Abstract:

<p class="first">The following quantitative analysis and visualizations are based on data from a survey designed and applied on March 16, 2024 by three students from the Humphrey School of Public Affairs, in the context of the graduate-level course PA 5751: Addressing Climate and Energy Challenges at the Local Scale (Spring 2024), in partnership with Minnesota Interfaith Power and Light. A total of 32 randomly selected participants from a small quadrant within the East Phillips neighborhood, Minneapolis, answered a questionnaire composed of 12 questions. These were aimed at measuring the extent to which people are prepared to face several different types of emergencies, such as poor air quality, extreme weather, energy outages, etc. The concept of emergency preparedness implicit in the questions does not only consider the items and technologies that might be helpful during an emergency, but also the quality and quantity of relationships between neighbors. Finally, survey participants were asked to give their opinion on the three most important factors of a good community center or gathering space. The questionnaire is publicly available <a href="https://docs.google.com/document/d/1inNkaFxkKHWQsb4cSrw3qlMMp-A2La5nf6WbMNMAKBE/edit?usp=sharing" style="color: #8ebf42" target="\_blank">here<a/>, and the Python code behind some of the analyses and graphs is available <a href="https://colab.research.google.com/drive/19VQYSD14wGhaYKqY6ZEAr8sd9StJtmBx?usp=sharing" style="color: #8ebf42" target="\_blank">here<a/>. Below are graphs and text to present the findings and interpretations. Given the small sample size and relatively small area covered, one should be cautious when trying to make generalization beyond the scope of the sample. However, the survey is intended to provide Minnesota Interfaith Power and Light with some insights for the creation of a resilience hub for the people of East Phillips.</p>

Analysis

<p class="intro">The map and the graphs below are followed by brief explanations and interpretations. Each paragraph refers to the graph or map directly above it. All the information below is presented in the order in which the survey questions were asked. Most graphs will show extra information when readers hover over them with their cursors, or when they click on them on their phones.</p>

Map

<p class="intro">The blue polygon in the map shows the area of East Phillips where the sampling for the survey took place. Readers can click on the map or its title to open Google Maps showing that part of East Phillips.</p>

Sam’s Graph:

<p class="intro">Almost all (90%) respondents are well-connected virtually (wi-fi and smartphones) and have working smoke detectors. Most people have a car (77%). About two-thirds have a 3-day supply of drinking water, canned/non-perishable food, and medications. Around half of respondents have flashlights, radios, extra batteries, first aid kits and working carbon monoxide detectors.</p>

<p class="explanation">Survey respondents were also asked what other things it would be important to have during an emergency. Some common themes emerged from 16 responses:</p>

<ul>

<li>Backup generators or home batteries (Tesla Powerwall) </li>

<li>Things to stay warm (blankets, hand + feet warmers, warm clothing) </li>

<li>Alternative lighting (candles, matches, oil lamps) </li>

<li>Knowledge of what to do and where to go (emergency exits, resilience hub locations, plans) </li>

<li>Plans for maintaining public safety and security</li>

</ul>

<p class="explanation">Some items were only mentioned once: fire extinguishers, tent, extra pet food, and indoor air filters.</p>

<p class="explanation">Responses were broadly focused on maintaining power, comfortable living conditions (warmth and lighting), and public safety, in addition to knowing how to respond to an emergency.</p>

Time that respondents…

<p class="intro">Around one third of the people in the sample have been living in East Phillips for a relatively short time (less than a year), another third have been living there between 1 and 10 years, and the last third have been living there for a very long time (more than 10 years). </p>

How often do you have…

<p class="intro">Survey participants have “long” conversations with neighbors in varying intervals. When asked about the topics that they usually talk about, 24 people responded. Events in the neighborhood and complaints about public spaces were the most recurring responses. Other responses included sharing one’s needs, discussing crime in the neighborhood, food, talking about missing one’s home country, and just saying hi and catching up with neighbors. </p>

Asked for Help…

<p class="intro">Most respondents did not ask for help from a neighbor in the six months before the survey. Most of those who asked for help were willing to share the sort of help that they asked for: </p>

<ul>

<li>Use of their home for a relative of ours. </li>

<li>If they’d be willing to support my small business that is designed to help individuals and families. </li>

<li>Asked for food at Our Savior Church. </li>

<li>Housing. </li>

<li>Asked for help for my wife. </li>

<li>Advice about pets. </li>

<li>Help to jumpstart a car. </li>

</ul>

Perceived…

<p class="intro">12 out of 31 people think it is unlikely that a neighbor would check on them to see if they are doing well during an emergency, 8 are unsure, and 10 think it is likely that a neighbor would check on them. </p>

Indicators of Collective Social Capital

<p class="intro">Collective social capital is a sociological concept that tries to capture the quality and quantity of people’s relationships with other community members, and it can be measured by asking people to express their agreement or disagreement about phrases describing their social environment. The predominance of blue in the graph would indicate a high degree of collective social capital, and the predominance of red would indicate the opposite. In this case, there seems to be a balance between the two extremes, with around 20% of respondents on average remaining neutral in their opinions. The title includes the word “Adjusted” because the opposite of the last three phrases was read to survey respondents (for example, “People in this neighborhood <em>do not</em> share the same values”), but the phrases are “turned around” and graphed as shown above to enhance the readability of the graph. </p>

Question 12:

<p class="intro">Overall, most people that we surveyed are aware of public places in the neighborhood for gathering (84%). Our survey found that people tended to visit more places that offered recurring services relevant to their needs instead of just one-time events. In general, respondents visit these locations mainly to be with and build community and access a multitude of services that span the spectrum. The top 3 factors that make a community center or gathering space good can be broadly described as physical accessibility/amenities, a culture of openness, and the connections with community members to address relevant concerns. </p>

<p class="explanation">A variety of locations were named for where people visit in the Phillips neighborhood and surrounding area, and a map showing all of them can be accessed <a href="<https://maps.app.goo.gl/WXTaGbqyzQSLJN4p7>" style="color: #8ebf42" target="\_blank">here</a>. These places consist of a variety of religious institutions, social services centers, public parks and libraries, local schools, and other community centers like cultural corridors. Although there are some people that are aware of public spaces for gathering, that does not necessarily mean that they themselves are visitors of those spaces. </p>

<p class="explanation">With this variety of locations, the reasons for visiting them are also quite variable. A location typically has more than one service as well which makes simplifying any site to just one factor an inaccurate portrayal of its service offerings. For example, a local religious institution can provide faith services in addition to food distribution and opportunities for socializing with community members. </p>

<p class="explanation">Residents’ responses showed that they value a community space that is authentic in nature and one that is current to the times to address the needs of the community living in the neighborhood. </p>

FINAL GRAPH

<p class="intro">The inner ring of this sunburst graph shows the same information as the pie chart above, but the outer ring shows some extra information: of the people who know at least one public place, 69% visits that community center (or more) monthly or weekly, while only 31% report not visiting that place very often. These percentages are revealed when clicking on the blue section of the inner ring. The predominance of blue on this chart indicates a high degree of collective social capital (as defined above. The graph can be reset by clicking on its circular core. </p>

<a href="<https://maps.app.goo.gl/WXTaGbqyzQSLJN4p7>" style="color: #8ebf42" target="\_blank">

Link to recurring places:  <https://maps.app.goo.gl/WXTaGbqyzQSLJN4p7>

**WHAT WE LEARNED FROM TALKING TO PEOPLE**

* In response to our introduction and background on the types of emergencies we’re talking about, several people mentioned being concerned about air quality and feeling unprepared. A revised version of this survey should ask about air conditioning and indoor air filters to better understand preparedness for poor air quality.
* Residents may not be purposefully preparing for emergencies. People described sometimes having the suggested items, and sometimes not (especially bottled water + canned food). We heard multiple responses of “oh, I should get that” if they did not currently have an item.
* One respondent described frequent interactions with neighbors, but the topic was negative (racial hostility). It may be worth specifying friendly conversations in that survey question.
* The questions we asked that required respondents to rate the extent of their agreement on a scale were difficult to answer. Multiple people did not answer with the provided responses, meaning we had to interpret the most suitable response.
* Many people did not know the names of public gathering spaces but could tell us locations.
* We spoke to someone with a medical device that requires power, which suggests backup generation may be particularly important for some residents.
* One respondent works at a location selected to be a resiliency hub in Minneapolis and was familiar with the concept; no one else mentioned the term.
* At least seven of the interviews were conducted in Spanish, so having translated versions may be helpful in the future.