

HENNEPIN COUNTY BASELINE HEAT RISK ASSESSMENT

RESILIENT COMMUNITIES PROJECT | RCP 57

About the Partner

Hennepin County is Minnesota's most populous county with more than 1.2 million residents and 45 cities including Minneapolis, which serves as its county seat. Hennepin County includes urban, suburban, and rural communities and is situated on ancestral and current homelands of the Dakota and Ojibwe peoples. It is home to major industries such as finance, healthcare, retail, and technology, as well as numerous educational institutions including the University of Minnesota.



The racial demographics vary by city; overall, 67% of people are White, 13% Black, 7% Asian, 7% Hispanic or Latino, .4% American Indian, and 4.6% two or more races. 13.4% of residents were born outside of the United States with Somalia and Mexico ranking as most common countries of origin. The median household income in 2022 was \$92,295 and the homeownership rate is 63%. For renter households, 45.8% are considered cost burdened.

Project Description

Hennepin County adopted a Climate Action Plan in May 2021, identifying 5 goals and 29 strategies. These strategies focus on cutting greenhouse gas emissions and adapting to our changing climate in ways that reduce vulnerabilities and ensure a more equitable and resilient Hennepin County. Although climate change will impact everyone, the impact will not be felt the same across communities. Climate and Resiliency staff at the County have created a preliminary climate vulnerability index to identify which communities in the county are most vulnerable to the impacts of climate change, and to inform climate action going forward.

In early 2024, Hennepin County received a technical assistance grant from the National Oceanic and Atmospheric Administration (NOAA) to complete an urban heat island study. The County has hired CAPA Strategies to gather preliminary data for this study, and they will issue a preliminary report soon. County climate and resilience staff would now like to collaborate with students to use this data, as well as other existing data from the County and other sources, to create a baseline heat risk assessment as the first step in creating an integrated Heat Action Plan the County. Students may also be asked to review and refine the County's climate vulnerability index based on these data and analyses.



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Key Issues, Questions, and Ideas for Students to Explore

1. Create a baseline heat risk assessment, with a particular focus on public health indicators and impacts
2. Identify temperature trends in Hennepin County, such as future projected temperatures (e.g., in 20 or 50 years), the heat season and its characteristics, and types of heat waves, as well as other local climate issues (droughts, wildfires) that may intersect with heat impacts.
3. If possible, identify reliable local spatial temperature data (ideally, daytime and nighttime air temperatures; alternatively, estimated land surface temperature) and map hotspots.
4. Refine the County's climate vulnerability index to identify at-risk populations, specifically for heat risk
5. Identify local stakeholders with heat-related knowledge, resources, or existing relationships/shared trust with heat-affected communities.

How Student Work Will Build Community Resilience

The most climate vulnerable communities in Hennepin County will benefit from this project as the baseline heat risk assessment and vulnerability analysis will identify specific populations at highest risk of negative health, economic, and other impacts from climate change, and allow County Climate and Resiliency staff to target County services and assistance to these populations.

Potential Partners or Stakeholders

- Hennepin Healthcare
- Hennepin County Public Health
- City of Minneapolis
- Community-based organizations / Trusted Messengers

Existing Plans and Reports

- CAPA Strategies data and report
- [Hennepin County Climate Action](#) (website)
- Atlantic Council, "[Create a Heat Action Plan](#)" (learning module)
- [Hennepin County Climate Vulnerability Assessment](#)

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