Grocery Rescue Assessment

PROJECT FINDINGS AND RECOMMENDATIONS

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PCC Community Markets

As the nation's largest community-owned grocery cooperative, PCC Community Markets has a long history working to both reduce food waste and divert it from the landfill. PCC has run a form of Grocery Rescue since we opened our first storefront in 1967. Since 2018, we have donated over 3 million meals to our neighbors in need by partnering with more than 40 local food banks and nonprofits throughout the Puget Sound. We also sort non-consumable food, such as organic trimmings, into commercial composting or on-site WISErg bio digestion systems so that it never ends up in the landfill. In 2020, PCC diverted and processed 2,699 tons of compostable waste.

We have seen the need for healthy food in the emergency food system grow at a tremendous rate as our communities struggled through the COVID-19 pandemic, with up to one-third of Washington households considered food insecure. We know that, nationally, an estimated $408 billion is spent each year on producing, transporting, storing and disposing of food that is never eaten. PCC is committed to continuing this work and is excited to work alongside partners such as SPU.

This system is complex and inevitably imperfect. We are always looking for ways to improve our programs, so when we were invited to join a project to improve grocery rescue, we were all in.

Safeway

Reducing food waste has always been a priority for our stores, distribution centers, and manufacturing facilities. Safeway and Albertsons are part of the Albertsons Companies family of stores. As a member of the USDA and US EPA's Food Loss and Waste Champions, we have a company-wide goal to reduce food waste going to landfill by 50% by 2030. We are working to achieve this by innovating inventory management practices, recovering food by donating to local organizations, and recycling food waste through compost, animal feed, and other methods.

We are committed to helping feed our neighbors in need and ensuring they have access to the resources needed to live healthy lives. In 2020, our 2,200+ Albertsons Companies stores donated more than 83 million pounds of food to our Feeding America partners, with more than 10 million pounds being donated in Washington State from Safeway and Albertsons stores. We are working to address food insecurity through a variety of partnerships with the Washington State Department of Health, including SNAP Produce Match, Fruit and Vegetable Prescriptions, and allowing SNAP funds to be used for online orders and delivery.

Reducing food waste and providing hunger relief in our communities are key priorities for our Environmental, Social and Governance (ESG) strategy, and we appreciate the opportunity to evaluate our practices and identify opportunities to improve through this Grocery Rescue Assessment.

Background

Food rescue is the collection and redistribution of surplus edible food to other users that would have otherwise gone to waste. While this practice is a key strategy to keep edible, safe unsold food from going to waste, edible food is still lost to garbage and compost during grocery rescue operations. This results from actions taken (or not taken) by both donors and their hunger relief organization (HRO) partners alike. It also occurs because of gaps in Seattle's food rescue system, which need the collaborative action of a broader group of stakeholders—more than just donors and HROs.

To better understand the systemic challenges of food rescue, SPU invited a cross-section of food businesses, HROs, academia, local and regional governments, faith-based organizations, and many other nonprofit and private sector players to Food Rescue Innovation Labs, roundtables and follow up research. Principles at NWFA helped establish the need to put people at the center of solutions and brought experience from both food service and food rescue operations. This project is a direct outcome of those insights and SPU's goal to move more safe, edible food out of garbage and compost and into the hands of people who need that food most.

Purpose of the Grocery Rescue Assessment

This project's key purpose was to develop recommendations that guide SPU and participating grocers toward action steps that reduce wasted food and increase quality donations in Seattle. To develop these recommendations, the project sought to:

- establish a benchmark of grocery rescue practices,
- begin collecting baseline data, and
- identify overarching findings and actionable steps for both SPU and grocery retailers.

Findings

The project documented a snapshot of dockside and in-store practices across a ten-day period, which identified these **key gaps in stores**:

- Inconsistent training related to standardized food donation policies and feedback loops within departments as well as HROs. Each consume valuable resources and make grocery rescue costly while sending more food to compost or garbage.
- Conflicting baseline data and practices for gathering information that determines the total weight and value of donated food
- Communication challenges between stores and HROs that contribute to practices and protocols which are counter intuitive to the intention of grocery rescue.

While the Assessment focused on grocers, the project identified these **key gaps for HROs**:

- Inconsistent or incomplete dockside pickups which result in undocumented food waste
- Inadequate equipment, transportation, and food safety practices
- Communications challenges between HROs and stores including among individual departments within stores

These gaps aren't new to the grocery industry or the HROs who partner with individual stores. Rather, this report focuses on naming root causes which are frequently invisible. Donors, HROs and other potential partners such as SPU, must work collectively to address these root causes to truly achieve waste reduction and improve donations. Redundant practices in transportation and storage along with a siloed, competitive culture among HROs may inadvertently contribute to more food waste unless involved parties turn to root causes.

Recommendations

Each of the following recommendations rely on taking collaborative action across grocers, HROs, and public agencies. Broadly speaking, recommendations focus on:

- creating and testing standard practices and equipment,
- gathering more extensive data, and
- fostering effective communication.

Each player in the food rescue system has multiple opportunities to foster solutions. Here are some examples:

Grocers:

- Determine which standards and equipment to test.
- Allow measurement of food going to compost and garbage at stores (beyond donated food).
- Co-create messaging that will resonate and positively influence grocer staff and HRO partners.

HROs:
Leverage available Technical Support opportunities to:
- Conduct a comprehensive review of current practices and protocols,
- Participate in a cost / benefit assessment, and
- Share stories about the human impact which will further motivate positive change.

Public Agencies:

- Fund pilots that achieve public sector goals (such as waste reduction and human health) while acting on specific recommendations from this report
- Support retailer development of standards that reduce waste, protect food safety, and increase nutritional value.
- Develop case studies, incentives, and policies that lead to widespread adoption of standards.
- Support cross-sector messaging through campaigns and other means

Potential Benefits for Grocery Retailer and HROs
- Donation process is streamlined, consistent, and reliable
- Grocery donations are more accurately recorded
- Training opportunities for staff and volunteers to foster efficiency are identified
- Garbage, compost, and recycling costs are reduced
- Opportunities to collaborate on shared resources and funding opportunities are created
- Increase opportunities to better serve the clients

The Waste & Why It Matters

Food that is produced but never eaten still requires enormous resources to grow, harvest, transport, cool, cook, or otherwise prepare – even when it's composted. Wasted food has significant impacts on climate and natural resources, food insecurity, and the economy. In addition, it's a precious resource that can be put to higher use.[i]

In Seattle roughly 30,000 tons of food from businesses goes into the solid waste stream annually. Food is the single largest material in Seattle's commercial waste stream, making up 25% of garbage.

One in six Americans, many of them children, are food insecure; meaning they lack reliable access to sufficient, affordable, nutritious, and culturally appropriate food. And because of the impact of the COVID-19 pandemic in 2020, the number of people experiencing food insecurity grew to more than 50 million in the United States.[vi] The high rates of food insecurity (Diagram 1) in King County reflect findings from 861 survey participants in mid-2020.

3.4%
of surplus food in Washington is donated[ii]

25%
of garbage from Seattle businesses is food[iii]

30%
of King County households are food insecure[iv]

57%
of those house-holds include children[v]
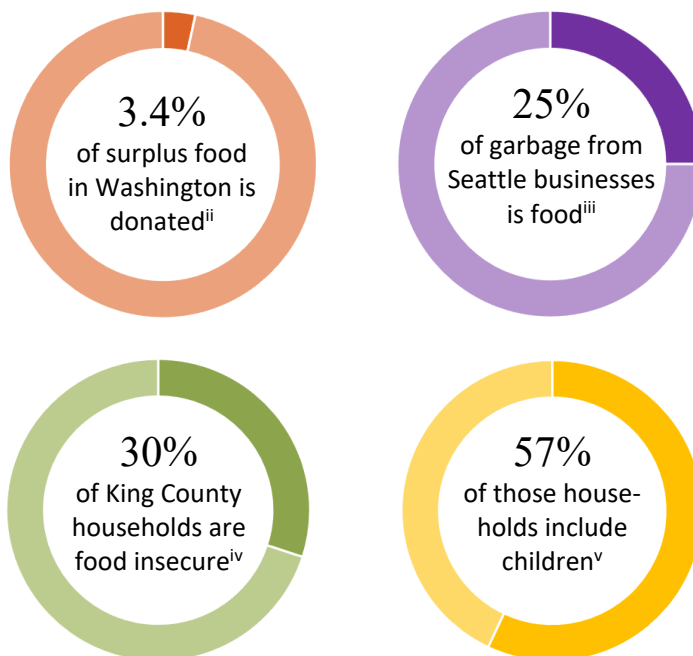
Diagram 1: Regional and local rates of food waste and food

Core Challenges in Seattle

Hunger relief organizations consistently note inadequate access to transportation, cold storage, labor, and funding. However, research from the University of Washington Supply Chain Transportation & Logistics Center coupled with insights from the Food Rescue Innovation Lab convenings has revealed deeper, more complex barriers to transformational change. Core challenges include:

- A complex, siloed system fosters competition for the same funding, food, storage, transportation, and volunteers. Insufficient communication across the system deepens these silos.

- A lack of granular, accurate data hampers informed decisions and opportunities to leverage resources, test new approaches, and monitor progress.

- The data collection about food rescue operations is limited to pounds of food donated. Information concerning whether this food was nutritious and edible or how much it cost to collect, store, and distribute is not aggregated or analyzed to show opportunities or document progress.

Project Scope

The Grocery Rescue Assessment Project focused on reviewing grocery donation practices, developing early baseline measurements, and identifying recommendations. Grocery donations comprise a significant portion of HROs' food supply. Based on interviews conducted prior to this project (and prior to COVID-19), grocery donations could provide up to 80% of HROs' food supply. As noted earlier, the impacts of the COVID-19 pandemic continue to trigger fluctuations in operations at grocers, and food donation will likely fluctuate as well.

This focus on grocers' challenges is an opportunity to leverage retailers' environmental and community goals for the purpose of reducing wasted food and improving the quality and/or quantity of donated product for the community. Donors have the unique capacity to implement or modify strategies that benefit *all* parties.

The overarching purpose of the project was to develop actionable recommendations that the utility and grocers could take – ideally together. An additional goal for SPU is to use these findings to point toward actionable collaboration with HROs and other interested parties who can bring solutions beyond SPU.

Safeway and PCC Community Markets voluntarily agreed to participate in a desire to improve their food donation impacts and potentially change their practices. These retailers provided the opportunity to observe on-the-ground food donation practices at different scales across different company cultures and structures, serving distinct customer bases. While one represents a national retailer and the other a local co-op, both have commitments to reduce waste and serve their communities. The differences between these two retailers allowed the project team to compare operations and determine clear opportunities for improving food rescue strategies. Some recommendations apply more to one retailer than the other, but ultimately, lessons learned from different operations helped inform recommendations that could be applied to a variety of retailers with more opportunities to replicate.

The participating stores allowed:

- Over 30 on-site employee interviews and additional interviews with store leaders across 3 months,
- On-site observations of donation practices in the stores and at loading/unloading docks
- Measurement and valuation of donated food across a ten-day period
- Coordination with their 13 HRO partners who receive donations from these store locations

In turn, these HROs worked with the project team to receive the donated food once it was measured over the ten-day recording period and provided insights about their experiences of the grocers' donation practices.

To learn about the steps involved during this work, please see the Methodology section.

Data Snapshot: Overall

The data snapshot of grocery rescue from eight stores over 10 days doumented 7.1 tons of food designated for donation. Data from daily averages demonstrates the potential to generate 301 tons of donated food annually. Within the City of Seattle, there are a total of 65 grocery stores currently particpating in grocery rescue, including Safeway and PCC stores as well as other grocery brands. Projecting from recorded data, we estimate that these 65 stores could generate 2,452 tons of food donations annually. These numbers are fairly consistent with donations before the COVID-19 pandemic.

Actual weight recorded during assessment:

7.1 tons
(14,280 lbs)
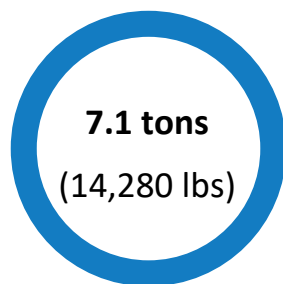
food donated over 10 days from 8 stores
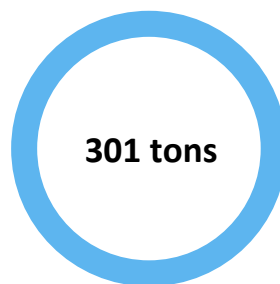
Projected weight based on assessment:

301 tons

donations from 8 stores over 1 year period

2,452 tons
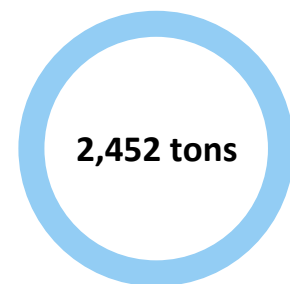
donations from 65 Seattle stores over 1 year period

See methodology appendix for data clarification

Categories:

Produce, bakery items, and prepared food were the top three categories of grocery donated during this assessment. While the proportion of produce was consistent with national averages, the levels of bakery and prepared items collected were much greater than the national data. **These three grocery categories combined represent nearly 70% of grocery donations recorded during the 10 days and point to high potential areas for waste intervention strategies**.

Produce 33%
Bakery 20%
Dry Goods 11%
Dairy 8%
Frozen 2%
Meat 10%
Prepared 16%

Percentages of grocery categories donated from 10 Day Challenge

Seattle: 10 day period

Bakery 3%
Dry Goods 14%
Produce 32%
Dairy 29%
Frozen 7%
Meat 4%
Beverages 9%
Prepared 2%

Percentages of grocery categories donated from retail stores nationwide in 2019

National: 2019 ReFed data
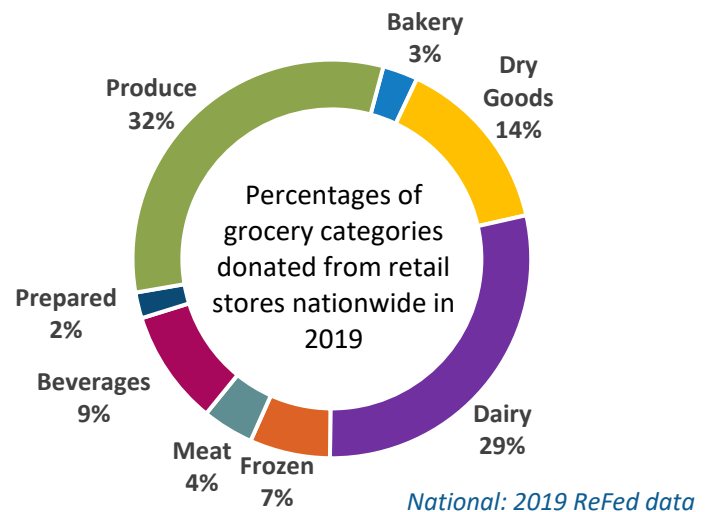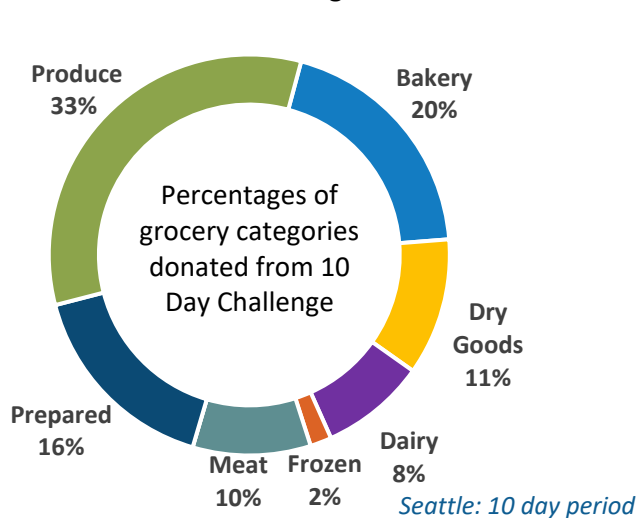
Data Snapshot: Produce Focus

According to the national nonprofit, ReFED, produce is the largest category of donated food coming from grocery retailers, both locally and nationally. [vii] But there is still significant room for improvement. ReFED also found that 29% of surplus produce (across all food business retailers) is still going to landfill.[viii] As such, produce represents a huge opportunity for waste intervention and reduction:

OBSERVATIONS:

OPPORTUNITIES:

Produce accounts for the largest portion of grocery donations and is the single most requested item of food from HROs.	• In Seattle and nationwide, produce accounts for roughly one-third of all grocery donations. • Extensive interviews with food banks and meal programs have revealed that organizations often struggle to glean the quantity and variety of produce that their clients ask for.[ix]
Fresh produce is the most vulnerable and least measured food item.	• Produce items can be fragile and thus are more likely to be damaged during donation/transport. • Produce is highly perishable and can be prone to mold. • Produce accounted for 32% of recorded waste (i.e., donated food going to compost or landfill) from the 10-day measurement. • Grocery stores lack an effective method to document quality of produce donations.
Produce handling is a key intervention point for improving food donation practices.	• Proper produce handling extends the life of the product, thereby reducing the amount of produce that ends up in compost or garbage. • Observing food safety standards reduces spoilage and contamination of produce, thereby reducing the amount of produce that ends up in compost or garbage.

Actual weight recorded during assessment:

2.2 tons
(4,479 lbs.)
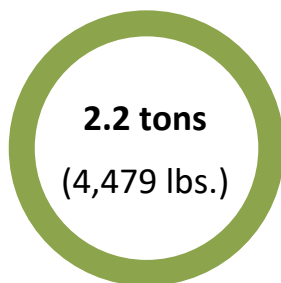
produce donated over 10 days from 8 stores

Projected weight based on assessment:

82 tons
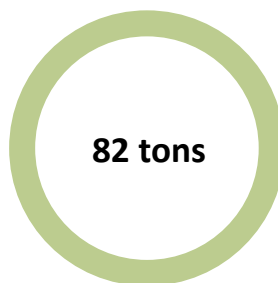
produce donations from 8 stores over 1 year period
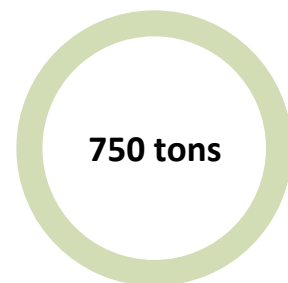
750 tons

produce donations from 65 Seattle stores over 1 year period

See methodology appendix for data clarification

Boxes, Bags, Carts

Food donations are collected and transferred into a wide assortment of boxes, bags, carts, and various non-matching containers.

This results in:

- Over handling of product, which contributes to additional waste
- Food safety concerns
- Packaging contamination
- Inaccurate data collection

Donation containers range from cardboard boxes to grocery carts

Standardized, Uniform, Reusable Bins

During the 10 day measurement, the team implemented a uniform, durable bin trial at one store location. Staff were asked to place food into color-coded, heavy- duty, durable bins.

This resulted in:

- Immediate improvement to quality and content of food
- Reduced the amount of cardboard and packaging passed along to HROs
- Saved space by nesting or stacking
- Reduced dwell time at the dock by HROs
- Eliminated confusion around donatable / non- donatable items (i.e., damaged / expired goods, returns, etc.)
- Moved product more efficiently, and
- Provided staff with better awareness and efficiency for sorting food

Durable stackable bins preserve food quality and streamline donations

Summary Table

	Findings →	Recommendations →	Potential Actions
STANDARDS	Lack of standardization across operations fosters uncertainty and inconsistency, resulting in: • Food waste • Compromised food safety • Operational inefficiencies • Added/hidden costs	• Identify key standards to prioritize and strengthen. Test these standards, and measure impact. • Advocate for wider adoption of successful standards.	• Develop and implement a pilot to field test standards, such as employee training, collection bins, and donation protocols. • Develop case studies to summarize results, lessons learned, and opportunities to improve. • Work across sectors to develop policy that incentivizes and institutionalizes these standards.
DATA	Data silos and the absence of granular data prevent shared understanding of constraints, costs, opportunities, and accurate benchmarking, resulting in: • Inaccurate reporting • Hidden food waste • Hidden costs • Missed opportunities for tax credits by donor	• Determine full potential of food donation volume. • Measure and report net donations (track the amount of edible, safe donated food and reflect true costs such as composted donated food).	• Collect baseline data that includes analysis of donations, garbage/compost, and impacts from third-party diversion programs. • Work in collaboration with retailers and experts to develop better tools for accurate data collection. • Incentivize data collection that tracks progress, enables analysis for improvements, and identifies true costs of food rescue.
COMMUNICATION	Feedback loops are constrained among HROs, store staff, and distribution agencies, resulting in: • Failure to use existing standards causing waste and inefficiencies • Miscommunications and conflicting information • Missed opportunities to collaborate	• Use consistent messaging across donors, HROs, and public agencies to avoid confusion, strengthen adherence to standards. • Share results of collaborative pilots and projects to encourage greater cross sector involvement.	• Conduct pilot project that can test consistent messaging, techniques to deploy messaging, and effective methods to measure results. • Host virtual and in-person meetings with rotating hosts to share cross-sector lessons, ideas, and needs. • Advocate for incentives, policies, and other broader supports that reinforce solutions.

Findings:

Grocery donors and HROs manage a complicated range of food and packaging materials that eventually converge with grocery rescue. The boundary between edible, donatable food and food that goes to garbage or compost is determined by a set of protocols intended to maximize donation.

While standard operating procedures and protocols exist on record, compliance and practices are not implemented with consistency. This is prevalent in all eight stores and even within each individual store. Staff interviewed for this project had different understandings of the food donation program, or even which types of food are eligible for donation.

HROs are guided by a set of protocols that can impact how they communicate with donors, when they pick-up food, how they document donated food, methods to keep food safe, and many other practices. Donors also have protocols that may include where they place donated food each day, how they store it until pick-up, how they communicate unexpected surpluses, and how they share information across the store as staff change shifts. Adherence to these protocols is sporadic and varies across HROs and stores.

What kind of operational standards could reduce food loss?

Based on observations and the bin micro-trial, standards applied to both protocols and equipment would serve to reinforce protocol compliance. Some examples include:

- **Employee training**
  Employee training is infrequent and inadequate and does not align with onboarding for new employees. Stores have high employee turnover rates and new employees quickly adapt to existing practices, which may lead to waste and confusion. In some instances, employees we interviewed were unaware of the food donation program.

- **Uniform collection bins**
  As noted with the "Micro Trial with Durable Bins," the wide variety of bins increased confusion from both store staff and HRO volunteers. Using one type of bin that is consistently labeled and widely recognized by HROs and donors alike could result in more efficient pick-ups and preserve food quality, thereby decreasing the amount of food that ends up being wasted. Agreeing upon bin requirements would also be important so that the uniform bin is widely used and accepted, and could prevent food spoilage, excessive handling, save space at stores and in trucks, and allow for ergonomic safety. Most HROs don't have appropriate carts, hand-trucks, or jack lifts on trucks. This would need to be considered as well when agreeing upon a uniform or standardized bin.

- **Protocols for accepting donations**
  Occasionally, HROs may reject some items offered for donation due to storage limitations, cultural needs, or client preferences. These left behind food items must be disposed of at the store, which means they go to garbage. Over time this becomes the new standard and store staff simply stop culling those items for donation, which means they go to garbage, compost, or a diversion program.

Additionally, interviews with store staff indicate that inconsistent or incomplete pick-ups impact their decision to invest additional time in sorting and scanning food items for donation.

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Recommendations & Potential Actions:

Identify key standards to prioritize, strengthen and test these standards, and measure impact.
- Core standards could include:
  - Employee training
  - Uniform collection bin
  - Donation protocols

Recruit grocers and HROs to pilot standards which result in efficiencies across retailers and HROs while also reducing food waste.
- Determine grocers' desire to participate in pilot.
- Identify and agree upon a focused set of core standards that are specific to waste reduction.
- Establish roles and responsibilities for planning and executing pilot that could eventually institutionalize standards.
- Field test revised standards which could include training for store staff, using a uniform durable donation bin, and messaging to reinforce proper bin usage.
- Develop case studies to summarize results, lessons learned, and opportunities to improve.

Advocate for wide adoption of key standards.
- Share case studies that define standards, show how to put them in place, and describe impacts of using these standards.
- Work across food rescue participants (retailers, HROs, other public, private, nonprofit partners) to develop policy that incentivizes and institutionalizes these standards.

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Further Discussion: Data

Findings

The costs of food waste are often invisible, and it's difficult to manage what is not being measured. Capturing and sharing real- or near-time data plays a key role in identifying where food waste is occurring.

What kind of data is typically missing and why does it matter?

"Missing data" can be information that isn't collected, collected too informally to be accurate, or isn't accessible in ways to drive change. Examples include:

Accurate donation records rely on individual barcode scanning.

- **Untracked data such as:**
  - Amount of donated food that goes to garbage or compost and the associated costs
  - Amount of associated packaging that may contaminate compost if inedible food flows to compost streams
  - Cost of HRO staff and volunteer time

- **Estimated or informally tracked data such as:**
  - Type and volume of produce (typically lacks bar codes to electronically track)
  - Weight and dollar value of donated food
- **Siloed data or data that isn't easily accessible or shareable such as:**
  - Surplus (unsold) inventory from grocers
  - Specific types of desired or not desired food by partnering HROs
  - HRO hours and days of operation and redistribution
- **Lack of agreed data standards also results in missing data when:**
  - Stores, HROs, and food distributors use different terms for the same inventory item, conflicting scales of measurement, and data technology that doesn't connect across platforms

When consistent, accurate, granular data is not available, stakeholders across the food rescue system are unable to fully account for operational costs, potential efficiencies, and shared solutions.

How can we collect data that reflects true conditions?

Wasted food (i.e., expired, damaged, or otherwise inedible or unsafe) represented only 7% of donated product in this assessment. This was a surprisingly low percentage, given that SPU and NWFA have both heard HROs report the percentage of wasted food from grocery donations could be 40% or higher prior to the start of the COVID-19 pandemic. It's hard to know if the percentage of wasted food observed in this assessment is low because store staff knew the donated food would be analyzed. Donations that are high in waste have ripple effects that translate into higher costs for HROs, reduced motivation to pick-up donations, inefficient use of limited resources (trucks, volunteer labor, cold storage), and undesired outcomes for Seattle residents in need of food.

Staff at stores were informed of the data collection so that NWFA could gain trust and insights from people who are instrumental in these daily donations. Future data collection efforts would need to consider how to remove or mitigate for human behavior from the equation to gain more accurate assessments of waste.

Recommendations & Potential Actions:

Expand data collection through waste composition study
- Recruit grocery partners to help collect baseline data that includes analysis of garbage and compost. This would more fully show the potential for increasing food donation and reducing edible food to garbage or compost.
- Determine waste and donation impacts from third-party diversion programs that collect food and packaging together.
- Identify and agree upon metrics to measure and track progress over time.
- Develop case study from data collection pilot to show how other retailers can take similar actions.

Measure and report net donations (track the amount of edible, safe donated food and reflect full costs such as amount that was composted).
- Work in collaboration with retailers to identify IT experts who could develop better tools for accurate data collection. Ideally these tools make data more widely available for collaborative solutions.
- Develop recommendations to incentivize data collection that tracks progress, enables analysis for improvements, and identifies true costs of food rescue.

Findings

The food rescue system is based on relationships, and routine communication is an essential element for effective food rescue and food waste reduction. Communication gaps are prevalent at all levels of food rescue, and poor communication may be the single largest contributor to food waste in Seattle.

In the absence of structured feedback loops, behaviors and practices are subject to changes that breach established protocols. Those changes quickly become a new normal.

Interviews with grocery staff identify these core communication gaps:

- Lack of clarity about food donation protocols among staff and management
- Inconsistent, delayed, or missed pick-ups as scheduled without notice from HRO
- Changes to designated pick-up agency without notice
- Limited communication with distribution agency

Interviews with HROs identify these core communication gaps:

- Protocols and practices vary from store to store and even within stores
- Staff are not always aware of scheduled pick-up times resulting in delays
- Distribution agency does not engage in problem solving in a timely manner

Communication between stores and HROs is important for functional aspects of food rescue. Routine contact and information exchange would solve some of the basic logistics and operational issues. However, numerous other communication issues exist that contribute to deeply imbedded behaviors.

Recommendations & Potential Actions:

Initial steps toward better communication could focus on two levels: store level to foster internal change and the larger community level to share findings and invite more participation beyond grocers and HROs. Developing a cohesive strategy to reduce food waste will need the collaborative action across sectors.

Develop and agree upon consistent messages that reinforce goals of food security, proper food donation, and waste reduction.
- Conduct pilot project that can test consistent messaging, techniques to deploy messaging, and effective methods to measure results.

Share findings and invite wider involvement across community to enable effective cross sector solutions:
- Use case studies to share specific, replicable solutions.
- Host virtual and in-person meetings with rotating hosts to share cross-sector lessons, ideas, and needs.
- Advocate for incentives, policies, and other broader supports that reinforce solutions.

Glossary

Hunger relief organization (HRO): Organizations that work to capture edible food from grocery stores, restaurants, and individual donors for distribution to those in need.

Food insecurity: the limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

Food rescue: the redistribution of unsold, edible food to other users that would have otherwise gone to waste

Grocery rescue: a subset of food rescue; the redistribution of unsold, edible groceries to other users that would have otherwise gone to waste

Food recovery: processing inedible food waste to extract value from it, through composting, anaerobic digestion, or for use as animal feedstock.

Wasted food: the edible portion of food waste.

Food waste: waste from fruits, vegetables, meats, dairy products, fish, shellfish, nuts, seeds, grains, and similar materials that result from the storage, preparation, cooking, handling, selling, or serving of food for human consumption. "Food waste" includes, but is not limited to, excess, spoiled, or unusable food and includes inedible parts commonly associated with food preparation such as pits, shells, bones, and peels.

Methodology

Project approach

- **Gathered information through interviews, roundtables, and site visits**.
  As a first step to gathering accurate information, it was essential to build trust with the stakeholders and understand their organizational culture. To do this, NWFA met directly with people at the center of the work at the grocers to gather information through extensive interviews and roundtable discussions. Interviews included senior leadership, store managers, receivers, and department heads. In addition, NWFA made over 30 site visits to stores.
- **Collected, evaluated, and measured donated food for ten days across eight store locations.**
  Key data points were identified for each donation pick-up, including donation weight (broken down by type of food), pounds of expired food (waste that might have gone to compost or garbage), dwell time at loading dock, and other notes on food quality.
- **Observed and recorded donation practices inside stores and at their loading/unloading docks**.
  NWFA took a close look at operations at participating stores to better understand donation practices, food safety standards, potential gaps in training, and practices related to trash, compost, and recycling. Through these observations, NWFA identified barriers and opportunities to address and modify dockside and in-store practices.
- **Gathered insights from HROs.**
  Thirteen HROs routinely collect donations from these eight store locations involved in this project. To gather insights from these HROs, NWFA conducted three virtual information gathering sessions, two small-scale surveys, and 26 one-on-one in-person interviews. The guiding goal of these sessions was to learn how grocery donors might improve their practices from the perspective of their partnering HROs.

Data projections

Eight stores from two different grocery retailers participated in this assessment, with substantial variation in the amount of food donated among the stores. The variance found in this data supports anecdotal reports from HROs, stating that some grocery retailers tend to donate substantially more food than others.

Our projections for the total weight of food donated annually in Seattle account for this variance. The projections for total annual grocery donations were arrived at using the following formula:

$$\left\{ (PCCavg \times nPCC) + (SFWYavg \times nSFWY) + \left(\frac{[PCCavg \times nPCC] + [SFWYavg \times nSFWY]}{x} \times nOTHR \right) \right\} \times 365$$

where:

      PCCavg represents average daily donations measured from participating PCC stores
      nPCC represents number of PCC stores in Seattle
      SFWYavg represents average daily donations measured from participating Safeway stores
      nSFWY represents number of Safeway stores in Seattle
      nOTHR represents number of other Seattle food retail locations that participate in grocery rescue
      x represents number of participating grocery stores in assessment

Endnotes

i   2020 ReFED Insight Engine, https://insights-engine.refed.com/food-waste-monitor; accessed August 2021

ii   2020 ReFED Insight Engine, https://insights-engine.refed.com/food-waste-monitor; accessed August 2021

iii   2016 : Seattle Public Utilities Commercial Waste Stream Composition Study, Table 2-1, p 6.

iv   Washington State Food Security Survey, https://nutr.uw.edu/wp-content/uploads/2020/11/WAFOOD_intro_brief_20201117_KING.pdf; accessed August 2021

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