



DA BUX Double Up Food Bucks 2022 Awareness and Usage Assessment

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Prepared for:

The Food Basket – Hawai‘i Island’s Food Bank

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Background

The DA BUX Double Up Food Bucks program (also known as “DA BUX”) is a program of The Food Basket (TFB). DA BUX partners with food retailers across the state, including grocery stores, farmers markets and food hubs, to offer 50% discounts on Hawai‘i grown fruits and vegetables for low-income residents receiving federal food benefits from the Supplemental Nutrition Assistance Program (SNAP). At participating grocery stores, SNAP shoppers must show a DA BUX Access Card at checkout for the cashier to scan the barcode on the back of the card and trigger the discount.

DA BUX was established in 2017 on Hawai‘i Island. With the support of a diverse group of partners—including the statewide grocery chain owned by QSI, Inc., other double-bucks programs, state and county agencies, and local philanthropy—TFB successfully applied and received a federal FY 2019 USDA Gus Schumacher Nutrition Incentive Program (GusNIP) award to fund a statewide expansion of DA BUX. And in FY 2021, TFB received a three-year (2021-2024) GusNIP award, as well as emergency GusNIP funding (GusCRR) to further extend its statewide reach of DA BUX to rural areas.

In an effort to measure the impact of the latest DA BUX expansions and marketing and promotion activities, in 2021, TFB contracted with the University of Hawai‘i to conduct brief anonymous surveys with adults from SNAP-participating households at two time-points—spring 2022 and spring 2024. Planned outcomes from the first wave of surveys included baseline participant utilization rates, the identification of geographic areas and demographic groups where program awareness lagged, and SNAP shopper preference data for program tailoring. The second wave will document changes in program awareness and utilization over time.

This report presents the results of the initial wave of surveys conducted in spring 2022.

Methods

Sample Development

A power analysis was performed to determine the sample size for each wave (385). The percentage of all Hawai‘i SNAP participants residing in each county was then determined. County target quotas were developed based on the proportion of SNAP-participating households in each county.

Survey Design

UH staff worked with the DA BUX program to develop a brief (5-minute) intercept survey that measures program awareness, program utilization, basic grocery shopping patterns, and key demographics. The survey was entered into the Qualtrics online survey software system, and a QR code was generated with a link to the survey. The survey was offered in one of three formats: (1) as an interviewer-administered survey conducted using an iPad, (2) as a self-administered survey that

participants could access on their own cell phones via the QR code, and (3) as a pencil-and-paper survey completed by the participant and then entered into Qualtrics by project staff.

Survey Fielding

In-person intercept surveys were conducted at a variety of community locations in neighborhoods with high proportions of SNAP-participating households. Survey sites included public housing, community food distribution sites (including food pantries), laundromats, farmers' markets, and shopping centers located in low-income areas. An effort was made to ensure geographic diversity, while still focusing on the neighborhoods with the highest proportions of SNAP-participating households. Potential participants were screened to ensure that they resided in a SNAP-participating household prior to survey initiation. All participants received a \$20 grocery store gift card as a stipend for their time to complete the survey.

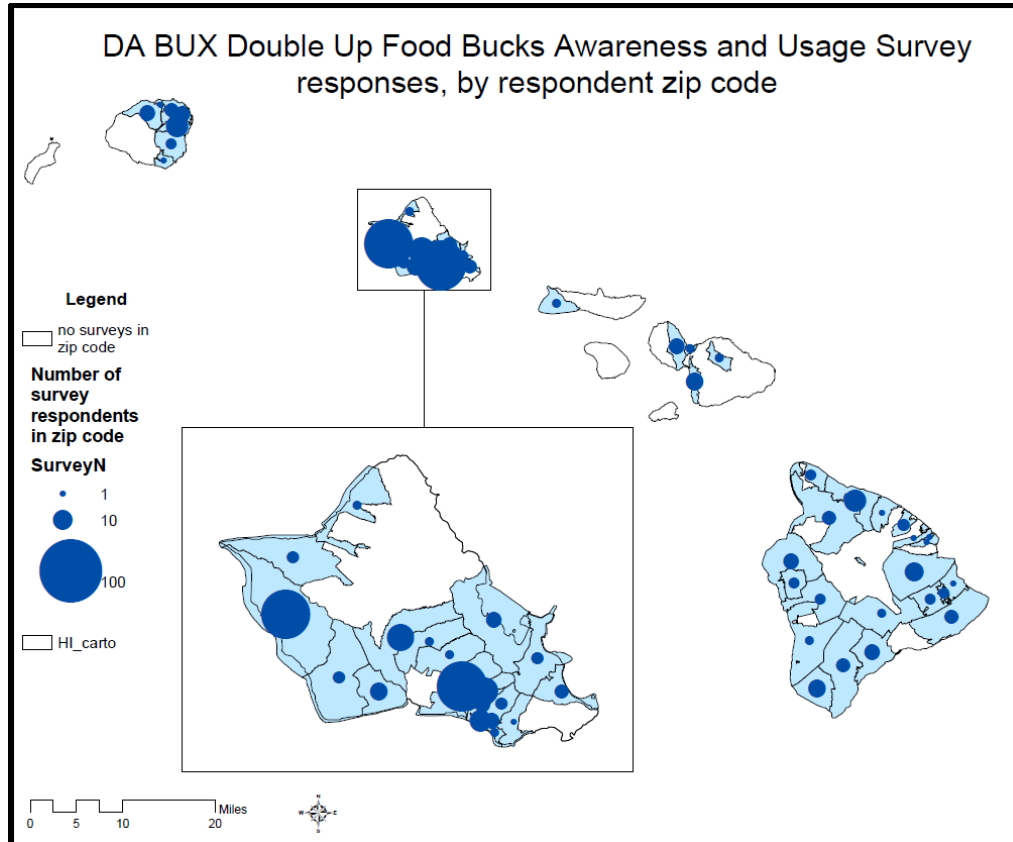
Data Cleaning and Data Analysis

Fielding ended after 386 surveys were recorded in the Qualtrics online survey system. The data was downloaded into the SPSS statistical package, reviewed and cleaned. Data cleaning identified four surveys that were terminated before the first question was answered. These were removed from the dataset, yielding a final sample of 382.

Univariate and bivariate statistical analysis was performed. Chi-squared analysis was conducted for categorical-vs-categorical analysis using the Monte-Carlo method, which calculates exact statistics for x-by-x tables with small expected cell sizes. The Kruskal-Wallis test was used for nonparametric categorical-vs-ordinal analysis.

In order to assess the geographic coverage of the sample, participant zip codes were imported into ARC-GIS and used to generate a map showing the geographic distribution of survey responses (Figure 1).

Figure 1.



Results

Study Demographics

Two-thirds (62%) of survey respondents resided in Honolulu County, while 25% resided in Hawai'i County, 8% in Kaua'i County, and 5% in Maui County. Nearly two-thirds (63%) of participants were middle-aged or seniors, including 39% who were between the ages of 45-64, and 24% who were seniors over the age of 65. Relatively few (18%) were under the age of 35.

The average household size was 3.6 with wide variation (range 1-18). Nearly a quarter (23%) lived in a one-person household, 18% in a two-person household, 27% in a 3-4-person household, and 29% in a large 5-8-person household. Relatively few (4%) lived in a very large household with 9 or more members.

Half (50%) of all participant households included children under the age of 18; households with children had an average of 2.6 children per household (range 1-7). Nearly half (46%) of all households included seniors over the age of 65. One out of every five (21%) households was multigenerational, including both children and seniors.

The complete study demographics may be found in Table 1 in Appendix A, along with tables providing detailed data on survey question responses and demographic subgroup analyses as appropriate. It should be noted that a substantial portion of respondents on Oahu (20%) chose “other” as their ethnicity; many of these individuals were of Samoan ethnicity.

DA BUX Program Awareness

Approximately two-thirds (69%) of survey respondents have heard of the program. Awareness varied significantly by county — an overwhelming majority (92%) of Hawai‘i County respondents confirmed awareness of DA BUX as compared to 70% of Kaua‘i County, 62% of Honolulu County, and 39% of Maui County respondents ($\chi^2_{[3]}=35.505$, $p<.001$).

Program awareness was significantly higher among respondents who were in the 25-34 age group (86%) or the 35-44 age group (83%) than in either older or younger age groups ($\chi^2_{[5]}=17.571$, $p=.004$). There were no significant differences by ethnic group in program awareness, although awareness appeared notably lower among Chuukese respondents (46%) than within other ethnic populations or the state as a whole. There were no significant differences in awareness by household size or composition (see Table 2).

DA BUX Program Utilization Patterns

Statewide, three-quarters (76%) of those who were aware of the DA BUX program had used it at least once. This varied by county with Hawai‘i (85%), Kaua‘i (82%) and Honolulu (73%) County residents significantly more likely than Maui (14%) residents to have used the program ($\chi^2_{(3)}=19.483$, $P<.001$; see Table 3).

Among respondents who were aware of the DA BUX program, three household composition factors were associated with DA BUX program utilization:

- 1) respondents in households with children (83%) were significantly more likely to use the program than respondents in households without children (68%) ($\chi^2(1)=7.080$, $p=.008$; see Table 3),
- 2) respondents in multigenerational households (92%) were significantly more likely to use the program than respondents in one-generation households (72%) ($\chi^2(1)=9.768$, $p=.002$), and
- 3) respondents in households with 3 or more members (83%) were significantly more likely to use the program than respondents in households with 1-2 members (58%) ($\chi^2(3)=12.232$, $P=.007$).

Overall, two-thirds of respondents who confirmed participation in the program reported using it at least monthly, including 32% who reported using it one or more times a week, and 35% who used it at least a few times a month. Fifteen percent used it at least 6 times in the last year, and 18% only used

it between 1-5 times in the prior year. There were no significant differences in frequency of use by any of the demographic groupings in the survey (see Table 4).

Shopping Patterns Relevant to DA BUX Program Development

All survey takers were asked to identify their favorite grocery store as an open-ended question with no pre-determined response options provided. Times Supermarkets (22%), Safeway (17%), Foodland (14%) and KTA Super Stores (10%) were the most commonly preferred grocery stores statewide (see Table 6).

Not surprisingly, store preference varied significantly by county and reflected the geographic reach of the largest grocery chains in each county ($X^2_{(27)}=378.55$, $p<.001$). In Hawai'i County, KTA Super Stores (38%) was the most popular market, followed by Safeway (22%) and Malama Market (11%). In Honolulu County, Times Supermarkets (34%) was by far the most popular market, followed by Safeway (13%) and Foodland (10%). In Kaua'i County, Big Save Markets (43%) was the dominant market, followed by Foodland (20%) and Safeway (17%); Times and Costco had a two-way tie at 10%. In Maui County, Safeway (39%) and Foodland (39%) dominated all other choices.

The average (mean) amount spent per shopping trip on locally-grown fruits and vegetables was \$46 (SD 31.74), with a majority (58%) of respondents reporting spending between \$20-59 per shopping trip. A notably large number of respondents (18%) indicated high spending of \$100 or more on fruits and vegetables. Spending varied significantly by county, with Honolulu County respondents reporting substantially higher spending on local fruits and vegetables than did participants from all other counties ($p<.001$, see Table 7). Those who have not used the DA BUX program reported spending significantly more on fruits and vegetables in a typical shopping trip than did those who use the program ($p=.01$)

Statewide, a plurality (37%) of respondents who used the DA BUX program reported that they usually saved between \$10-\$19 on a typical shopping trip. This varied significantly by county ($X^2_{(12)}=75.619$, $P<.001$), with Honolulu County residents reporting greater savings from using the program than did residents of other counties (see Table 8).

Discussion

Program awareness and utilization in Hawai'i County, where the program first began, is excellent, and program awareness in most other counties appears to be rising quickly. However, it appears that the program could benefit from increased outreach in all of the counties included in the 2019 statewide expansion. Awareness was very low in Maui County, suggesting a need for substantially greater outreach overall in this county. There is also clearly a need for additional outreach to overcome barriers among limited-English speaking populations on Oahu, such as the Chuukese and Filipino populations, and among seniors overall.

About three-quarters of those who know of the program use it regularly, and report that it is saving them a substantial amount of money. Larger households, households with children, and multigenerational households all show particularly high levels of participation, suggesting that the program is reaching these high-needs groups. However, it appears that statewide, 25% of those who know about the DA BUX program are not utilizing it (see Table 3). Although there was no question in the survey about why people chose not to use the program, many participants shared their beliefs and attitudes about the program with the interviewer, and field notes were maintained on these discussions. Some expressed confusion about how to sign up for the program, and others lacked internet access and were unable to access the program website. In Honolulu County, the fact that only some stores in a particular grocery chain accepted the DA BUX Access Card was viewed as a significant drawback, because the store locations closest to their homes were not accepting the Card or because respondents did not want to risk discovering at checkout that they couldn't get the DA BUX discount if they mistakenly shopped at a non-participating store location.

A number of respondents volunteered that they had encouraged family members and friends to sign up, or had assisted others in enrolling. This grassroots enthusiasm may be a useful channel to cultivate for program outreach, since it provides not just information dissemination, but social support and assistance with navigating language and technical barriers to enrollment.

When planning for future expansion, it would be reasonable to assume that:

- 1) As the number of participating stores increase and awareness rises, participation rates in Honolulu, Maui, and Kaua'i County will eventually approach those of Hawai'i County.
- 2) On average, households are likely to use their DA BUX discount about 3 times a month, for an average savings of approximately \$25 each time, resulting in a \$75 per month benefit per participating household.
- 3) Times Supermarkets, Safeway, Foodland and KTA Super Stores are the most important grocery store chains to involve. Of these recommended grocery chains, Safeway is the only grocery chain that has not been engaged. All statewide locations owned by Times Supermarkets and KTA Super Stores are participating in DA BUX; however, only ten select Foodland locations are participating. The main focus for expansion should be ensuring that all stores in the Foodland grocery chain participate. Costco might be considered if further expansion is considered, particularly in Honolulu and Kaua'i Counties.

Appendix

Data Tables

Table 1: Study Demographics			
Variable	Category	Percent*	N
County of Residence	Hawaii	25%	96
	Honolulu	62%	236
	Kauai	8%	30
	Maui	5%	18
	<i>No answer/declined question</i>		2
Age Group of Respondent	18-24	7%	27
	25-34	11%	42
	35-44	19%	71
	45-54	18%	68
	55-64	21%	80
	65+	24%	93
	<i>No answer/declined question</i>		1
Ethnicity of Respondent	White	20%	74
	Native Hawaiian	27%	103
	Chuukese	6%	24
	Marshallese	3%	13
	Japanese	3%	10
	Chinese	2%	8
	Filipino	16%	61
	Vietnamese	2%	9
	Other	20%	77
	<i>No answer/declined question</i>		3
Household Size	1	23%	87
	2	18%	66
	3-4	27%	102
	5-8	29%	108
	9-18	4%	14
	<i>No answer/declined question</i>		6
Seniors Age 65+ in Household	Yes	46%	176
	No	54%	204
	<i>No answer/declined question</i>		2
Number of Children <18 in Household	None	50%	185
	1	15%	56
	2	14%	51
	3	10%	36
	4	5%	20
	5	4%	14
	6-7	3%	10
	<i>No answer/declined question</i>		9
Multigenerational Households (with both seniors and children)	Yes	21%	78
	No	79%	293
	<i>No answer/declined question</i>		14

Total N=382 *Percentages in a category may not total to 100% due to rounding

Table 2: (Q1) Have you heard about the DA BUX Double Up Food Bucks Program?							
		Yes		No		Total N	P value
		%	N	%	N		
Statewide		69%	263	31%	117	380	
County	Hawai'i	92%*	87	8%	8	95	$X^2_{(3)}=35.505$ P<.001
	Honolulu	62%	146	38%	89	235	
	Kaua'i	70%	21	30%	9	30	
	Maui	39%	7	61%	11	18	
	Total	69%	261	31%	117	378	
Ethnicity	White	72%	53	28%	21	74	$X^2_{(8)}=13.754$ P=.088
	Native Hawaiian	76%	77	25%	25	102	
	Chuukese	46%	11	54%	13	24	
	Marshallese	62%	8	39%	5	13	
	Japanese	60%	6	40%	4	10	
	Chinese	100%	8	0	0	8	
	Filipino	64%	39	36%	22	61	
	Vietnamese	78%	7	22%	2	9	
	Total	69%	260	31%	117	377	
Age Group	18-24	63%	17	37%	10	27	$X^2_{(5)}=17.571$ P=.004
	25-34	86%	36	14%	6	42	
	35-44	83%	57	17%	12	69	
	45-54	69%	47	31%	21	68	
	55-65	60%	48	40%	32	80	
	65+	61%	57	39%	36	93	
	Total	69%	262	31%	117	379	
Seniors in HH	Yes	67%	117	34%	59	176	$X^2_{(1)}=1.315$ P=.251
	No	72%	146	28%	57	203	
	Total	69%	263	31%	116	379	
Children in HH	Yes	74%	137	26%	48	185	$X^2_{(1)}=3.547$ P=.060
	No	65%	121	35%	65	186	
	Total	69%	258	31%	113	371	
HH Size	1	63%	55	37%	32	87	$X^2_{(3)}=2.945$ P=.400
	2	74%	48	26%	17	65	
	3-4	68%	69	32%	33	102	
	5-18	73%	88	27%	33	121	
	Total	69%	260	31%	115	375	

Table 3: (Q2) Have you ever received a DA BUX discount when buying local fruits, vegetables, proteins, or other food items?

(Question only asked if respondent confirmed program awareness in Question 1)

		Yes		No		Total N	P value
		%	N	%	N		
Statewide		76%	192	24%	61	253	
County	Hawai'i	85%	69	15%	12	81	X ² ₍₃₎ =19.483 P<.001
	Honolulu	73%	106	27%	40	146	
	Kaua'i	82%	14	18%	3	17	
	Maui	14%	1	86%*	6	7	
	Total	76%	190	24%	61	251	
Ethnicity	White	77%	39	24%	12	51	X ² ₍₈₎ =4.939 P=.764
	Native Hawaiian	76%	58	24%	18	76	
	Chuukese	82%	9	18%	2	11	
	Marshallese	75%	6	25%	2	8	
	Japanese	100%	6	0%	0	6	
	Chinese	88%	7	13%	1	8	
	Filipino	76%	29	24%	9	38	
	Vietnamese	86%	6	14%	1	7	
	Other	67%	31	33%	15	46	
Total	76%	191	24%	60	251		
Age Group	18-24	77%	13	24%	4	17	X ² ₍₅₎ =.810 P=.976
	25-34	81%	26	19%	6	32	
	35-44	77%	43	23%	13	56	
	45-54	73%	33	27%	12	45	
	55-65	74%	34	26%	12	46	
	65+	75%	42	25%	14	56	
	Total	76%	191	24%	61	252	
Seniors in HH	Yes	81%	90	19%	21	111	X ² ₍₁₎ =2.913 P=.088
	No	72%	102	28%	40	142	
	Total	76%	192	24%	61	253	
Children in HH	Yes	83%	106	17%	22	128	X ² ₍₁₎ =7.080 P=.008
	No	68%	82	32%	38	120	
	Total	76%	188	24%	60	248	
HH Size	1	62%	34	38%*	21	66	X ² ₍₃₎ =12.232 P=.007
	2	68%	32	32%	15	47	
	3-4	80%	52	20%	13	65	
	5-18	86%	71	15%	12	83	
	Total	76%	189	24%	61	250	

Table 4: (Q3) In the last 12 months, about how often did you receive a DA BUX discount? (Question only asked if respondent confirmed program utilization in Question 2)

		1+ times a week		At least once a month		6+ times in last 12 months		1-5 times in last 12 months		Total N	P value	
		%	N	%	N	%	N	%	N			
Statewide		32%	58	35%	64	15%	27	18%	33	182		
County of Residence	Hawai'i	26%	17	33%	22	24%	16	17%	11	66	$X^2_{(3)}=11.375$ $P<.077$	
	Honolulu	38%	38	36%	36	7%	7	19%	19	100		
	Kaua'i	21%	3	36%	5	21%	3	21%	3	14		
	Maui	-	-	-	-	-	-	-	-	-		-
	Total	32%	58	35%	63	15%	26	18%	33	180		
Respondent Ethnicity	White	25%	9	36%	13	25%	9	14%	5	36	$X^2_{(24)}=35.522$ $P<.061$	
	Native Hawaiian	37%	22	32%	19	10%	6	20%	12	59		
	Chuukese	33%	3	22%	2	33%	3	11%	1	9		
	Marshallese	17%	1	17%	1	50%	3	17%	1	6		
	Japanese	33%	2	0%	0	33%	2	33%	2	6		
	Chinese	14%	1	29%	2	14%	1	43%	3	7		
	Filipino	19%	5	58%	15	0%	0	23%	6	26		
	Vietnamese	40%	2	40%	2	20%	1	0%	0	5		
	Other	46%	13	36%	10	7%	2	11%	3	28		
	Total	32%	58	35%	64	15%	27	18%	33	182		
Respondent Age Group	18-24	14%	2	29%	4	43%	6	14%	2	14	$X^2_{(15)}=21.122$ $P=.133$	
	25-34	36%	9	32%	8	16%	4	16%	4	25		
	35-44	42%	17	29%	12	12%	5	17%	7	41		
	45-54	25%	8	34%	11	16%	5	25%	8	32		
	55-65	20%	6	40%	12	13%	4	27%	8	30		
	65+	41%	16	44%	17	5%	2	10%	4	39		
	Total	32%	58	35%	64	14%	26	18%	33	181		
Seniors in HH	Yes	35%	29	38%	32	13%	11	14%	12	84	$X^2_{(3)}=2.317$ $P=.509$	
	No	29%	29	33%	32	16%	16	21%	21	98		
	Total	32%	58	35%	64	15%	27	18%	33	182		
Children in HH	Yes	33%	34	33%	34	18%	18	16%	16	102	$X^2_{(3)}=2.067$ $P=.559$	
	No	32%	24	34%	26	12%	9	22%	17	76		
	Total	33%	58	34%	60	15%	27	19%	33	178		
HH Size	1	32%	10	29%	9	10%	3	29%	9	31	$X^2_{(9)}=14.426$ $P=.108$	
	2	21%	6	43%	12	29%	8	7%	2	28		
	3-4	34%	17	26%	13	16%	8	24%	12	50		
	5-18	36%	25	40%	28	11%	8	13%	9	70		
	Total	32%	58	35%	62	15%	27	18%	32	179		

Table 5: (Q4) Are you the person in the household who does the grocery shopping?

	Yes		No		Total N	P value
	%	N	%	N		
Statewide	86%	327	14%	52	379	

Table 6: (Q5) What is your favorite grocery store? (The store you shop at most often)

Store	Statewide		Hawai'i County		Honolulu County		Kaua'i County		Maui County		P value
	%	N	%	N	%	N	%	N	%	N	
Times	22%	84	2%	2	34%	78	10%	3	6%	1	$X^2_{(27)}=378.55$ P<.001
Safeway	17%	63	22%	21	13%	30	17%	5	39%	7	
Foodland or Sack&Save	14%	51	16%	15	10%	23	20%	6	39%	7	
KTA	10%	36	38%	36	0%	0	0%	0	0%	0	
Costco	8%	30	4%	4	9%	22	10%	3	6%	1	
Walmart or Sam's Club	6%	21	0%	0	9%	21	0%	0	0%	0	
Waianae Store	5%	20	0%	0	9%	20	0%	0	0%	0	
Tamura's	5%	18	0%	0	8%	18	0%	0	0%	0	
Other	5%	19	7%	7	4%	10	0%	0	11%	2	
Malama Market	4%	13	11%	10	1%	3	0%	0	0%	0	
Big Save	4%	13	0%	0	0%	0	43%	13	0%	0	
Don Quijote	2%	8	0%	0	3%	8	0%	0	0%	0	
Total		376		95		233		30		18	

Table 7: (Q6) In dollars, about how much locally-grown fruits and vegetables do you usually buy when you are grocery shopping?

Amount	Statewide		Hawai'i County		Honolulu County		Kaua'i County		Maui County		P value
	%	N	%	N	%	N	%	N	%	N	
Less than \$10	5%	20	4%	4	6%	14	4%	1	6%	1	$X^2_{(27)} = 27.405$ P < .001
\$10-\$19	13%	48	27%	26	7%	17	4%	1	24%	4	
\$20-\$29	22%	80	31%	29	15%	35	29%	8	47%	8	
\$30-\$39	18%	66	18%	17	17%	40	32%	9	0%	0	
\$40-\$49	8%	31	8%	8	9%	20	7%	2	6%	1	
\$50-\$59	10%	36	3%	3	12%	28	11%	3	12%	2	
\$60-\$69	3%	10	2%	2	3%	7	4%	1	0%	0	
\$70-\$79	2%	9	1%	1	3%	8	0%	0	0%	0	
\$80-\$89	1%	5	1%	1	2%	4	0%	0	0%	0	
\$100 or more	18%	66	4%	4	25%	58	11%	3	6%	1	
Total	100%	371	100%	95	100%	231	100%	28	100%	17	

Table 8: (Q7) About how much do you usually save using your DA BUX discount when you shop for locally-grown fruits and vegetables?

Amount	Statewide		Hawai'i County		Honolulu County		Kaua'i County		Maui County		P value
	%	N	%	N	%	N	%	N	%	N	
Less than \$10	7%	13	10%	7	5%	5	0%	0	100%	1	$X^2_{(12)} = 75.619$ P < .001
\$10-\$19	37%	71	62%	42	22%	24	36%	5	0%	0	
\$20-\$29	24%	46	27%	18	20%	21	50%	7	0%	0	
\$30-\$39	19%	36	0%	0	33%	35	7%	1	0%	0	
\$40-\$49	13%	24	2%	1	21%	22	7%	1	0%	0	
Total	100%	190	100%	68	100%	107	100%	14	100%	1	