



WARD RESEARCH
I N C O R P O R A T E D

Tracking Participation In and Attitudes Toward the HI-5 Deposit Beverage Container Recycling Program

--- A Telephone Survey among Hawaii Residents ---

Prepared for:

THE STATE OF HAWAII DEPARTMENT OF HEALTH
and
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April 2008

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Executive Summary

This summarizes results from a telephone survey of 701 statewide residents, including a) 400 Oahu residents and; b) approximately 100 each on Maui, the Big Island, and Kauai, conducted February 15 to March 19, 2008. The objective was to track participation in the HI-5 program. The maximum sampling error for n=701 is +/-3.6% at the 95% confidence level; n=400 is +/-4.8% at the 95% confidence level, and for samples of 100, +/-9.7%.

Participation in HI-5 Program

- Reported levels of participation in the HI-5 program increased. Three-fourths of residents (77%), compared to two-thirds in 2006 (65%), reported redemption activity, either personally redeeming containers or donating them to non-profits. Considering that awareness of the program is very high --- over 90% of residents statewide have reportedly heard of HI-5 --- there is still room to expand participation.
- Three in five residents personally redeemed containers at redemption centers, a significant increase from 2006 (up 10 percentage points to 60%). Of those who did not, 27% felt that it was “too much of a hassle” and 35% preferred to give their containers to others, including to schools.
- In 2006, residents were split down the middle in their opinion of HI-5, with half perceiving it positively and the other half with either neutral or negative perceptions. In 2008, the proportion of residents who reported positive opinions of HI-5 surpassed the 50% threshold to 60%, indicating that the public may have become more convinced of the program’s benefits.
- There is, however, still room for improvement: less than two in five respondents acknowledged that the HI-program improved at least a little in the past year (37%).

Executive Summary

- In promoting the benefits of HI-5, greater focus may be placed on Oahu, as HI-5 appears more successful on the Neighbor Islands. On Oahu, 57% of residents (compared to 68% on the Neighbor Islands) reported personal redemptions and 55% (compared to 73%) viewed the program positively.

Patterns of Redemption

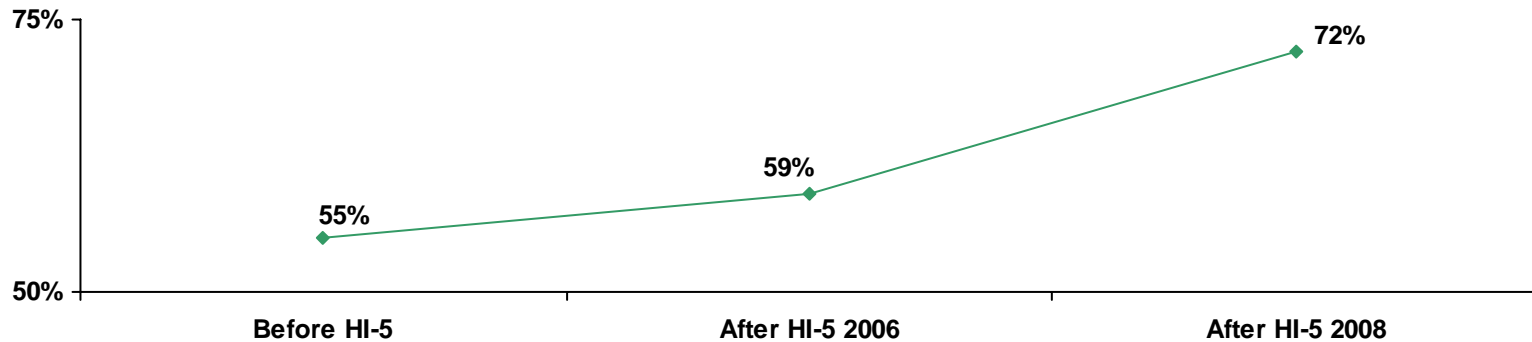
- Survey results generally showed infrequent redemption visits by participants, overwhelming usage of staffed over automated centers, and a willingness on the part of many --- Neighbor Island residents in particular --- to travel beyond their immediate vicinity to redeem containers.
- Frequency of visits is less than what it was in 2006. One-half of respondents (52%) said that they redeem containers at redemption centers less than once a month, compared to 41% in 2006. The average redemption amount per visit increased slightly, from \$24 in 2006 to \$27 currently.

Perception of the Redemption Process

- Residents who personally redeem containers at CRC locations were asked to rate their satisfaction with aspects of the center they normally use. Seven aspects of redemption center were tested: convenience of the recycling center, efficiency of processing, wait time of processing, overall ease of use and redemption, customer service at redemption, hours of operation, and accuracy of redemption. All seven aspects of redemption centers tested in the survey received top marks (8, 9, or 10 where 10=extremely satisfied and 1=extremely dissatisfied) from at least half of all participants.
- Findings indicate perceived improvement, based on significant increases in satisfaction, in wait time for processing and hours of operation.
- Improvements still need to be made (or communicated) in accuracy of redemption, as average levels of satisfaction with this significantly decreased.
- When respondents were asked how much of the redemption center they normally use changed in the past year, 66% of them said that it “worsened a little.”

Executive Summary

- In conclusion, findings indicate that the HI-5 program is making considerable progress. Respondents generally have a more positive opinion of redemption centers and the program overall. The proportion of residents who redeem their containers at designation locations has increased. In addition, findings indicate that the HI-5 program has made progress in increasing recycling activity among residents, increasing from 55% prior to the HI-5 program to a reported 72% currently.



Background and Objectives

The overall objective of the study was:

TO MEASURE RESIDENT PARTICIPATION IN THE HI-5 DEPOSIT BEVERAGE CONTAINER RECYCLING PROGRAM AND TO DETERMINE KEY DEMOGRAPHIC DIFFERENCES LINKED TO PARTICIPATION.

This is the second part of the study. The first part was conducted in 2006, about one year after the State Department of Health (DOH) launched the HI-5 Deposit Beverage Container Recycling Program.

Specifically, the research sought to answer these questions:

- ✓ *How did recycling/redemption behaviors change, three years after the launch of HI-5?*
- ✓ *What are current resident population estimates and demographic profiles for a) those who recycle and redeem their HI-5; b) those who recycle but do not redeem their HI-5; c) those who recycle and donate their HI-5; d) those who do not recycle/redeem their HI-5?*
- ✓ *What are current resident perceptions of the HI-5 campaign?*
- ✓ *What are current levels of satisfaction with the HI-5 program? Any suggestions for improvement?*

Methodology

- A telephone survey was conducted February 15 to March 19, 2008, among n=701 Hawaii residents including a) n=400 Oahu residents; and b) approximately 100 each on Maui, the Big Island, and Kauai.
- The maximum sampling error for a sample of n=701 is +/-3.6% at the 95% confidence level, and for samples of 400, +/-4.8%, and 100, +/-9.7%.
- The research firm oversampled residents on the Neighbor Islands in order to gain more reliable data for reporting each county's results. In reporting statewide data, the data from each county was weighted in proportion to the state population. In addition, in the telephone phase, the research firm established quotas to obtain a representative balancing by gender and ethnicity in each county.
- The resulting data, then, was weighted to correct an under-representation of adults 18-34, as determined by the U.S. Census.
- All survey questions were designed by Hastings & Pleadwell, in consultation with the Office of the Governor, the Department of Health, and the research firm. The questions asked were similar to those in 2006. A copy of the survey instrument is in the Appendix.
- All interviews were conducted from the Calling Center in the downtown Honolulu offices of Ward Research; which allows for the 100% monitoring of all calls through personal observation and electronic monitoring.
- Data processing was accomplished using SPSS for Windows, an in-house statistical software package, which allows for the cross tabulation of data by key variables such as island of residence, Oahu region of residence (for Oahu respondents), ethnic background, age, and household income.
- Where applicable, data from the 2006 survey was used to track any changes over time.

Methodology

- The next sections discuss survey results based on both a) statewide data; and b) data by county, in addition to other relevant differences seen between demographic segments.
- Statistical banner tables follows the narrative, presenting full study cross tabulation data. In the banner tables, cross tabulation data significant at the $p \leq .05$ level has been outlined for easy review of statistically significant findings.
- In the following text, “residents” refers to Hawaii adult respondents to the survey. “Participants” refer to those who reported redeeming containers via the HI-5 program.

Profile of Respondents

Profile of Respondents

	Total		Island: 2008			
	2006	2008	Oahu	Maui	Big Island	Kauai
Island						
Oahu	73%	73%	100%	0%	0%	0%
Maui County (Maui, Molokai, Lanai)	11	10	0	100	0	0
Hawaii (Big Island)	12	12	0	0	100	0
Kauai	5	5	0	0	0	100
Registered to Vote						
Yes	---	76	77	69	75	78
No	---	24	23	29	23	22
Don't know/refused	---	0	0	2	2	0
Length of Hawaii Residence						
Less than 2 years	3	3	3	3	4	4
2 to less than 5 years	8	6	6	3	6	5
5 to less than 10 years	7	4	3	7	10	10
10 or more years	30	37	38	38	34	33
Born and raised in Hawaii	52	49	50	50	46	48
Base =	(709)	(701)	(400)	(101)	(100)	(100)

Profile of Respondents

	Total		Island: 2008			
	2006	2008	Oahu	Maui	Big Island	Kauai
Age						
18 to 24 years	12%	13%	13%	10%	11%	10%
25 to 34 years	18	19	20	19	15	16
35 to 44 years	21	21	21	23	21	21
45 to 54 years	18	19	18	21	22	22
55 to 64 years	11	12	11	12	13	13
65+ years	17	18	18	15	18	19
Refused	2	0	0	0	0	0
MEAN	45.41	45.43	44.96	45.64	47.15	47.80
Ethnicity						
Caucasian	27	25	21	35	37	30
Chinese	5	6	9	0	1	1
Filipino	17	18	17	12	25	25
Hawaiian/part-Hawaiian	19	20	18	33	18	23
Japanese	17	17	19	12	8	18
Mixed	5	8	9	3	6	3
Other	8	4	5	5	5	1
Don't know/refused	2	2	3	0	1	0
Base =	(709)	(701)	(400)	(101)	(100)	(100)

Profile of Respondents

	Total		Island: 2008			
	2006	2008	Oahu	Maui	Big Island	Kauai
Household Income						
Under \$25,000	15%	11%	10%	17%	13%	14%
\$25,000 – but under \$35,000	11	9	8	11	10	12
\$35,000 – but under \$50,000	13	14	12	20	25	17
\$50,000 – but under \$75,000	18	21	23	12	22	15
\$75,000 – but under \$100,000	13	9	9	11	5	9
\$100,000 and above	12	19	21	14	9	17
Don't know/refused	18	17	17	15	15	15
Gender						
Male	50	48	46	48	52	50
Female	50	52	54	52	48	50
Base =	(709)	(701)	(400)	(101)	(100)	(100)

Awareness of the HI-5 Program

Awareness of the HI-5 Program

- Awareness of the HI-5 program remains very high. Similar to 2006, more than nine in ten residents (92%) said that they had heard of HI-5.



By Island

- Differences between the counties were not found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.
- Reported awareness of the program is over 90% in all counties.

	% "Yes"			
	Oahu	Maui	Big Island	Kauai
Have you heard of a State Department of Health program called the HI-5 Deposit Beverage Container Recycling Program, also known as The Bottle Bill?	91%	95%	93%	92%
Base =	(400)	(101)	(100)	(100)

Q: Have you heard of a State Department of Health program called the HI-5 Deposit Beverage Container Recycling Program?

(2006: n=709; 2008: n=701)

Awareness of the HI-5 Program

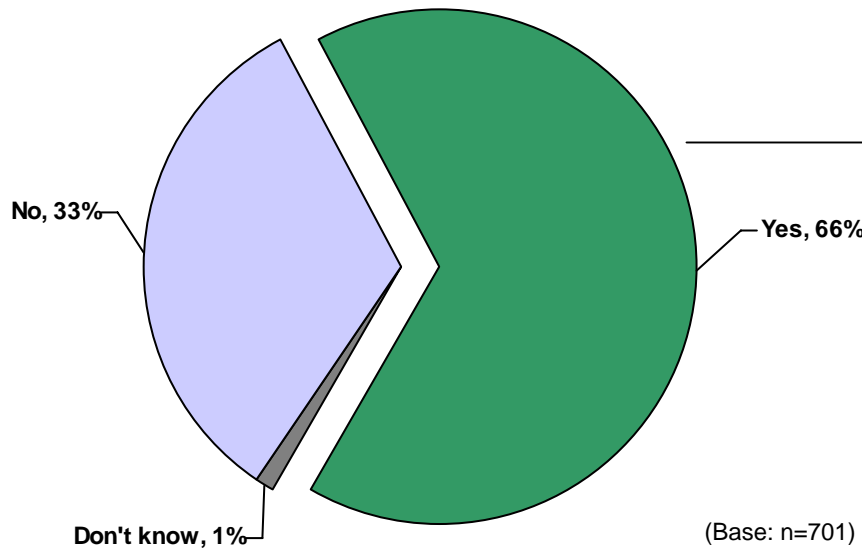
Other Subsamples*

- Statewide, more Japanese (97%) and Caucasian (93%) residents than Filipino (89%) or Hawaiian (89%) said that they had heard of HI-5.
- Residents younger than 35 (95%) or 35 to 54 (93%) were more likely to have heard of HI-5 than were residents 55+ (86%).
- Participants from households earning \$75,000+ were more likely to have heard of HI-5 than those in other income groups.

*Differences between these resident segments were found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.

Recall of HI-5 Program Information

- Two in three residents reportedly had heard, read, or seen something about HI-5 in the past year (66%). Newspapers topped the list of sources given by these respondents about HI-5 (67%); television was a distant second (22%), then radio (20%).



Q: Thinking just of the past year, have you heard, read, or seen anything about the HI-5 program?
 Q: Where did you read, hear, or see something about the HI-5 program?

Recall of HI-5 Program Information

By Island

- Across the state, recall of information about the HI-5 program is high, with at least two-thirds of residents reporting recall of information about the program.

	% "Yes"			
	Oahu	Maui	Big Island	Kauai
Thinking just of the past year, have you heard, read, or seen anything about the HI-5 program?	65%	73%	67%	67%
Base =	(400)	(101)	(100)	(100)

Other Subsamples*

- Residents younger than 35 (66%) and 35 to 54 (71%) indicated greater recall of information about the HI-5 program than did residents 55+ (60%).
- Among Oahu respondents, those living on the Leeward Coast were more likely to have heard, read, or seen anything about the HI-5 program than were other respondents on Oahu.

*Differences between these resident segments were found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.

Attitudes Toward the HI-5 Program

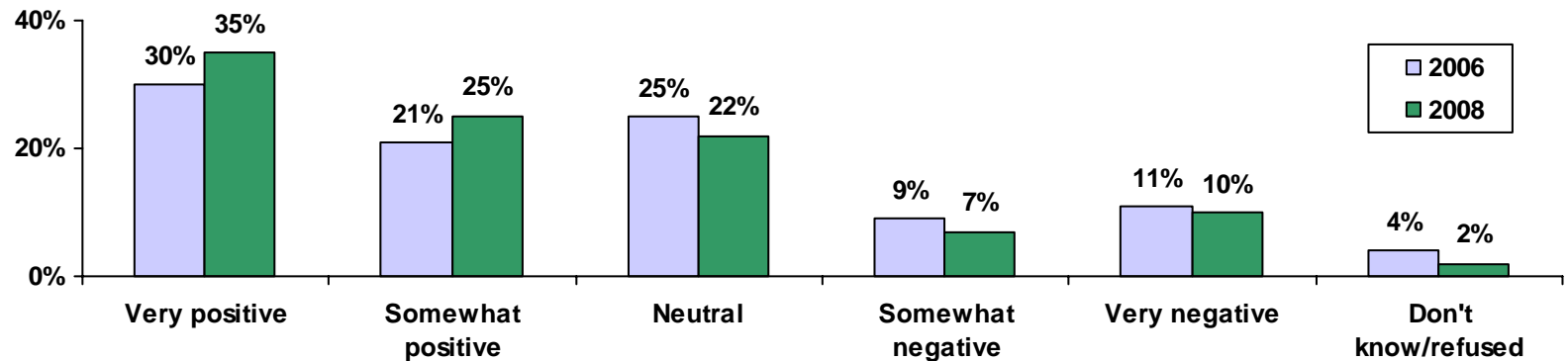
Overall Opinion of the HI-5 Program

The HI-5 program was described this way to residents:

The Department of Health runs a program called “HI-5” in which residents pay a 5 cent deposit, and a 1 cent handling fee, on purchases of beverage containers and can return the containers to designated redemption centers to receive back 5 cents per container.

They were then asked, “Based on anything you’ve heard or from your experience, is your overall opinion of the HI-5 program positive, negative, or neutral? And is that very positive, somewhat positive, somewhat negative, or very negative?”

- Resident opinions of HI-5 were more favorable this year than they were in 2006. Three-fifths (60%) of respondents, compared to one-half in 2006 (51%), said they were either very positive or somewhat positive toward HI-5.



Overall Opinion of the HI-5 Program

By Island

- Neighbor Island residents reported more positive opinions of the HI-5 program than did Oahu residents.

	Oahu	Maui	Big Island	Kauai
Very positive	30%	52%	47%	48%
Somewhat positive	25	28	22	18
Neutral	23	10	22	20
Somewhat negative	8	4	6	4
Very negative	11	5	2	8
Don't know	3	0	0	1
Base =	(400)	(101)	(100)	(100)

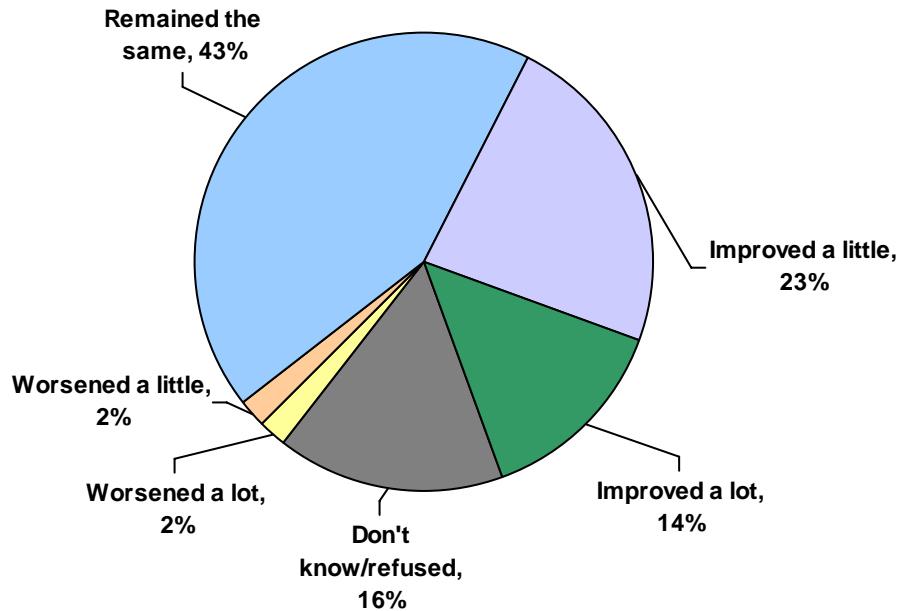
Other Subsamples*

- Smaller proportions of residents 55+ and those from households earning \$35,000 to \$75,000 annually reported favorable opinions of HI-5 than did their counterparts.
- Among Oahu residents, those in Urban Honolulu reported more favorable opinions of HI-5 than did residents living in other areas.

*Differences between these resident segments were found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.

Overall Opinion of the HI-5 Program

- More than two in five respondents (43%) said that the HI-5 program neither improved nor worsened in the past year, feeling that it stayed the same.
- A comparable proportion (37%), however, disagreed and said that it improved at least a little. The greatest change in the program, according to these respondents: there are more choices now than there were before (17%) and more redemption sites (14%).



(Base = 701)

Greatest Change in the Program	
More choices (i.e., counting vs. weighing)	17%
More redemption center sites, locations	14
More efficient/better organized centers	12
Better customer service	9
Increased awareness of the program	8
Less time in line/less wait time	5
Longer hours/more days open	4
Base =	(286)

Q: Over the past year, would you say that the HI-5 program has improved a lot, improved a little, remained the same, worsened a little, or worsened a lot?

Q: What is the ONE greatest change in the program that you have experienced so far?

Overall Opinion of the HI-5 Program

By Island

- Neighbor Island residents indicated greater improvement in the HI-5 program than did Oahu residents.

	Oahu	Maui	Big Island	Kauai
Improved a lot	11%	27%	21%	18%
Improved a little	23	25	21	26
Remained the same	44	35	44	45
Worsened a little	2	0	3	2
Worsened a lot	2	1	1	0
Don't know/refused	18	12	11	9
Base =	(400)	(101)	(100)	(100)

Other Subsamples*

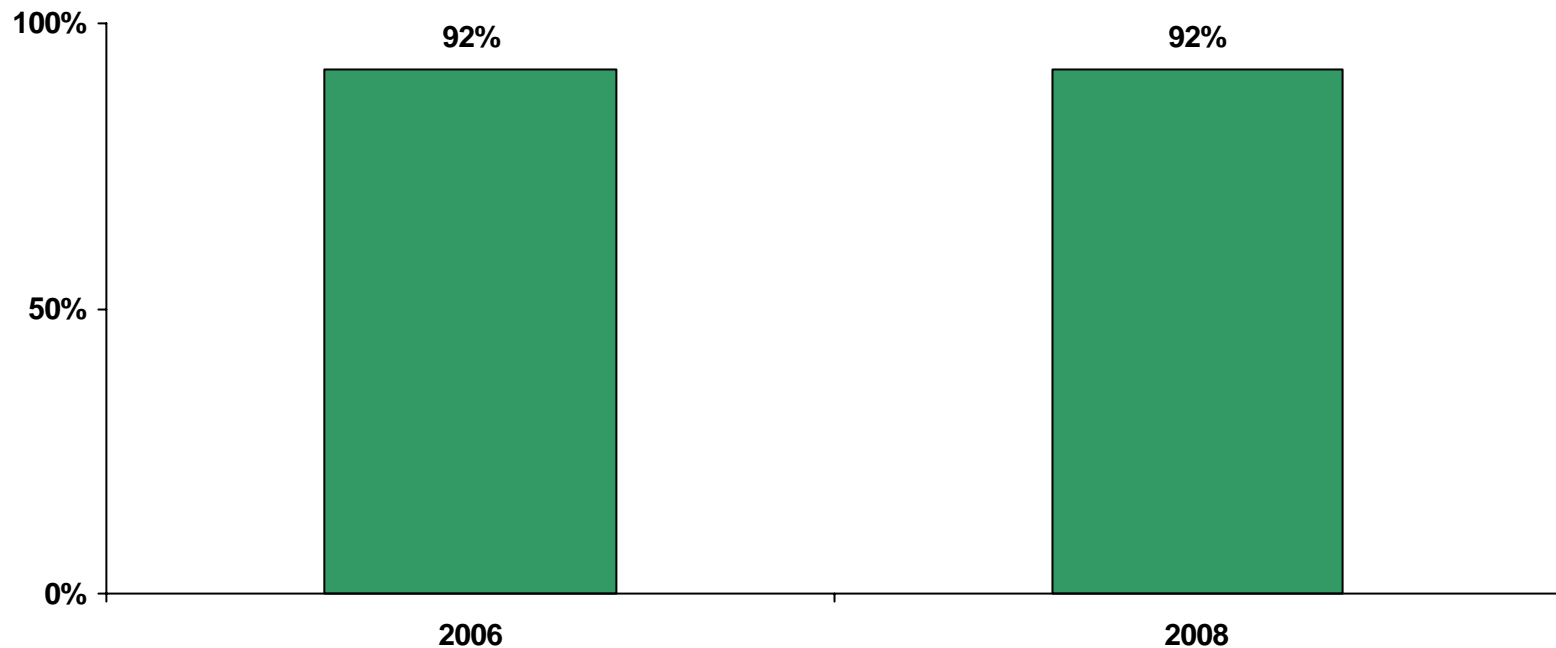
- Hawaiians (50%) and Filipinos (45%) saw greater improvement in the HI-5 program than did Caucasian (32%) and Japanese residents (30%).

*Differences between these resident segments were found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.

Recycling Behavior

Consumption

- A reported nine in ten residents (92%) regularly purchase beverages sold in glass or plastic bottles or in aluminum cans.



Q: Do you regularly purchase beverages sold in glass or plastic bottles or in aluminum cans?

(2006: n=709; 2008: n=701)

Recycling Behavior

In order to determine recycling behavior, residents were asked:

In the past year, have you a) taken your containers to a City & County white recycle bin; b) donated or given your containers to non-profit organizations; c) redeemed your containers for 5 cents per item specifically at a City Redemption Center (CRC) location.

- Consistent with 2006, residents were less likely to have donated or given containers to non-profit groups than taken containers to a City & County white recycle bin or personally redeemed containers at CRC locations for recycling.
- Direct participation in the HI-5 program significantly increased from 2006. Three in five residents reported personally redeeming containers at CRC locations in the past year (up 10 points to 60%). Two in five residents did not participate directly in the program, reportedly.
- The proportion of residents who said that they have taken their containers to a City & County white recycle bin is consistent with 2006 (47%).
- Nearly two-fifths of residents (38%), compared to one-third in 2006 (32%), have reportedly donated or given their containers to non-profit organizations in the past year.

	% Yes	
	2006	2008
Donated or given your containers to non-profit organizations	32%	38%
Taken your containers to a City & County white recycle bin	47%	47%
Personally redeemed containers for 5 cents per item specifically at a Redemption Center location	50%	60%

*Note: Multiple "yes" responses possible.

Recycling Behavior: Unduplicated

- Altogether, 82% of all residents statewide said they have taken their containers to a City & County white recycle bin, donated, or have personally redeemed their containers at CRC locations for recycling. This is a 12 percentage point increase from 2006, when 70% of residents reported the same behavior.
- More than three-fourths of all residents statewide redeemed containers (77%), either personally redeeming them or donating them to non-profit groups for redemption, also an increase from 2006 (65%).
- One in five residents (18%) said that, in the past year, they did not take their containers to a City & County white recycle bin, donate their containers to non-profits groups, or personally redeem their containers at CRC locations for recycling.

Recycling Behavior: Unduplicated

Taken containers to a City & County white recycle bin <u>and</u> personally redeemed containers for 5 cents per item at a Redemption Center location	21%	<p>82% of all respondents returned or donated containers for recycling purposes</p>	<p>77% of all respondents redeemed containers, either personally redeeming them or donating them to non-profits for redemption</p>
Taken containers to a City & County white recycle bin <u>and</u> donated or given containers to non-profit organizations <u>and</u> personally redeemed containers for 5 cents per item at a Redemption Center location	17%		
Personally redeemed containers for 5 cents per item at a Redemption Center location <u>only</u>	15%		
Donated or given containers to non-profit organizations <u>only</u>	10%		
Donated or given containers to non-profit organizations <u>and</u> personally redeemed containers for 5 cents per item at a Redemption Center location	8%		
Taken containers to a City & County white recycle bin <u>and</u> donated or given containers to non-profit organizations	7%		
Taken containers to a City & County white recycle bin <u>only</u>	5%		
Have <u>not</u> taken containers to City & County white recycle bin <u>or</u> donated or given containers to non-profit organizations <u>or</u> personally redeemed containers for 5 cents per item at a Redemption Center location	18%		
Total	100%		

Q: In the past year, have you a) taken your containers to a City & County white recycle bin; b) donated or given your containers to non-profit organizations; c) redeemed your containers for 5 cents per item specifically at a Redemption Center location?

(Base = 701)

Recycling Behavior

By Island

- Based on subsample analysis, Big Island residents (66%) were more likely than residents on Maui (56%), Oahu (43%), or Kauai (43%) to have taken containers to a City & County white recycle bin in the past year. Differences between the counties were found to be statistically significant at the $p \leq .05$ level.
- Also statistically significant: Neighbor Island residents (68%) were more likely than Oahu residents (57%) to have personally redeemed their containers at CRC locations in the past year.

	Oahu	Maui	Big Island	Kauai
Donated or given your containers to non-profit organizations	37%	42%	42%	36%
Taken your containers to a City & County white recycle bin	43%	56%	66%	43%
Personally redeemed containers for 5 cents per item specifically at a Redemption Center location	57%	68%	70%	62%

Other Subsample Analysis*

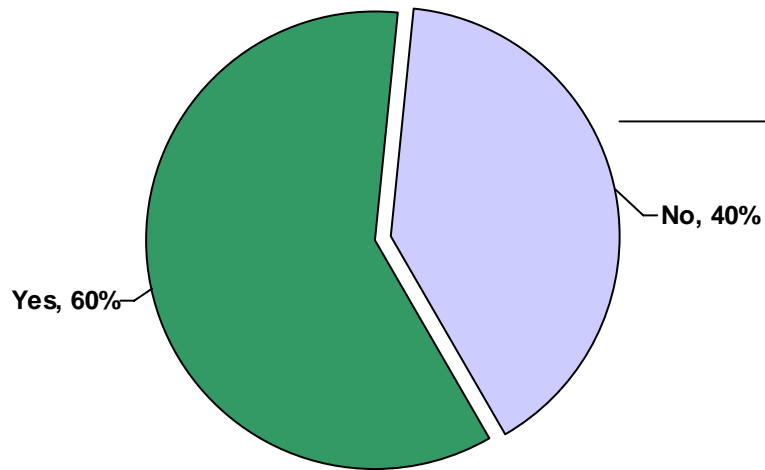
- Statewide, more Filipino residents (76%) than Japanese (68%), Hawaiian (66%), or Caucasian (52%) reported redeeming containers at CRC locations in the past year.
- More residents under 35 and adults 35 to 54 reported taking containers to a City & County white recycle bin or redeeming containers at CRC locations in the past year than did residents 55+.
- Residents from households earning \$75,000+ annually were more likely than those in other income groups to have donated or given containers to non-profit organizations in the past year and were less likely than other income groups to have personally redeemed containers at CRC locations.

* Differences between these resident segments were found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.

Recycling Behavior

- Recall that two in five residents statewide (40%) said they did not redeem their containers at CRC locations in the past year. The chief reason for not doing so was that redeeming “is just too much of a hassle.” One in five (21%) also said that they prefer to give away their containers to others (in general) and one in ten (10%) prefer to donate to schools (in particular).

Redeem Containers at CRC Locations



(Base = 701)

Top 5 reasons for not redeeming containers at CRC locations	
Too much hassle, bother	27%
Prefer to give away containers	21
Do not recycle	10
Prefer to donate to schools	10
Do not have enough to redeem	8
Base =	(281)

Q: Why don't you go to designated redemption centers where you can redeem containers for 5 cents each?

Reasons for Recycling

- Nearly three in ten residents who reported either taking containers to City & County white recycle bins, donating, or redeeming containers said that they recycle containers to collect the 5 cent per container fee, in response to “What is your primary reason for recycling your containers?”
- The top reason cited, however, was that recycling benefits the environment (30%). Residents who answered this way were asked, “In what way does recycling benefit the environment?” In response, most feel that recycling reduces waste (57%).

Reasons for Recycling	2006	2008
Benefit the environment	35%	30%
Collect the 5 cent per container fee	25	28
For conservation purposes/to minimize waste	20	22
Get rid of or remove empty containers from your home	11	11
Help non-profit organizations to raise money	7	7
Other	3	2
Don't know	1	1
Base =	(499)	(559)



How recycling benefits the environment	2006	2008
Doesn't fill up landfills/less waste	35%	57%
Use less natural resources	41	36
To cut down on rubbish	31	13
To keep the environment clean	18	6
To save energy	4	2
Other	7	6
Don't know/refused	2	2
Base=	(172)	(165)

Patterns of Redemption Using the HI-5 Program

Patterns of Redemption Using the HI-5 Program

Recall that 60% of respondents statewide reportedly redeemed containers at CRC locations in the past year. They were asked these questions, in order to ascertain the manner in which they used the redemption system:

- ✓ In the past year, how often did you recycle your containers, that is, take them to a designated redemption center?
- ✓ Do you usually go to a) an automated redemption center with the machines; b) a staff redemption center with employees who handle the redemption for you; or c) a staffed redemption center with employees and reverse vending machines?
- ✓ If you go to staffed centers, how do they calculate the amount? Do they 1) weigh your containers; 2) count them; 3) both weigh and count the containers; or 4) take your word for it?
- ✓ About how far do you usually have to travel to reach the redemption center?
- ✓ In your best estimate, about how much do you get back each time you redeem your containers, on average?

Profile of Participants

	Personally Redeem Containers	
	Yes	No
Island		
Oahu	69%	78%
Maui County (Maui, Molokai, Lanai)	12	8
Hawaii (Big Island)	14	9
Kauai	5	4
Registered to Vote		
Yes	76	76
No	23	24
Don't know/refused	1	0
Length of Hawaii Residence		
Less than 2 years	3	4
2 to less than 5 years	3	9
5 to less than 10 years	3	6
10 or more years	37	39
Born and raised in Hawaii	54	42
Base =	(420)	(278)

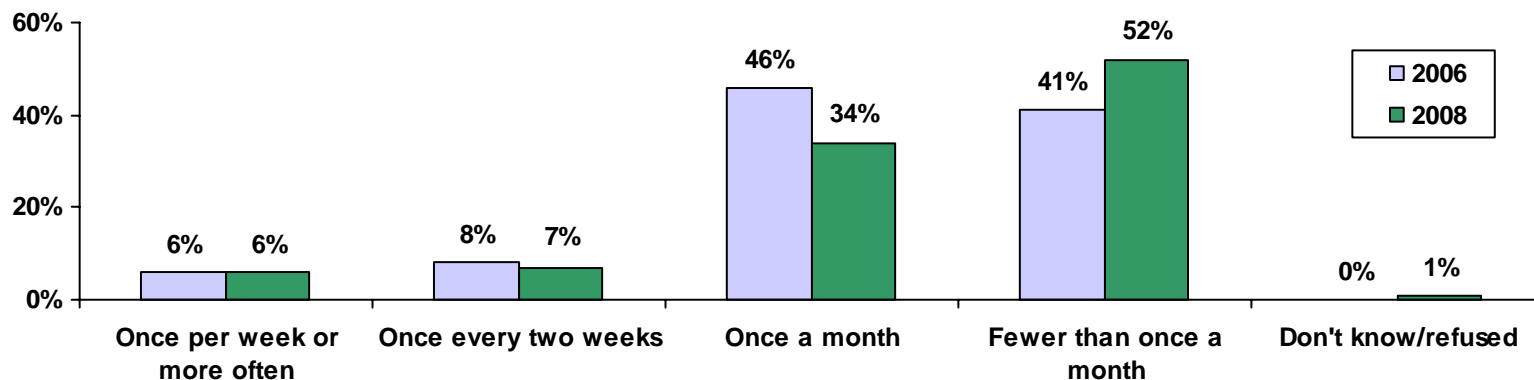
	Personally Redeem Containers	
	Yes	No
Household Income		
Under \$25,000	11%	11%
\$25,000 – but under \$35,000	10	6
\$35,000 – but under \$50,000	15	13
\$50,000 – but under \$75,000	22	21
\$75,000 – but under \$100,000	10	8
\$100,000 and above	15	25
Don't know/refused	17	17
Gender		
Male	43	55
Female	57	45
Base =	(420)	(278)

Profile of Participants

	Redeem Containers	
	Yes	No
Age		
18 to 24 years	16%	7%
25 to 34 years	19	17
35 to 44 years	21	21
45 to 54 years	20	17
55 to 64 years	12	12
65+ years	12	26
Refused	0	0
MEAN	43.36	48.74
Ethnicity		
Caucasian	21	30
Chinese	4	10
Filipino	23	10
Hawaiian/part-Hawaiian	22	17
Japanese	19	14
Mixed	6	9
Other	3	7
Don't know/refused	1	3
Base =	(420)	(278)

Frequency of Redemption

- Reported trips to recycle containers at CRC locations were even more infrequent than in 2006. More than one-half of participants said that they redeemed containers at CRC locations fewer than once a month last year (52%), compared to two in five reported in 2006 (41%).



By Island

- No significant differences emerged in frequency of redemption between the counties.
- 44% of Neighbor Island participants reportedly redeemed containers at CRC locations less often than once a month last year, compared to 55% of Oahu residents.

Other Subsample Analysis*

- Two-thirds of Japanese participants (66%) reportedly redeemed containers at CRC locations fewer than once a month last year, compared to one-half of Hawaiian (52%) and Filipino (51%) participants, and even fewer Caucasian (40%) participants.

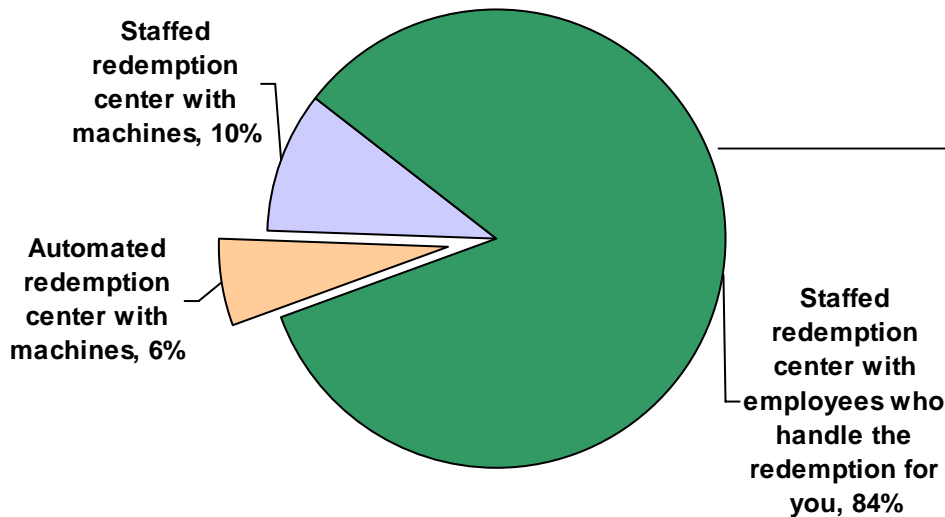
*Differences between these resident segments were found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.

Q: In the past year, how often did you recycle your containers, that is, taken them to a designated redemption center?

(2006: n=356; 2008: n=420)

Type of Redemption Center

- Participants overwhelmingly chose to visit fully staffed redemption centers. More than four in five participants (84%) said that they usually go to a staffed redemption center with employees who handle the redemption for them.
- Relatively few participants reported visiting staffed redemption centers with machines (10%) or an automated redemption center with machines (6%).
- According to the 94% of participants who visited staffed redemption centers, the top means of valuing containers consisted of weighing them (58%) or both weighing and counting them (26%).



(Base = 420)

Calculation of Amount	
Weigh your containers	58%
Both weigh and count containers	26
Count them	9
Take your word for it	7
Don't know	1
Base =	(396)

Q: Do you usually go to an automated redemption center with machines, a staffed redemption center with employees who hand the redemption for you, or a staffed redemption center with employees and Reverse Vending Machines.

Q: At the staffed centers, how do they calculate the amount?

Type of Redemption Center

By Island

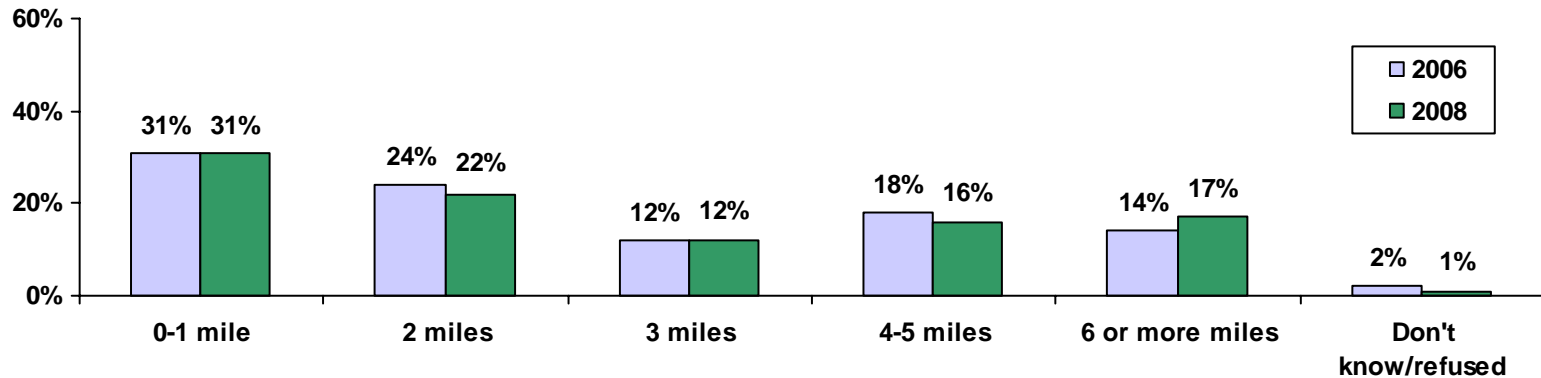
- Neighbor Island participants indicated greater usage of “a staffed redemption center with employees who handle the redemption for you” (93%) than did participants on Oahu (80%).
- 13% of Oahu participants, compared to 4% in Neighbor Islands, said that they usually go to a staffed redemption center with machines.

Other Subsamples

- 10% of participants younger than 35 said that they usually go to an automated redemption center with machines, compared to 4% of participants 35 to 54 and 3% of participants 55+.
- Compared to other participants on Oahu, participants on the Leeward coast and East Honolulu indicated greater usage of staffed redemption centers with employees who handle redemptions for them.

Distance Traveled

- Over one-half of HI-5 participants reported visiting CRC locations within two miles of their home (53%, comparable to 2006). Others reported traveling 3+ miles to redeem containers, including 17% who reported traveling 6+ miles for redemptions.



By Island

- The average distance traveled by participants on the Big Island (9.12) was significantly greater than distances traveled by Kauai (6.75), Maui (4.92), and Oahu (2.76) participants.
- Neighbor Island participants, overall, (7.11) traveled far greater distances to redeem their containers than did Oahu participants (2.76).

Other Subsamples*

- Interestingly, Caucasian participants reported traveling more miles to redeem their containers (5.79) than did Hawaiian (4.92), Japanese (2.85), and Filipino (2.85) respondents. (Recall that lower proportions of Caucasians reported participating in the program, as well.)

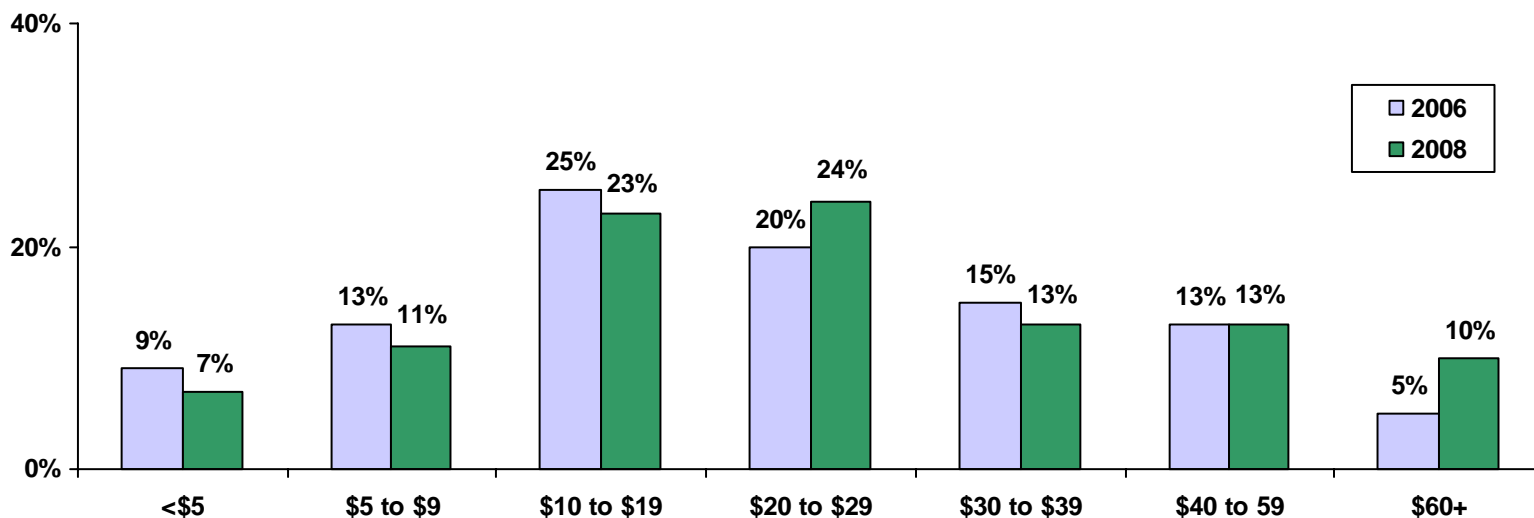
*Differences between these resident segments were found to be statistically significant at the $p \leq .05$ level, based on tests of statistical significance.

Q: About how many miles do you usually travel to reach the redemption center?

(2006: n=356; 2008: n=420)

Amount Received

- Two-thirds of participants reported getting back less than \$30 per visit (65%), similar to 2006 (67%).
- The average redemption amount per visit increased, slightly, from \$24 in 2006 to \$27.



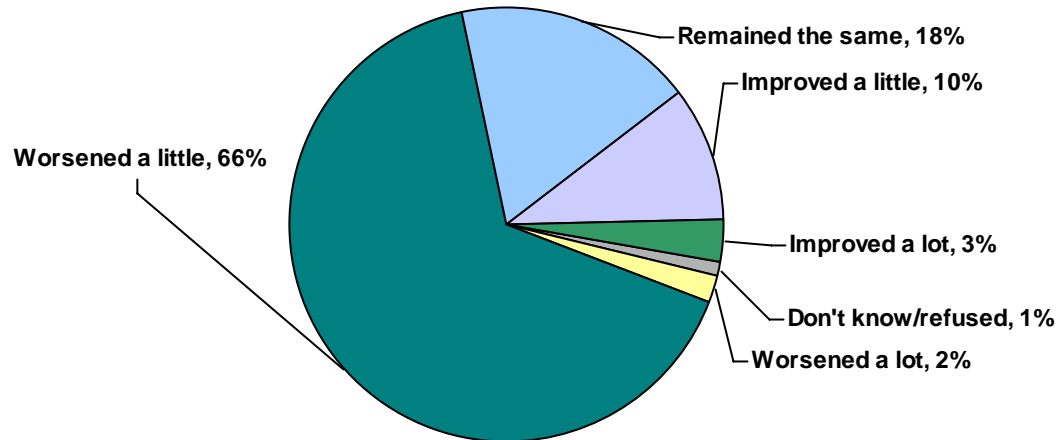
By Island

- The average redemption amount reported by Kauai participants (\$51) was nearly double that of Oahu (\$26), Big Island (\$27), and Maui (\$22) participants.

Attitudes Toward Redemption Centers

Opinions of Redemption Center

- According two-thirds of the participants, the redemption center they normally use “worsened a little” in the past year (66%).

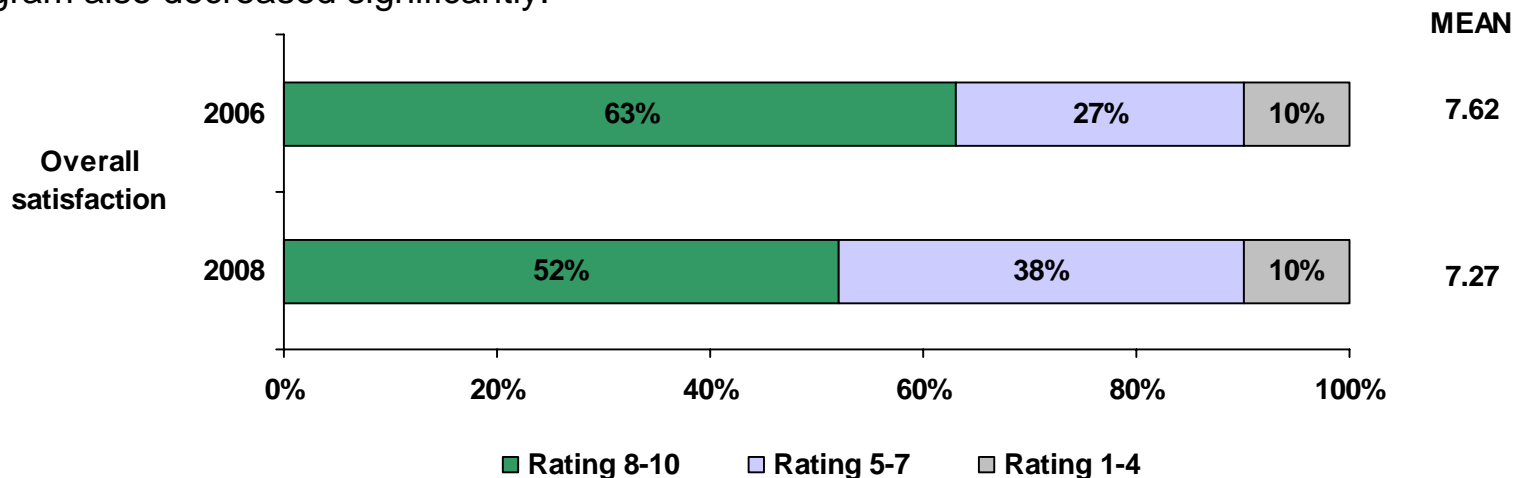


Satisfaction with Redemption Centers

Residents who said that they redeemed containers at a CRC location in the past year were asked to rate their overall satisfaction with the redemption center they used most often, using a 10-point scale, where 10=extremely satisfied and 1=extremely dissatisfied. They were also asked to rate their satisfaction with seven (7) aspects of the center, namely:

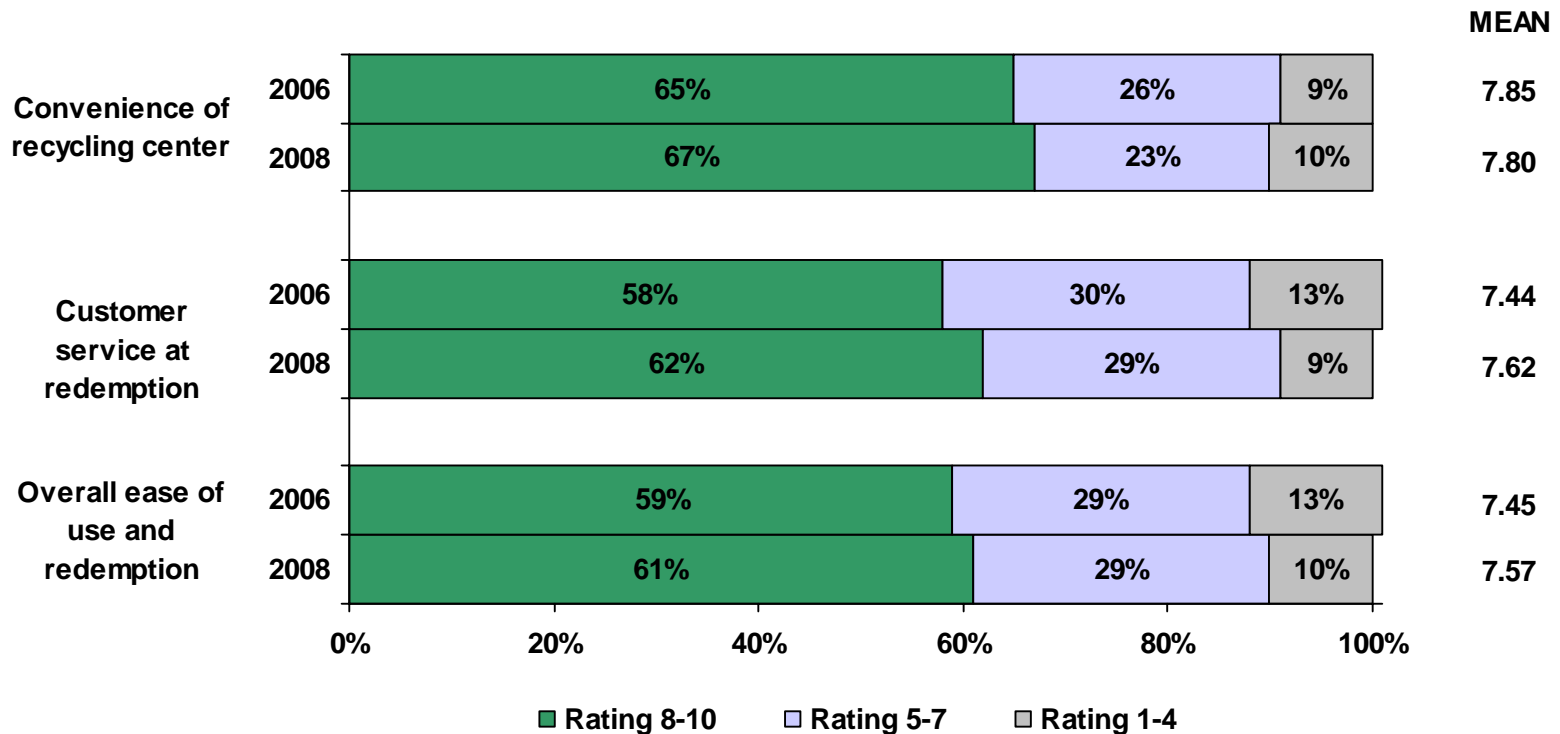
- Convenience of the recycling center
- Efficiency of processing
- Wait time of processing
- Overall ease of use and redemption
- Customer service at the redemption center
- Hours of operation
- Accuracy of redemption

- In 2008, compared to 2006, a significantly smaller proportion of residents responded with 8 to 10 ratings when asked for their overall satisfaction with the program. Average levels of satisfaction with the program also decreased significantly.



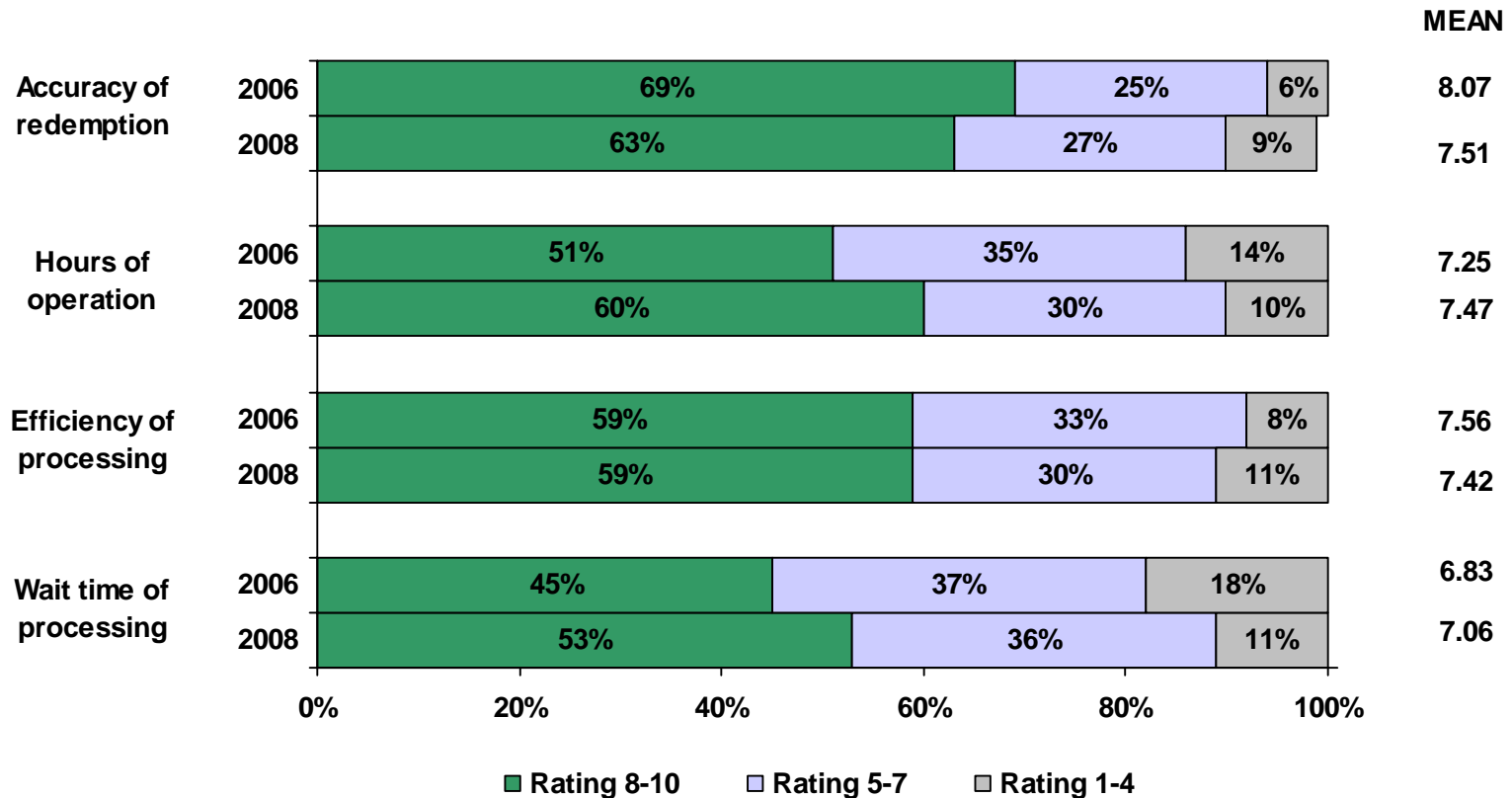
Satisfaction with Redemption Centers

- Participants awarded redemption centers highest marks, on average, for convenience (7.80), customer service (7.62), and overall ease of use and redemption (7.57).
- Levels of satisfaction with convenience and customer service are generally comparable to 2006.



Satisfaction with Redemption Centers

- Average levels of satisfaction for accuracy of redemption significantly decreased from 2006 (7.51, down from 8.07).
- The proportion of residents who awarded 8 to 10 satisfaction ratings for hours of operation (7.47, up from 7.25), and wait time of processing (7.06, up from 6.83) increased significantly.



Satisfaction with Redemption Centers

- Consistent with 2006, Neighbor Island participants gave higher ratings than did Oahu participants.
- The biggest gaps between Oahu and Neighbor Island participants in terms of top (8 to 10) ratings were found in overall satisfaction (47% to 63%), wait time of processing (49% to 61%), and customer service at redemption (58% to 72%).
- Average levels of satisfaction reported by Oahu participants ranged from 6.83 to 7.72 (where 10=extremely satisfied and 1=extremely dissatisfied), compared to 7.58 to 8.20 by Neighbor Island participants.

	Oahu	N.I.
Overall satisfaction with the program		
8 to 10 ratings	47%	63%
MEAN	7.01	7.85
Convenience of recycling center		
8 to 10 ratings	65%	70%
MEAN	7.72	7.99
Efficiency of processing		
8 to 10 ratings	57%	65%
MEAN	7.23	7.85
Wait time of processing		
8 to 10 ratings	49%	61%
MEAN	6.83	7.58
Base=	(291)	(129)

	Oahu	N.I.
Overall ease of use and redemption		
8 to 10 ratings	58%	68%
MEAN	7.41	7.94
Customer service at redemption		
8 to 10 ratings	58%	72%
MEAN	7.37	8.20
Hours of operation		
8 to 10 ratings	56%	68%
MEAN	7.29	7.87
Accuracy of redemption		
8 to 10 ratings	62%	67%
MEAN	7.33	7.92
Base=	(291)	(129)

Preferred Locations

- Residents statewide were asked, “If you had a choice of where to redeem your containers, where would you prefer to redeem them?” One in three residents indicated that they would keep using their current redemption center (33%). A comparable proportion of residents, however, said that they would prefer to redeem their containers at stores or the place where the bottles were bought (29%).

	2006	2008
At current redemption center	29%	33%
At a retailer, store, market where I bought container	33	29
Near my home	10	13
At school	4	6
Curbside pickup	6	6
Donate them to a church	0	3
Donate them to other non-profits	2	2
I give them to someone else	1	1
None/no preference	2	1
Other	1	1
Don't know	14	5
Base =	(709)	(701)

Other Suggestions to Improve Redemption Centers

Finally, residents were asked, “If you could improve the redemption system in other ways, how would you improve it, specifically?”

- “Have more redemption centers or closer redemption centers” again topped the list of suggestions made by respondents, followed by “redemption centers should provide better customer service.”

Top Suggestions	2006	2008
Have more redemption centers or closer redemption centers	13%	11%
Redemption centers should provide better customer service	6	8
Have curbside pickup	8	7
Redemption centers should be open more hours, more days	9	6
Store redemption	8	6
Redemption centers should have more staff	10	6
Eliminate the entire thing	3	5
Have reverse vending machines, more machines	2	4
Count, don't weigh it/Honor system	6	3
Improve the physical facilities of the redemption center	0	3
Take in more kinds of recycling	0	3
Base =	(709)	(701)

Other Suggestions to Improve Redemption Centers: Select Verbatim

Q. If you could improve the redemption system in other ways, how would you improve it, specifically?

“The staff needs to better assist those who have never done it before.”

“Cut down on wait time. Hire more effective employees to improve redemption process.”

“It would be great if they accepted all types of plastic bottles and variations of a soda can; aluminum containers like Vienna Sausage and Spam.”

“Make it more convenient for consumers to recycle. Rethink the schedule, for example. The public also needs more information about the program.”

“Recycling centers need to accommodate more of the population during off hours. They need to be more convenient.”

“I have driven by redemption centers and there are always long lines. I don’t like long lines. There needs to be an easier way to redeem containers.”

“Make it easier to recycle. Talk with City & County and have containers picked up with garbage.”

“The system should accept all plastic bottles. More employees need to be hired so current employees don’t become surly.”

“I don’t understand why containers need to be sorted by color. It would be faster if they didn’t. It would be better if someone can pick-up containers from our front yard.”

“It should be easier. They should encourage non-profit agencies to be responsible for one community area and pick-up all containers there.”

Other Suggestions to Improve Redemption Centers: Select Verbatim

Q. If you could improve the redemption system in other ways, how would you improve it, specifically?

“Have more redemption centers. Have them at stores, the same places where bottles are purchased. Allow greater variety. Why are wine bottles and one gallon vinegar containers not redeemable?”

“We need better access to staffed redemption centers.”

“Better inform the public about what is redeemable and what is not.”

“They need to hire more employees and have better placed centers. They also need to address parking. The center we use do not have their own parking space.”

“Longer hours so the people who work can take advantage of it. They need more Reverse Vending Machines at scattered locations, like at grocery stores.”

“I would be happy to recycle if a center is closer to my place.”

“I would check on the people who work at the redemption centers to make sure they are treating their customers decently.”

“I would say more redemption centers, more flexible hours, redemption centers that have higher capacity, monitored redemption centers and some that are not, since some people may just want to drop things off.”

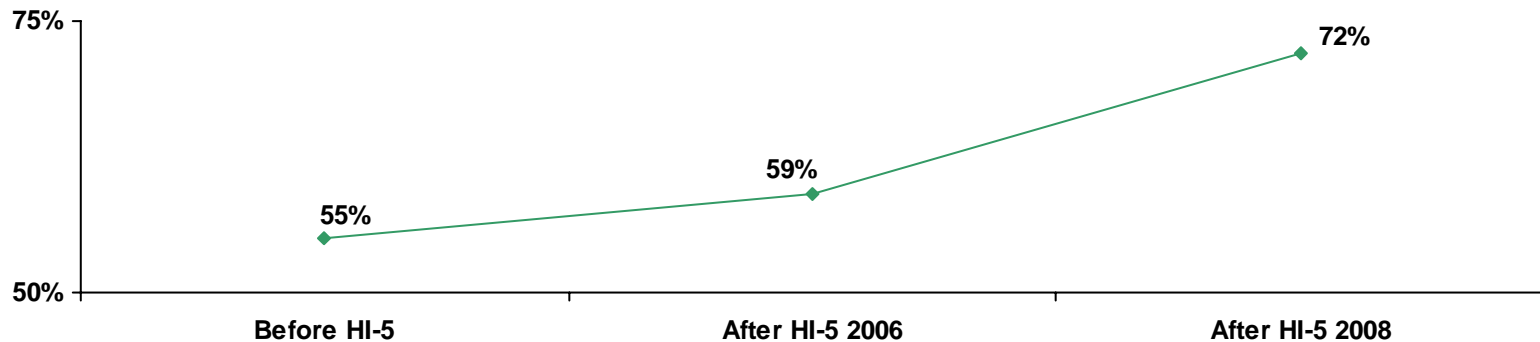
“Initiate a curbside recycling program and cut the cost. Reduce the size of trash bins or reduce pick up frequencies, then have bins for containers.”

“There should be a redemption center closer to my home. Weigh the containers --- it is faster and more convenient.”

Program Results

Program Results

- Findings indicate that the HI-5 program has made some progress in increasing recycling activity among residents. Fifty-five percent (55%) of residents said that they recycled containers at designated recycling centers prior to the HI-5 program. In 2006, approximately one year after the introduction of the HI-5 program, 59% of residents reportedly took their containers to a City & County white recycle bin or to CRC locations for recycling. This proportion increased to 72% in 2008, two years later.



Q: Prior to the HI-5 program, did you recycle your bottles and cans at designated recycle centers?

Q: In the past year, have you a) taken your containers to a City & County white recycle bin; b) donated or given your containers to non-profit organizations; c) redeemed your containers for 5 cents per item specifically at a Redemption Center location.

(Base: n=701)

Appendix