil.org/map/

Montgomery County DEP. MONTGOMERY COUNTY CLIMATE ACTION PLAN Building a Healthy, Equitable, Resilient Community. JUNE 2021

NOAA. NCEI Storm Events Database. Retrieved on 2/10/21 from: https://www.ncdc.noaa.gov/stormevents/

SPNL, MADA. 2013. "Social, Ecological and Agricultural Resilience in the Face of Climate Change" In Egypt, Jordan, Lebanon, Palestine and Morocco; Social and Ecological Vulnerability Assessments of the Upper Akkar watershed, Lebanon.

United States Census Bureau. MEANS OF TRANSPORTATION TO WORK BY SELECTED CHARACTERISTICS. Table ID S0802. 2019: American Community Survey (ACS) 5 Year Estimates Subject tables. Retrieved January 20, 2021, from https://data.census.gov/cedsci/table?t=Commuting&g=8600000US20902,20906&tid=ACSST5Y2019.S0802&hidePreview=true

United States Census Bureau. POVERTY STATUS IN THE PAST 12 MONTHS. Table ID S1701. 2019: American Community Survey (ACS) 5 Year Estimates Subject tables. Retrieved January 20, 2021, from https://data.census.gov/cedsci/table?q=poverty&g=8600000US20902,20906&tid=ACSST5Y2019.S1701&hidePreview=true

United States Census Bureau. AGE AND SEX. Table ID S0101. 2019: American Community Survey (ACS) 5 Year Estimates Subject tables. Retrieved January 20, 2021, from https://data.census.gov/cedsci/table?g=8600000US20902,20906&tid=ACSST5Y2019.S0101&hidePreview=true

United States Census Bureau. EDUCATIONAL ATTAINMENT. Table ID S1501. 2019: American Community Survey (ACS) 5 Year Estimates Subject tables. Retrieved January 20, 2021, from https://data.census.gov/cedsci/table?t=Educational%20Attainment&g=8600000US20902,20906&tid=ACSST5Y2019.S1501&hidePreview=true

United States Census Bureau. INDUSTRY BY SEX FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER. Table ID S2403. 2019: American Community Survey (ACS) 5 Year Estimates Subject tables. Retrieved January 20, 2021, from https://data.census.gov/cedsci/table?t=Employment&g=8600000US20902,20906&tid=ACSST5Y2019.S2403&hidePreview=true

United States Census Bureau. QuickFacts Montgomery County, Maryland. Retrieved January 20, 2021, from https://www.census.gov/quickfacts/fact/table/montgomerycountymaryland/PST045219#

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