City of Seattle

2012 One Less Truck Project (OLT) Survey Results

Prepared by

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In association with

Seattle Public Utilities

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Table of Contents

Tables

Charts

[1] To be removed when this is no longer a stand-alone report (objectives to remain in).

Appendix

Seattle Public Utilities
2012 One Less Truck (OLT) Post Pilot Research Results

Introduction

Residential garbage is collected every two weeks in cities like Portland, Olympia and Renton. The City of Seattle is considering a similar program. Implementing every-other-week residential garbage pick-up could save Seattle ratepayers as much as $6 million a year, plus reduce the number of trucks running on the streets by 20%. Before deciding whether this program is right for Seattle, the City would like to evaluate financial, operational, customer and neighborhood impacts with the change in garbage pick-up service levels.

Seattle Public Utilities conducted a pilot study with 807 Seattle households—roughly 200 households in each of four neighborhoods—to explore impacts with every-other-week garbage collection service. The pilot will serve to inform the full-scale implementation strategy should the decision be made to adopt every-other-week garbage collection.

In all communications and collateral associated with this pilot, the project was referred to as the One Less Truck (OLT) project.

Pilot Objectives

The specific objectives of the pilot are to:

- Examine the extent to which pilot participants change the size of their garbage, organics and recycling containers before, during and after the switch to an every-other-week garbage service level;
- Explore pilot participants' reactions to the pilot (in aggregate, by neighborhood and for demographic subgroups), measure changes in their behaviors and satisfaction levels, and investigate perceptions of neighborhood impacts such as littering and illegal dumping;
- Investigate which communication methods and messages are most effective in affecting awareness and understanding;
- Understand SPU and contractor operational impacts, and devise mitigation strategies to optimize operations under a City-wide implementation scenario; and,
- Examine changes in recycling and composting resulting from a change in garbage collection service.

Pilot Participants

Seattle Public Utilities selected four Seattle neighborhoods to participate in this pilot. The neighborhoods, the number of households within each, and other service level specifics are shown in the table below.

Table 1: Neighborhoods

	South Dunlap	Southwest Highland Park	Northeast Wedgewood	Central Leschi
# of HHs	221	188	182	216
Boundaries:	11th–15th Ave SW SW Barton to SW Roxbury	Rainier Ave to 45th S S Clover to S Kenyon	30th-35th Ave NE NE 85th-90th St	31st-34th Ave S S Dearborn to S Day
Contractor	Waste Management	Waste Management	CleanScapes	CleanScapes
Garbage/Recycling Pickup	Alternating weeks	Same week	Same week	Alternating weeks

Consumer Research

Quantitative

To inform the pilot objectives, two consumer surveys were commissioned.

- Interim Pilot Survey: Deployed two months after the start of the pilot.
- Post Pilot Survey: Deployed in January 2013 at the conclusion of the pilot.

Qualitative

Several techniques were used to collect and organize qualitative input and feedback from residents.

- T.D. Wang organized four community meetings prior to the July 1, 2012 start of the pilot program. The goal was to engage with pilot participants, have conversations about their awareness, perceptions and opinions of the pilot project and to answer questions.
- SPU staff conducted interviews with community-based opinion leaders to learn more about the dynamics of each neighborhood and to explore ways that SPU could work together and be a good partner.

- SPU provided multiple channels through which pilot participants could contact SPU and ask questions or provide feedback. These queries and inquiries were saved and catalogued.

- A survey was distributed to CleanScapes and Waste Management employees who were involved in the Pilot project. Information about their experiences and suggestions were obtained.

- An internal survey targeting the SPU staff involved with the OLT project was used to collect information about the effectiveness of the process used to design and implement the pilot project.

- Focus groups were conducted with lower-responding target segments (native Vietnamese and Spanish speakers, and those who had not turned in their stipend request cards). The survey data from the native Vietnamese and Spanish speakers has been added to the data files to ensure a more accurate representation of the population. The focus group insights are used to expand and clarify our interpretation of the survey results.

This report highlights the results of the interim and post pilot surveys, and where appropriate incorporates information from other sources to help explain the results.

Interim Survey Objectives

The specific objectives of the interim survey were to:

- Gauge preliminary satisfaction with, and opinions about, every-other-week garbage collection service;

- Explore opinions about the effectiveness of the communication strategy informing residents about the project; and,

- Describe the demographic characteristics of those participating in the project.

Post Survey Objectives

The specific objectives of the post survey were to:

- Gauge satisfaction with every-other-week garbage collection service and explore the underlying reasons for satisfaction and dissatisfaction;

- Explore opinions about every-other-week garbage collection;

- Examine satisfaction with recycling collection and food and yard waste collection, and explore reasons for any lack of satisfaction;

- Investigate perceptions of how every-other-week garbage collection may have impacted neighborhoods;

- Explore changes in behavior resulting from the change in garbage collection service levels, including changes in the size of garbage cans used;

- Examine the degree to which the Waste Management strike inconvenienced participants in the South and Southwest pilot neighborhoods;

- Explore opinions about whether the City should implement this change in garbage collection service city-wide, and ways in which the City might improve satisfaction; and,

- Highlight key demographic characteristics and behavior differences of those participating in the project.

Survey Methodology

Target Population:	807 households in the four participating Seattle neighborhoods.
Technique:	Households were mailed a postcard asking for their participation in an online survey. The postcard provided the link at which the survey could be accessed, and participants were requested to provide responses for the interim survey by October 1, 2012 and the post survey by January 31, 2013. Focus groups attendees were asked to complete surveys. Door-to-door reminders were used to increase the survey response rates in the South and Southwest pilot neighborhoods because of their particularly low response rates.
Field Dates:	The interim survey was launched on September 10, 2012 and responses were collected until October 3, 2012. The post survey was launched on January 4, 2013 and responses were collected until January 31, 2013.
Questionnaire:	Seattle Public Utilities designed both questionnaires, with the assistance of FBK Research.

Demographic Profile of Interim and Post Survey Respondents

When interpreting the results from this survey, it is important to keep in mind the characteristics of the OLT project participants who completed each survey. The following table presents the profile of the 220 project participants who responded to the interim survey and the

260 project participants who completed the post survey. Here, as well as elsewhere in this report, percentages may not sum to 100 because of rounding error, because of the acceptance of multiple responses and/or because of the exclusion of answer categories with very low frequencies.

Table 2: Unweighted Demographic Data

		Interim Survey	Post Survey
Age	18 to 34 years	7%	10%
	35 to 54 years	45%	42%
	55 to 64 years	29%	25%
	65 years or older	13%	20%
	No answer	6%	3%
Race	White only	70%	73%
	Black	5%	5%
	Asian	12%	13%
	Other	1%	2%
	No answer	12%	13%
Hispanic, Latino Origin	Yes	1%	2%
	No	86%	85%
	No answer	13%	13%
Primary Language	English	88%	84%
	Vietnamese	6%	7%
	Chinese (etc.)	0%	1%
	Spanish	0%	1%
	Other	0%	1%
	No answer	6%	6%
Owner Occupied	Own	95%	90%
	Rent	5%	9%
	Other/No answer	0%	1%
Neighborhood	South	15%	22%
	Southwest	24%	26%
	Northeast	35%	30%
	Center	26%	22%

Table 2: Unweighted Demographic Data (continued)

		Interim Survey	Post Survey
Number in Household	One	15%	16%
	Two	40%	45%
	Three	16%	11%
	Four	17%	17%
	Five or more	7%	7%
	No answer	5%	3%
Can size used during pilot	Micro	na	21%
	Mini	na	27%
	32-gallon can	na	33%
	64-gallon can	na	11%
	96-gallon can	na	1%
	Don't know	na	7%
Diapers in HH	None	na	85%
	One or more person	na	11%
	No answer	na	4%
Dogs/Cats:	None	na	47%
	One or more pet	na	48%
	No answer	na	5%
Income	< $50,000	18%	24%
	$50 - $75,000	15%	12%
	$75,000 +	38%	37%
	No answer	29%	27%

Tables presenting the demographic characteristics of participants in each of the four neighborhood sectors can be found in the appendix to this report.

Data Weighting, Analysis and Reporting

Data Weighting

The two demographic variables for which the City of Seattle has single-family (one unit) metrics are race and home ownership. As the table below shows, the survey data underrepresents households that are renter-occupied.

Table 3: Comparison of Unweighted Survey Results to ACS City Data

		Interim Survey	Post Survey	ACS City
Race	White	70%	73%	79%
	Black	5%	5%	6%
	Asian	12%	13%	11%
	Other	1%	2%	4%
	No Answer	12%	13%	--
Hispanic, Latino Origin	Yes	1%	2%	3%
	No	86%	85%	97%
	No answer	13%	13%	--
Owner Occupied	Own	94%	90%	80%
	Rent	5%	9%	20%
	No answer	1%	1%	--

To adjust for the underrepresentation of renter-occupied homes, the survey data was weighted to better match the City demographics. The following weighting schemes were used:

Table 4: Interim Survey Weighting Scheme

	Actual Frequency	Adjusted Actual Percent[2]	Target Percent	Weight
Owner Occupied	200	95%	80%	.88
Renter Occupied	11	5%	20%	3.85

Table 5: Post Survey Weighting Scheme

	Actual Frequency	Adjusted Actual Percent[1]	Target Percent	Weight
Owner Occupied	221	91%	80%	.88
Renter Occupied	22	9%	20%	2.21

After weighting the data, the survey data on home ownership and race closely compares to the City data.

[2] The percentage is adjusted so that the total is equal to 100%. Those who did not answer the question have been excluded.

Table 6: Comparison of Weighted Survey Results to ACS City Data
(adjusted to exclude those who did not answer)

		Interim Survey	Post Survey	ACS City
Race	White	81%	77%	79%
	Black	5%	7%	5%
	Asian	12%	13%	16%
	Other	2%	3%	2%
Hispanic, Latino Origin	Yes	3%	2%	3%
	No	97%	98%	97%
Owner Occupied	Own	81%	80%	80%
	Rent	19%	20%	20%

Survey Data Analysis and Reporting

The data collection method employed was designed as an open census. No random sample was selected. Usage of typical statistical techniques is appropriate when using a random sample to estimate population parameters. Because a census includes the entire population, there is no need to use statistical procedures for estimations.

The response rates achieved in the interim and post survey were 27% and 32% respectively. Supplemental focus groups and door-to-door interviewing techniques were used to augment the response rate and achieve representative responses for Asian households (Vietnamese language speakers) and households that did not redeem their stipends.

In this report, percentages reported for the total sample and for demographic subgroups are based on weighted data. Perceptions reported for the four neighborhood sectors are unweighted.

Where appropriate, answers are compared to results from prior research studies conducted by Seattle Public Utilities.

Findings

Satisfaction with Every-Other Week Garbage Collection Service

Overall Satisfaction Ratings

Participants in the One Less Truck Project were asked to use a seven-point scale to rate their satisfaction with every-other-week garbage pick-up services from SPU. This question was asked after people experienced this level of service for two months (in the interim survey) and after people experienced this level of service for six months (in the post survey).

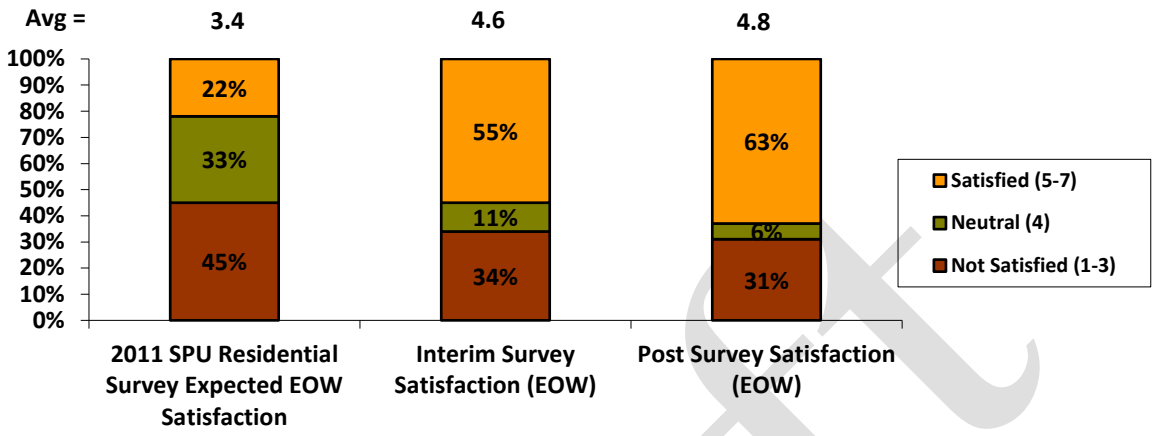
In the 2011 SPU Customer Service Residential Survey, respondents were asked how satisfied they were with their weekly garbage service, and they were asked how satisfied they anticipated they would be if the City moved to every-other-week garbage collection service.

In the 2011 SPU Customer Service Residential Survey the average satisfaction for weekly garbage pick-up services was 6.00, a satisfaction level well above that reported by pilot participants experiencing every-other-week garbage collection service (4.8).

In the 2011 SPU Customer Service Residential Survey, the average anticipated satisfaction for every-other-week garbage pick-up service was 3.4, a satisfaction level well below that reported by pilot participants experiencing every-other-week garbage collection (4.8).

The chart on the following page presents the responses to the question about expected satisfaction should the City switch to every-other-week garbage collection (from the 2011 Survey), along with responses to satisfaction with every-other-week garbage service from those in the pilot project (after two months in the interim survey and after six months in the post survey).

Chart 1: Satisfaction with Garbage Pick-Up
Every Week Pick Up for 2011 versus Every-Other-Week Pick-Up for Pilot



The increase in satisfaction at the conclusion of the pilot when people had experienced the every-other-week service level for six months came both from those who had been neutral and those who had been dissatisfied at the two-month point.

The demographic segments most satisfied with every-other-week collection were:

- **Those living in the Northeast and Central neighborhoods** (5.4 for Northeast and 5.1 for Central, compared to 4.3 for those in the South neighborhood and 4.4 for those in the Southwest neighborhood);
- **White and Asian** (average satisfaction of 5.2 and 5.1 respectively, versus 4.1 for other races combined);
- **Those 55 years of age or older** (5.2 versus 4.7 for those under 55 years of age);
- **Those living in households with fewer than four people** (5.0 versus 4.6 for those living in larger households);
- **Those who do not have any household members using diapers** (5.0 versus 4.5 for those who experience diaper usage); and,
- **Those with a household income of $60,000 or more** (5.1 versus 4.8 among those with an income less than $60,000.

Micro or mini garbage can customers were more satisfied than their counterparts using higher capacity cans (average satisfaction of 5.1 and 4.6 respectively).

Satisfaction was no different by rate plan. Both those on the steep rate plan and the flat rate plan provided average satisfaction ratings of 4.8.

Reasons for Satisfaction

Pilot participants who reported that they were satisfied with the level of collection service (a value of five, six or seven on the seven-point satisfaction scale) were asked which of several provided reasons might contribute to their satisfaction (multiple responses were accepted).

- **89% liked that the city is improving efficiencies and cutting costs.** This benefit was particularly important to Whites and Asians, and of lesser importance to Blacks (91%, 95% and 70% respectively).

- **80% were satisfied because they received a $100 payment for participating.** The $100 stipend was most important to those who are 55 years of age or older (86% versus 73% for the younger age cohort), those living in households in which at least one person used diapers (89% versus 78% for households with no diaper usage), those with incomes below $60,000 (90% versus 78%), those who are White (81%) and those who are Asian (85%).

- **73% said they did not experience problems with rats or other pests.** Those living in the Northeast neighborhood were particularly likely to say that they did not experience pest problems (83%) and those using smaller garbage cans were also more likely to mention this as a reason for being satisfied with the pilot (77%).

- **73% felt there was less truck pollution in the neighborhood.** Those living in the South and Southwest neighborhoods were most likely to agree that this contributed to their satisfaction (85% and 79% respectively).

- **71% did not experience problems with smells or odors.** Those using micro or mini garbage cans were more likely than their counterparts to say they did not notice an odor problem (78% versus 64%).

- **65% said there were fewer trucks on the road.** The reduction in number of trucks on the road resonated most with those living in the South neighborhood (77%).

- **60% said they were saving money on their bi-monthly garbage bill.** Saving money was important to those who are 55 years of age or older (67%, compared to 54% for their younger counterparts) and those with household incomes below $60,000 (68% compared to 50% for their higher income counterparts). Those experiencing the flat rate plan were just as likely to say that the savings was a satisfier as were those experiencing the steep rate plan.

- **55% reported that the can they use for garbage works very well.** Those who did not change can sizes during the pilot mentioned this more often than those who did change their can size (59% versus 38%).

- **47% felt that the amount they had to pay was reasonable.** Responses did not differ much by rate plan—50% of those on the steep plan and 45% of those on the flat plan

said the rate was reasonable. Those with garbage cans smaller than 32-gallons were more likely to say that the rate was reasonable (51% compared to 41% of those with larger cans).

- **36% were able to reduce their garbage waste and recycle or compost more.** Asians and African Americans were more likely than Whites to agree with this (52% and 40% respectively, versus 35%). Those with household incomes below $60,000 were more likely than their higher income counterparts to agree (58% versus 49%). Further, those who did not switch their can size during the pilot project were more likely than those who did to agree (38% versus 26%).

- **Only 12% reported that they were satisfied because they noticed less litter or less illegal dumping in the neighborhood.** Less litter was mentioned more often by those living in the South neighborhood (38%, compared to 15% of those in the Southwest, 12% of those in the Northeast and 0% of those in the Central neighborhoods.) Less litter was mentioned more often by those who are 55 years of age or older (18% versus 7% for the younger age cohort), those who are Asian and Black (29% and 30% compared to 10% for Whites) and those with household incomes below $60,000 (25% compared to 6% of those in the higher income group).

Reasons for Dissatisfaction

Pilot participants who reported that they were not satisfied with the level of collection service (a value of one, two or three on the seven-point satisfaction scale) were asked which of several reasons provided to them might contribute to their dissatisfaction (multiple responses accepted).

- **76% did not like having garbage on their property for that long.** This is a particular irritant to those who are under 55 years of age (84% versus 74%), those who are not White (90% compared to 67% of those who are White), those who have someone in the household using diapers (92% versus 77%) and those with household incomes below $60,000 (82% versus 68%).

- **72% felt the service level reduction increased smells and odors.** Smells and odors were a particular problem for those in households where at least one person was using diapers (100% versus 71% in households with no diaper usage). Households using diapers were twice as likely to change can sizes during the pilot, possibly because of the smell and odor (34% versus 15%). Those living in the Southwest and South neighborhoods were more likely than their Northeast and Central counterparts to mention the odor as a point of dissatisfaction (87% and 78% respectively, compared to 50% and 64% respectively).

- **66% said they had to work harder to get their garbage to fit in the can.** This was a particular challenge for those who ended up switching their garbage can size (92% of those who switched said this was a problem versus 69% of those who did not switch). Those with diapers in the household – who are likely to be can size switchers – were also more likely to say they had to work too hard.

- **62% said there was an increase in the number of rats, rodents and pests.** Pests are mentioned as a reason for being dissatisfied with roughly the same frequency across demographic segments.

- **62% didn't like having to wait another two weeks to have their garbage collected if they missed a collection.** Whites and those with household incomes above $60,000 were more likely than their counterparts to worry about this concern.

- **52% didn't save as much money as they thought they would.** Those in households with diaper usage are more likely than their counterparts to say they didn't save as much as they thought they would; however, they also were more likely to switch to a larger garbage can. Interestingly, across the entire segment of people who were dissatisfied, those who switched cans were just as likely as those who didn't to agree with this statement.

- **47% didn't like that their garbage can was too heavy.** Younger people under 55, those in larger households of four or more, and those with diaper usage were more likely than their counterparts to have a challenge with the weight of the can. Challenges with weight might be just as much about maneuverability (up and down stairs, for instance) as about sheer weight.

- **47% said the price was too high.** Those on the flat rate plan and those with garbage can capacities of 32 gallons or more were most likely to mention the price as an issue.

Reasons for being dissatisfied with every-other-week garbage collection mentioned by 30% or fewer of the participants included:

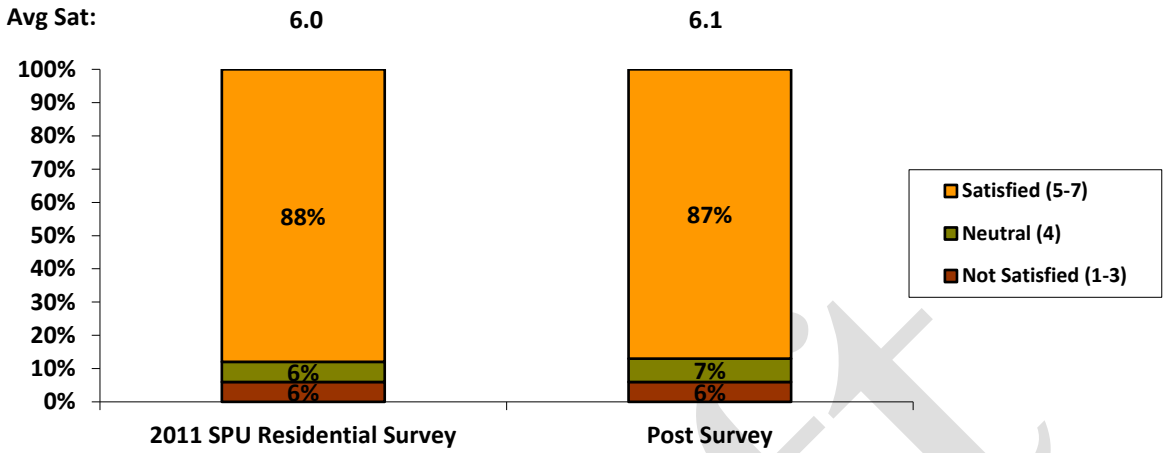
- 30% didn't notice a reduction in the number of garbage trucks.
- 29% had to pay more for a larger garbage can.
- 29% said the Waste Management garbage strike made it challenging.
- 24% weren't sure when to put their garbage out.
- 15% mentioned another reason – often related to a problem with the implementation of the pilot program.

Satisfaction with Recycling Collection Service

Overall Satisfaction Ratings

Respondents were asked to use a seven-point scale to rate their satisfaction with recycling collection services from SPU. The following chart presents average satisfaction with recycling from the 2011 SPU Customer Service Residential Survey, along with answers from those responding to the OLT post survey.

Chart 2: Satisfaction with Recycling Collection Services



The average satisfaction rating for recycling services among pilot participants was 6.1, an average rating that matches the 6.0 average rating from SPU's 2011 Customer Service Residential Survey.

Among the few who were not satisfied, the most frequently mentioned improvement was to collect recycling weekly rather than bi-weekly (10 people, 4%).

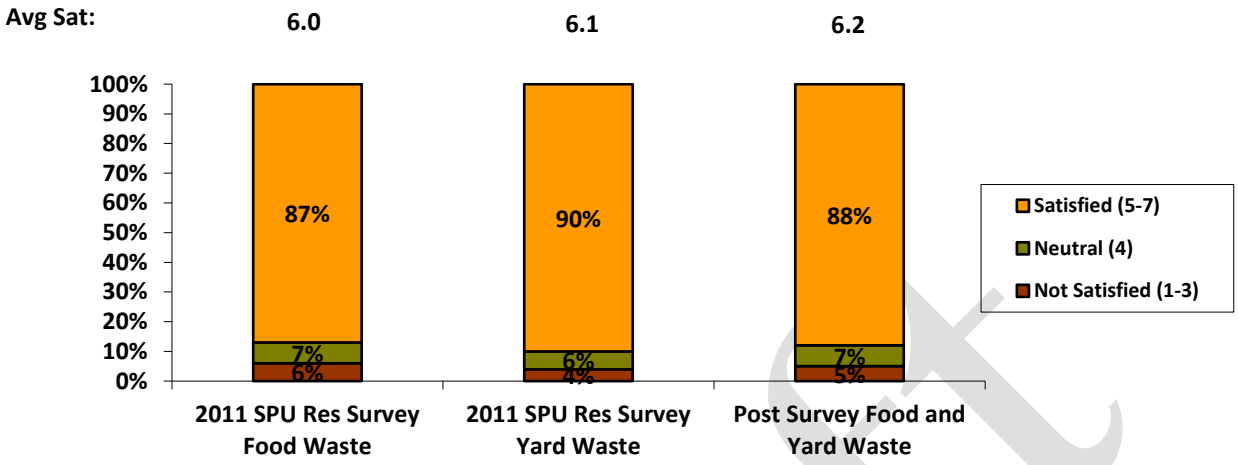
Five people each (2%) mentioned that recycling services could be improved by providing a larger cart or providing more information about what is recyclable.

Satisfaction with Food and Yard Waste Collection Service

Overall Satisfaction Ratings

Respondents were asked to use a seven-point scale to rate their satisfaction with food and yard waste collection services from SPU. The following chart presents average satisfaction with food waste and with yard waste from the 2011 SPU Customer Service Residential Survey, along with answers from those responding to the OLT post survey.

Chart 3: Satisfaction with Food and Yard Waste Collection Services



The average satisfaction rating for food and yard waste collection services among OLT pilot participants was 6.2. Although measured separately in the 2011 SPU Customer Service Residential Survey, the average satisfaction rating for food waste collection (6.0) and for yard waste (6.1) closely match that from the OLT pilot.

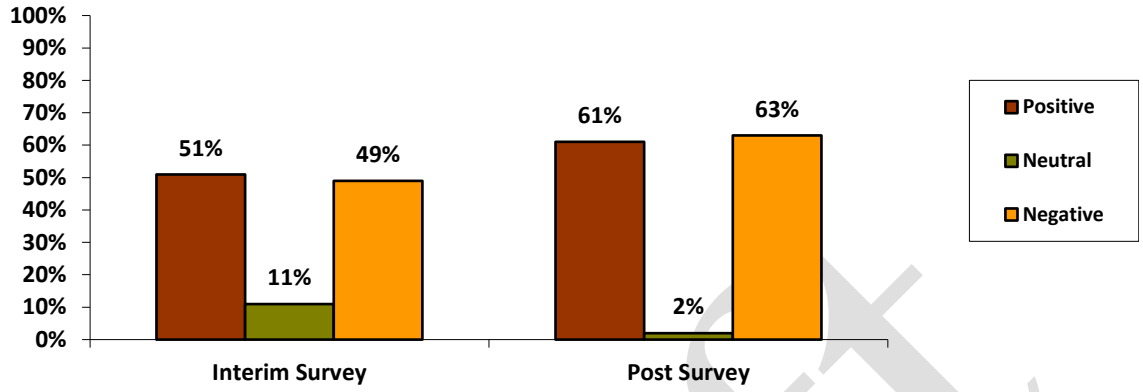
OLT Pilot participants living in the Northeast neighborhood were most satisfied with food and yard waste collection (average satisfaction of 6.5 compared with 5.8 for those in the South neighborhood, 6.0 for those in the Southwest neighborhood and 6.2 for those in the Central neighborhood).

Among the few who were not satisfied, 7 people (3%) said that the curbside cart was smelly or messy and 5 people (2%) said their curbside cart attracted pests.

Opinions about the One Less Truck Project

Participants were asked in an open-ended question to express their opinion of every-other-week garbage collection after experiencing that service level for two months and again at the conclusion of the pilot. Both at the two-month mark and at the conclusion of the pilot people had both positive and negative opinions about the pilot. Further, as the following chart shows, some individuals had both positive and negative comments, often saying they are supporters of the program, but there is room for improvement.

Chart 4: Opinions of Every-Other-Week Garbage Collection
(multiple responses accepted)

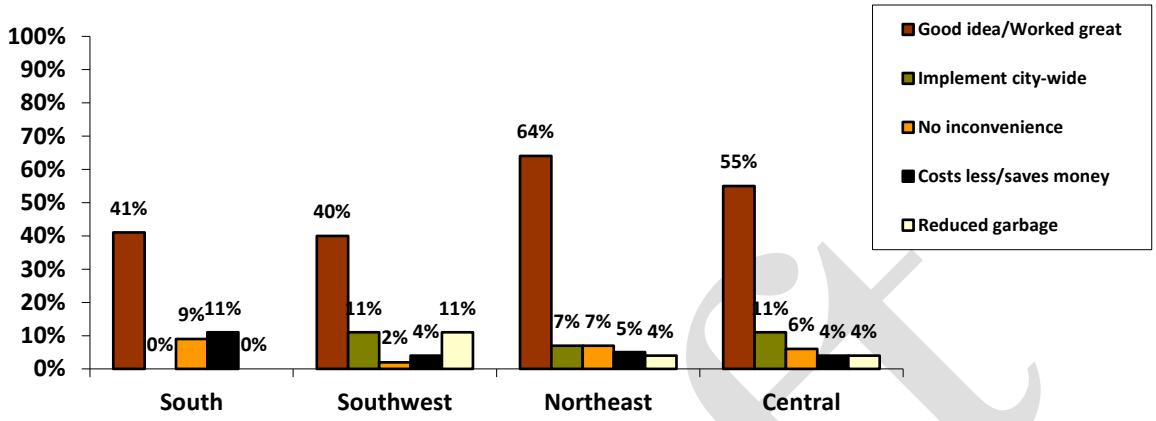


Whether at the two-month point or at the conclusion of the pilot at least half had positive comments about the project. After experiencing the every-other-week service level for six months:

- 49% of everyone completing the survey said the program was a good idea and worked great.
- 8% specifically recommended that the pilot program be implemented city-wide.
- 6% said there were no inconveniences experienced as a result of the pilot project.
- 5% said that it cost less and/or saved money.
- 4% said they reduced their garbage and/or recycled or composted more.

The chart on the following page presents the percentage of people providing positive comments by neighborhood.

Chart 5: Positive Opinions of Every-Other-Week Garbage Collection
(by neighborhood)



Some examples of the positive comments provided by post survey respondents:

- *"I think it is great. There have been only a couple of times that we had more than our garbage can could support - the additional garbage had to do with "events" that we hosted at our home. These happen every once in a while - we were able to make it work with little or no hassle. I think overall, if the every-other-week garbage collection saves Seattle over $6M dollars, it is certainly worth it. That $6M can be used for other services."*

- *"Fantastic. Bring it back!"*

- *"Go for it! I appreciate the effort to curb expenses and pollution and this kind of innovative thinking is super."*

- *"Good - sounds like a win-win for everyone."*

- *"We prefer it to every week collection. We are producing less garbage by using clean green and recycling more effectively."*

Those who made negative comments about the project objected to different aspects (percentages are based on the total sample):

- 19% said it was too expensive and should be cheaper.

- 19% said it was a bad idea in general, and just wasn't workable.

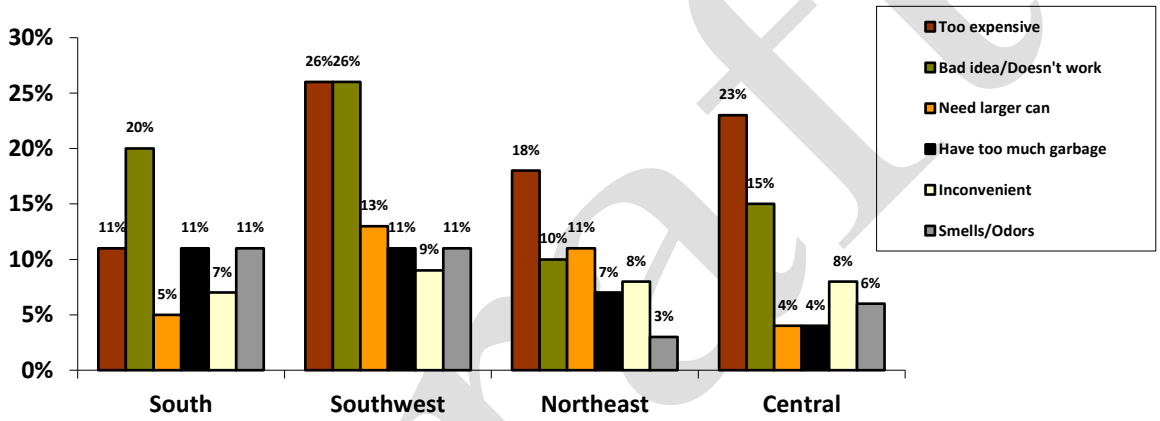
- 10% said it required them to switch to a larger can.

- 10% did not mention changing their can size; however, said that they had too much garbage to make every-other-week collection work.

- 8% objected to the increase in pests.
- 8% objected to the smell and increase in odors.
- 7% objected to the inconvenience.
- 7% reported problems with litter and more garbage on the ground.

The following chart presents the percentage of people making the primary negative comments by neighborhood.

Chart 6: Negative Opinions of Every-Other-Week Garbage Collection
(by neighborhood)



Some examples of the negative comments provided by post survey respondents:

- *"It was OK. I was a bit paranoid that I would miss a collection day though. Also, my can was pretty full by the second week -- it is nice in weekly collection to have some head room for random stuff."*
- *"Every other week is fine, but some of the savings should be going to the customer. It makes no sense for every other week service to end up costing more."*
- *"Fine for the most part. But there should be an additional benefit like a free quarterly pass to the dump, or a few coupons for extra cans for those times when the bi-weekly is not sufficient."*
- *"I found it difficult because of the weight of the can. We have a flight of stairs to the street. Also, if you happen to be out of town on collection day, you can go three weeks without garbage collection which is very difficult."*
- *"It's inconvenient for larger families with a higher volume of garbage. I would expect that the City would charge less for the service due to the reduced frequency. I have concerns regarding animals, and that the stench will persist."*

- *"I do not approve, and I strongly feel that sanitation should be a high priority for the city. Every other week collection means diapers, sanitary napkins and some food containers remain for 2 weeks attracting insects and rodents. I highly disapprove."*

- *"I did not like it at all. I wish to never be forced to participate in it again. If this is permanent, I wish to have water-sewer in a separate bill so that I can bring my garbage to work to dispose of it. I do not wish to have smelly garbage on my property for two weeks. Also, next time you try a pilot program like this please do a trial run in say Medina or Mercer Island first. See how that works out."*

Perceptions of Neighborhood Impacts

Participants were asked to think about how their neighborhood looked before the OLT project started and then compare how it looked during the project. Nine statements were provided and respondents could pick as many as applied. Among all survey respondents:

- **39% reported that they did not notice any difference in their neighborhood during the project.** Asians and those with incomes of $60,000 or more were more likely than their counterparts to say they did not notice any differences (51% and 48% respectively). Those living in the Central and Northeast neighborhoods were more likely than their counterparts to say they did not notice any differences (60% and 49% respectively, compared to 31% for those in the South and 22% for those in the Southwest neighborhoods).

- **36% said there were more overflowing garbage and recycling containers.** Those in households with four or more people and those in households with at least one person using diapers were more aware of the overflow (50% and 42% respectively). Those living in the South and Southwest neighborhoods were most likely to notice overflowing containers (49% and 45% respectively, compared to 24% in the Northeast and 24% in the Central neighborhoods).

- **34% noticed there was less truck traffic.** The reduction in truck traffic went largely unnoticed among those who expressed overall dissatisfaction with the project (5%).

- **22% felt that there were more garbage cans at the curb on non-collection days.** Those who expressed dissatisfaction with the pilot were more likely to notice the wrong set-outs (39%).

- **20% said that their neighborhood looked messier.** Those who were dissatisfied with the project overall were more aware of the mess (51%). Those least likely to notice that the neighborhood looks messier live in the Northeast neighborhood (7% compared to 29% in the South, 28% in the Southwest and 16% in the Central neighborhood).

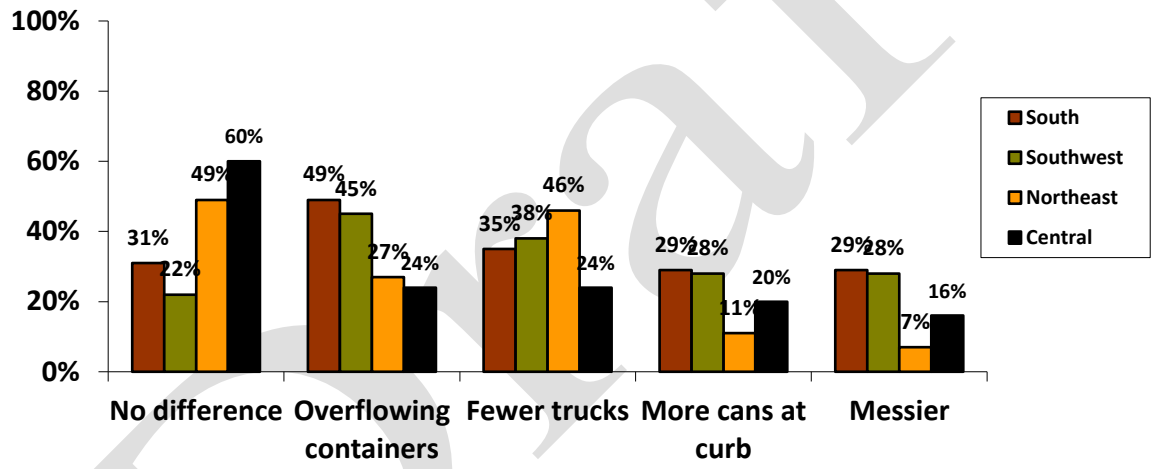
- **16% said there was more litter and/or illegal dumping in the neighborhood.** Households in which there is at least one person in diapers are more likely to notice the litter or illegal dumping (28%), and this concern was largely among those who were

dissatisfied with the project overall (45%). Those living in the South and Southwest neighborhoods were more likely to notice litter or illegal dumping (18% and 22% respectively, versus 11% in the Northeast neighborhood and 15% in the Central neighborhood).

Neighborhood impacts noticed by less than 10% of the participants included:

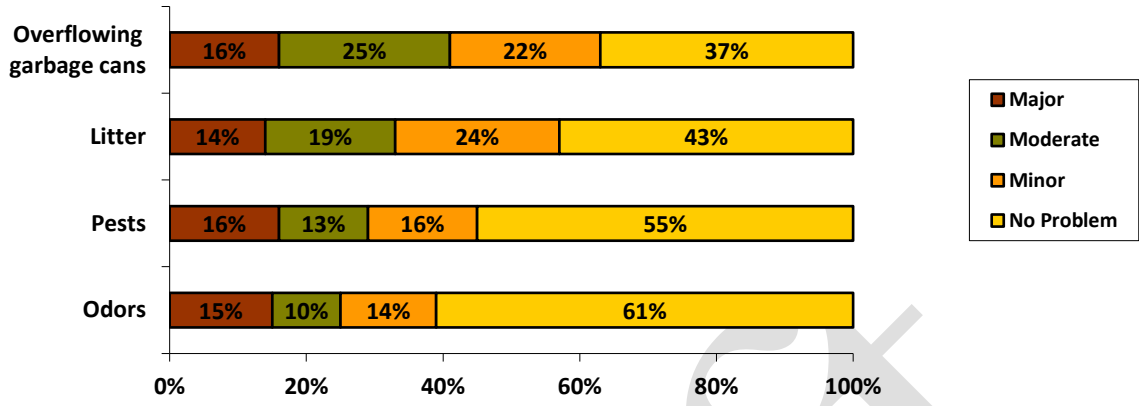
- 9% said they noticed their neighborhood looked cleaner;
- 7% said there was less litter and/or illegal dumping in their neighborhood;
- 5% said there were fewer overflowing garbage and/or recycling containers; and,
- 4% volunteered that there were more pests in their neighborhood.

Chart 7: Before Pilot and During Pilot: Comparison of Neighborhood Appearance



At the conclusion of the pilot, respondents were asked to rate their experiences with overflowing garbage cans, litter, pests and odors during the One Less Truck Project. As the chart shows, roughly the same percentage of people rated each of the four issues as a major problem (between 14% and 16%). Of the four, odors were considered problematic by the lowest percentage of participants.

Chart 8: Problems in the Neighborhood



Even though they were asked to base their answers on their experiences during the One Less Truck Project, a few people reported that an issue was a major problem and then explained their answer with a comment like one of these:

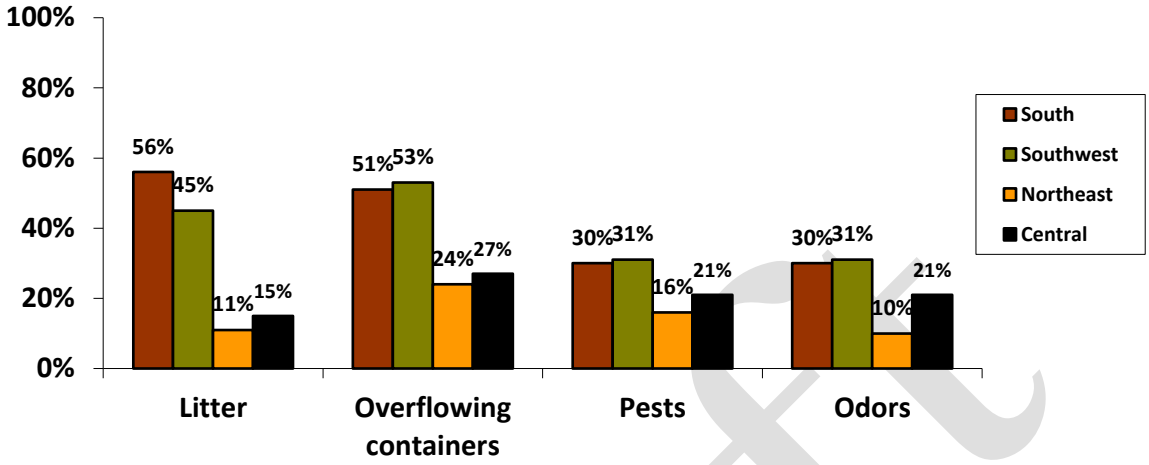
- *"The litter / overflowing cans issue is always an issue in my neighborhood."*
- *"It seems as though there's always trash and garbage on the road in my neighborhood."*
- *"Litter in the neighborhood is always a problem, not related to this project."*
- *"Litter is always bad, but was unaffected by One Less Truck."*

On the other hand, other participants clearly felt there was a strong relationship between the neighborhood problems and the reduction in service levels:

- *"The over-full cans and the garbage strike meant that there were rats and other pests in the trash."*
- *"The dog waste got very smelly and unpleasant in the summer."*
- *"The rat problem increased – there were rats in the garbage – at least in part to the overflowing garbage or garbage stored in plastic bags that attract rats, raccoons and crows."*
- *People were taking their trash to neighborhood businesses and dumping it in their trash cans. I saw this nearly every day."*

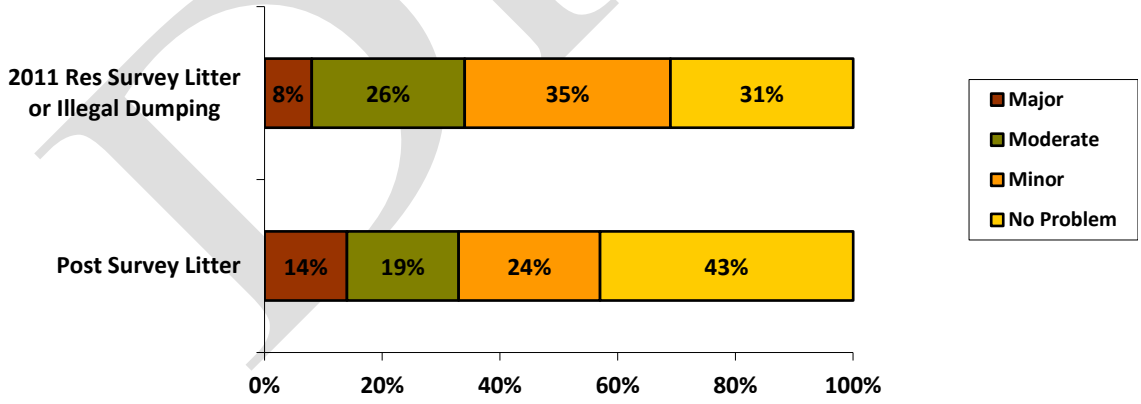
When looked at by neighborhood, how people experience these impacts are different. As the chart below shows, every problem is perceived bigger in the South and Southwest neighborhoods, with litter and overflowing cans/carts of highest concern.

Chart 9: Impacts Rated a Major or Moderate Problem
(by neighborhood)



Seattle residents responding to the 2011 SPU Customer Service Residential Survey were asked how big a problem litter or illegally dumped material was in their neighborhood. Although the answers are not directly comparable because the Post Survey only asked about litter, it appears that people in the post survey did not change their opinions about the extent to which litter is a major or moderate problem (34% of those responding to the 2011 Customer Residential survey said litter/illegal dumping was a major or moderate problem and 33% of those responding to the OLT post survey said litter was a major or moderate problem).

Chart 10: Problems in the Neighborhood

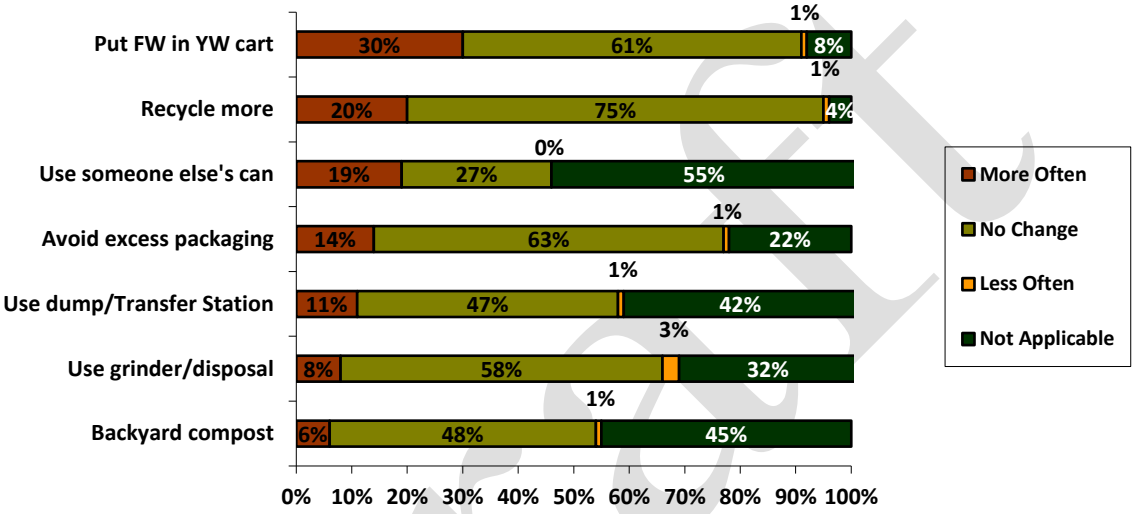


Behavioral Changes

Dealing with Waste

Respondents were asked how their behaviors dealing with waste changed as a result of their participation in the One Less Truck Project. As the chart below shows, the most frequent behavioral changes included putting food waste in the yard waste cart more often, putting recyclables in the recycling bin more often and using someone else's can more often.

Chart 11: Changes in Behavior Dealing with Waste



Thirty percent (30%) of the pilot participants said they put food waste in their yard waste cart more often as a result of their participation in this project. Those putting food in their yard waste cart more often were:

- Those living in the Southwest (39%) and South (36%) neighborhoods (compared to 23% in the Northeast and 26% in the Central neighborhoods);
- Living in households with four or more people (38% versus 27%);
- Non-whites (34% versus 26%);
- Those with someone using diapers in the household (41% versus 28%); and,
- Those with household incomes below $60,000 (38% versus 26%).

Twenty percent (20%) of the pilot participants said they recycle more of their recyclable materials. Those recycling more often were:

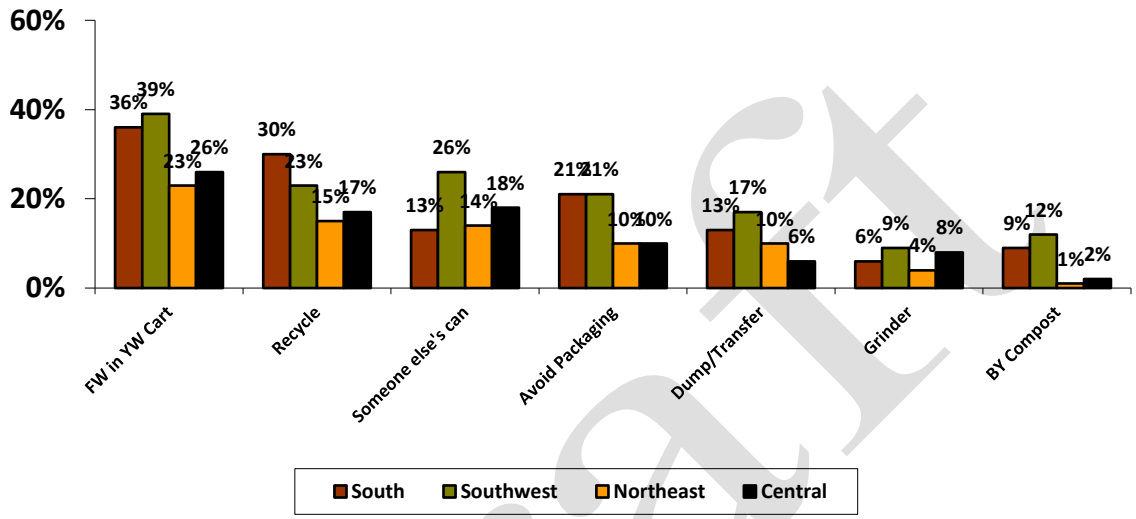
- Those living in the South (30%) and Southwest (23%) neighborhoods (compared to 15% in Northeast and 17% in Central);
- Living in households with four or more people (29% versus 17%);
- Non-whites (38% versus 15%); and,
- Those with someone using diapers in the household (31% versus 18%).

Nineteen percent (19%) of the pilot participants admitted that they used someone else's garbage can or dumpster more often as a result of the reduction in service level. Those saying

that they use someone else's garbage can or dumpster more tend to be less satisfied with the pilot. Fifty-five (55%) of the respondents said that this question wasn't applicable to them.

The following chart presents the percentage of pilot respondents who engage in each of these behaviors more often by neighborhood.

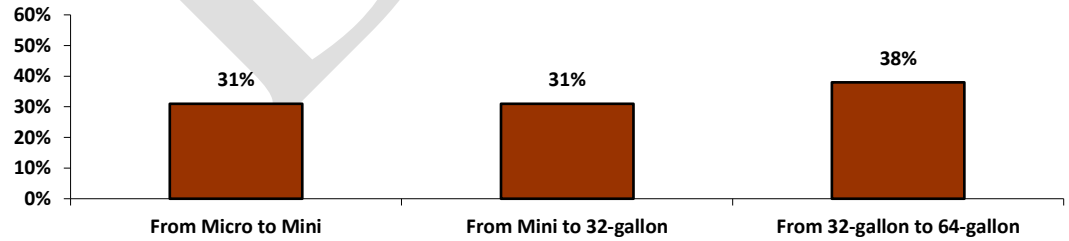
Chart 12: Engage in Behavior More Often with Every-Other-Week Garbage Collection
(by neighborhood)



Change in Size of Garbage Can

Seventeen percent (17%) of the respondents in the post pilot survey said they changed the size of their garbage can (or requested a change) during the pilot. Among those that changed to a larger size, 31% changed up to a mini can, 31% changed up to a 32-gallon can and 38% change up to a 64-gallon can.

Chart 13: Size of Can Increased To
(among those who changed to a larger can)[3]

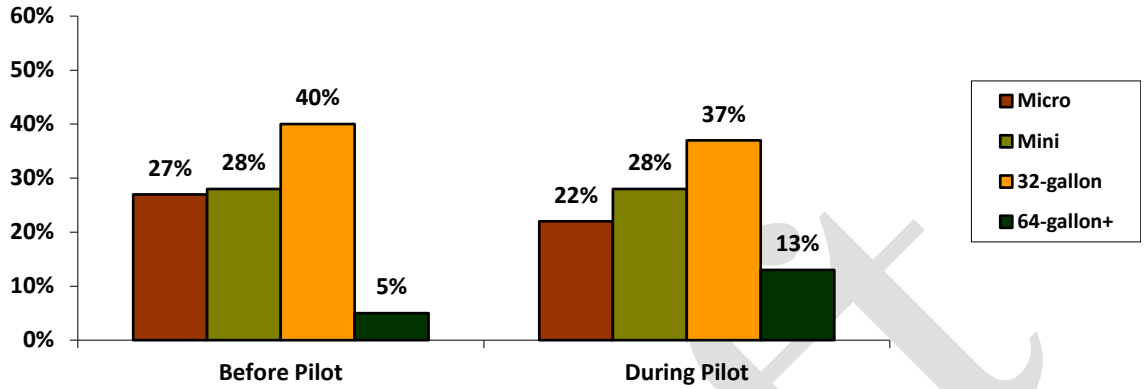


When comparing the size of pilot participants' garbage cans prior to the start of the pilot to that used during the pilot there is very slight upward movement in can size. Five percent (5%) used a

[3] Based on 38 people who said they switched can sizes during the pilot and then identified a garbage can size used during the pilot that was larger than that used prior to the start of the pilot.

64-gallon can or larger at the start of the pilot and 13% used a 64-gallon or larger can during the pilot.

Chart 14: Change in Size of Garbage Can



People who changed their can size during the pilot were:

- **Living in the Southwest neighborhood** (27% of those in the Southwest changed their can size compared to 15% of those in the South, 14% of those in the Northeast and 16% of those in the Central neighborhoods);
- **Living in households with more people** (2.8 average residents in households that switched compared to 2.6 in households that didn't switch);
- **Living in households in which at least one person uses diapers** (26% of households that switched had diaper usage versus 10% of households that didn't switch);
- **Had at least one dog or cat in the household** (67% of those who switched have a dog or cat compared to 45% of those who didn't switch);
- **Are White** (91% of those who switched are White versus 83% of those who didn't switch); and,
- **Had an income of $60,000 or more** (66% of those who switched have the higher income versus 43% of those who didn't switch).

Reasons for Switching Garbage Can Sizes

When asked why they changed their garbage can:

- 91% said that they needed a bigger can to hold their garbage for two weeks;
- 13% said that they used their $100 stipend to ensure that they would have enough room for more garbage if it was needed; and,

- 10% said that they needed a can with wheels because their old can was too heavy to lift.

Reasons for Not Switching Garbage Can Sizes

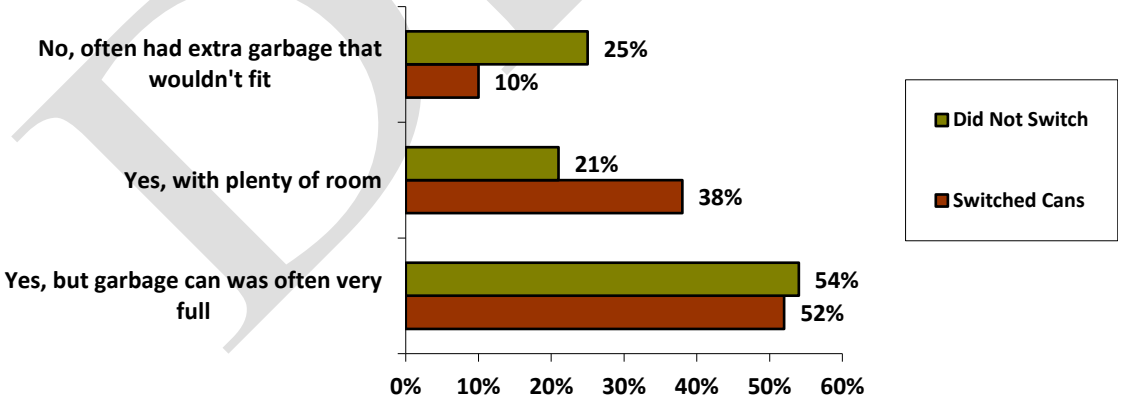
When asked why they didn't change their garbage can size:

- 52% said their current garbage can had enough room for two weeks of garbage;
- 48% said they didn't want to spend more money on a bigger garbage can;
- 34% said it wasn't worth changing since the project was only going on for six months;
- 11% said they recycled and composted more;
- 10% said they didn't know they could change the size of their garbage can; and,
- 9% said they had other priorities and didn't have time to make the change.

Satisfaction with Garbage Can Size used in Pilot

Those who took the opportunity to change the size of their garbage can during the pilot project reported that they typically had enough room with their new can size (even if it was often very full). Those who did not switch can sizes were more likely than their counterparts to say that they often had garbage that wouldn't fit.

Chart 15: Satisfaction with Size of Garbage Can



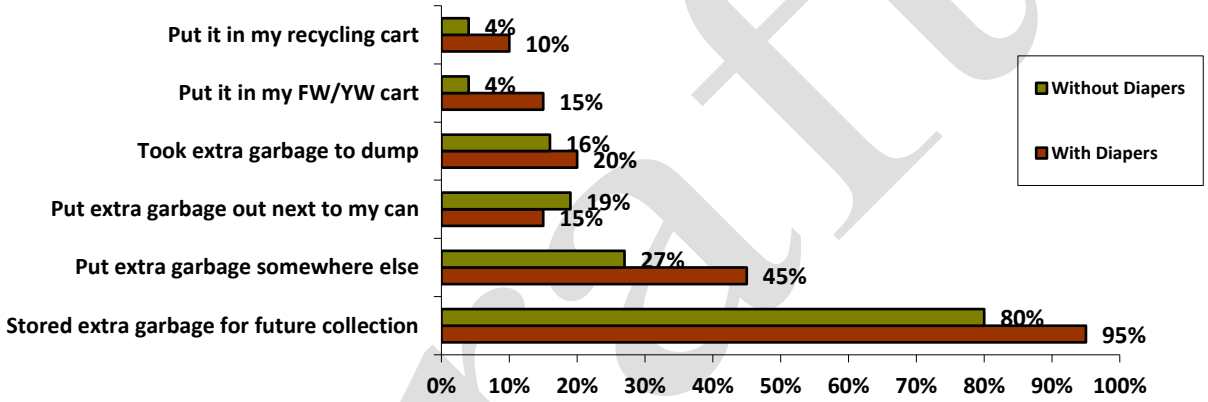
Among those who experienced a time when their garbage wouldn't fit into their garbage can, the most frequently mentioned interim solutions were (percentages are based on those who experienced the situation and multiple responses were accepted):

- 81% said they stored the extra garbage until the next collection day when it would fit;
- 30% said they put the extra garbage in a garbage container somewhere else;

- 18% said they put the extra garbage out next to their own can;
- 16% said they took the garbage to the transfer station;
- 6% said they put the garbage in their food and yard waste cart; and,
- 5% said they put the garbage in their recycling cart.

As the following chart shows, those living in households in which someone is using diapers are more likely than their counterparts to use garbage can capacity from other people and to contaminate their own recycling or food and yard waste carts:

Chart 16: Solutions Used for Extra Garbage
(comparison of households with and without diaper usage)



Those who were dissatisfied with the pilot project were more likely than their more satisfied counterparts to contaminate their food and yard waste and recycling carts:

- 15% of those dissatisfied with the pilot put extra garbage in their food and yard waste cart (compared to 2% of those who were neutral or satisfied); and,
- 17% of those dissatisfied with the pilot put extra garbage in their recyclables (compared to 0% of those who were neutral or satisfied).

Can Size and Pricing Preferences if OLT is Implemented City-wide

People responding to the post survey were asked how they might change their can size under different pricing assumptions if garbage pick-up changed permanently to every two weeks instead of every week.

When asked whether they would stay with the garbage can size used during the pilot and pay $6 less, or go with a larger can size and pay $12 more, 63% said that they would stay with their current can size and pay $6 less. Fifteen percent (15%) said they would switch to a larger can and pay $12 more, and 22% said they didn't know.

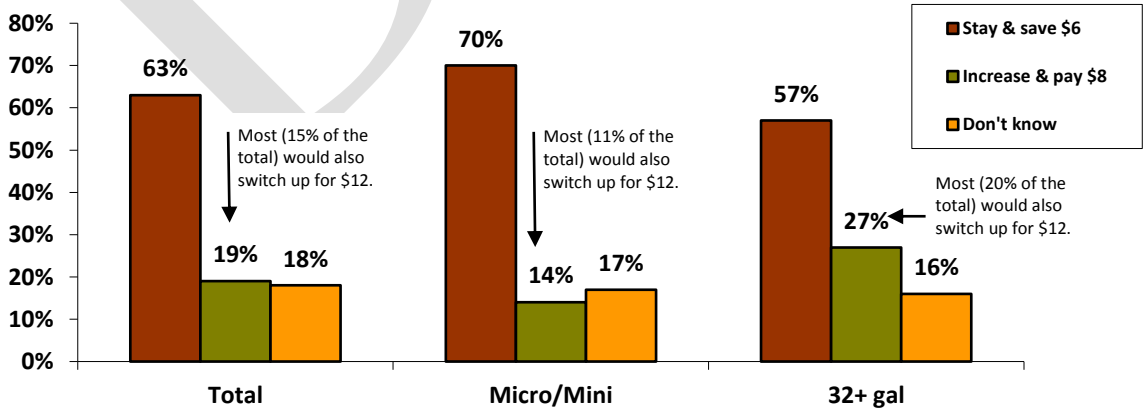
Respondents who said that they would continue with the garbage can size used during the pilot and pay $6 less and those who didn't know what they would do were asked what they would do if the increase in cost to move to a larger can was $8. Among this subset who would not switch up and pay $12 more (85%):

- 73% would stay with the current can size and save $6;
- 5% would go with a larger can size and pay $8 more; and,
- 21% do not know what they would do.

To facilitate comparison, basing answers on the total population:

- 63% would stay with the current can size and save $6 if offered either the $8 or $12 increase in price if they elected to switch to a larger can;
- 19% would switch up if they were offered a larger can for $8, and most of these (15% of the total) would also switch up if they were offered a larger can for $12
- 18% do not know what they would do.

Chart 17: Can Sizes and Pricing Preferences
(based on total sample)



The data indicates that those who used a 32-gallon or more garbage can during the pilot are less likely to stay with the can size used during the pilot to save $6. While 14% of those with smaller garbage can sizes are willing to pay more to move up a can size, 27% of those with larger garbage can sizes are willing to pay more.

Those who were willing to pay more (either $8 or $12) for a larger can size:

- Were more likely to be under 55 years of age (25% of those under 55 years of age were willing to pay more versus 13% of those 55 years of age or older);

- Were living in larger households (35% of those in households with four or more people were willing to pay more versus 15% of those in smaller households);

- Were not White (22% of those not White were willing to pay more compared to 12% of Whites);

- Had someone using diapers living in the household (25% of those with diaper usage were willing to pay more compared to 19% of those with no diaper usage);

- Had dogs or cats in the households (23% of those with dogs or cats in the household were willing to pay more versus 16% of those without dogs or cats); and,

- Had household incomes of $60,000 or higher (25% were willing to pay more compared to 15% of those with incomes under $60,000).

Differences in willingness to pay for a larger can were not remarkable when analyzed by neighborhood. Seventeen percent (17%) of those in the South were willing to pay either $8 or $12 more for a larger can, 16% of those in the Southwest, 19% of those in the Northeast and 15% of those in the Central neighborhoods were willing to pay more for a larger can.

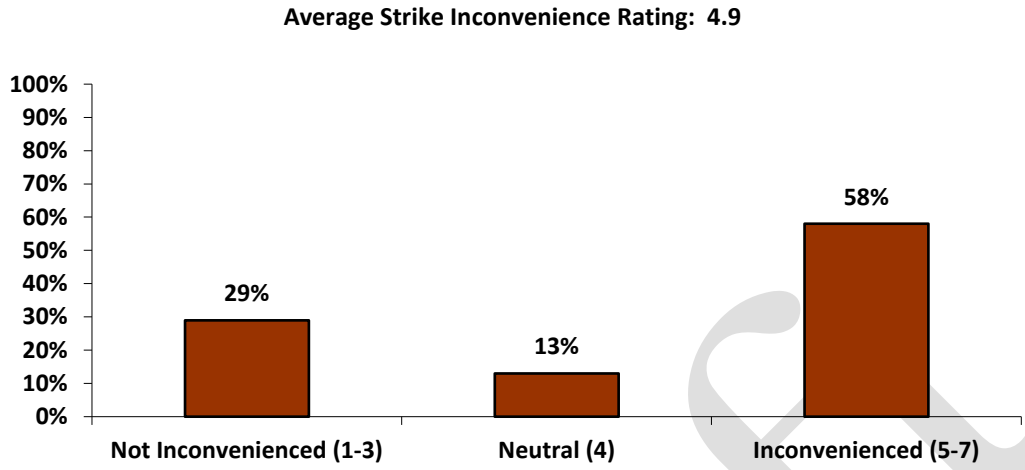
The subset of people in the total sample (15%) who were willing to pay $12 more in order to switch their can to a larger size were asked whether they would stay with their current can size and pay $6 less or switch to a larger can if it cost $16 more. Among this subset:

- 25% said they would stick with the can size used during the pilot and save $6
- 40% said they would move to a larger can size and pay $16 more
- 35% did not know what they would do.

Impact of the Strike

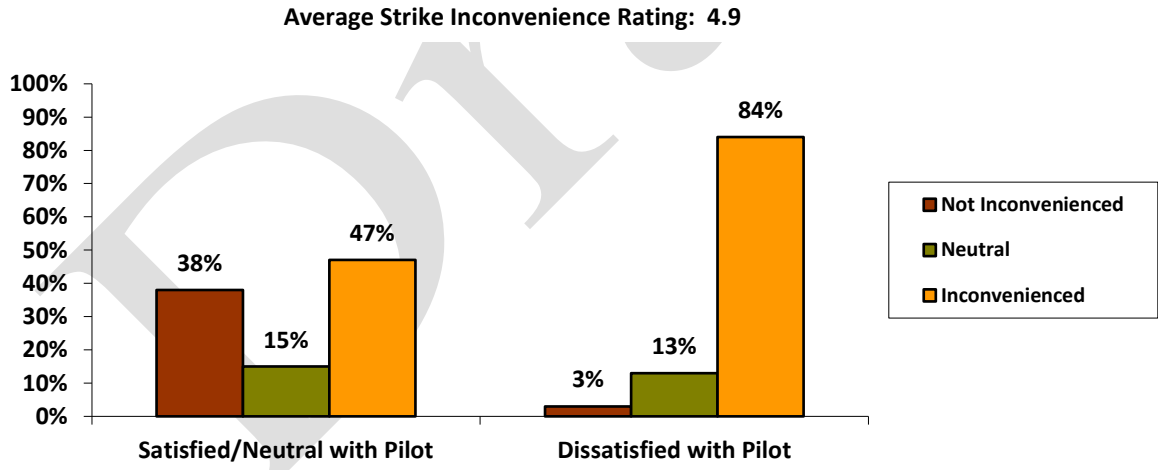
Pilot participants living in Waste Management's service area (South/Dunlap and Southwest/Highland Park) were asked how inconvenienced they were because of a labor strike that prevented garbage collection from July 26 to August 2. A seven-point scale was used where seven indicated that people were very inconvenienced and one indicated that people were not at all inconvenienced.

Chart 18: Inconvenience Because of the Waste Management Strike



Those in the strike area who were dissatisfied with the pilot project were more likely than those who were satisfied to say they felt inconvenienced by the strike:

Chart 19: Inconvenience Because of the Waste Management Strike
(by Satisfied + Neutral versus Dissatisfied with Pilot)



The strike was a particular inconvenience for:

- **Those living in households with four or more people** (67% were inconvenience compared to 55% of those in households with fewer than four people);
- **Those who were under 55 years of age** (65% were inconvenienced compared to 48% of those 55 years of age or older)
- **Those living in households with diaper usage** (64% were inconvenienced compared to 58% of those in households with no diaper usage);

- **Those who were not White** (67% were inconvenienced compared to 56% of those who are white); and,

- **Those on a recycle pick up one week, garbage pick up the next week or "2-2-2" pick-up schedule** (71% were inconvenienced versus 45% on a garbage/recycling/yard waste pick up one week, yard waste pick up the next week, or "3-1-3" pick-up schedule.

Perceptions of the OLT Communication Strategy

SPU's communication strategy to inform participants about the pilot project included several methods, vehicles and venues, including:

1. An information packet was mailed to all households in the selected neighborhoods. The information packet contained a stipend request card.

2. A separate OLT website was set-up at which pilot participants could learn about the program, the rates, obtain information about scheduling and submit a comment or question to SPU staff.

3. Four community meetings were sponsored – one in each neighborhood. Participants received an invitation to participate in the community meetings via a postcard.

4. SPU staff members engaged in conversations with community-based opinion leaders to learn about neighborhood issues and to provide a connection and resource to the community so that any questions could be addressed quickly, easily and accurately.

5. SPU staff members walked through the South and Southwest neighborhoods and engaged in individual conversations with local residents.

6. SPU mailed letters to each customer describing the changes to their bi-monthly bill at the beginning and end of the project.

7. Waste Management and CleanScapes drivers left reminder notices on participants' garbage cans the week prior to the program starting.

8. Waste Management and CleanScapes drivers left notices on participant's cans that were put out their garbage on the wrong collection day during the first month of the project.

9. SPU called all participants the week prior to the project start.

10. SPU called all participants the week the project ended.

11. SPU mailed invitations to participate in surveys in September and January.

12. SPU e-mailed participants who provided their contact information with monthly project updates.

13. A self-mailer postcard asking participants to fill out their contact information to redeem a $100 payment for participating in the One Less Truck Project was mailed to participants in May and November, 2012.

14. SPU staff participated in numerous media interviews throughout the project.

15. SPU's contact center responded to emails and phone calls and kept a log of their correspondence.

Pilot participants who completed the interim survey were asked when they first learned that they would be participating in the One Less Truck project. Most people learned about their participation from the packet of information sent in the mail by SPU:

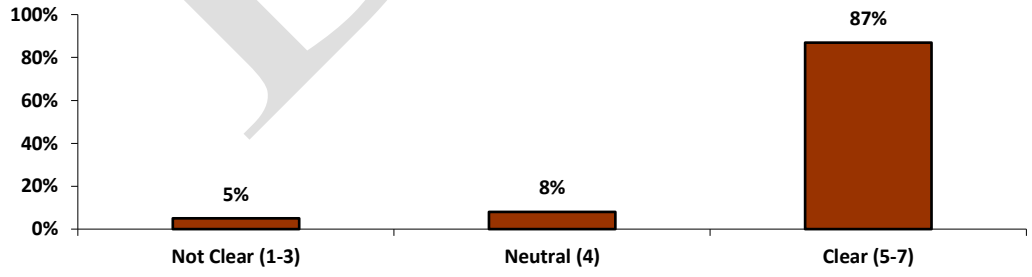
- 85% first learned from SPU's information packet
- 7% first learned by reading about it in the newspaper
- 2% first learned after receiving a postcard about a community meeting
- 3% first learned some other way

Overall, 96% of the interim survey respondents recalled receiving SPU's information packet. And most at least glanced through the information contained within the packet because 100% said they were aware of the requirement that they participate in the pilot project and 94% of those who received the packet returned the stipend request card contained within.

As shown below, 87% of those who received the information packet said that the information they received did a good job explaining the One Less Truck Project to them.

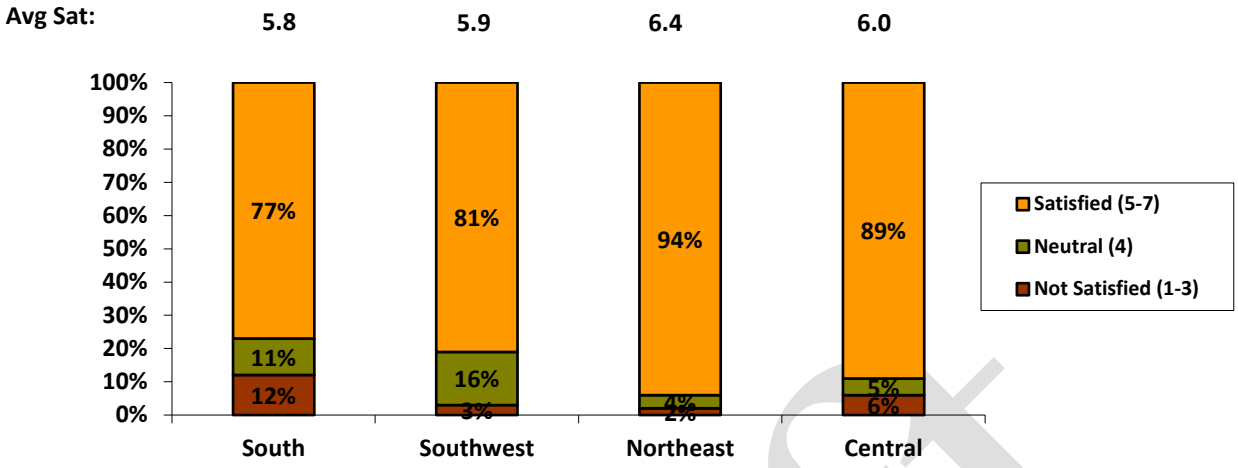
Chart 20: Clarity of Information Contained in the SPU Informational Packet
(among those who received the packet)

Average Clarity Rating: 6.1



Those living in the South neighborhood were more likely than their counterparts to report some lack of clarity with the information provided.

Chart 21: Clarity of Information Contained in the SPU Informational Packet
(by neighborhood)



When they first became aware that they had been selected for participation in the One Less Truck Project, some people were upset about the new rate structure.

- *"Why am I being charged more for less service and less space than non-participants? That is not fair?" (interim survey)*
- *"My current charges and the price difference after starting this ridiculous endeavor." (interim survey)*
- *"There was little information about the rate change and how it worked. I would like to know the cubic inch for each of the containers and the cost of each. Please send that information to me and also more about the rate difference between every week and every-other-week." (interim survey)*
- *"I think it's criminal and lazy that "customers may not see a reduction in their bills" by switching to every-other-week collection. I don't understand how you can cut a service in half but yet charge the same. That is a 100% increase in the cost of my garbage pick-up. And I think that is unethical and totally taking advantage of your customers." (contact center)*
- *"It appears I'm a victim of your project. You know, the one where you are going to pick up half as much garbage but still charge me almost the same amount. That's ridiculous. I'm not opposed to the plan to pick up garbage every other week, but then I should be able to put out two garbage cans at no extra charge, right? That only makes sense to me. But apparently that not part of your plan. This sounds like a giant scam rip-off. I call B.S. If you're going to pick up half as much garbage you should be charging me half as much. Or, if you're going to keep charging me the same amount you should be letting me put out two garbage cans at no extra charge." (contact center)*

Although people generally felt that the communication materials from SPU were clear and informative there were some people who didn't understand why they were selected for the program or how they could opt out of participating.

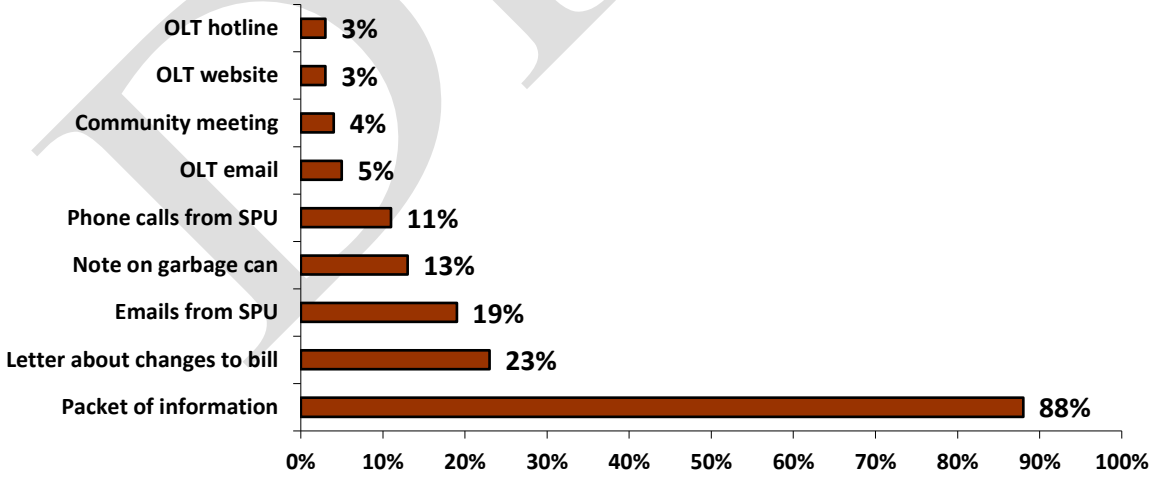
- *"There was no logic as to how this experiment was designed; inadequate information as to how the neighborhoods were chosen." (interim survey)*

- *"I originally thought it was voluntary and I planned to opt out. I was surprised to learn later than I didn't have a choice." (interim survey)*

- *"We are one of the families that has been chosen by you to be part of the every other week garbage pick-up. We have been told that we have no choice but to participate. Presently we are also one of the Seattle households that cut back on the size of our garbage container hence lessening the landfill (etc.) problems. We presently use the 18-20 gallon mini can which presently costs us $21.55. The system you have set up for your experiment is totally unfair. If we continue to be environmentally sound and produce less garbage than those who use the larger cans (but produce the smaller amount per week that we do presently) we will need to change our size can to the larger 32-gallon can during your experiment. That will cost us more than we are paying now for the same amount of garbage and for the pleasure of having the smell of our garbage for a week longer." (contact center)*

When asked whether the amount of information they received prior to the start of the project was sufficient, 86% said that the amount of information was "about right." Eight percent (8%) said there was too little information and 3% said there was too much. The chart below presents the information resources available and the percentage of participants who said they appreciated each:

Chart 22: Methods of Communication Appreciated Most



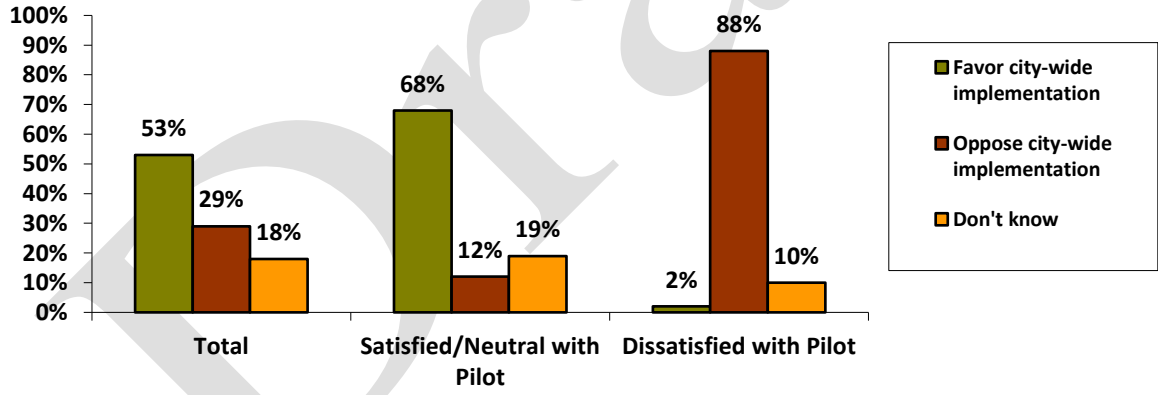
Perceptions of the Project Title: One Less Truck

People responding to the interim survey were queried about their perceptions of the "One Less Truck" title. Overall, 70% said this name made sense, 8% said it did not and 22% did not know. Most of the suggestions for improving the title were facetious. Two of the people not being facetious suggested that the title should include the notion that the garbage service is now "every other" week.

Preferences for City-wide Implementation and Suggested Improvements

People who responded to the post pilot survey were asked whether they felt the City should permanently implement every-other-week garbage collection to all single-family homes in Seattle. In total, more people are in favor of city-wide implementation than those who are opposed. As the chart below shows, those who are satisfied with their experiences during the pilot are those who favor city-wide implementation, and those who are not satisfied with their experiences oppose city-wide implementation.

Chart 23: Preference for City-wide Implementation of Every-Other-Week Garbage Collection
(by Satisfied + Neutral versus Dissatisfied with Pilot)



While 53% of all survey respondents expressed the opinion that every-other-week garbage collection should be implemented city-wide, approval was much stronger among those who were favorably inclined toward their experiences in the pilot. Sixty-eight percent (68%) of those who were satisfied or neutral toward the pilot agreed that the collection service level should be implemented city-wide.

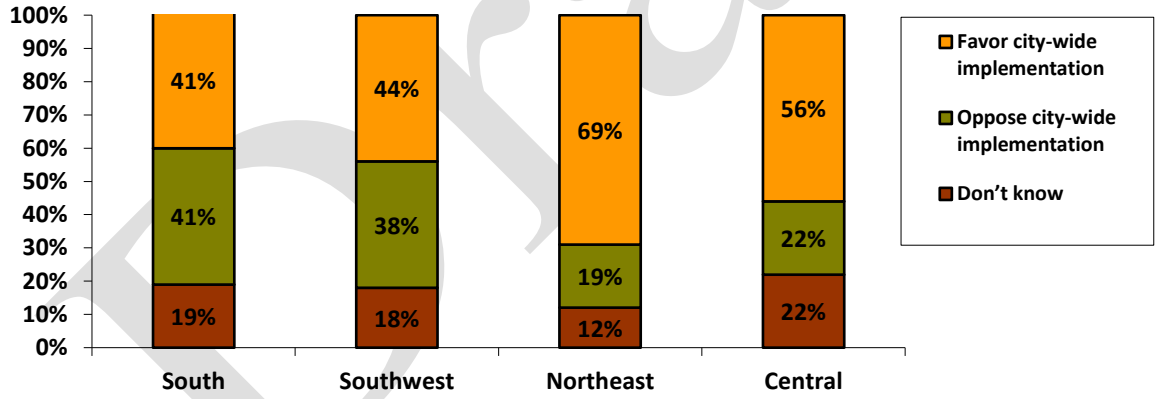
Those dissatisfied with the pilot felt very different. Overall only 2% of those dissatisfied with the pilot were in favor of implementing the every-other-week service level city-wide.

Those who favor city-wide implementation:

- Were more likely to be 55 years of age or older (60% of the older age cohort favor city-wide implementation compared to 50% of those under 55);
- Were more likely to be White and Asian (64% and 48% respectively, compared to 31% of other races);
- Were less likely to live in a household in which someone uses disposable diapers (56% versus 44% of those have diaper usage in the household); and,
- Were more likely to have incomes of $60,000 or more (63% versus 51% of those who have household incomes below $60,000).

As the chart below shows, those living in the Northeast neighborhood were most favorably inclined toward a city-wide rollout of every-other-week garbage collection. Further, those living the Central neighborhood were more favorably inclined than their counterparts living in South and Southwest.

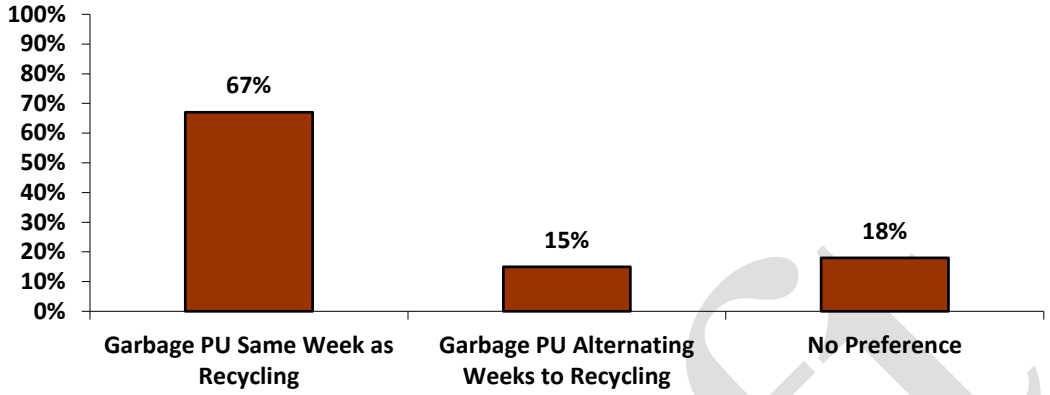
Chart 24: Preference for City-wide Implementation of Every-Other-Week Garbage
(by neighborhood)



As the chart below shows, if garbage is picked up every other week in the future:

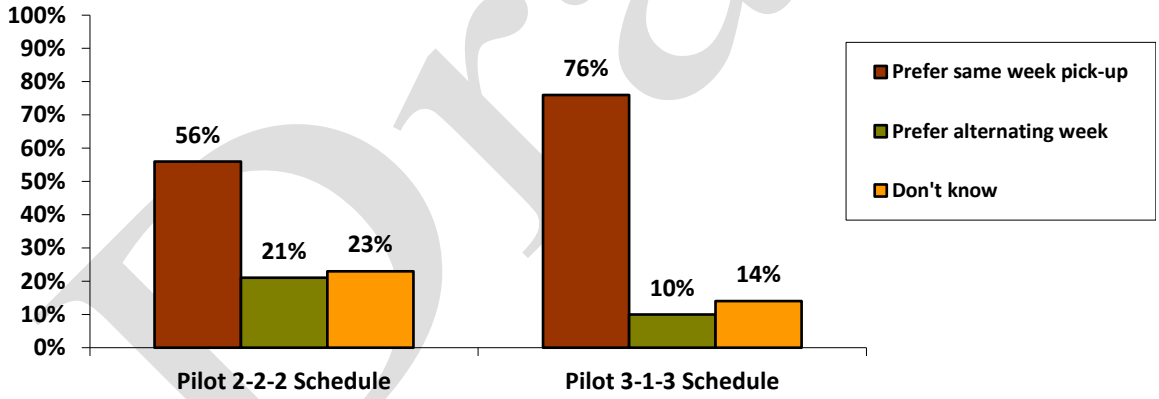
- 67% would prefer that their every-other-week garbage is picked up the same week as their recycling;
- 15% would prefer that their garbage is picked up on alternating weeks to recycling; and,
- 18% do not have a preference.

Chart 25: Preference for Garbage Pick-Up Under City-wide Implementation of EOW



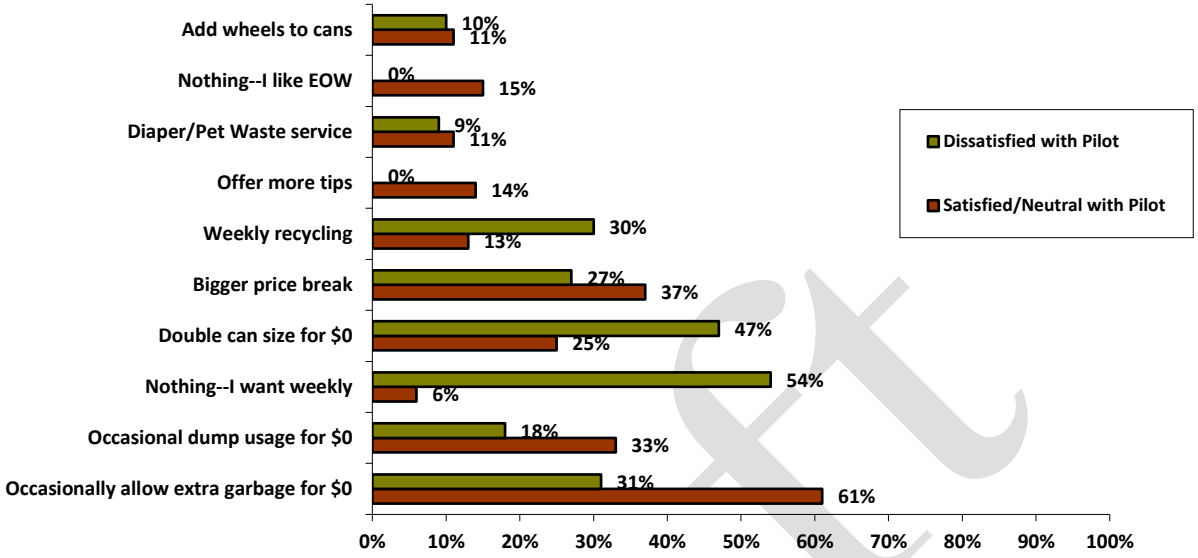
Those currently on the 3-1-3 pick-up schedule (have their garbage and recycling picked up on alternating weeks) are more enthusiastic about having their garbage and recycling picked up on the same week:

Chart 26: Preference for Garbage & Recycling Pick-Up Schedules



A list of suggestions was provided and pilot participants were asked to pick the top three improvements that would increase their satisfaction with every-other-week garbage collection.

Chart 27: Improvements to Increase Satisfaction with EOW Garbage Collection
(by level of satisfaction with the pilot)



As the chart shows, those who are already satisfied say that the city should allow people to set out extra garbage a few times a year without being charged (61%). They also suggest that there be bigger price breaks in the garbage rates (37%) and the ability to use the transfer station a few times a year for free (33%).

Those who are dissatisfied with the pilot say there's nothing the City can do because weekly garbage collection is the solution (54%), that the City should double the size of everyone's garbage can and not charge any more money (47%), that the City should allow people to set out extra garbage at no charge (31%) and that the City should switch to a weekly recycling collection schedule (30%).

Appendix A

Demographic and Behavioral Characteristics of Neighborhood Respondents

OLT Interim Survey
Unweighted Demographic Data by Neighborhood

		South	Southwest	Northeast	Central
Age	18 to 34 years	12%	12%	4%	4%
	35 to 54 years	55%	52%	44%	34%
	55 to 64 years	21%	15%	33%	41%
	65 years or older	9%	6%	16%	20%
	No answer	3%	15%	3%	2%
Race	White only	39%	58%	88%	76%
	Black	15%	4%	0%	7%
	Asian	33%	13%	4%	9%
	Other	4%	4%	0%	0%
	No answer	9%	21%	8%	9%
Hispanic, Latino Origin	Yes	3%	2%	1%	0%
	No	91%	73%	92%	88%
	No answer	6%	25%	7%	12%
Primary Language	English	67%	75%	96%	96%
	Vietnamese	27%	6%	0%	0%
	Chinese (etc.)	0%	0%	1%	0%
	Other	0%	6%	0%	2%
	No answer	6%	13%	3%	2%
Owner Occupied	Yes	100%	94%	93%	95%
	No	0%	6%	7%	5%
Number in Household	One	18%	13%	16%	15%
	Two	21%	46%	46%	38%
	Three	24%	10%	11%	25%
	Four	18%	13%	19%	16%
	Five or more	15%	8%	5%	4%
	No answer	4%	10%	3%	2%
Income	< $50,000	31%	24%	13%	10%
	$50 - $75,000	28%	19%	11%	9%
	$75,000 +	18%	25%	44%	53%
	No answer	23%	32%	32%	28%

OLT Post Survey
Unweighted Demographic Data by Neighborhood

		South	Southwest	Northeast	Central
Age	18 to 34 years	13%	14%	4%	9%
	35 to 54 years	37%	56%	45%	29%
	55 to 64 years	21%	13%	30%	36%
	65 years or older	23%	14%	17%	26%
	No answer	6%	3%	4%	0%
Race	White only	50%	60%	83%	70%
	Black	10%	2%	0%	9%
	Asian	22%	18%	4%	12%
	Other	5%	3%	0%	0%
	No answer	13%	17%	13%	9%
Hispanic, Latino Origin	Yes	8%	0%	0%	2%
	No	83%	78%	87%	93%
	No answer	9%	22%	13%	5%
Primary Language	English	63%	78%	94%	96%
	Vietnamese	21%	10%	0%	2%
	Chinese (etc.)	4%	0%	0%	0%
	Other	6%	2%	0%	0%
	No answer	6%	10%	6%	2%
Owner Occupied	Yes	93%	85%	90%	93%
	No	7%	11%	10%	7%
	No answer	0%	4%	0%	0%
Number in Household	One	14%	17%	16%	16%
	Two	37%	46%	46%	51%
	Three	13%	9%	10%	11%
	Four	15%	16%	20%	18%
	Five or more	15%	10%	4%	2%
	No answer	6%	2%	4%	2%
Diapers:	None	79%	83%	89%	87%
	One	12%	8%	6%	11%
	Two or more	2%	5%	1%	2%
	No answer	7%	4%	3%	0%

OLT Post Survey
Unweighted Demographic Data by Neighborhood

		South	Southwest	Northeast	Central
Dogs/Cats	None	65%	37%	35%	56%
	One	15%	22%	37%	22%
	Two	4%	17%	21%	13%
	Three or more	6%	16%	3%	9%
	No answer	10%	8%	4%	0%

Income	< $50,000	40%	35%	17%	7%
	$50 - $75,000	21%	14%	10%	6%
	$75,000 +	12%	25%	41%	67%
	No answer	27%	26%	32%	20%