

City of Sunnyvale
Residential Food Scraps Collection Pilot
Summary of Findings
(prepared by City of Mountain View staff)

A food scraps collection pilot was conducted in five different neighborhoods with diverse housing and demographics. Approximately 100 households from each neighborhood participated in the pilot, for a total of 533 participants. Three neighborhoods consisted of single-family homes, one had townhomes and one was a mobile home park. The pilot was conducted between March and December 2015.

Old 64-gallon recycling carts were repurposed into “split garbage” carts with new lids. Residents were instructed to separate their food and food soiled paper from the remainder of their garbage and place it in the yellow side of the cart. All other garbage was to be placed in the black side. The lids had stickers indicating which side was for which type of materials. The carts were collected with split trucks that kept the materials separated.



Data was collected by Sunnyvale staff and consulting firm For Sustainability Too. The most relevant information is summarized below. A customer survey was conducted near the end of the pilot in November 2015 and partial results are provided at the end of this report.

Data Collection Methods

Visual Field Observations: The lids were lifted on all split garbage carts set out for collection in all pilot neighborhoods, but at varying frequencies. On average, the contents of the carts in each neighborhood were observed on 12 occasions. Each cart was evaluated for the volume of food scraps, the volume of garbage, overfilled carts, contamination (garbage in the yellow side), and the presence of food in the garbage side.

Floor Sorts: On 32 days (out of the 190 day pilot), the entire collected food load from the different neighborhoods were sorted and weighed after being unloaded from the truck.

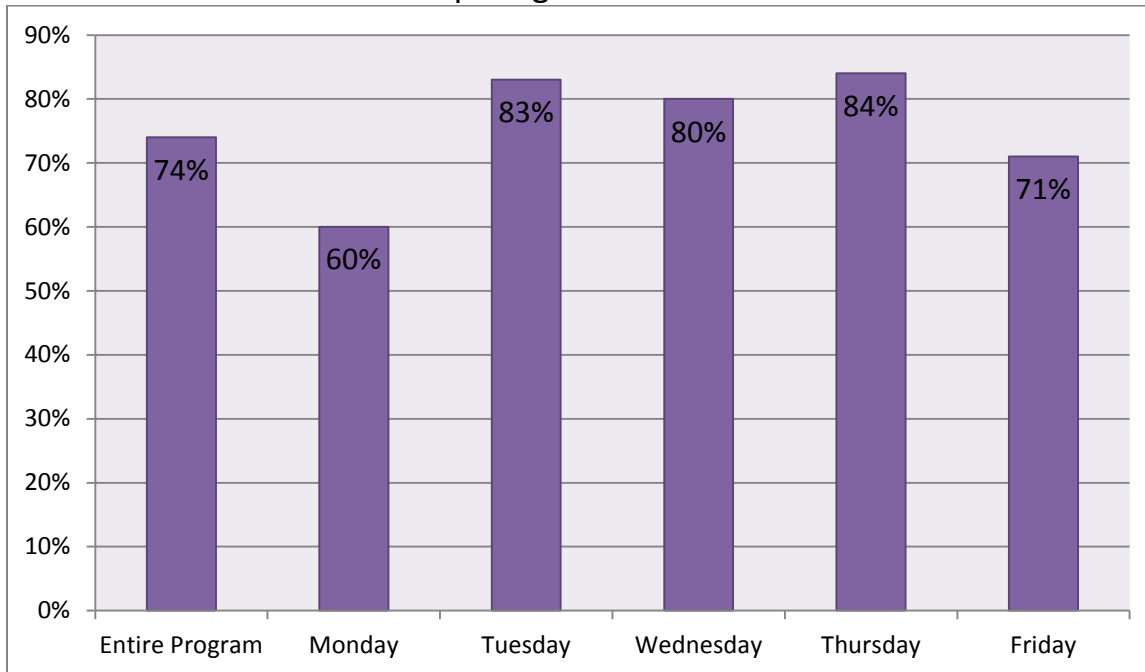
Cart Samples: Full split-garbage carts were removed from 40 homes (8 from each neighborhood). The contents of each side of the cart was sorted and weighed separately to provide an accounting of the materials placed in each side.

Pilot Results

Participation

Overall participation varied by neighborhood and was determined based on the observed presence of food in the yellow side of the split cart. Participation started high at 75 percent, dropped to a low of 67 percent and then climbed up to 79 percent by the final audit. On average, the entire program had a participation rate of 74 percent.

Percent of Households Participating

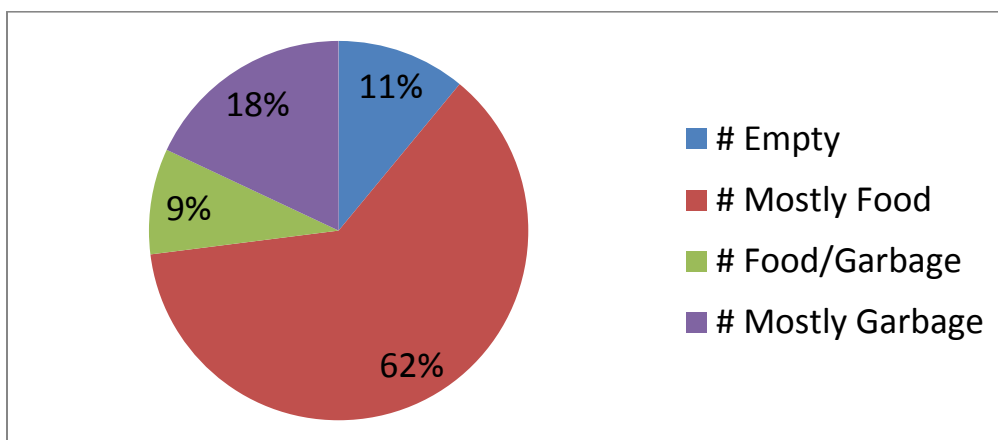


Monday: Lakewood Neighborhood - Single Family
Tuesday: Garland Neighborhood - Townhomes
Wednesday: Fremont Neighborhood - Single Family
Thursday: The Dalles Neighborhood - Single Family
Friday: Henderson Neighborhood – Mobile Homes

Performance

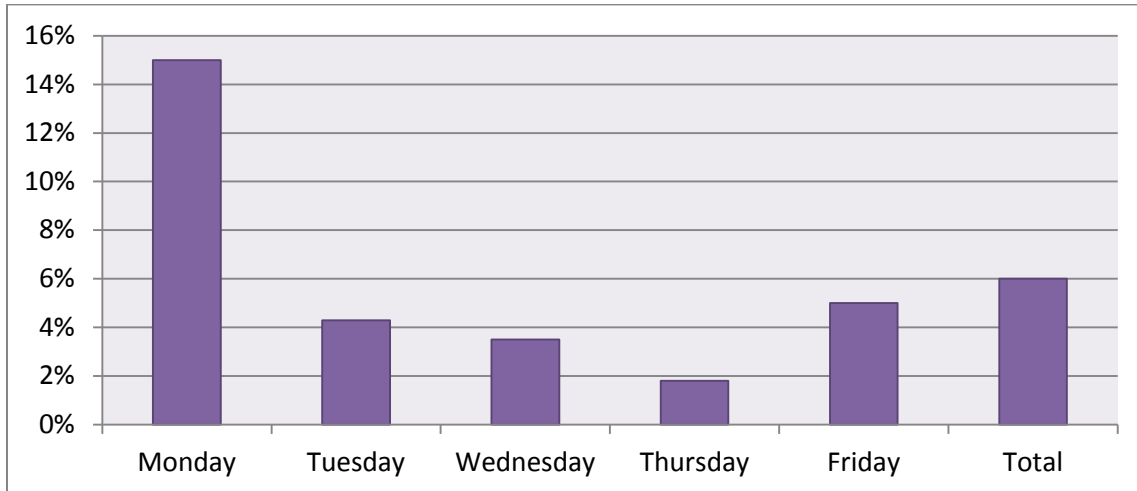
VISUAL FIELD OBSERVATIONS

The results of flipping lids after the carts were set out for service and observing the contents of the both the black (garbage) side and the yellow (food) side of the split cart found that the contents of the yellow side of 62 percent of the carts was mostly food.



Early field observations indicated that a number of residents were overfilling the garbage side of the 50/50 split cart, especially the Monday Lakewood neighborhood and the Friday Henderson Mobile Park neighborhood.

Percent of Overfilled Carts Across Entire Pilot



Efforts to encourage higher participation (i.e., separation of food scraps so more room was available for actual garbage in the black side of the cart) included allowing an extra free bag of garbage to be set out each week, a switch to the use of non-compostable bags for the food scraps and eventually a switch to a 70/30 split cart. Allowing extra garbage bags and use of non-compostable bags did not seem to increase participation but following the change to 70/30 carts in the Mobile Home park, participation increased from 62 percent to 81 percent.

FLOOR SORTS

Based on the results of the floor sorts, where the contents of each delivered load of food scraps was sorted and weighed, the average food scraps diverted was 36%.

Floor Sorts Waste Generation and Diversion Average Pounds per Household per Week	
Total Waste Generated (all garbage and food scraps)	30.9
Total Food Scraps (in yellow side)	11.4
Total Garbage (in black side)	19.5
% of Total Waste Diverted	36%



CART SAMPLES

Based on the results of the cart samples, where each split garbage cart from 8 homes in each of the 5 neighborhoods was sorted and weighed individually, 62 percent of all food scraps generated by the household were placed in the yellow side of the cart. As a result, 32 percent of all household waste was diverted.

Cart Samples Waste Generation and Diversion Average Pounds per Household per Week	
Total Waste Generated (all garbage and food scraps)	25.3
Total Food Scraps Generated (in black or yellow side of cart)	13.0
Food Scraps Diverted (in yellow side of cart)	8.1
% of Total Waste Diverted	32%
% of Total Food Diverted	62%

Customer Survey Results

A survey was conducted to gather feedback from pilot participants. Surveys were mailed to all 533 participants in a fold and return, postage paid style mailer. 166 surveys were returned, a 31 percent response rate.

Responses to several key questions are presented below.

FOOD SCRAPS RECYCLING PILOT PROGRAM SURVEY

CONGRATULATIONS! Thanks to your participation, the Food Scraps Recycling Pilot Program has been a tremendous success! Participation in food scraps recycling programs throughout the nation averages just 32% — your area's enthusiastic residents have achieved between 61% and 62% participation! Your response from this survey will help the City provide better service for a fully scaled food scraps program for future participants. Mail back the postage paid survey by **December 7** to be entered to win a \$100 gift card! Fill out only on the reverse!

Please respond to the questions and feel free to add comments where indicated.

LABELS
You received a food/garbage split cart and a kitchen pail labeled with printed or hand-drawn labels. How do you feel about the labels in the cart and the kitchen pail? Using the labels as guides, how easy was it to understand what to do with food and garbage?

Labels in the cart: Very Difficult Somewhat Difficult Neutral Somewhat Easy Very Easy
Labels on the kitchen pail: Very Difficult Somewhat Difficult Neutral Somewhat Easy Very Easy
Response to labels: Very Difficult Somewhat Difficult Neutral Somewhat Easy Very Easy

COMPOSTABLE BAGS
The resident has boxes of compostable bags with your cart. Check the statements that compare this program to other composting bags.

Bought more compostable bags
 Used compostable or paper bags
 Used paper grocery bags
 Put food scraps directly into the yellow side
 Other _____

KITCHEN PAIL
Check the statements that are true for you.
 It was easy to collect food scraps in the pail.
 I kept the pail in my neighborhood.
 I kept the pail under my counter.
 I didn't use the pail.
 I collected food using another method.
Comments: _____

"I'M A FOOD RECYCLER" STICKER
The City placed "I'm a Food Recycler" stickers on carts that had no statements in the yellow side. Check the statements that describe your response to the sticker.
 The sticker encouraged me to continue participating.
 The sticker started conversation with my neighbors.
 I didn't get a sticker.
 I didn't notice the sticker.

CART TAGS
City staff mailed carts to measure participation and comprehension. Based on items found in the yellow side of the cart, staff hung either an "Oops" tag or a "Great Job" tag on carts. If you got an "Oops" tag, rate the statements that compare the sticker tag.

Disappointed me to not only find food, waste, debris and food-soiled paper in the yellow side. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
Challenged me to improve food from my neighborhood. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
Created conversation with my neighbors. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I didn't notice the tag. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree

EXTRA BAG ALLOWANCE
To help reduce contamination in the yellow side of the cart, the City offered to collect an extra bag of garbage at the cart at an additional cost. Rate the statements that are true for you.

I was able to dispose of all my garbage without using the extra bag option. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I used the extra bag option. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I began putting only food and soiled paper in the yellow side. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree

NEW CARTS
The neighborhood has a 70/30 split. Manufacturers have designed a new 70/30 split cart — 70% for garbage and 30% for food. Rate the statements that compare this cart to the current 70/30 split cart.

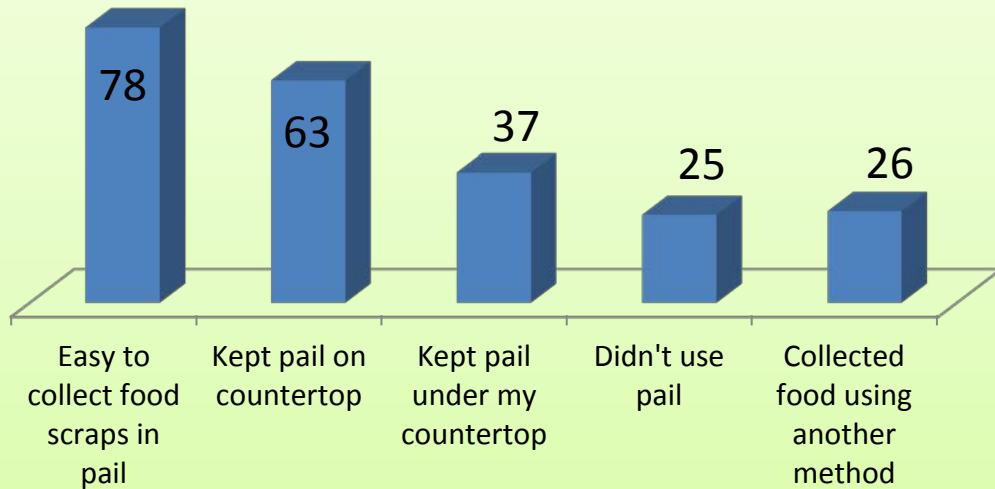
Could probably fit all my garbage in the 70% garbage side. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
Would be willing to participate in a food scraps recycling program. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
Should not be required to use a 70/30 split cart. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
Am not interested in participating regardless of the cart. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree

YOUR EXPERIENCES
Based on your participation, rate your agreement with these statements.

I needed less food. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I bought food with less packaging. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I was surprised at how much food I threw away. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
Buying additional compostable bags wasn't a problem. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I had a hard time separating the food scraps and garbage. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I couldn't reach my kitchen. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I had enough space for my garbage. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I had less time to spend doing things for the community. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I want to cover water and not use my garbage disposal. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
If I could, I would like to be involved in the program. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree
I want to help. Surveys help maintain and improve the program. Not at All Agree Disagree Neither Agree/Disagree Strongly Agree

Comments: *Mindy a waste - recycling person and very excited for the composting program!*

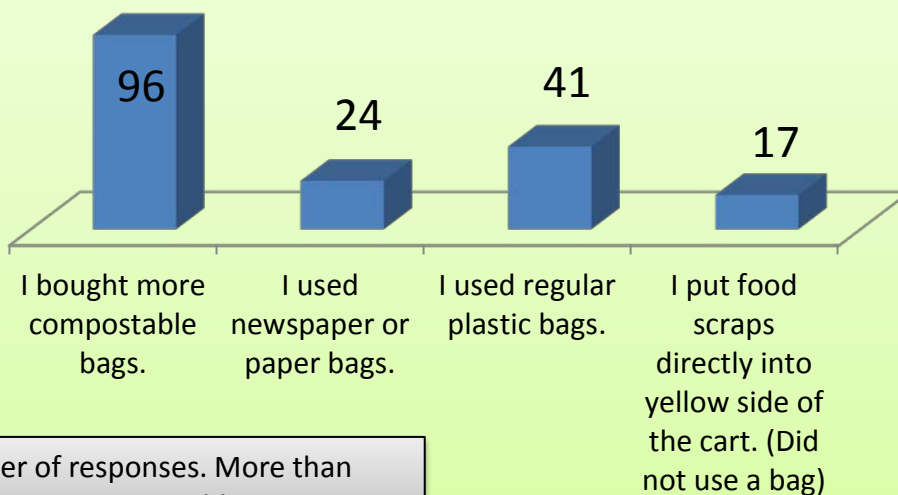
Utilization of Kitchen Pail for Food Scrap Collection



Number of responses. More than one answer was possible

Utilization of Bags for Food Scrap Collection

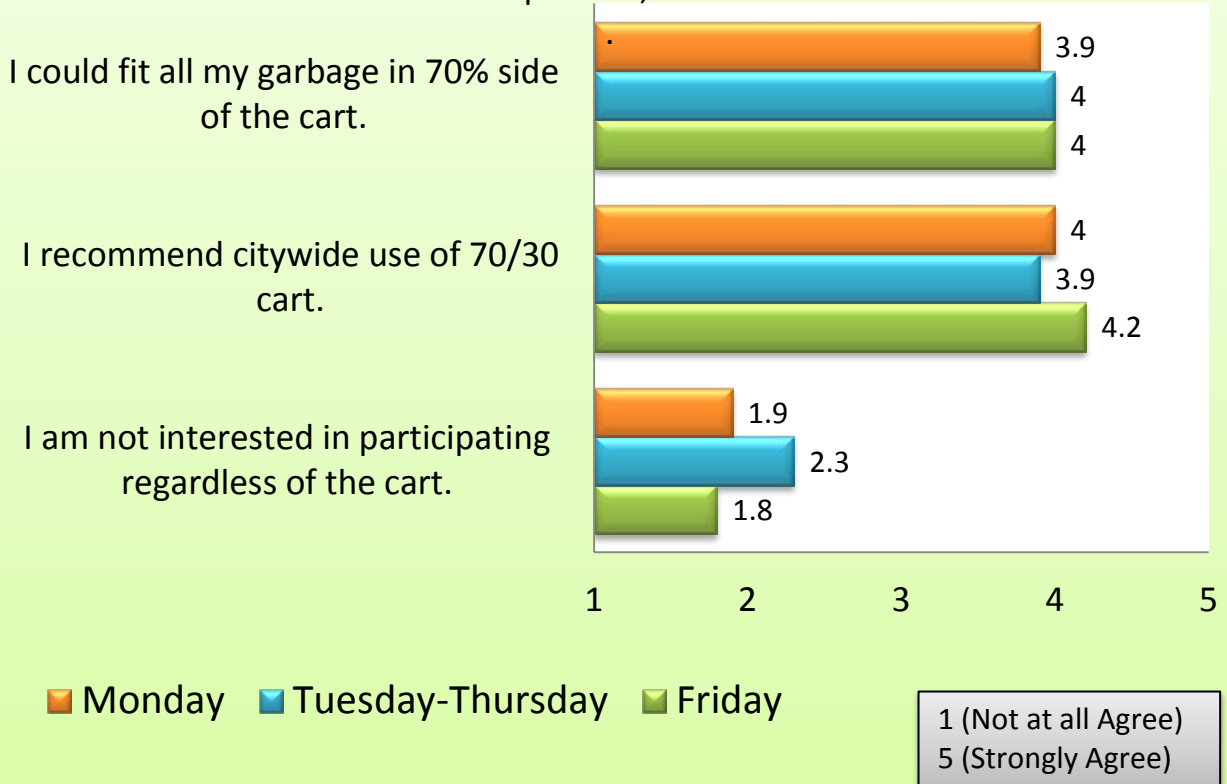
“When I ran out of compostable bags I...”



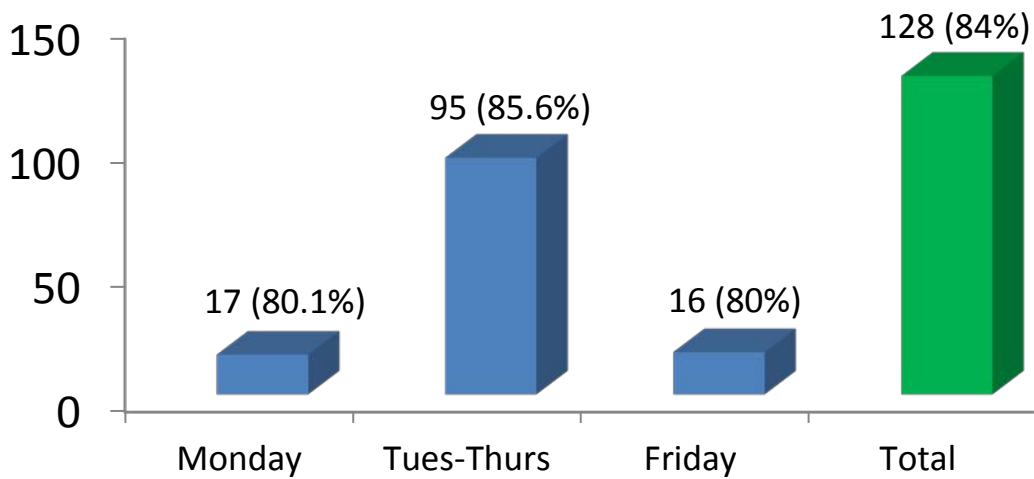
Number of responses. More than one answer was possible

Responses to the Split Cart

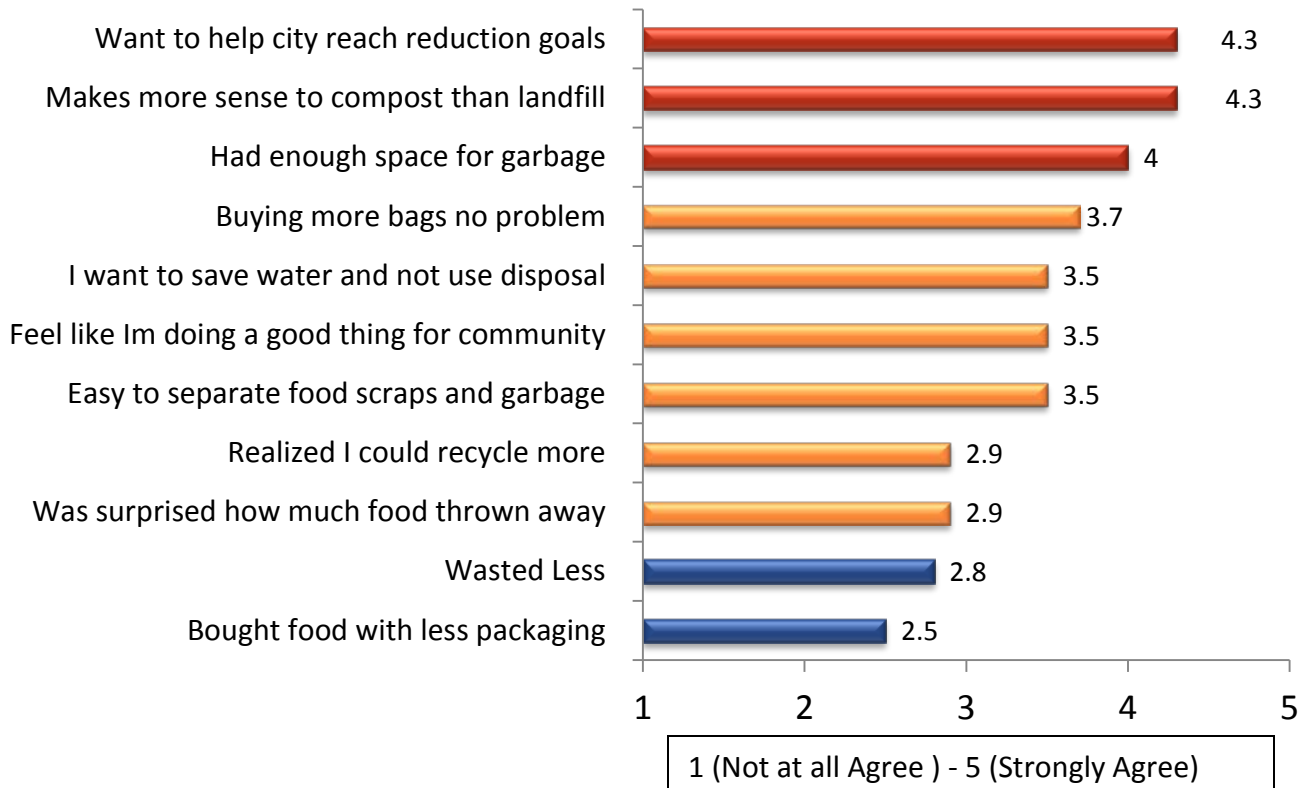
"Rate the statements completing this sentence: If I had a 70/30 split cart, I..."



I could fit all my garbage in 70% side of cart



Customer Experiences



Issues Expressed in Comment Sections

