What Makes Food Pantries Worth the Distance?

Understanding Spatial Patterns of Households' Use of Food Pantries
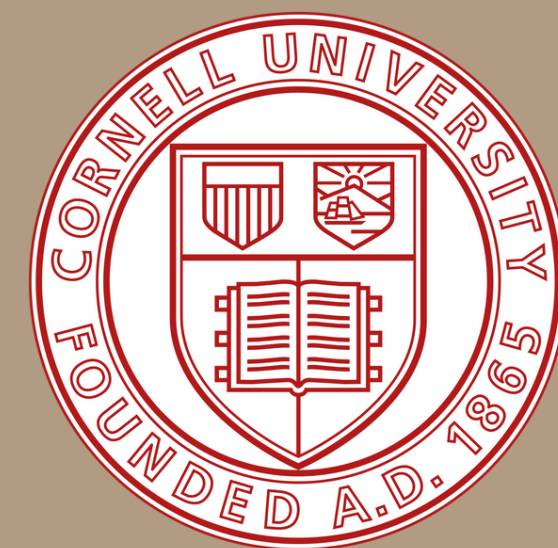
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Introduction

- In 2021, 10.5% of Americans were food insecure (Jones et al., 2021)
- As of March 2023, Emergency Assistance has ended, causing a $90 average reduction in monthly federal benefits for food insecure households (Rosenbaum et al., 2023).

- **Food pantries** provide **free food** for families with **low requirements** that are often provided by Food Banks.

- We have administrative data from the **Food Bank of the Southern Tier** that serves **6 New York State counties** **--** *Broome, Chemung, Steuben, Schuyler, Tioga, Tompkins.*
- Both rural and urban (Binghamton, Bath, Corning, Elmira, Hornell, Ithaca, and Owego) areas.

Food Bank of the Southern Tier

Ithaca

Pantry Cost & Value

- Although it costs $0 to receive food at a pantry
  - Transportation (vehicle ownership or public transportation)
  - Time (takes away from wage work or child care)

- Can assume that cost of **_traveling to pantry ≤ value of food_** (Principle of Revealed Preferences)

- **Travel time can represent the client's cost and perceived value of a pantry visit.**

Research Question(s)

- What are the **factors** that influence households to **travel** to a **further** pantry?

- Which is a better predictor of going to a closer pantry: **pantry** characteristics or **household** characteristics?

- **Which household(s)** are more willing or able to travel further?

or

Methods – Quantitative

- Using Euclidean distance we **identify the closest pantry** for each of the **29,890 household's** recorded address(es) compared to 130 pantries.

- We develop the **Closer Agency** Metric as the *amount of closer agencies to the household's residence than the attended pantry for each visit.*

- We define each visit as a **proximate** and **non-proximate visit** using the Closer Agency Metric


Proximate | **Non-proximate**
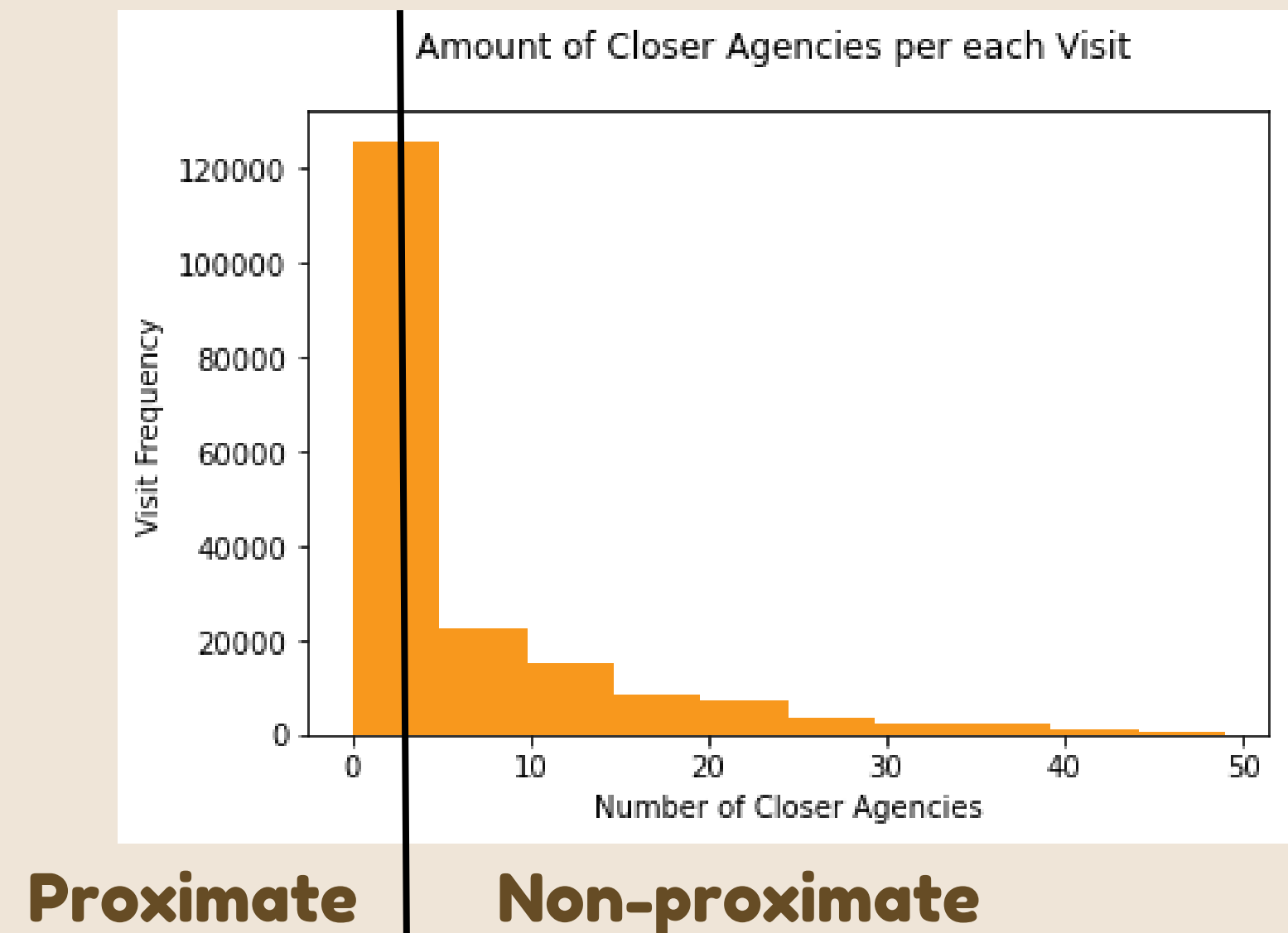
Quantitative Results

Using **Multivariate and Bivariate Logistic Regression,** various variables are used to predict if a household would attend a proximate pantry.

- As the **family size increases**, the **likelihood** of attending a **non-proximate** pantry **increases**.

- **Seniors** are more likely to visit a **proximate pantry** and are on **average 3.76 older**.

- **First time pantry** users were **more likely** to visit a **non-proximate** pantry.

- Those attending a **non-proximate pantry** are **twice as likely** to be attending a pantry with **choice of food** as opposed to pre-packed food boxes.

Methods – Qualitative

- We conduct **intercept surveys** of **9-10 clients** at 4 pantries with the highest non-proximate visits.

- We asked pantry discovery, transportation, other pantries attended, and the reasoning of visiting the attended pantry instead of other options.

- Participants used an **interactive map** to identify the **closest pantry** to their current residence.
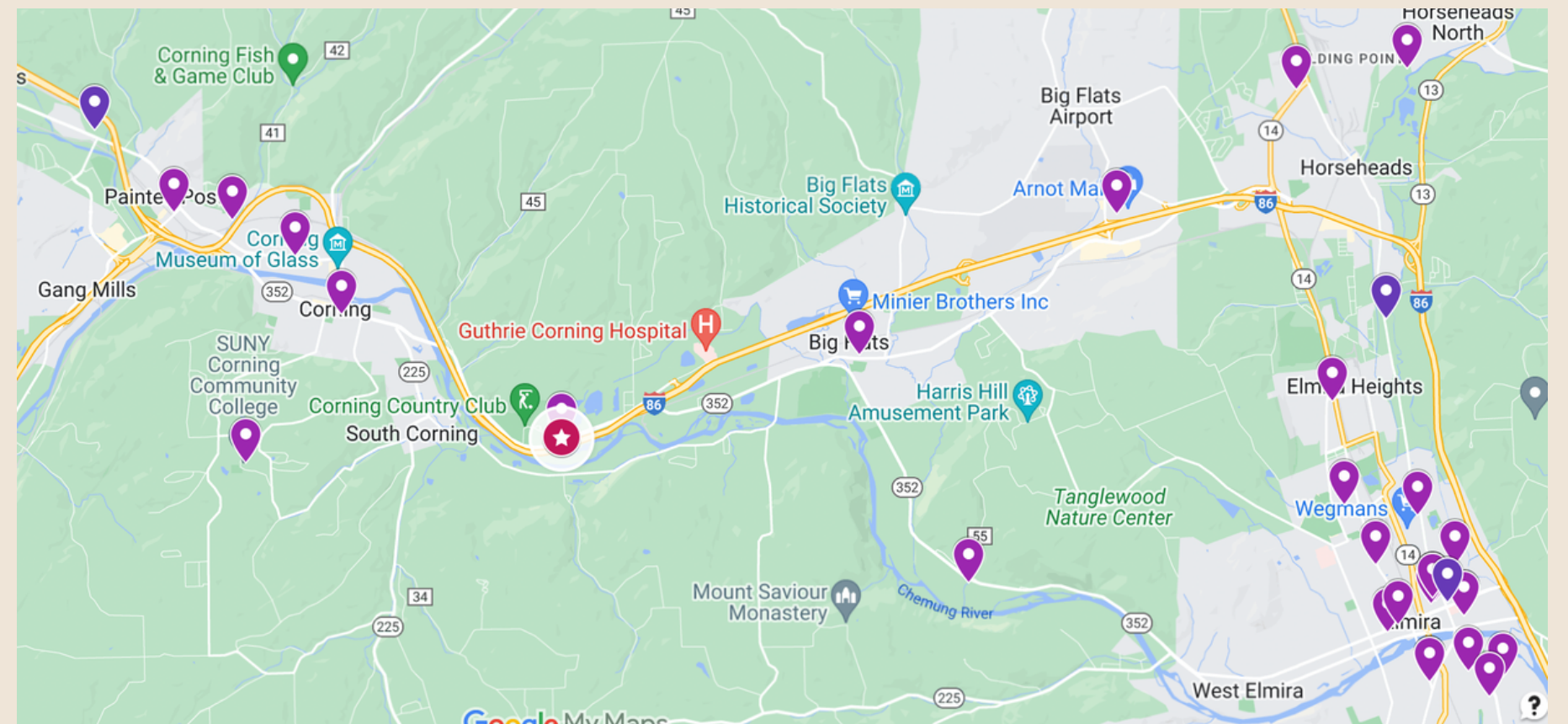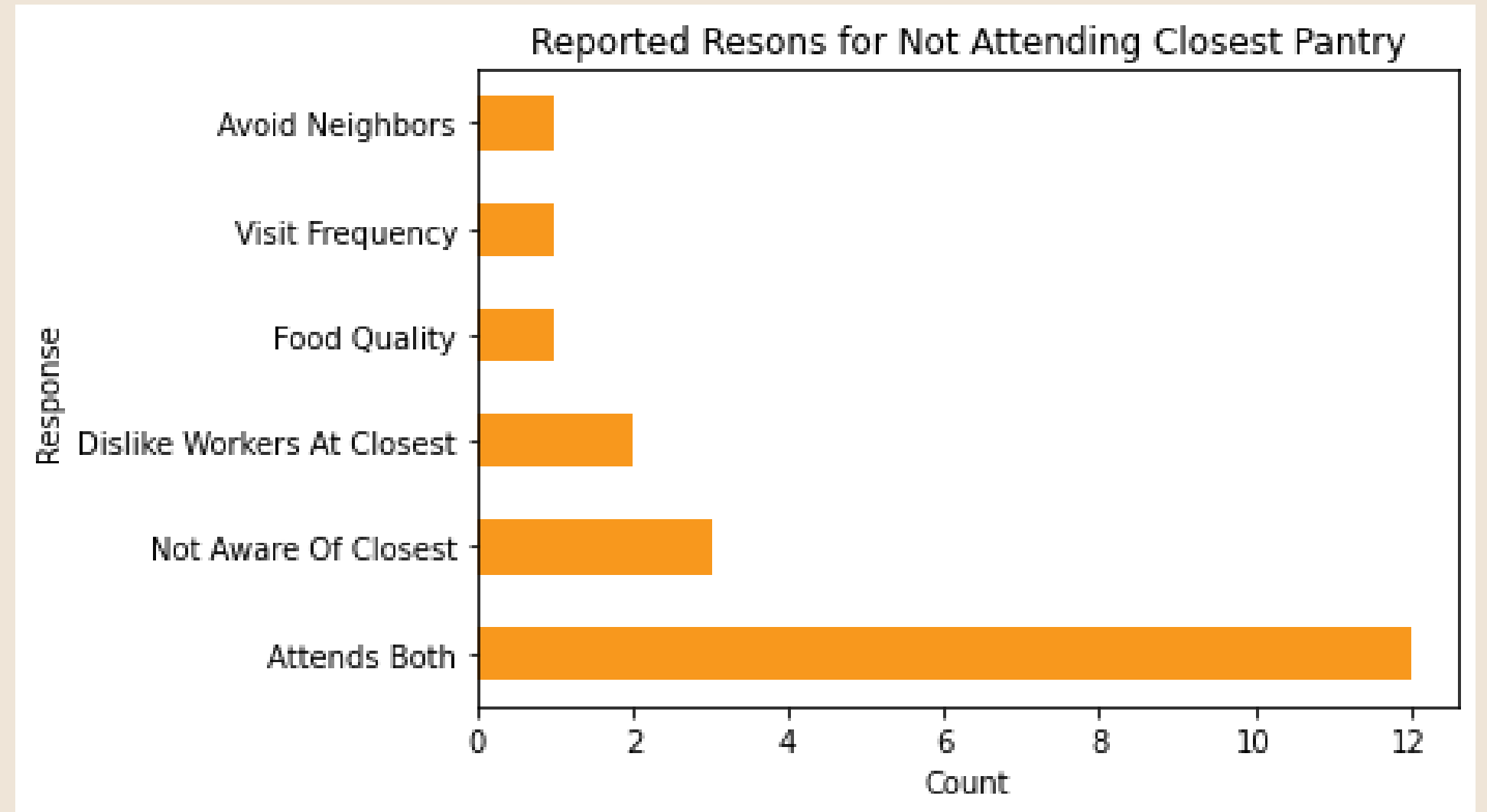

Map of Pantries around Corning Community Food Pantry

Qualitative Results

We interviewed 37 participants

57% (20) reported they were not attending their closest pantry.

Reported Resons for Not Attending Closest Pantry

Negative experiences at their closest pantry during their first pantry visit deterred clients from visiting their closest pantry again.

One individual regularly attended a further pantry to avoid seeing people they knew.

Conclusion

- We recommend that pantries provide the **ability to select food** and facilitate a **judgment-free environment,** especially for **first-time users**.

- Due to the mobility limitations and likelihood to attend a proximate pantry, we recommend providing **more proximate food resources for elderly** individuals.

- An increase in **food volume for larger families** could be beneficial to keep travel costs low and reduce the need for additional pantry visits.

Thank you!
Questions?

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Amount of Closer Agencies per each Visit

Proximate | Non-proximate