

Environmental Stewardship: Reducing Food Waste While Improving Food Security

Tyler Chapman, Katlyn Fleming, Linnea Graham, Abbey Hammell, Matthew Lupini, Isaiah Mack, Molly Tillmann

Objectives

The project's main objectives were to answer the following questions:

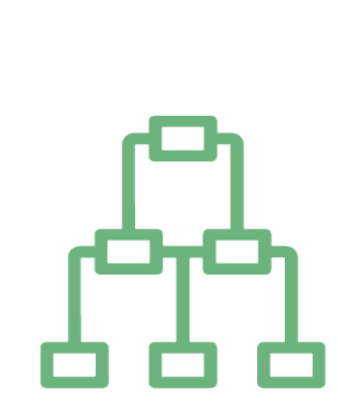
1. What percentage of food that is discarded in Ramsey County could be diverted for human consumption?
2. What are the **challenges or barriers** to diverting edible food from the point of waste to people experiencing food insecurity in Ramsey County? **Who are the players** that can help address this issue and what role can they play?
3. How have other local governments and their partners sought to address food waste and ensure that edible food is not discarded? **What lessons can Ramsey County learn from those examples?**

To address these questions, the project was divided into three main subcomponents: a **stakeholder analysis**, a **gaps analysis/case studies**, and a **stakeholder survey**.

Main Findings



1. Worksheet tools designed for Ramsey County's use contain information about stakeholders that the County may use to select stakeholders with which to **build relationships** that **maximize impact while minimizing effort**.



2. Drawing from best practices in case studies, Ramsey County may find success in:

- **Targeting lower-power stakeholders** (e.g. individuals or small local businesses) in the food waste stream
- **Redistribution of waste** to higher in the EPA food waste hierarchy



3. Based on survey results that are primarily aimed at local grocery stores and schools, a combination of **short, medium and long-term policies** may create a county-wide environment in which **food donations may be augmented** by previously underengaged stakeholders.

Stakeholder

The stakeholder analysis sought to investigate the variety of stakeholders in Ramsey County. The tools created as a result of the analysis were:

1. **Detailed Analysis** - detailed breakdown of each stakeholder with a prioritization score based on "power" and "interest" rankings.
2. **Cross-Engagement Matrix** - spreadsheet to offer engagement methods between stakeholders
3. **Primary Objective Document** - synthesis of the Detailed Analysis sheet and Cross-Engagement Matrix



This project was completed as part of the Economic Development Fellows program in Fall 2018, with support from the Resilient Communities Project (RCP). RCP is a program of Center for Urban and Regional Affairs (CURA). To learn more about RCP or this project, visit rcp.umn.edu.

Case Studies



<http://bit.ly/2GXHZ1U>

Consumer Education: Inform consumers about the food waste problem; distribute information with multi-media; distinguish between "values-centered" and "skills-centered".

Examples:

- Boulder/Broomfield County School Recycling and Environmental Education Program (Boulder, CO)
- FeedBack (International)

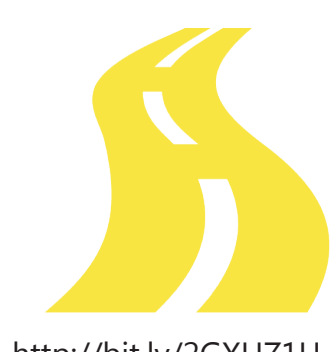


<http://bit.ly/2GXHZ1U>

Gardener Engagement: Collect food from gardens, orchards or other agricultural lands; improve food security especially availability of high-quality fresh goods; transport gleaned produce directly to consumers.

Examples:

- Urban Harvesting (San Francisco, CA)
- Homegrown Minneapolis (MN)



<http://bit.ly/2GXHZ1U>

Recycling Contract Negotiation for Businesses:

Offer discounted recycling services to businesses, provide incentives for recycling with high potential for waste diversion through targeting.

Examples:

- Love Food Not Waste (Eugene, OR)
- Cupertino, CA

Stakeholder Survey

The main survey objective was to **assess stakeholder barriers to food donation**.

Subset of stakeholders chosen for survey based on NRDC reports of which stakeholders may have the highest food recovery potential, as well as those who were easiest to contact within the time constraints of the project.

Two groups of stakeholders were selected for the final analysis: **Ramsey Co. school districts and local grocery stores**. Contact information provided by Ramsey Co. in the form of a GIS data file with attribute table for local grocery stores and school nutrition services coordinators.

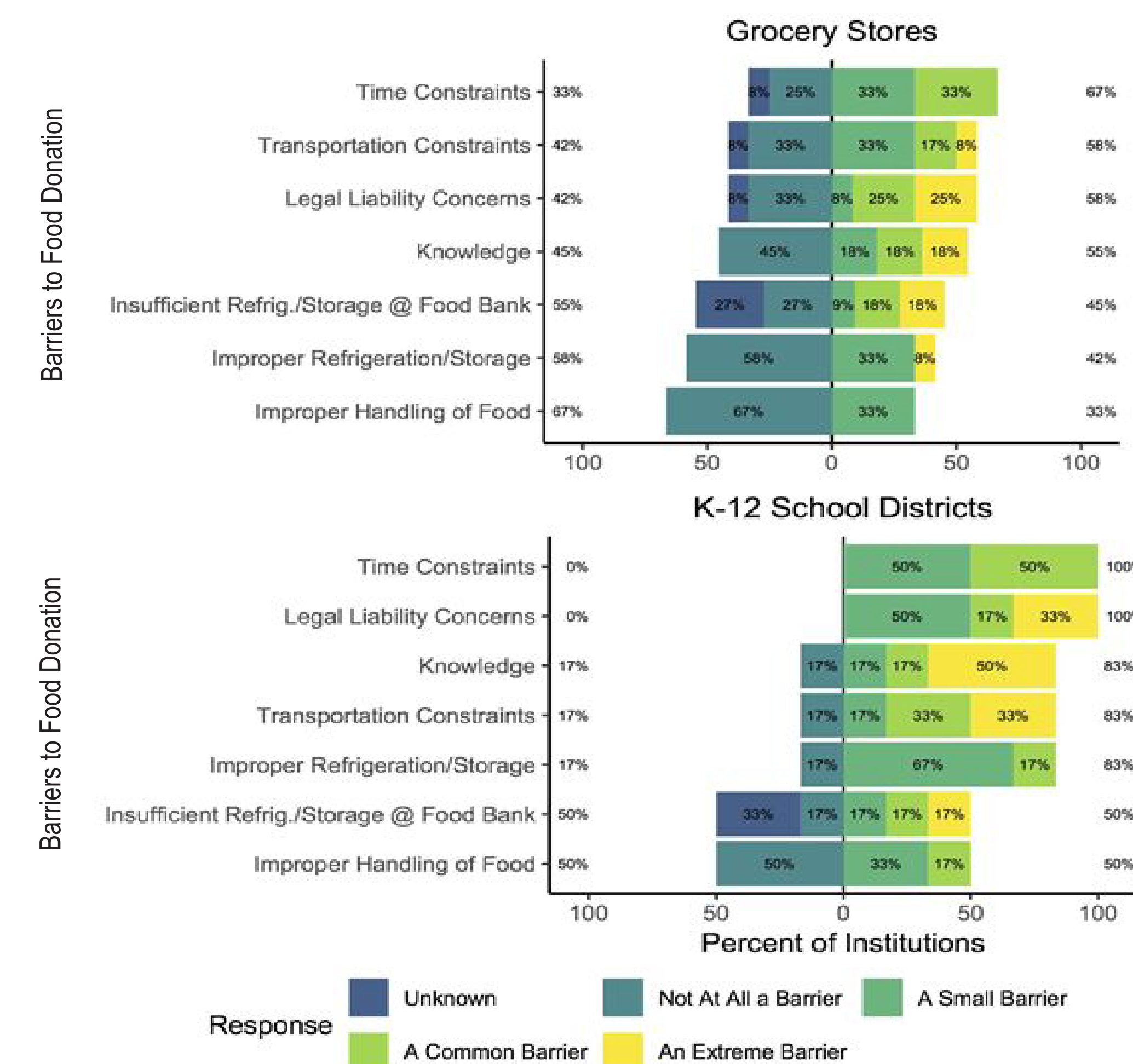
The table below displays information regarding contact efforts made by the team to potential participants and the final percentage of those who chose to participate in the survey.

	Contacted	Declined	No Answer	Given Survey	Completed Survey
Hospitals	3	0	1	2	1
School Districts	6	0	0	6	6
Local Grocery Stores	92	18 (19.6%)	48 (52.2%)	26 (28.2%)	12 (13.04%)

Source: team-created survey responses

Results

Survey data analysis was performed in R. Full results are displayed in the report. Below is a selected graphic displaying responses to a question asking participants to **rank barriers to food donation**.



Recommendations

Ramsey County can address survey respondents' perceived barriers to food donation by focusing on the following short-term, medium-term and long-term responses:



<http://bit.ly/2GXHZ1U>

Provide **educational resources** in a singular, easy-to access location and format (like under a webpage):

- Legal liability factsheet for donation
- Prepared foods donation guidelines
- Factsheet about donation of items past date label and/or which damaged items may still be accepted



<http://bit.ly/2GXHZ1U>

Options to **reduce the time and transportation constraints** of food donation:

- Coordination of volunteers through a County webpage
- Information sessions on how individuals or companies can form volunteer groups to take food (from kitchen or store) to food shelves/bank



<http://bit.ly/2GXHZ1U>

Measurement of food waste/donation key in tracking organizational improvement:

- Grants or other financial incentives to institutions beginning or improving food waste/donation measurement.
- Encourage schools to get students involved in measuring and tracking food waste through clubs or classes

Survey Limitations

Survey sample included a subset of stakeholders, which may not be representative of all schools or grocery stores in Ramsey County. Self-selection may have further biased the results.