

Environmental Stewardship: Reducing Food Waste While Improving Food Security

Resilient Communities Project—Ramsey County Partnership

Project Lead/Organization: Rae Eden Frank, Environmental Health Supervisor, Ramsey County

University Department/College: Office of University Economic Development | Economic Development Fellows Consulting Program

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

1. Description

Food insecurity and waste are known problems in Ramsey County. In 2015, 12.7% of the Ramsey County population was identified as having limited or uncertain access to nutritionally-adequate food, and county-wide, discarded food accounts for 26% of the waste stream. Ramsey County adopted its county-wide Solid Waste Management Master Plan in 2012, establishing the U.S. EPA Food Recovery Hierarchy as the county's standard protocol for mitigating food waste and laying the foundation for greater understanding of these problems in the county.

This project, completed as a collaboration with the University of Minnesota Resilient Communities Project and Ramsey County, acknowledges that problems with food access and food waste are deeply connected and are part of a larger problem—a disconnected food system spanning from farms to consumers' plates. The project findings demonstrate that food insecurity and food waste may be addressed in Ramsey County through developing an understanding of barriers and key stakeholders, and through facilitating relationships and communication among stakeholders.

2. Methodology

The project used a mixed methods approach, drawing from different techniques to gather data and formulate conclusions. A stakeholder analysis was conducted to identify and categorize organizations or community groups based on size or focus, and to determine high- and low-impact stakeholders based on identified characteristics. A case study analysis was also completed to gather best practices for addressing similar problems in other communities in the US. Lastly, the project generated unique data through development and distribution of a survey which offered insight into specific barriers and opportunities to reducing food waste in Ramsey County.

Research 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 to address this issue, and what role can they play?
3. How have other local governments and their partners, either in Minnesota or around the nation, sought to address food waste and ensure that edible food is not discarded? What lessons can Ramsey County learn from these examples?

3. Findings

- By helping facilitate long-term relationships between stakeholders that are built upon food waste diversion/reduction, Ramsey County can maximize sustained impact while minimizing their own effort.
- Drawing from case studies, Ramsey County may find success in:
 - Targeting of lower-power stakeholders (e.g. individuals, small local businesses) in the food waste stream as opposed to higher-power stakeholders (e.g. chain grocery retailers)
 - Redistribution of waste to higher in the food waste hierarchy
- Based on survey results, a combination of policies centered around the three-tiered approach of “Provide, Educate, and Encourage” may be most effective.
- Open-Source Technology may be used in managing food supply chain operations for businesses and nonprofits

4. Recommendations/Conclusions

The report acknowledges that Ramsey County is in an ideal position to reduce food waste. One recommendation is to use open-source technology to manage food supply chain operations. A second recommendation is that the county seek to facilitate long-term relationships between stakeholders. Specifically, the case study analysis found that targeting lower-power stakeholders such as small businesses and individuals could allow for the greatest impact in reducing food waste.

6. Resources

- **Hennepin County informational pamphlet on food redistribution resources**
 - <https://www.hennepin.us/-/media/hennepinus/business/recycling-hazardous-waste/documents/food-donation-guidelines-2017.pdf?la=en>
- **Educational advertising campaign examples**
 - <https://www.youtube.com/watch?v=g3VtpgzNMIE>

- Savethefood.com: <https://savethefood.com/partner-kit/>
- Seattle Public Schools recycling/composting:
<https://www.youtube.com/watch?v=yUyQ6XjQWJ4>
- **Technical resources**
 - School food waste audit guide: <https://www.epa.gov/sustainable-management-food/guide-conducting-student-food-waste-audits-resource-schools>
- Stakeholder engagement resources
 - Pages 66-70 of the report provide recommendations for engagement strategies based on stakeholder groups (for-profit, public organizations and non-profits, large event spaces).