# THE EVALUATION OF SEATTLE'S SWEETENED BEVERAGE TAX 

Baseline report: pre-implementation of the tax

AUGUST 2018

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## EXECUTIVE SUMMARY

## Introduction

On June 6, 2017, the Seattle City Council passed Ordinance 125324 imposing a tax on engaging in the business of distributing sugar-sweetened beverages in Seattle. The tax on sugar-sweetened beverages is set at 1.75-cent-perounce and went into effect on January 1, 2018. Section 5B of the ordinance specifies that the "City Auditor shall contract with academic researchers to complete an annual evaluation of the effects of the tax. In contracting with academic researchers, the City Auditor should consider researchers with a proven track record of rigorous policy evaluation for impacts on behavior, health, and economic outcomes. A minimum of $\$ 500,000$ per year for at least the first five years, beginning with the date of adoption of this ordinance, shall be dedicated to this evaluation. The evaluation shall assess, but not be limited to, the impact of the tax on 1) economic outcomes (such as household food expenditures, beverage prices and sales, jobs, and store revenues) and 2) health behaviors (such as dietary purchases and consumption), 3) intermediate health outcomes, and 4) identification and assessment of food deserts in the city, and 5) the effectiveness and efficiency of the foodbank network in the city. The evaluation shall also assess, but not be limited to, the process of implementing the tax, including perceptions of city residents and specifically low income households, food retailers, tax administrators, and city officials. The evaluator will collaborate with the Sweetened Beverage Tax Community Advisory Board to develop the evaluation. The evaluation will rely on data collected specifically for the purposes of the evaluation from populations in Seattle as well as outside Seattle to enable a rigorous comparison of trends in behavior, health, and economic outcomes as a result of this ordinance."

The Sweetened Beverage Tax (SBT) Evaluation Team (Appendix A) proposed a five-year evaluation that seeks to address all aspects outlined in the ordinance around evaluation. The evaluation capitalizes on existing administrative records, population surveys, and commercial data and collects data when necessary. This report describes findings from the baseline (pre-tax) evaluation activities that were time-sensitive, requiring original data collection in both Seattle and comparison areas before the tax went into effect in January 2018. The findings establish pre-tax measurements (unaffected by the tax), which we will compare to assessments conducted after tax implementation so that we can contrast changes over time in Seattle to those in the comparison areas. The baseline study components include 1) audits of select beverage and food prices and promotions in stores and restaurants that sell sugar-sweetened beverages, 2) surveys of beverage consumption and other diet-related behaviors among a cohort of children and parents, 3) surveys of norms and attitudes about a sugar-sweetened beverage tax and the perceived healthfulness of sugary beverages among adults, and 4) interviews and focus groups about perceptions of the sugar-sweetened beverages and implementation of the tax. (Figure 1)

Here, we highlight the objectives, methods, and key findings from each component. We close this Executive Summary with conclusions from the baseline study and next steps for the evaluation of the Seattle's Sweetened Beverage Tax.

Figure 1. Evaluation of the Seattle Sweetened Beverage Tax EVALUATION GOALS RESEARCH QUESTIONS COMPONENTS


## Store Audits

Objective. The primary objective of the store audits is to determine the extent to which the tax on sugary beverages incurred by distributors is passed through to customers. A secondary objective is to determine whether promotions and marketing of taxed and untaxed beverages changes in response to the tax and whether prices of a select sample of other foods change. Information on both of these outcomes (prices and promotions/marketing) is vital to the interpretation of any findings about tax impacts on consumption.

Methods. This component will use a pre-post cohort study design (the same stores will be followed over time) with a comparison area. This report provides details of the pre-tax data results. Retail audits were conducted in October - November of 2017. In Seattle, we audited 226 supermarkets, grocery stores, corner stores, gas stations, coffee shops, and counter service restaurants; in the comparison area (Federal Way, Kent, and Auburn), we audited 232 establishments across similar store and restaurant types. We selected a geographically balanced sample within the City of Seattle and within the comparison area, based on a list of 2016 Public Health - Seattle \& King County (PHSKC) permitted permanent food establishments. To ensure that we included businesses representing small stores and counter service restaurants owned by people of color, we added a community-based sample of stores, drawn from a "minority-owned business" list and as recommended by community liaisons and members of the City of Seattle's Sweetened Beverage Tax Community Advisory Board.

Key findings. Beverage pricing was mostly similar in Seattle and the comparison area at this baseline, indicating that our comparison area is a reasonable comparison for the city of Seattle in terms of beverage prices. Where prices did differ, Seattle tended to be more expensive than the comparison area. We found that all beverages, including both taxed and non-taxed beverages, were cheaper in larger stores as compared to smaller stores. In larger stores, diet beverages were often priced lower than sugar-sweetened beverages, and in smaller stores, diet beverages were priced higher than sugar-sweetened beverages. This finding by store size was also reflected in the presence of within store marketing; there was more marketing for untaxed beverages (diet or sugar-free) in large stores, and more marketing for taxed (sweetened) beverages in small stores.

## CHILD COHORT

Objective. The objective of the child cohort study is to evaluate the impact of Seattle's Sweetened Beverage Tax on children's and parent's beverage consumption and other aspects of children's diet among low-income families living in Seattle versus those living in South King County (the comparison area). We focus on a low-income population for health equity reasons and because these populations average higher sugary beverage consumption and are more sensitive to price changes. The child cohort study will address a key gap in knowledge as no sugary beverage tax studies have evaluated the impacts among children.

Methods. This component uses a pre-post cohort study design (same children/families followed over time) with a comparison area. This report details the pre-tax data findings. Surveys were used to collect information about child and parent beverage consumption, child diet quality, and household information. Surveys were offered online, in person, and via telephone in four languages (English, Somali, Spanish, and Vietnamese) and conducted between October 2017 and January 2018. We used convenience sampling and recruited participants at various venues (e.g., clinics, food banks, community events, and Facebook). Families were enrolled if they had incomes <312\% Federal Poverty Level and a child between 7-10 or 12-17 years of age who consumed sugary drinks. The final sample included 271 Seattle participants and 256 comparison area participants.

Key findings. The racially/ethnically diverse Seattle and comparison samples obtained were similar on some (e.g., child age, gender), but not all (e.g., race, household income) demographic characteristics. Across all individual beverage types, tap and bottled water had the highest average consumption for children and parents. The second highest consumption by beverage category was among beverages with added sugars that would be subject to the Sweetened Beverage Tax. Within this category, children's consumption was highest for soda/pop with sugar and fruit-flavored drinks with sugar. Parent's consumption within this beverage category differed, with prepared tea or coffee with sugar and soda/pop with sugar having the highest average consumption. The overall average consumption of sugary beverages that would be subject to the tax was higher among children and parents in the comparison area relative to children and parents in the Seattle sample. Sugar-added drinks not subject to Seattle's

Sweetened Beverage Tax were consumed the least on average. Within this beverage category, flavored milk was the beverage consumed most by children and tea or coffee with self-added sugar was the beverage consumed most by parents. We found similar patterns of child diet quality and average frequency of consumption for most foods assessed between the children in Seattle and the comparison area.

## AdULT SURVEY: NORMS AND ATTITUDES

Objective. The primary objective of this component is to examine whether the implementation of the Sweetened Beverage Tax changes adults' perceptions and attitudes around sugary beverage consumption and sugary beverage taxes. The public will likely experience increased exposure to information about sugary beverages and their health effects through heightened media attention during the course of adopting and implementing a tax. An unanswered question is whether this heightened attention could change the public's perception of the health consequences and social acceptability of consuming sugary beverages, and that, in turn, this change could create a non-price pathway to reducing sugary beverage consumption. If this is the case, a tax may be associated with behavior change, even among those who are not sensitive to price increases.

Methods. This component uses a cross-sectional, pre-post study design with a comparison area. This report includes details of the pre-tax results. The survey was offered online and via telephone in three languages (English, Spanish, and Vietnamese). To minimize exposure to the Seattle media market, we selected a comparison area comprised of the Minneapolis, Minnesota and the District of Columbia metropolitan area based on similar population demographic characteristics. Surveys of Seattle participants ( $\mathrm{N}=851$ ) were conducted between October and December 2017, while those in the comparison area ( $N=860$ ) were completed between December 2017 and January 2018.

Key findings. Seattle and the comparison area samples are well-matched on a number of demographic characteristics including gender and age. Despite the fact that there were some demographic differences by race and income between Seattle and the comparison area, perceptions of the tax and of sugary beverages were similar along many dimensions for Seattle and the comparison area. A majority of Seattle participants supported the Sweetened Beverage Tax and correspondingly, believed that the tax will help improve the health and wellbeing of children and the public's health more generally. Most participants in Seattle perceived that the tax will not negatively affect small businesses nor result in job loss. Moreover, a majority of Seattle reported that they do not intend to cross-border shop for sugary beverages (to avoid the tax). Seattle participants believed that sugary beverage consumption is related to adverse health conditions, including dental health problems, obesity, diabetes, and heart disease. Aligned with these beliefs about the healthfulness of sugary beverages, reported consumption of sugary beverages in Seattle was lower than the comparison area and the national average. We observed some differences in perceptions of the Sweetened Beverage Tax and its benefits and consequences by household income and race/ethnicity among Seattle participants. Support for the tax was higher among higher-income participants (defined as $\geq 260 \%$ FPL) than low-income participants and lowest among non-Hispanic Black participants.

## StAkeholder interviews And focus groups

Objective. The objective of the stakeholder interviews and focus groups was to understand the pre-tax perceptions about the Sweetened Beverage Tax from the following perspectives: Seattle residents and specifically lower-income households, beverage retailers, tax administrators, and city officials.

Methods. This component uses a qualitative study design. Interview guides included questions to understand perceptions about 1) sugary beverage consumption, 2) the Sweetened Beverage Tax and use of its revenues, 3) implementation of the Sweetened Beverage Tax, and 4) anticipated consumer and business impacts. This report details the data collected between October 2017 and February 2018 to understand pre-tax/early tax perceptions and implementation. The final sample of participants (consumers, businesses, and City of Seattle staff/ officials) included six focus groups (two adult consumer groups, three youth consumer groups, and one group of restaurateurs) and 16 one-on-one interviews (two community organizations, four distributors/manufacturers, five retailers, and five City of Seattle staff and elected officials). One adult focus group was conducted in Somali and English while all other data were collected in English.
Key findings. Consumer and business participants shared the perspective that consumption of sugary beverages
was common and that most sugary beverages were unhealthy. After the tax, some consumers anticipated they would be less inclined to buy sugary beverages, while other consumers said they would consider cross-border shopping for sugary beverages to avoid the tax. Knowledge about the Sweetened Beverage Tax varied, with Councilmembers, distributors, and a health advocacy organization being the most knowledgeable. Communication about the tax was seen as both a facilitator and a barrier. While distributors and some restaurateurs were aware of the tax and received communication from the City of Seattle about the tax, they and other businesses wanted more information about how the implementation would impact their type of business. Business participants varied on whether they would absorb or pass the tax onto clients and consumers, with one distributor, small retailers, and some restaurateurs expressing they would pass the tax onto others. Councilmembers expressed concerns about the potential negative impact of the tax on small businesses and job loss, which was the impetus for providing exemptions for small manufacturers and assuring tax revenues would fund job training programs. While consumers and Councilmembers felt that the tax would negatively financially impact low-income people and communities of color more than other populations, they also felt the tax and use of its revenues had potential to reduce sugary beverage consumption and improve health for these communities. All groups supported the idea of using revenues to support health-promoting activities like expanding access to healthy foods for low-income populations.

## Conclusions

The evaluation activities successfully assessed baseline conditions before or within a few weeks after the Seattle's Sweetened Beverage Tax took effect. Intensive, multi-modal, multi-lingual outreach and recruitment strategies produced a diverse (racial/ethnic/income) sample of participants in the child cohort, adult norms and attitudes work, and stakeholder work. The sampling strategy for the store audits produced a sample of stores and restaurants that represented the diversity of establishment types selling common beverages across Seattle. Feedback from the stakeholder evaluation is included below to provide additional qualitative context to the other evaluation components. Conclusions from this baseline assessment are as follows:

1. Beverage pricing was mostly similar in Seattle and the comparison area at this baseline, indicating that our comparison area is a reasonable comparison for the City of Seattle in terms of beverage prices. Where prices did differ, Seattle tended to be more expensive than the comparison area. All beverages, including both taxed and non-taxed beverages, were cheaper in larger stores as compared to smaller stores (as would be expected based on economies of scale).
2. The child cohort and adult norms and attitudes survey data both indicate that sugary beverage consumption in Seattle is lower than in comparison areas and lower than the national average. Soda/pop and sugary fruitflavored juice are the most commonly reported taxed beverage items children consumed. Among children, water is the most commonly consumed beverage followed by flavored milk (neither of which are subject to the tax). These findings are somewhat inconsistent with the information from local consumer and business representatives' focus groups, wherein sugary beverage consumption was perceived as common.
3. On the economic impact of the tax, while most adult norms and attitudes survey participants in Seattle perceive that the tax will not negatively affect small businesses nor result in job loss, the qualitative focus groups and interviews reveal that some businesses and elected officials expressed concerns that it would. In the focus groups of business sector representatives, participants varied on whether they will absorb or pass the tax onto clients and consumers. Consumers from the qualitative focus groups have mixed opinions about how the tax will impact their own purchasing and consumption behavior, but feel the tax would financially impact low-income people and communities of color.
4. On support for the tax, a majority of Seattle participants in the adult norms and attitudes survey support the Sweetened Beverage Tax and correspondingly, believe that the tax will help improve the health and well-being of children and the public's health more generally. At the same time, separate analyses by race/ethnicity and income find that support for the tax is higher among higher-income participants (defined as $\geq 260 \% \mathrm{FPL}$ ) than low-income participants and is below 50\% for non-Hispanic Black and non-Hispanic Asian participants. From the qualitative focus group, while mixed support for the tax was expressed, both consumers and business sector representatives gave support for having tax revenues fund programs to improve healthy food access for lower-income populations.

## Next steps

In 2018, the Evaluation Team will add two components to the overall evaluation related to food security, led by Public Health - Seattle \& King County, including to: 1) identify and assess food deserts in Seattle and 2) assess the food bank network in Seattle. The Evaluation Team will repeat store audits and the child cohort surveys in summer 2018 and again in fall 2018. Data from the two follow-up time points will allow us to assess and report early impacts of the tax to the City of Seattle as well as determine if the changes are sustained at 12 months after baseline data were collected. The adult survey of norms and attitudes will be repeated for a new cross-sectional sample of participants in fall 2018. We will seek input from the Community Advisory Board and the City Review Team about scaling back or eliminating originally proposed interviews and focus groups in 2018 because 1) we have learned that the City of Seattle Financial and Administrative Services are directly responding to tax implementation concerns through their existing channels of communication with businesses, 2) the adult survey will measure norms and attitudes about the tax and sugary beverage consumption from participants who are low-income and represent the race/ethnic composition of Seattle, and 3) the store audits will track the extent to which beverage retailers are passing the tax onto consumers by increasing the price of taxed beverages. We would re-allocate resources to support the expanded food security assessment activities in 2018.

The Evaluation Team anticipates submitting the Year 1 mid-point evaluation report in September 2018. This report will include summer 2018 findings from store audits and child cohort surveys. The subsequent evaluation report is anticipated spring 2019 and will include findings from data activities (store audits, child cohort, adult survey, and food security) conducted through fall 2018.

## SECTION 1 | TAXED AND NON-TAXED BEVERAGE PRICES USING STORE AUDITS


#### Abstract

Objective: The primary objective of the store audits is to determine the extent to which the tax on sugar-sweetened beverages incurred by distributors is passed through to customers (i.e. "price pass-through"). A secondary objective is to determine whether promotions and marketing of taxed and non-taxed beverages changes in response to the tax and whether prices of a select sample of other foods change. Information on both of these outcomes (prices and promotions/marketing) is vital to the interpretation of any findings related to how the tax impacts consumption. To assess the impact of the tax on prices and promotions, we are using a pre-post design with a comparison area. Here, we report results from our collection of baseline data with particular attention to the degree to which prices at baseline are similar between Seattle and the comparison area (to help establish whether the comparison area is well-matched to Seattle, which is important for the rigor of the eventual impact evaluation).

Methods: We obtained a geographically balanced sample of food stores in Seattle and our comparison area based on a list of all 2016 Public Health - Seattle \& King County (PHSKC) permitted permanent food establishments. In Seattle we surveyed 226 supermarkets, grocery stores, corner stores, gas stations, coffee shops, and counter service restaurants; in the comparison area we surveyed 232 of these store types.

Results: At baseline (Fall 2017), beverage pricing between Seattle and our comparison area were similar. Where prices did differ, Seattle tended to be more expensive than the comparison area. We found that all beverages, including both taxed and non-taxed beverages, were cheaper in larger stores as compared to smaller stores. The price differential between diet and sugar-sweetened beverages differed across store size, whereby in larger stores diet beverages were often priced lower than sugar-sweetened beverages, and in smaller stores, diet beverages were priced higher than sugar-sweetened beverages. This finding was also reflected in the presence of marketing in stores; there was more marketing for non-taxed beverages (diet or sugar-free) in large stores, and more marketing for taxed (sugar-sweetened) beverages in small stores.


## SECTION 1 | TAXED AND NON-TAXED BEVERAGE PRICES USING STORE AUDITS

## Objective

The primary objective of the store audits is to determine the extent to which the tax on sugar-sweetened beverages incurred by distributors is passed through to customers (i.e. "price pass-through"). The secondary objectives are to 1) assess the degree to which the price of other products changes (because it is conceivable that distributors or retailers spread the price increase induced by the tax over other beverage and non-beverage products), and to 2) assess whether companies or stores respond to the tax with changes in product marketing. To assess the impact of the tax on these outcomes, we collected data on prices and promotions in stores to establish baseline, pre-tax values on each of these outcomes. We report on the baseline results herein. We give particular attention to the degree to which prices at baseline are similar between Seattle and the comparison area to help establish whether the comparison area is well-matched to Seattle, which is important for the rigor of the eventual impact evaluation.

## Methods

Sample.
To obtain our sample of stores, first we identified all food stores in Seattle and our comparison area based on a list of all 2016 Public Health - Seattle \& King County (PHSKC) permitted, permanent food establishments. The Urban Form Lab at the University of Washington previously created algorithms to classify each of these businesses into meaningful food store or restaurant categories (i.e. supermarkets, grocery stores, corner stores, etc). We used this classification to initially categorize stores and then updated the category as necessary when we visited each store.

We aimed for a geographically balanced sample of food stores (supermarkets, grocery stores, corner stores, gas stations), coffee shops, and counter-service restaurants in Seattle ( $\mathrm{n}=226$ stores) and in the comparison area ( $\mathrm{n}=232$ stores). Store definitions are provided in Appendix C. We obtained geographic balance by dividing our study areas (Seattle, Figure 1, and comparison area, Figure 2) into 16 equal-sized areas, geocoding all the food establishments, then selecting a quota of stores from each store type within each of the 16 areas.


Figure 2

[^0]In addition to the sample derived from the process described above, we also worked with community liaisons and used "minority-owned business" lists to sample small stores and counter service restaurants owned by people of color; we included this additional community-based sampling approach due both to the anticipation that these stores may be affected more by the tax and the expressed interest by the City in ensuring these stores were represented in the sample.

Data collectors attended two six-hour trainings and practiced data collection in the field until $90 \%$ raw agreement on responses was achieved. We performed all in-store audits between October 23 and November 22, 2017. We plan to return to the same stores approximately six months and 12 months after the tax has been implemented to conduct the post-tax assessments.

Table 1 shows our target and actual number of locations within each food source category for each sample area (i.e. Seattle and the comparison area).

| TABLE 1. SWEETENED BEVERAGE TAX STORE AUDIT SAMPLE |  |  |  |
| :---: | :---: | :---: | :---: |
| RETAIL TYPE | TARGET NUMBER PER SURVEY AREA | ACTUAL NUMBER |  |
|  |  | SEATTLE | COMPARISON |
| SUPERSTORE | 9 | 12 | 13 |
| SUPERMARKET | 16 | 17 | 11 |
| GROCERY ${ }^{1}$ | 42 | 33 | 14 |
| SMALL STORES ${ }^{1}$ | 52 | 71 | 80 |
| DRUG STORE/PHARMACY | 16 | 17 | 13 |
| COUNTER SERVICE RESTAURANT CHAIN | 16 | 16 | 30 |
| COUNTER SERVICE RESTAURANT NON-CHAIN | 26 | 31 | 45 |
| COFFEE/BUBBLE TEA | 16 | 29 | 26 |
| TOTAL | 193 | 226 | 232 |

${ }^{1}$ We surveyed fewer "grocery stores" than our target number in each sample area due to the actual presence of these store types in each geographic area (there were fewer grocery stores than anticipated). As a result, we surveyed more than the target number of "small stores". In both Seattle and the comparison area, we surveyed all grocery stores possible within each sampling area (i.e. all stores that allowed us to survey), and supplemented by surveying more small stores from the sample areas where we did not meet our grocery store target.

Within each store we measured the availability and price of: soda, sports and energy drinks, teas and coffees, juices, powdered drink mixes, water, milk, fountain drinks, snack foods, and staple groceries. We collected prices from 25 unique taxed beverages, 30 unique non-taxed sugar-free or diet beverages, and 10 unique non-taxed added-sugar beverages (e.g., flavored milk). We also recorded the presence and type of interior and exterior beverage-related marketing in all retail locations. Table 2 shows all measured beverages by beverage type and beverage tax category. For each beverage listed, we recorded the pricing and availability of multiple packaging sizes (e.g., 12 oz cans, 20 oz bottles, 1 liter bottles, 12 packs of 12 oz cans).

## Variables.

Beverage types. We grouped similar beverages together to form 20 "beverage types" (Table 2). Table 2 displays the beverage type as well as which beverages are in each beverage type category.

Beverage tax categories. Next, we grouped the beverage types into three aggregate categories, according to both their added sweetener content and eventual Seattle tax status: taxed, non-taxed sugar-free, and non-taxed sug-ar-added.

| TABLE 2. ALL SURVEYED BEVERAGES BY BEVERAGE TYPE AND BEVERAGE TAX STATUS¹ |  |  |
| :---: | :---: | :---: |
| TAXED BEVERAGES $(N=25)$ | NON-TAXED SUGAR-FREE BEVERAGES $(N=30)$ | NON-TAXED SUGAR-ADDED BEVERAGES ( $\mathrm{N}=10$ ) |
| SODA | DIET SODA | CHOCOLATE MILK |
| COCA COLA | COCA COLA ZERO | CHOCOLATE MILK, ALL FAT CONTENTS |
| DR. PEPPER | COCA COLA DIET | POWDERED DRINKS |
| FANTA | DR. PEPPER DIET | GATORADE G2 |
| JARRITOS | MOUNTAIN DEW DIET | GATORADE |
| MOUNTAIN DEW | PEPSI DIET | CHOCOLATE MILK |
| PEPSI | JARRITOS LIGHT | COUNTRY TIME LEMONADE |
| SODA, LOWEST COST AVAILABLE | JUICE 100\% | KOOL-AID |
| JUICE DRINK | CAPRISUN 100\% JUICE | TEA AND COFFEE, BOTTLED |
| CAPRISUN | KIRKLAND APPLE 100\% JUICE | STARBUCKS FRAPPUCCINO |
| TROPICANA FRUIT TWIST DRINK | KIRKLAND ORANGE 100\% JUICE | TEA AND COFFEE, PREPARED |
| KIRKLAND CRANBERRY JUICE COCKTAIL | MINUTE MAID ORANGE 100\% JUICE | BUBBLE TEA, MILK-BASED |
| KOOL-AID | TROPICANA ORANGE 100\% JUICE | COFFEE LATTE SWEETENED |
| MINUTE MAID CRANBERRY JUICE COCKTAIL | TREETOP APPLE 100\% JUICE | COFFEE MOCHA |
| MINUTE MAID FRUIT PUNCH | DIET SPORTS DRINK |  |
| TROPICANA CRANBERRY JUICE COCKTAIL | POWERADE ZERO |  |
| JUICE DRINK, LOWEST COST AVAILABLE | VITAMIN WATER ZERO |  |
| SPORTS DRINK | DIET ENERGY DRINK |  |
| GATORADE | MONSTER ENERGY DRINK ZERO |  |
| POWERADE | RED BULL ENERGY DRINK SUGAR-FREE |  |
| VITAMIN WATER | WATER |  |
| GATORADE G2 | LA CROIX |  |
| ENERGY DRINK | WATER |  |
| MONSTER ENERGY DRINK | MILK |  |
| RED BULL ENERGY DRINK | WHITE MILK, ALL FAT CONTENTS |  |
| FOUNTAIN DRINKS | POWDERED DRINKS, SUGAR-FREE |  |
| FOUNTAIN DRINKS, MULTIPLE SIZES | CRYSTAL LITE LEMONADE |  |
| TEA AND COFFEE, BOTTLED | KOOL-AID |  |
| ARIZONA TEA | CHOCOLATE MILK |  |
| SWEET TEA | TEA AND COFFEES, BOTTLED |  |
| TEA AND COFFEE, PREPARED | ARIZONA TEA, UNSWEETENED |  |
| BUBBLE TEA, NON-MILK BASED | TEA, UNSWEETENED |  |
|  | TEA AND COFFEES, PREPARED |  |
|  | BUBBLE TEA, SUGAR-FREE |  |
|  | BUBBLE TEA, UNSWEETENED TEA |  |
|  | FRUIT SMOOTHIE |  |
|  | COFFEE, DRIP |  |
|  | COFFEE, LATTE PLAIN |  |
|  | COFFEE, LATTE SUGAR-FREE FLAVORED |  |

[^1]Beverage prices. The primary outcome of interest is the price of beverages, which we express as cents per ounce (Table 3). Because we collected regular and discounted prices, we present means for both the lowest price per ounce and the regular price. Price per ounce of powdered drinks are calculated for their intended liquid volume.

Lowest Price per Ounce. In the calculation of the mean, for each item, the lowest price per ounce uses the sale price if an item was on sale and the regular price if the item was not on sale. All available sizes at all stores where the beverage was available are included in the calculation.

Regular Price per Ounce. In the calculation of the mean, for each item, the regular price uses only the regular price, regardless of whether the item was on sale or not. All available sizes at all stores where the beverage was available are included in the calculation.

Interior marketing. The interior marketing variable is the sum of the number of 1) end-aisle displays, 2) center aisle displays, and 3) all individual posters or fliers advertising or promoting the purchase of a certain beverage in each store. If an interior marketing display or poster included multiple beverages, it was counted once for each beverage it promoted. In food stores we captured all three types of marketing, whereas in coffee and bubble tea shops we captured only the presence of fliers, posters, or promotions (i.e. no aisle or center displays were captured in coffee and bubble tea shops). We did not collect any interior marketing information from counter-service restaurants.

Exterior marketing. The exterior marketing variable is the sum of the number of all posters, fliers, or signs on the outside of a retail location that promote the sale of each beverage type. We counted the number of promotions attached or adhered to the outside of the retail building, as well as the count of the number of promotions on the retail property, such as sandwich boards in the parking lot, or overhead signs. This was the same for food stores, beverage stores, and counter-service restaurants.

## Descriptive analysis.

We calculated baseline mean price per ounce (lowest price and regular price) for Seattle and the comparison area by beverage tax category 1) for all stores combined, overall and by beverage type, and 2) separately by store type and beverage type (for lowest price only).

We also calculate the mean prices per ounce for only the individual-sized, "grab-n-go" beverage by beverage type, since the relative price change will likely vary based on the size of the beverage (because the tax is structured as a cents per ounce). These "grab-n-go" findings are presented in Appendix D.

We also present the mean count of interior and exterior marketing/promotions by beverage tax status and by store type. Finally, we present the mean price (cents per serving) for selected "junk food" items in Seattle and the comparison area.


## Results

## Baseline beverage pricing by Sweetened Beverage Tax status

Table 3 displays the mean price per ounce of all beverages by Sweetened Beverage Tax status. The 'taxed beverages' below are beverages that will be subject to the tax in future data collection. Both 'non-taxed' beverage categories include beverages that will not be taxed.

## Comparing baseline prices in Seattle to baseline prices in the comparison area.

At baseline, comparing Seattle to the comparison area, the lowest price and regular price of taxed beverages were similar (mean lowest price per ounce: 9.0 cents/oz in Seattle vs. 8.7 cents/oz in comparison; mean regular price per ounce: 9.5 cents/oz in Seattle vs. 9.4 cents/oz in comparison). This was also true for the lowest and regular price of non-taxed sugar free beverages (mean lowest price per ounce: 8.4 cents/oz in Seattle vs. 8.7 cents/oz in comparison; mean regular price per ounce: 8.9 cents/oz in Seattle vs. 9.5 cents/oz in comparison). For non-taxed, sugar-added beverages, which include many prepared beverages (i.e. lattes and bubble teas with milk as the first ingredient), for both the lowest price and the regular price of these beverages, prices in the comparison area were cheaper than prices in Seattle at baseline (mean lowest price per ounce: 13 cents/oz in Seattle vs. 12 cents/oz in comparison; mean regular price per ounce: 14 cents/oz in Seattle vs. 13 cents/oz in comparison).

## Comparing beverage prices by tax and added sugar status, within Seattle and the comparison area.

In Seattle, at baseline, taxed beverages were more expensive than non-taxed sugar-free beverages (mean lowest price per ounce: 9.0 cents/oz vs. 8.7 cents/oz; mean regular price per ounce: 9.5 cents/oz vs. 9.4 cents/oz, respectively). In the comparison areas, prices of taxed and non-taxed sugar-free beverages were very similar (mean lowest price per ounce: both taxed and non-taxed sugar-free beverages at 8.7 cents/oz; mean regular price per ounce: 9.4 cents/oz vs. 9.5 cents/oz, respectively).

The non-taxed sugar-added beverages in both Seattle and comparison area were the most expensive beverage. As above, within the non-taxed sugar-added beverage category there are many prepared beverages, such as sug-ar-sweetened coffee lattes or milk-based bubble tea beverages (these beverages are not subject to the tax when milk is the first ingredient).

TABLE 3. CENTS PER OUNCE OF BEVERAGES IN SEATTLE AND COMPARISON AREAS BY BEVERAGE TAX CATEGORY: LOWEST AND REGULAR PRICE

|  | LOWEST PRICE PER OUNCE |  |  | REGULAR PRICE PER OUNCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SEATTLE | COMPARISON AREA | $\qquad$ | SEATTLE | COMPARISON AREA | PRICE |
|  | $\begin{aligned} & \text { MeAN CENTS/oz } \\ & \text { SE ( } \mathrm{n}) \end{aligned}$ | $\begin{gathered} \text { MeAn cents/oz } \\ \text { SE (n) } \end{gathered}$ |  | Mean cents/oz SE (n) | $\begin{gathered} \text { Mean cents/oz } \\ \text { SE (n) } \end{gathered}$ | IN CENTS ${ }^{1}$ |
| TAXED BEVERAGES | $\begin{gathered} 9.0 \\ 0.12(3312) \end{gathered}$ | $\begin{gathered} 8.7 \\ 0.12 \text { (3633) } \end{gathered}$ | 0.23 | $\begin{gathered} 9.5 \\ 0.13(3288) \end{gathered}$ | $\begin{gathered} 9.4 \\ 0.12(3630) \end{gathered}$ | 0.088 |
| NON-TAXED SUGAR-FREE beverages | $\begin{gathered} 8.4 \\ 0.13(3582) \end{gathered}$ | $\begin{gathered} 8.7 \\ 0.13(3344) \end{gathered}$ | -0.29 | $\begin{gathered} 8.9 \\ 0.13(3564) \end{gathered}$ | $\begin{gathered} 9.5 \\ 0.16(3341) \end{gathered}$ | -0.54 |
| NON-TAXED SUGAR-ADDED BEVERAGES | $\begin{gathered} 13 \\ 0.47(549) \end{gathered}$ | $\begin{gathered} 12 \\ 0.42(555) \end{gathered}$ | 1.1 | $\begin{gathered} 14 \\ 0.48(548) \end{gathered}$ | $\begin{gathered} 13 \\ 0.43(554) \end{gathered}$ | 0.90 |

${ }^{1}$ A negative price difference indicates the comparison area price is higher than the City of Seattle price

## BASELINE BEVERAGE PRICING bY beVERAGE TAX STATUS AND BEVERAGE TYPE

Table 4 displays mean price per ounce (both lowest and regular price) broken down by smaller beverage categories (beverage types, i.e. soda, diet soda) within the aggregate beverage tax status categories within Seattle and comparison areas.

## Comparing baseline prices in Seattle to baseline prices in the comparison area.

At baseline, the prices for most beverage types between Seattle and comparison areas were very similar, both in the regular and lowest available prices. In cases in which lowest available prices were more than 0.3 cents per ounce different between Seattle and the comparison area, Seattle tended to have the higher price (this was true for: diet energy drinks, prepared coffee and teas, bottled coffees and teas with added-sugar). An exception to this was $100 \%$ juice, which was more expensive in the comparison areas.

## Comparing beverage prices by beverage type, within Seattle and the comparison area.

The cost differences between diet and sugar-sweetened versions of beverages were largely similar at baseline, when looking at the regular prices. However, when examining the lowest price per ounce, which takes a discounted price into account, a few small differences are noted.

At baseline, the prices for most beverage types between Seattle and comparison areas were very similar, both in the regular and lowest available prices. In cases in which lowest available prices were more than 0.3 cents per ounce different between Seattle and comparison, Seattle tended to have the higher price...

In Seattle, the mean lowest prices per ounce for diet soda ( 5.8 cents/oz) and diet sports beverages ( $5.3 \mathrm{cents} / \mathrm{oz}$ ) were less expensive than sweetened soda ( 6.1 cents/oz) and sweetened sports beverages ( 6.0 cents/oz).

In the comparison area, this was true for sports beverages; diet sports beverages were less expensive than sweetened sports beverages for both lowest price and regular price. This lower price, when accounting for sales/ discounts for diet and sugar-free beverages may suggest that beverage companies are promoting and offering more

In both Seattle and the comparison area, energy beverages (both sweetened and diet) and prepared coffee/tea (sweetened and unsweetened) were substantially more expensive compared to other beverage types, while powdered drink mixes were substantially less expensive.
sales for these beverages compared to regular beverages at baseline.

Comparing prices of different beverage types.
In both Seattle and the comparison area, energy beverages (both sweetened and diet) and prepared coffee/tea (sweetened and unsweetened) were substantially more expensive compared to other beverage types, while powdered drink mixes were substantially less expensive.

TABLE 4. CENTS PER OUNCE OF ALL BEVERAGES IN SEATTLE AND COMPARISON AREAS BY BEVERAGE TYPE AND BEVERAGE PRICING

|  | LOWEST PRICE PER OUNCE ${ }^{1}$ |  |  | REGULAR PRICE PER OUNCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SEATTLE | COMPARISON AREAS | $\begin{gathered} \text { PRICE } \\ \text { DIFFERENCE } \\ \text { IN CENTS } \end{gathered}$ | SEATTLE | COMPARISON AREAS | $\begin{gathered} \text { PRICE } \\ \text { DIFFERENCE } \\ \text { IN CENTS }^{2} \end{gathered}$ |
|  | $\begin{aligned} & \text { MEAN } \\ & \text { CENTS/OZ } \\ & \text { SE (n) } \end{aligned}$ | MEAN CENTS/OZ SE ( n ) |  | $\begin{aligned} & \text { MEAN } \\ & \text { CENTS/OZ } \\ & \text { SE (n) } \end{aligned}$ | $\begin{gathered} \text { MEAN } \\ \text { CENTS/OZ } \\ \text { SE (n) } \end{gathered}$ |  |
| TAXED BEVERAGES |  |  |  |  |  |  |
| SODA | $\begin{gathered} 6.1 \\ 0.08(1802) \end{gathered}$ | $\begin{gathered} 5.8 \\ 0.076(2060) \end{gathered}$ | 0.27 | $\begin{gathered} 6.5 \\ 0.079(1790) \end{gathered}$ | $\begin{gathered} 6.2 \\ 0.085(2058) \end{gathered}$ | 0.23 |
| SPORTS BEVERAGES | $\begin{gathered} 6.0 \\ 0.12(443) \end{gathered}$ | $\begin{gathered} 6.1 \\ 0.13(413) \end{gathered}$ | -0.015 | $\begin{gathered} 6.7 \\ 0.11(440) \end{gathered}$ | $\begin{gathered} 6.7 \\ 0.12(413) \end{gathered}$ | 0.017 |
| ENERGY BEVERAGES | $\begin{gathered} 21 \\ 0.28(592) \end{gathered}$ | $\begin{gathered} 19 \\ 0.25(692) \end{gathered}$ | 1.1 | $\begin{gathered} 22 \\ 0.27(584) \end{gathered}$ | $\begin{gathered} 22 \\ 0.25(691) \end{gathered}$ | 0.73 |


| JUICE BEVERAGES | $\begin{gathered} 9.5 \\ 0.33(204) \end{gathered}$ | $\begin{gathered} 9.6 \\ 0.38(206) \end{gathered}$ | -0.050 | $\begin{gathered} 9.7 \\ 0.34(203) \end{gathered}$ | $\begin{gathered} 10 \\ 0.40(206) \end{gathered}$ | -0.31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COFFEE/TEA, BOTTLED | $\begin{gathered} 6.0 \\ 0.20(265) \end{gathered}$ | $\begin{gathered} 6.0 \\ 0.19(261) \end{gathered}$ | 0.021 | $\begin{gathered} 6.3 \\ 0.20(265) \end{gathered}$ | $\begin{gathered} 6.4 \\ 0.20(261) \end{gathered}$ | -0.11 |
| COFFEE/TEA, PREPARED | $\begin{gathered} 23 \\ 0.72(8) \end{gathered}$ | $\begin{gathered} 20 \\ 1.6(2) \end{gathered}$ | 2.4 | $\begin{gathered} 23 \\ 0.72(8) \end{gathered}$ | $\begin{gathered} 20 \\ 1.6(2) \end{gathered}$ | 2.4 |
| NON-TAXED SUGAR-FREE BEVERAGES |  |  |  |  |  |  |
| DIET SODA | $\begin{gathered} 5.8 \\ 0.085(1307) \end{gathered}$ | $\begin{gathered} 5.7 \\ 0.086 \text { (1199) } \end{gathered}$ | 0.11 | $\begin{gathered} 6.4 \\ 0.10(1301) \end{gathered}$ | $\begin{gathered} 6.6 \\ 0.24 \text { (1198) } \end{gathered}$ | -0.18 |
| DIET SPORTS BEVERAGES ${ }^{3}$ | $\begin{gathered} 5.3 \\ 0.16(213) \end{gathered}$ | $\begin{gathered} 4.6 \\ 0.17(163) \end{gathered}$ | 0.72 | $\begin{gathered} 6.2 \\ 0.15(213) \end{gathered}$ | $\begin{gathered} 5.6 \\ 0.17(162) \end{gathered}$ | 0.65 |
| DIET ENERGY BEVERAGES | $\begin{gathered} 21 \\ 0.38(500) \end{gathered}$ | $\begin{gathered} 20 \\ 0.27(573) \end{gathered}$ | 1.3 | $\begin{gathered} 23 \\ 0.37(492) \end{gathered}$ | $\begin{gathered} 22 \\ 0.27(572) \end{gathered}$ | 0.85 |
| 100\% JUICE | $\begin{gathered} 10 \\ 0.29(219) \end{gathered}$ | $\begin{gathered} 11 \\ 0.28(226) \end{gathered}$ | -0.54 | $\begin{gathered} 11 \\ 0.28(218) \end{gathered}$ | $\begin{gathered} 12 \\ 0.29(226) \end{gathered}$ | -0.68 |
| MILK | $\begin{gathered} 3.8 \\ 0.10(715) \end{gathered}$ | $\begin{gathered} 3.8 \\ 0.15(574) \end{gathered}$ | 0.012 | $\begin{gathered} 3.9 \\ 0.12(715) \end{gathered}$ | $\begin{gathered} 3.9 \\ 0.15(574) \end{gathered}$ | 0.079 |
| WATER | $\begin{gathered} 7.2 \\ 0.14(298) \end{gathered}$ | $\begin{gathered} 7.2 \\ 0.15(322) \end{gathered}$ | -0.0010 | $\begin{gathered} 7.4 \\ 0.14(295) \end{gathered}$ | $\begin{gathered} 7.3 \\ 0.16(322) \end{gathered}$ | 0.071 |
| POWDERED SUGAR-FREE BEVERAGES | $\begin{gathered} 1.6 \\ 0.11(79) \end{gathered}$ | $\begin{gathered} 1.6 \\ 0.070(71) \end{gathered}$ | 0.033 | $\begin{gathered} 1.6 \\ 0.11(79) \end{gathered}$ | $\begin{gathered} 1.6 \\ 0.070(71) \end{gathered}$ | 0.044 |
| COFFEE/TEA, BOTTLED | $\begin{gathered} 6.9 \\ 0.28(170) \end{gathered}$ | $\begin{gathered} 7.2 \\ 0.28(144) \end{gathered}$ | -0.29 | $\begin{gathered} 7.3 \\ 0.27(170) \end{gathered}$ | $\begin{gathered} 7.8 \\ 0.29(144) \end{gathered}$ | -0.49 |
| COFFEE/TEA, PREPARED | $\begin{gathered} 27 \\ 0.88(81) \end{gathered}$ | $\begin{gathered} 26 \\ 0.66(72) \end{gathered}$ | 1.3 | $\begin{gathered} 27 \\ 0.88(81) \end{gathered}$ | $\begin{gathered} 26 \\ 0.66(72) \end{gathered}$ | 1.3 |


| NON-TAXED SUGAR-ADDED BEVERAGES |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CHOCOLATE MILK | $\begin{gathered} 11 \\ 0.64(153) \end{gathered}$ | $\begin{gathered} 11 \\ 0.46(173) \end{gathered}$ | 0.11 | $\begin{gathered} 11 \\ .63(153) \end{gathered}$ | $\begin{gathered} 11 \\ 0.46(172) \end{gathered}$ | 0.19 |
| POWDERED SUGAR-ADDED BEVERAGES | $\begin{gathered} 1.8 \\ 0.10(173) \end{gathered}$ | $\begin{gathered} 1.6 \\ 0.092(178) \end{gathered}$ | 0.17 | $\begin{gathered} 1.9 \\ .096(173) \end{gathered}$ | $\begin{gathered} 1.7 \\ 0.092(178) \end{gathered}$ | 0.19 |
| COFFEE/TEA, BOTTLED | $\begin{gathered} 21 \\ 0.36(170) \end{gathered}$ | $\begin{gathered} 19 \\ 0.37(150) \end{gathered}$ | 1.4 | $\begin{gathered} 22 \\ .28(169) \end{gathered}$ | $\begin{gathered} 21 \\ 0.30(150) \end{gathered}$ | 0.41 |
| COFFEE/TEA, PREPARED | $\begin{gathered} 32 \\ 1.0(51) \end{gathered}$ | $\begin{gathered} 30 \\ 0.45(53) \end{gathered}$ | 2.6 | $\begin{gathered} 32 \\ 1.0(51) \end{gathered}$ | $\begin{gathered} 30 \\ 0.45(53) \end{gathered}$ | 2.6 |

[^2]
## BASELINE BEVERAGE PRICING ACROSS STORE TYPES

Table 5 displays the mean lowest price per ounce for all beverages within each store type.

## Comparing prices in Seattle to the comparison area, within store type.

Lowest price within each store type was similar for the vast majority of beverages, comparing Seattle to the comparison area. Notable exceptions were sweetened and diet sports and energy drinks, which ranged from a 0.27 cent difference in larger food stores to a 4.1 cent difference in counter-service restaurants. Sugar-free prepared
coffees and teas had a 1.3 cent difference in coffee and bubble tea shops comparing Seattle to the comparison area. The mean price for fruit-flavored juice beverages also varied across Seattle and the comparison area from a 0.19 cent difference in warehouses to a 2.8 cent difference in grocery and drug stores.

Lowest price within each store type was similar for the vast majority of beverages, comparing Seattle to the comparison area.

> We found that as the retail store gets smaller, beverage prices are higher.

## Comparing prices by store type.

We found that as the retail store gets smaller, beverage prices are higher. Specifically, beverages were less expensive in supermarkets and superstores as compared to grocery and drug stores, and less expensive in grocery and drug stores as compared to small, mom-and-pop stores.
Bottled and fountain beverages were most expensive in the counter service restaurants; prepared beverages were most expensive in the coffee and bubble tea shops. These trends were seen in both Seattle and the comparison areas.

The price differences between sweetened and diet or sugar-free beverages also shifted across store size. In Seattle, diet soda was cheaper than sweetened soda in the largest stores. As the store size decreases, this price difference also decreased, until, in the smallest stores, diet soda is more expensive than the sweetened soda. Specifically, in the warehouses, the diet soda price was 0.50 cents/oz less than sweetened soda; in the supermarkets and superstores the mean diet soda price was 0.70 cents/oz less than the sweetened soda; in the grocery and drug stores the mean diet soda price was 0.20 cents/oz less than the sweetened soda. On the contrary, in the small stores, the mean diet soda price was 0.50 cents/oz more than the sweetened soda, and in the counter service restaurants the diet soda price was 1.10 cents/oz more expensive than the sweetened soda. This pattern is also observed for sports drinks, energy drinks, powdered drinks, and juice (though $100 \%$ juice is more expensive than fruit-flavored juice beverages in all store types), as well as in both Seattle and the comparison areas. These price differences may be the result of larger stores having more corporatelevel sales and promotions from beverage companies (i.e. Coca-Cola, Pepsi) promoting the sale of diet and sugar-free or low-sugar beverages.
...in the warehouses, the diet soda price was 0.50 cents/oz less than sweetened soda; in the supermarkets and superstores the mean diet soda price was 0.70 cents/oz less than the sweetened soda; in the grocery and drug stores the mean diet soda price was 0.20 cents/oz less than the sweetened soda. On the contrary, in the small stores, the mean diet soda price was 0.50 cents/oz more than the sweetened soda, and in the counter service restaurants the diet soda price was 1.10 cents/oz more expensive than the sweetened soda.

| TABLE 5. LOWEST CENTS PER OUNCE OF ALL BEVERAGES IN SEATTLE AND COMPARISON AREAS BY STORE TYPE |  |  |  |
| :---: | :---: | :---: | :---: |
|  | SEATTLE | COMPARISON AREAS | PRICE <br> DIFFERENCE <br> IN CENTS ${ }^{1}$ |
|  | $\begin{gathered} \text { MeAn Cents/oz } \\ \text { SE (n) } \end{gathered}$ | $\begin{gathered} \text { Mean cents/oz } \\ \text { SE (n) } \end{gathered}$ |  |
| SUPERMARKETS AND SUPERSTORES |  |  |  |
| SODA | $\begin{gathered} 4.7 \\ 0.15(509) \end{gathered}$ | $\begin{gathered} 4.5 \\ 0.16(388) \end{gathered}$ | 0.27 |
| SPORTS DRINKS | $\begin{gathered} 4.1 \\ 0.12(136) \end{gathered}$ | $\begin{gathered} 3.8 \\ 0.14(112) \end{gathered}$ | 0.27 |
| ENERGY DRINKS | $\begin{gathered} 19 \\ 0.52(163) \end{gathered}$ | $\begin{gathered} 18 \\ 0.56(125) \end{gathered}$ | 0.96 |
| JUICE DRINKS | $\begin{gathered} 6.5 \\ 0.46(71) \end{gathered}$ | $\begin{gathered} 5.9 \\ 0.48(54) \end{gathered}$ | 0.59 |


| COFFEE \& TEA, SUGAR-ADDED BOTTLED TAXED | $\begin{gathered} 4.6 \\ 0.27(90) \end{gathered}$ | $\begin{gathered} 4.5 \\ 0.30(68) \end{gathered}$ | 0.076 |
| :---: | :---: | :---: | :---: |
| DIET SODA | $\begin{gathered} 4.0 \\ 0.10(116) \end{gathered}$ | $\begin{gathered} 3.7 \\ 0.11(94) \end{gathered}$ | 0.31 |
| DIET SPORTS DRINKS | $\begin{gathered} 4 \\ 0.10(116) \end{gathered}$ | $\begin{gathered} 3.7 \\ 0.11 \text { (94) } \end{gathered}$ | 0.31 |
| DIET ENERGY DRINKS | $\begin{gathered} 19 \\ 0.53(154) \end{gathered}$ | $\begin{gathered} 18 \\ 0.57(117) \end{gathered}$ | 0.80 |
| 100\% JUICE | $\begin{gathered} 8.4 \\ 0.44(85) \end{gathered}$ | $\begin{gathered} 8.0 \\ 0.50(61) \end{gathered}$ | 0.49 |
| MILK | $\begin{gathered} 2.9 \\ 0.079(215) \end{gathered}$ | $\begin{gathered} 2.7 \\ 0.070(164) \end{gathered}$ | 0.19 |
| WATER | $\begin{gathered} 7.6 \\ 0.28(66) \end{gathered}$ | $\begin{gathered} 7.5 \\ 0.29(55) \end{gathered}$ | 0.10 |
| POWDERED SUGAR-FREE DRINKS | $\begin{gathered} 1.4 \\ 0.064(53) \end{gathered}$ | $\begin{gathered} 1.3 \\ 0.070(45) \end{gathered}$ | 0.086 |
| COFFEE \& TEA, SUGAR-FREE BOTTLED NO TAX | $\begin{gathered} 4.9 \\ 0.31(75) \end{gathered}$ | $\begin{gathered} 4.4 \\ 0.31(49) \end{gathered}$ | 0.47 |
| CHOCOLATE MILK | $\begin{gathered} 7 \\ 1.1(65) \end{gathered}$ | $\begin{gathered} 5.6 \\ 0.45(53) \end{gathered}$ | 1.4 |
| GROCERY AND DRUG STORES |  |  |  |
| SODA | $\begin{gathered} 5.9 \\ 0.14(531) \end{gathered}$ | $\begin{gathered} 5.4 \\ 0.19(378) \end{gathered}$ | 0.51 |
| SPORTS DRINKS | $\begin{gathered} 6 \\ 0.20(117) \end{gathered}$ | $\begin{gathered} 5.3 \\ 0.26(70) \end{gathered}$ | 0.69 |
| ENERGY DRINKS | $\begin{gathered} 21 \\ 0.54(173) \end{gathered}$ | $\begin{gathered} 19 \\ 0.51(143) \end{gathered}$ | 2.1 |
| JUICE DRINKS | $\begin{gathered} 9.7 \\ 0.56(58) \end{gathered}$ | $\begin{gathered} 6.9 \\ 0.47(52) \end{gathered}$ | 2.8 |
| COFFEE \& TEA, SUGAR-ADDED BOTTLED TAXED | $\begin{gathered} 6.1 \\ 0.36(80) \end{gathered}$ | $\begin{gathered} 5.2 \\ 0.37(64) \end{gathered}$ | 0.87 |
| DIET SODA | $\begin{gathered} 5.7 \\ 0.14(444) \end{gathered}$ | $\begin{gathered} 5.1 \\ 0.18(285) \end{gathered}$ | 0.59 |
| DIET SPORTS DRINKS | $\begin{gathered} 6.4 \\ 0.30(51) \end{gathered}$ | $\begin{gathered} 4.7 \\ 0.38(30) \end{gathered}$ | 1.7 |
| DIET ENERGY DRINKS | $\begin{gathered} 22 \\ 1.0(144) \end{gathered}$ | $\begin{gathered} 19 \\ 0.55(125) \end{gathered}$ | 2.9 |
| 100\% JUICE | $\begin{gathered} 11 \\ 0.44(66) \end{gathered}$ | $\begin{gathered} 9.9 \\ 0.51(48) \end{gathered}$ | 0.69 |
| MILK | $\begin{gathered} 3.5 \\ 0.071(278) \end{gathered}$ | $\begin{gathered} 3.1 \\ 0.070(169) \end{gathered}$ | 0.42 |
| WATER | $\begin{gathered} 7.3 \\ 0.23(100) \end{gathered}$ | $\begin{gathered} 7.6 \\ 0.49(62) \end{gathered}$ | -0.28 |
| POWDERED SUGAR-FREE DRINKS | $\begin{gathered} 1.7 \\ 0.13(24) \end{gathered}$ | $\begin{gathered} 1.9 \\ 0.13(20) \end{gathered}$ | -0.20 |


| COFFEE \& TEA, SUGAR-FREE BOTTLED NO TAX | $\begin{gathered} 7.1 \\ 0.48(52) \end{gathered}$ | $\begin{gathered} 6.4 \\ 0.52(37) \end{gathered}$ | 0.71 |
| :---: | :---: | :---: | :---: |
| CHOCOLATE MILK | $\begin{gathered} 11 \\ 0.68(34) \end{gathered}$ | $\begin{gathered} 9.6 \\ 0.81(31) \end{gathered}$ | 1.4 |
| POWDERED SUGAR-ADDED DRINKS | $\begin{gathered} 1.9 \\ 0.082(57) \end{gathered}$ | $\begin{gathered} 1.7 \\ 0.060(59) \end{gathered}$ | 0.23 |
| COFFEE \& TEA, SUGAR-ADDED BOTTLED NO TAX | $\begin{gathered} 20 \\ 0.57(58) \end{gathered}$ | $\begin{gathered} 17.8 \\ 0.63(36) \end{gathered}$ | 2.0 |
| SMALL STORES |  |  |  |
| SODA | $\begin{gathered} 6.6 \\ 0.11(652) \end{gathered}$ | $\begin{gathered} 5.7 \\ 0.090(1111) \end{gathered}$ | 0.88 |
| SPORTS DRINKS | $\begin{gathered} 7.3 \\ 0.17(176) \end{gathered}$ | $\begin{gathered} 7.0 \\ 0.16(203) \end{gathered}$ | 0.30 |
| ENERGY DRINKS | $\begin{gathered} 22 \\ 0.42(248) \end{gathered}$ | $\begin{gathered} 21 \\ 0.32(405) \end{gathered}$ | 1.5 |
| JUICE DRINKS | $\begin{gathered} 13 \\ 0.47(73) \end{gathered}$ | $\begin{gathered} 13 \\ 0.54(91) \end{gathered}$ | -0.29 |
| COFFEE \& TEA, SUGAR-ADDED BOTTLED TAXED | $\begin{gathered} 7 \\ 0.37(91) \end{gathered}$ | $\begin{gathered} 6.9 \\ 0.28(122) \end{gathered}$ | 0.098 |
| DIET SODA | $\begin{gathered} 7.1 \\ 0.13(392) \end{gathered}$ | $\begin{gathered} 6.4 \\ 0.10(528) \end{gathered}$ | 0.70 |
| DIET SPORTS DRINKS | $\begin{gathered} 7.5 \\ 0.38(46) \end{gathered}$ | $\begin{gathered} 6.7 \\ 0.41(35) \end{gathered}$ | 0.89 |
| DIET ENERGY DRINKS | $\begin{gathered} 22 \\ 0.45(199) \end{gathered}$ | $\begin{gathered} 21 \\ 0.36(328) \end{gathered}$ | 1.4 |
| 100\% JUICE | $\begin{gathered} 13 \\ 0.40(59) \end{gathered}$ | $\begin{gathered} 13 \\ 0.30(98) \end{gathered}$ | 0.10 |
| MILK | $\begin{gathered} 4.4 \\ 0.094(209) \end{gathered}$ | $\begin{gathered} 3.7 \\ 0.080(218) \end{gathered}$ | 0.67 |
| WATER | $\begin{gathered} 6.6 \\ 0.17(112) \end{gathered}$ | $\begin{gathered} 6.5 \\ 0.12(160) \end{gathered}$ | 0.17 |
| POWDERED SUGAR-FREE DRINKS | $\begin{gathered} 3 \\ --(1) \end{gathered}$ | $\begin{gathered} 2.36 \\ 0.0(6) \end{gathered}$ | 0.59 |
| COFFEE \& TEA, SUGAR-FREE BOTTLED NO TAX | $\begin{gathered} 10 \\ 0.47(41) \end{gathered}$ | $\begin{gathered} 10 \\ 0.26(3) \end{gathered}$ | 0.14 |
| CHOCOLATE MILK | $\begin{gathered} 14 \\ 0.66(43) \end{gathered}$ | $\begin{gathered} 13 \\ 0.51(72) \end{gathered}$ | 1.3 |
| POWDERED SUGAR-ADDED DRINKS | $\begin{gathered} 2.3 \\ 0.26(12) \end{gathered}$ | $\begin{gathered} 2.0 \\ 0.16(18) \end{gathered}$ | 0.34 |
| COFFEE \& TEA, SUGAR-ADDED BOTTLED NO TAX | $\begin{gathered} 24 \\ 0.39(56) \end{gathered}$ | $\begin{gathered} 21 \\ 0.45(74) \end{gathered}$ | 2.8 |
| WAREHOUSES ${ }^{2}$ |  |  |  |
| SODA | $\begin{gathered} 2.9 \\ 0.56(5) \end{gathered}$ | $\begin{gathered} 3.1 \\ 0.69(4) \end{gathered}$ | -0.16 |
| SPORTS DRINKS | $\begin{gathered} 3.9 \\ 0.066(2) \end{gathered}$ | $\begin{gathered} 3.3 \\ 0.63(2) \end{gathered}$ | 0.62 |


| ENERGY DRINKS | 13 | 13 | 0.50 |
| :--- | :---: | :---: | :---: |
| JUICE DRINKS | $4.6(2)$ | $4.4(2)$ | 0.19 |
| DIET SODA | 3.5 | $3.3(2)$ | -0.046 |
| DIET SPORTS DRINKS |  |  |  |
| DIET ENERGY DRINKS | $0.16(2)$ | 2.5 | N |
| DIET SPORTS DRINKS |  |  |  |


| DIET ENERGY DRINKS | 32 | 33 | -1.0 |
| :--- | :---: | :---: | :---: |
| $100 \%$ JUICE | $9.9(2)$ | $2.9(2)$ | 0.16 |
| MILK | 15 | 15 | $0.86(14)$ |
| WATER | $2.5(4)$ | 22 | 0.90 |
| COFFEE \& TEA, SUGAR-FREE BOTTLED NO TAX | 23 | $1.1(20)$ | 0.23 |
| CHOCOLATE MILK | $1.8(11)$ | 0.7 | -0.68 |

${ }^{1}$ Negative price differences indicates the comparison area price is higher than the City of Seattle price<br>${ }^{2}$ The warehouse category only includes one store (Costco) in each study area<br>${ }^{3}$ Blank cells indicate no beverage items observed in that category

## BASELINE MARKETING

Table 6 displays the count of interior and exterior beverage marketing and promotions by store type. The presence of beverage marketing varied between Seattle and the comparison areas, as well as by store type.

## Comparing interior and exterior marketing in Seattle to the comparison area.

The comparison area had a somewhat larger presence of interior marketing as compared to Seattle, and a much larger presence of exterior marketing as compared to Seattle. The comparison area additionally had a larger presence of interior and exterior marketing of taxed beverages as compared to Seattle.

## Comparing types of marketing within Seattle and comparison area.

There was more interior marketing than exterior marketing in both Seattle and the comparison areas.
In Seattle, supermarket and superstores had the highest counts of interior marketing (mean taxed beverage marketing: 2.2, mean non-taxed beverage marketing 2.5), followed by grocery and drug stores (mean taxed beverage marketing 1.2, mean non-taxed beverage marketing 1.3), then small stores with the smallest count (mean taxed beverage marketing 1.3, mean non-taxed beverage marketing 1.1).

In the comparison areas, grocery and drug stores had the highest count of marketing (mean taxed 2.7, mean nontaxed 3.3), followed by supermarket and superstores (mean taxed 2.5, mean non-taxed 2.9), and lastly small stores (mean taxed 2.0, mean non-taxed 1.7).

In both Seattle and the comparison areas, supermarkets, superstores, grocery, and drug stores had more marketing for non-taxed beverages as compared to taxed beverages. Small stores, in contrast, had more promotions for taxed beverages compared to non-taxed. This higher presence of marketing for non-taxed beverages in the larger stores, and higher presence for taxed beverage marketing in the smaller stores, mirrors the patterns in price differentials between sugar-sweetened and diet beverages in Table 5; wherein larger stores diet sodas were cheaper than sweetened sodas, and in small stores sweetened sodas were cheaper than diet sodas. The presence and count of marketing varied widely across individual stores, as seen in the large ranges and standard deviations.

TABLE 6. AVERAGE COUNT OF INTERIOR AND EXTERIOR MARKETING/PROMOTIONS OF TAXED AND NON-TAXED BEVERAGES PER STORE IN SEATTLE AND COMPARISON AREAS

|  | SEATTLE |  |  | COMPARISON AREA |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MEAN (SE) | MIN | MAX | MEAN (SE) | MIN | MAX |
| SUPERSTORES AND SUPERMARKETS | $\mathrm{n}=31$ |  |  | $\mathrm{n}=24$ |  |  |
| INTERIOR MARKETING, TAXED | $2.2(0.26)$ | 0.0 | 5.0 | $2.5(0.29)$ | 0.0 | 5.0 |
| INTERIOR MARKETING, NON-TAXED | $2.5(0.29)$ | 0.0 | 7.0 | $2.9(0.42)$ | 0.0 | 7.0 |
| EXTERIOR MARKETING, TAXED | $0.0(0.0)$ | 0.0 | 0.0 | $0.0(0.0)$ | 0.0 | 0.0 |
| EXTERIOR MARKETING, NON-TAXED | $0.0(0.0)$ | 0.0 | 0.0 | $0.08(0.058)$ | 0.0 | 1.0 |
| GROCERY AND DRUG STORES | $\mathrm{n}=50$ |  |  | $\mathrm{n}=27$ |  |  |
| INTERIOR MARKETING, TAXED | $1.2(0.17)$ | 0.0 | 4.0 | $2.7(0.26)$ | 0.0 | 5.0 |
| INTERIOR MARKETING, NON-TAXED | $1.3(0.18)$ | 0.0 | 5.0 | $3.3(0.38)$ | 0.0 | 8.0 |
| EXTERIOR MARKETING, TAXED | $0.02(0.020)$ | 0.0 | 1.0 | $0.15(0.10)$ | 0.0 | 2.0 |
| EXTERIOR MARKETING, NON-TAXED | $0.02(0.020)$ | 0.0 | 1.0 | $0.15(0.088)$ | 0.0 | 2.0 |
| SMALL STORES | $\mathrm{n}=71$ |  |  | $\mathrm{n}=80$ |  |  |
| INTERIOR MARKETING, TAXED | $1.3(0.16)$ | 0.0 | 4.0 | $2.0(0.15)$ | 0.0 | 6.0 |
| INTERIOR MARKETING, NON-TAXED | $1.1(0.14)$ | 0.0 | 4.0 | $1.7(0.16)$ | 0.0 | 6.0 |
| EXTERIOR MARKETING, TAXED | $0.87(0.20)$ | 0.0 | 9.0 | $2.5(0.36)$ | 0.0 | 16.0 |
| EXTERIOR MARKETING, NON-TAXED | $0.21(0.080)$ | 0.0 | 4.0 | $0.78(0.18)$ | 0.0 | 9.0 |
| COFFEE AND BUBBLE TEA SHOPS | $\mathrm{n}=29$ |  |  | $\mathrm{n}=27$ |  |  |
| INTERIOR MARKETING, TAXED | $0.52(0.12)$ | 0.0 | 2.0 | $0.26(0.13)$ | 0.0 | 3.0 |
| INTERIOR MARKETING, NON-TAXED | $0.10(0.058)$ | 0.0 | 1.0 | $0.11(0.062)$ | 0.0 | 1.0 |
| EXTERIOR MARKETING, TAXED | $0.59(0.19)$ | 0.0 | 4.0 | $0.52(0.27)$ | 0.0 | 7.0 |
| EXTERIOR MARKETING, NON-TAXED | $0.24(0.17)$ | 0.0 | 4.0 | $0.07(0.07)$ | 0.0 | 2.0 |
| COUNTER SERVICES RESTAURANTS | $\mathrm{n}=47$ |  |  | $\mathrm{n}=74$ |  |  |
| INTERIOR MARKETING, TAXED |  |  |  | NOT MEASURED |  |  |
| INTERIOR MARKETING, NON-TAXED | $0.17(0.076)$ | 0.0 | 3.0 | $0.32(0.088)$ | 0.0 | 3.0 |
| EXTERIOR MARKETING, TAXED | $0.0(0.0)$ | 0.0 | 0.0 | $0.01(0.014)$ | 0.0 | 1.0 |
| EXTERIOR MARKETING, NON-TAXED |  |  |  |  |  |  |

## Baseline snacks

Table 7 displays the price in cents per serving (not ounce) for a selection of junk and snack foods, including: Little Debbie Honey Buns, Frosted Flakes Cereal, Lays Potato Chips, Oreos Cookies, Pringles Chips, and Reese's Chocolate Candy. The mean snack price is higher in all Seattle store types compared to the comparison areas, with the exception of small stores, where the mean price is higher in the comparison areas. Similar to beverage prices, in both Seattle and the comparison areas the mean price for snacks in the larger stores is lower than the mean price for snacks in small stores (where the price is higher).

TABLE 7. PRICE IN CENTS PER SERVING OF ALL JUNK FOODS IN SEATTLE AND COMPARISON AREAS BY STORE TYPEㅗ

|  | SEATTLE | COMPARISON AREAS |
| :--- | :---: | :---: |
|  | MEAN CENTS/SERVING | MEAN CENTS/SERVING |
|  | SE (n) | SE (n) |
| SUPERSTORE | 41 | 37 |
| SUPERMARKET | $1.0(6)$ | $3.0(10)$ |
| GROCERY | 45 | 39 |
| DRUG STORE | $1.9(19)$ | $2.4(11)$ |
| SMALL STORE | 54 | 50 |

${ }^{1}$ Warehouse is excluded from this table because the warehouses did not have the same snacks and junk foods present as the other store types

## DISCUSSION

We found that the vast majority of beverages are priced similarly in Seattle and the comparison area. These baseline similarities in prices provide good evidence that our comparison area is a reasonable comparison for the City of Seattle in terms of beverage prices. In addition to establishing that Seattle and the comparison area are comparable at baseline, we document several aspects about the pricing of taxed and non-taxed beverages at baseline that will be important for us to consider in the evaluation and interpretation of results moving forward. Specifically, we found that all beverages, including both taxed and non-taxed beverages, are cheaper in larger stores as compared to smaller stores, in both Seattle and the comparison area. We also found that there were price differences between diet and sugar-sweetened beverages, and that these differed across store size. Specifically, in larger stores diet beverages were often priced lower than sugar-sweetened beverages, and in smaller stores, diet beverages were priced higher than sugar-sweetened beverages. This trend was also reflected in the presence of marketing in stores-larger stores tended to have more marketing of the non-taxed, diet beverages compared to marketing of taxed beverages whereas smaller stores tended to have more marketing of the taxed beverages compared to non-taxed beverages. We speculate that many of these differences are likely related to a store's purchasing power (whereby larger stores are able to purchase and stock more items at one time which allows them to offer lower prices), as well as larger stores' contractual relationships with distributors and beverage companies (whereby larger stores distributor and beverage companies manage the stores interior marketing displays, and may offer more distributor-level sales and promotions).

While the vast majority of beverage prices in Seattle and the comparison area were similar, when there were small differences, it was the Seattle prices that tended to be slightly higher as compared to the comparison area beverage prices. We speculate that this difference is related to a higher cost of living in Seattle as compared to the comparison area, where retail rent and ownership costs are higher, as well as higher wage and labor costs within the City of Seattle.

We also found differences between Seattle and the comparison area in baseline store-level interior and exterior marketing. The comparison areas had a somewhat larger presence of interior marketing as compared to Seattle, and a substantially larger presence of exterior marketing as compared to Seattle, particularly so for grocery stores and small stores. This may be due to small stores and grocery stores in the comparison area more often being "stand alone" stores with parking lots and larger surface area for exterior marketing as compared to the small stores in the City of Seattle. In both Seattle and the comparison areas, supermarkets and superstores and grocery and drug stores had more marketing for non-taxed beverages as compared to taxed beverages. Small stores, in contrast, had more promotions for taxed beverages compared to non-taxed.

## Limitations.

Limitations of this study should be noted. First, we excluded from our sample specialty supermarkets that do not sell the large name brand beverages, including Whole Foods, Trader Joes and PCC. We did so because these
stores tend to devote less shelf space to sugar-sweetened beverages (as compared to chain supermarkets), and likely have a much lower volume of sales of the sugar-sweetened beverages. Second, in the comparison area, there were fewer supermarkets and grocery stores than we had anticipated, so we collected data from all the stores that were available and then supplemented the sample with additional small stores. Based on our statistical power calculations, we anticipate still having adequate statistical power to detect reasonable changes for both of these types of stores. Third, it was not possible to collect all beverage prices. Instead, we collected a large number of name brand beverages and we collected the "cheapest" version of many beverage types (this allowed us to collect information in some ethnic grocers). Fourth, it was not possible to collect the prices that retailers pay for their beverages; instead, we only collect the prices that they are selling the beverages for. Therefore, we will not have information about whether or not each retailer faces a higher price from their distributor for the taxed beverages (or non-taxed beverages). This is a limitation in all studies thus far of beverage taxes. Fifth, anecdotal information shortly after the tax was implemented suggested that there was wide variation in how stores were dealing with the tax. Our investigator team heard stories and took pictures of variations of implementations. Some stores did not change the
 shelf price, but indicated in price changed for taxed and non-taxed beverages in Seattle.

## FUTURE WORK

We will repeat store surveys with the same set of retail locations in both Seattle and the comparison areas six and 12 months post-tax implementation. Collecting data at six months will allow our team to assess early changes in prices. Evaluations from Berkeley and Philadelphia have found changes in prices in large stores at or before 6 months post-tax. This will allow us to report on early findings to the City. At both of these time points we will repeat the same survey tools to record the availability and cost of taxed and non-taxed beverages, as well as select grocery and snack foods. We will also use the same survey tools to gather advertising and marketing counts for taxed and non-taxed beverages. These follow-up surveys will allow us to understand if and how retailers pass the SBT price increases through to shoppers. These surveys will also allow us to understand if the SBT is passed through only to taxed beverages, or if prices are also raised for non-taxed beverages or sugary junk and snack foods.

In addition to the retail availability and pricing analyses we will conduct, we will use these retail audit data as part of the 2018 assessment of food security in King County, including an analysis of the price and availability of snack and grocery items by store type and neighborhood. For the six and potentially the 12 month data collection periods, we will add eight additional grocery items to our survey tools for which we will gather availability and pricing data from all retail locations.

## CONSIDERATIONS FOR ONGOING EVALUATION

Because we recruited more stores than our target sample, even with store closures and management turnover in the coming year, we will maintain a sufficient sample to detect reasonable levels of pricing changes as the SBT is implemented. When we return to the stores at six and 12 months, we will add to the survey protocol for data collectors to identify and record whether the stores post any information about the SBT in the store. While our survey tools already gather information on the types of sales present in each stores, continuing to record this information will be important for our understanding of the tax implementation, and how sale prices may differ as a result of the SBT. In addition, if stores are indicating that a tax will be added at the register, we will scan the beverages in order to record the total price paid. These two additional data collection time points will allow us to understand what happens to retail prices over time. These data will provide important context to understanding any potential changes in beverage consumption or attitudes towards beverages found in either the Child Cohort or Norms and Attitudes components of this evaluation. We also anticipate that beverage pricing, as well as marketing, and the way that beverage prices are listed may change over time as retailers and consumers become accustomed to the tax; by gathering data at both six and 12 months we will be able to understand if and how price pass-through or pricing structures shift with time.

## SECTION 2 | CHILD COHORT SURVEY: HEALTH BEHAVIORS


#### Abstract

Objective: The Child Cohort component aims to evaluate the impact of the City of Seattle Sweetened Beverage Tax (SBT) on children's and parent's beverage consumption and other aspects of children's diet among families living in the City of Seattle versus those living in south King County (the comparison area). The baseline data collection establishes a pre-tax estimate of children's beverage consumption and diet quality, parent beverage consumption, as well as child and household characteristics.


Methods: Recruitment and data collection occurred October 2017-January 2018. We enrolled low-income families with a 7-10 or 12-17 year-old child who ever consumed sugary beverages. Data were collected via surveys available in multiple languages and platforms (e.g., online, in-person, phone). We enrolled and collected data from an ethnically and racially diverse sample ( $n=527$ ). The City of Seattle and comparison samples were similar on some (e.g., child age), but not all (e.g., race, household income) demographic characteristics.

Results: At baseline, children and parents reported the highest consumption of beverages without added sugars (non-taxed sugar-free) from beverage categories. Across all individual beverage types, tap and bottled water had the highest average consumption for children and parents. The second highest consumed were beverages with added sugars that would be subject to the Seattle SBT (taxed beverages). Within this category, children's consumption was highest for soda/pop with sugar and fruit-flavored beverages with sugar. Parent's highest consumption for taxed beverages was somewhat different, with prepared tea or coffee with sugar and soda/pop with sugar as the highest. The overall average consumption of taxed beverages was higher within both children and parents in the comparison area relative to those in the City of Seattle. On average, sugar-added beverages not subject to the Seattle SBT (non-taxed sugar-added beverages) were consumed the least. Within this beverage category, flavored milk was the beverage consumed most by children and tea or coffee with self-added sugar was the beverage consumed most by parents. At this baseline, children had the highest average frequency of consuming more healthful foods of fruits, green leafy and other vegetables, and whole grain bread. Among the most frequent less healthful foods that children consumed were cheese, beef/pork/sausage, and chocolate and other candy. We found similar patterns of child diet quality and similar average frequency of consumption for most foods between the children in the City of Seattle and children in the comparison area.

## SECTION 2 | CHILD COHORT SURVEY: HEALTH BEHAVIORS

## Objective

The Child Cohort component aims to evaluate the impact of the City of Seattle's Sweetened Beverage Tax (SBT) on children's beverage consumption and other aspects of children's diet relative to change in beverage consumption and diet among children in a comparison area. In order to represent these components of the evaluation while not biasing participation or participant responses, we created the Seattle Shopping and Wellness (SeaSAW) study. The objective of the baseline data collection was to establish a pre-tax estimate of children's beverage consumption (across to-be-taxed and non-taxed beverages), other aspects for the quality of children's diet (including frequency of consuming food that most commonly contributes to added sugar in children's diets), parent's beverage consumption, as well as child and family household and demographic characteristics. To our knowledge, this is the only US-based evaluation being done to date that directly examines changes in children's beverage consumption in response to a SBT.

## Methods

Data collection focused on recruiting children/families residing in the City of Seattle, and for comparison purposes, also included children/families living in nearby cities in south King County. In order to examine the impact of the tax on the most likely impacted children/families, we enrolled only low-income ( $<312 \%$ of the Federal Poverty Level) families with a 7-10 or 12-17 year-old child who ever consumed sugary beverages (11 year-olds were excluded because evidence is inconsistent on whether child or parent is best able to report on child food and beverage consumption). Recruitment and data collection happened through various means (e.g., phone, in-person, on-line) and at various venues (e.g., clinics, community events) from October 2017-January 2018. Data were collected via surveys available in English, Spanish, Somali, and Vietnamese.

| Survey | Measure | \# of Items | Completed By |
| :--- | :--- | :--- | :--- |
| Eligibility Screener | Eligibility for study | 12 | Parent and older child |
| Adapted Bev-Q (Child) | Child consumption of taxed and untaxed beverages <br> (frequency \& habitual volume) | 20 | Parent if child 7 -10 years old <br> Child if 12-17 years old |
| Adapted Bev-Q (Parent) | Parent consumption of taxed and untaxed beverages <br> (including alcoholic beverages) | 23 | Parent |
| Dietary Screening Questionnaire <br> (DSQ from NCI) | Child dietary quality screener | 30 | Parent if child 7-10 years old <br> Child if 12-17 years old |
| Household Information Survey | Demographic and other household information | 29 | Parent |

Full details about the recruitment and data collection methods and child/family participation for the baseline component of the Child Cohort (SeaSAW) are available in the baseline methods report submitted to the City of Seattle in February 2018.

## Results

## Demographics.

We were successful in enrolling and collecting data from low-income as well as ethnically and racially diverse participants of families and children for SeaSAW in both the City of Seattle and the comparison area. The majority, within both the City of Seattle and the comparison area, reported incomes $<130 \%$ of the Federal Poverty Level. Approximately one-quarter of both the City of Seattle and comparison area participants were Hispanic/Latinx and the most common race identified was Black/African-American/African in both samples. The City of Seattle and comparison area participants were similar in child and parent age and the distribution of gender (close to even split for boys and girls; mostly female caregivers), as was highest level of adult education in the household. There were some differences in demographics between the City of Seattle and comparison area participants. These differences included the proportion of Black/African-American/African children (Seattle participants at 37.3\% versus comparison area participants at $27.0 \%$ ) and white children ( $16.6 \%$ versus $23.8 \%$ ), City of Seattle families more likely to be in the lowest household income level ( $66.8 \%$ versus $47.3 \%<130 \%$ Federal Poverty Level), and a higher
percentage of families reporting food insecurity (all items >10 percentage point difference) among City of Seattle participating families compared to the comparison area participating families. Demographic characteristics are detailed in Table 1.

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF THE SEASAW SAMPLE

| TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF THE SEASAW SAMPLE |  |  |
| :---: | :---: | :---: |
| CHARACTERISTIC | City of seattle RESIDENCE | COMPARISON AREA RESIDENCE |
| SAMPLE SIZE* | $\mathrm{N}=271$ | $\mathrm{N}=256$ |
| CHILD AGE (YEARS) | 10.1 (0.2) | 10.5 (0.2) |
| CHILD SEX (\%FEMALE) | 49.1\% | 51.0\% |
| CHILD ETHNICITY** |  |  |
| - HISPANIC/LATINX | 24.7\% | 27.7\% |
| CHILD RACE |  |  |
| - NON-HISPANIC BLACK/AFRICAN-AMERICAN/AFRICAN ONLY | 37.3\% | 27.0\% |
| - NON-HISPANIC WHITE ONLY | 16.6\% | 23.8\% |
| - NON-HISPANIC ASIAN ONLY | 6.3\% | 5.1\% |
| - NON-HISPANIC AMERICAN INDIAN OR ALASKA NATIVE ONLY | 0.4\% | 0.4\% |
| - NON-HISPANIC NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER ONLY | 0\% | 2.7\% |
| - NON-HISPANIC TWO OR MORE RACES | 11.4\% | 9.8\% |
| - RACE/ETHNICITY NOT REPORTED | 3.3\% | 3.5\% |
| PARENT AGE (YEARS) | 39.5 (0.5) | 38.7 (0.4) |
| PARENT SEX (\%FEMALE) | 88.6\% | 93.2\% |
| HIGHEST LEVEL OF EDUCATION OF ANY ADULT IN HOUSEHOLD |  |  |
| - DID NOT COMPLETE HIGH SCHOOL | 10.0\% | 5.1\% |
| - COMPLETED HIGH SCHOOL OR GED | 21.8\% | 25.8\% |
| - SOME COLLEGE OR VOCATIONAL TRAINING | 29.9\% | 32.0\% |
| - COMPLETED COLLEGE OR UNIVERSITY | 19.6\% | 26.2\% |
| - has graduate or professional degree | 9.6\% | 8.2\% |
| - LEVEL of education not reported | 9.2\% | 2.7\% |
| ANNUAL HOUSEHOLD INCOME |  |  |
| - <130\% FEDERAL POVERTY LEVEL | 66.8\% | 47.3\% |
| - $130 \%$ - <200\% FEDERAL POVERTY LEVEL | 12.9\% | 14.5\% |
| - $200 \%$ - <312\% FEDERAL POVERTY LEVEL | 14.0\% | 26.6\% |
| - ANNUAL HOUSEHOLD INCOME NOT REPORTED (SEE NOTE**) | 6.3\% | 11.7\% |
| FOOD SECURITY (\% RESPONDING 'OFTEN TRUE' OR 'SOMETIMES TRUE' IN THE PAST MONTH) |  |  |
| - WORried about food running out | 58.2\% | 42.0\% |
| - Food ran out and not have money for more | 50.4\% | 40.2\% |
| - HARD TO BUY HEALTHY FOODS | 58.3\% | 46.6\% |

[^3]
## Child beverage consumption

Among beverage categories, the non-taxed sugar-free beverages had the highest consumption by children in both the City of Seattle ( $47.8 \mathrm{oz} /$ day) and the comparison area ( $49.8 \mathrm{oz} /$ day). Within this category of non-taxed sugarfree beverages, tap water was the most consumed beverage by children in the baseline SeaSAW sample in Seattle ( $18.7 \mathrm{oz} /$ day) and the comparison area ( $15.0 \mathrm{oz} /$ day), with bottled water being the next highest consumed beverage ( $11.6 \mathrm{oz} /$ day and $13.7 \mathrm{oz} /$ day, respectively). These were followed by non-flavored milk ( $9.3 \mathrm{oz} /$ day in City of Seattle; 8.4 oz /day in comparison area) and then $100 \%$ fruit juice ( $5.6 \mathrm{oz} /$ day in City of Seattle; 6.2 oz /day in comparison area). Most of the remaining individual non-taxed sugar-free beverages had average consumption of $1.0 \mathrm{oz} / \mathrm{day}$ or lower in both City of Seattle and the comparison area.

Taxed beverages were the next highest consumed category of beverages, with child consumption in City of Seattle averaging $8.6 \mathrm{oz} /$ day and in the comparison area averaging $14.1 \mathrm{oz} /$ day. Within this category, soda/pop with sugar had the highest child consumption ( $2.6 \mathrm{oz} /$ day in City of Seattle; $4.3 \mathrm{oz} /$ day in comparison area), followed by fruitflavored beverages with sugar ( $2.5 \mathrm{oz} /$ day in City of Seattle; $4.3 \mathrm{oz} /$ day in comparison area) and then sports drinks with sugar ( $2.1 \mathrm{oz} /$ day in City of Seattle; $2.9 \mathrm{oz} /$ day in comparison area).

The beverage category with the lowest child consumption was non-taxed sugar-added beverages in both the City of Seattle ( $4.8 \mathrm{oz} / \mathrm{day}$ ) and the comparison area ( $6.1 \mathrm{oz} /$ day). Within this category, flavored milk ( $2.1 \mathrm{oz} /$ day in City of Seattle; $3.1 \mathrm{oz} /$ day in comparison area) had the highest child consumption.


The comparable ranking or order of consumption of different beverage categories and individual beverage types between the City of Seattle and the comparison area was noteworthy. There are some differences between City of Seattle and the comparison areas in absolute consumption though, including the taxed beverages. This highlights the need for baseline data collection (i.e., not assuming that there are no differences at baseline) with differences that will need to be accounted for in the longitudinal analysis. The difference between the City of Seattle and the comparison area in the total consumption of these types of sugary beverages is perhaps not unexpected given existing Healthy Youth Survey data from 2014/2016 that finds that a lower percentage of children in the City of Seattle report consumption of 1+ sugary beverages per day than children in south King County cities. However, we anticipated that limiting the samples in this child cohort component to low-income and 'ever' sugary beverage consumers would have resulted in no or lesser differences between children in the City of Seattle versus the comparison area samples. It is notable that differences in consumption of taxed beverages between the City of Seattle and comparison area are also seen among the parents (see Table 4). Details about SeaSAW children's beverage consumption are provided in Table 2. In the tables, higher mean than median values reflect the fact that some children don't consume that specific beverage type at all $(0)$ and some children have high consumption thus increasing the mean or average. The lowest category of beverage consumption frequency is 1 time per week. Therefore, consumption of less than 1 time per week was coded as zero ounces consumed per day.

TABLE 2. CHILD BEVERAGE CONSUMPTION WITHIN THE SEASAW SAMPLE

|  | CITY OF SEATTLE RESIDENCE |  | COMPARISON AREA RESIDENCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BEVERAGES |  | OUNCES | PER DAY |  |  |
|  | MEAN (SE) | MEDIAN | MEAN (SE) | MEDIAN |  |
| TAXED BEVERAGES (TOTAL) - PREPARED/BOTTLED | 8.6 (1.1) | 3.7 | 14.1 (1.3) | 7.0 |  |
| - FRUIT-FLAVORED DRINKS WITH SUGAR | 2.5 (0.4) | 0.0 | 4.3 (0.5) | 1.1 |  |
| - SODA/POP WIth sugar | 2.6 (0.3) | 1.1 | 4.3 (0.5) | 1.7 |  |
| - tea or coffee with sugar | 1.6 (0.4) | 0.0 | 1.9 (0.3) | 0.0 |  |
| - ENERGY DRINKS WITH SUGAR | 0.3 (0.1) | 0.0 | 1.0 (0.3) | 0.0 |  |
| - SPORTS DRINKS WITH SUGAR | 2.1 (0.4) | 0.0 | 2.9 (0.4) | 0.0 |  |
| NON-TAXED SUGAR-ADDED BEVERAGES (TOTAL) | 4.8 (0.8) | 1.1 | 6.1 (0.7) | 2.9 |  |
| - flavored milk | 2.1 (0.4) | 0.0 | 3.1 (0.3) | 1.1 |  |
| - tea or coffee with self-added sugar | 1.6 (0.4) | 0.0 | 1.6 (0.3) | 0.0 |  |
| - FRUIT-FLAVORED OR SPORTS DRINKS FROM POWDER OR WITH SELF-ADDED SUGAR | 1.3 (0.3) | 0.0 | 1.4 (0.3) | 0.0 |  |
| NON-TAXED SUGAR-FREE BEVERAGES (TOTAL) | 47.8 (2.2) | 42.9 | 49.8 (2.2) | 41.1 |  |
| - water |  |  |  |  |  |
| - TAP WATER | 18.7 (1.1) | 16.0 | 15.0 (1.1) | 8.0 |  |
| - bottled water | 11.6 (1.0) | 4.3 | 13.7 (1.0) | 6.0 |  |
| - FLAVORED WATER WITH NO OR LOW CALORIE (NLC) SWEETENER | 2.3 (0.4) | 0.0 | 2.4 (0.5) | 0.0 |  |
| - 100\% FRUIT JUICE | 5.6 (0.5) | 2.9 | 6.2 (0.6) | 2.9 | errors of the mean) or medians |
| - NON-FLAVORED MILK* | 9.3 (0.7) | 6.0 | 8.4 (0.5) | 6.0 | in ounces per day based on the multiplicative of derived daily |
| - UNSWEETENED TEA OR COFFEE | 0.9 (0.3) | 0.0 | 0.8 (0.3) | 0.0 | frequency and habitual volume reported on the modified beverage |
| - OTHER FLAVORED DRINKS WITH NO OR LOW CALORIE (NLC) SWEETENER |  |  |  |  | reported on the modified beverage consumption questionnaire used; |
| O NLC FRUIT-FLAVORED DRINKS | 1.0 (0.2) | 0.0 | 2.0 (0.4) | 0.0 | for beverage domains with multiple beverage types being combined, total |
| - NLC SODA/POP | 0.3 (0.1) | 0.0 | 0.5 (0.1) | 0.0 | values are the sums of daily ounces |
| - NLC ENERGY DRINKS | 0.5 (0.2) | 0.0 | 0.1 (0.1) | 0.0 | domain; "Non-flavored milk includes |
| - NLC SPORTS DRINKS | 0.5 (0.2) | 0.0 | 1.0 (0.3) | 0.0 | cow's milk, soy milk, nut milks that have no added sugar and regardless |
| O TEA OR COFFEE WITH NLC SWEETENER | 0.6 (0.2) | 0.0 | 1.0 (0.3) | 0.0 | of fat content. |

## Child diet QuAlity

The Dietary Screener Questionnaire is a commonly used screener to obtain a general overview of diet quality as well as evaluate components of children's diets that most often contribute added sugars. Among the more healthful foods asked about, we found the highest average consumption among the City of Seattle and comparison area children was for fruit ( 5.2 times per week in City of Seattle; 5.3 times per week in the comparison area), non-leafy vegetables ( 4.3 and 3.8 times per week respectively), green leafy or lettuce salad ( 3.4 and 2.9 times per week respectively), and whole grain bread (3.3 and 2.9 times per week respectively). Among the less healthful options, cheese ( 3.6 and 4.0 times per week respectively), pork/beef/sausage ( 3.3 and 3.0 times per week respectively), chocolate and other candy ( 2.3 and 2.4 time respectively), processed meats ( 2.1 and 2.2 times per week respectively), and fried potatoes ( 1.8 and 2.0 time respectively) were most frequently consumed by City of Seattle and comparison area children. Hot or cold cereal was also consumed often in both samples (3.9 and 3.7 times per week respectively). The remaining foods were consumed on average less often than 2 times per week.

The ranking or order of consumption by food type within the larger categories (more healthful, less healthful, other/intermediate) among City of Seattle versus comparison area children was very similar. The absolute average consumption across food types was also similar between the City of Seattle and comparison area children, with the exception of higher consumption of brown rice and whole grains among City of Seattle children. Details about SeaSAW children's diet quality are provided in Table 3.

| TABLE 3. CHILD DIET QUALITY IN THE SEASAW SAMPLE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | CITY OF SEATTLE RESIDENCE |  | COMPARISON AREA RESIDENCE |  |
| DIET QUALITY COMPONENT | TIMES PER WEEK EATEN |  |  |  |
|  | MEAN (SE) | MEDIAN | MEAN (SE) | MEDIAN |
| MORE HEALTHFUL |  |  |  |  |
| FRUIT - FRESH, FROZEN, CANNED | 5.2 (0.3) | 3.5 | 5.3 (0.3) | 3.5 |
| OTHER NON-LEAFY VEGETABLES | 4.3 (0.2) | 3.5 | 3.8 (0.2) | 3.5 |
| GREEN LEAFY OR LETTUCE SALAD | 3.4 (0.2) | 3.5 | 2.9 (0.2) | 2.0 |
| WHOLE GRAIN BREAD | 3.3 (0.2) | 2.0 | 2.9 (0.2) | 2.0 |
| POTATOES - MASHED, BOILED, OR BAKED | 1.4 (0.1) | 0.6 | 1.3 (0.1) | 0.6 |
| BEANS | 1.5 (0.1) | 0.6 | 1.3 (0.1) | 0.6 |
| BROWN RICE OR WHOLE GRAINS | 1.8 (0.2) | 0.6 | 1.1 (0.1) | 0.3 |
| SALSA | 0.8 (0.1) | 0.3 | 0.9 (0.1) | 0.3 |
| LESS HEALTHFUL |  |  |  |  |
| CHEESE | 3.6 (0.2) | 3.5 | 4.0 (0.2) | 3.5 |
| BEEF, PORK, OR SAUSAGE | 3.3 (0.2) | 2.0 | 3.0 (0.2) | 2.0 |
| CHOCOLATE OR OTHER CANDY | 2.3 (0.2) | 1.0 | 2.4 (0.2) | 2.0 |
| PROCESSED MEATS | 2.1 (0.1) | 1.0 | 2.2 (0.1) | 2.0 |
| POTATOES - FRIED | 1.8 (0.1) | 1.0 | 2.0 (0.2) | 1.0 |
| BAKED GOOD - CAKE, COOKIES | 1.4 (0.1) | 0.6 | 1.3 (0.1) | 0.6 |
| ICE CREAM OR FROZEN DESSERTS | 1.3 (0.1) | 0.6 | 1.4 (0.1) | 0.6 |
| BAKED GOOD - PASTRIES, DONUTS, MUFFINS | 1.2 (0.1) | 0.6 | 1.4 (0.1) | 0.6 |
| PIZZA | 1.2 (0.1) | 0.6 | 1.2 (0.1) | 0.6 |
| OTHER/INTERMEDIATE |  |  |  |  |
| HOT OR COLD CEREAL | 3.9 (0.2) | 3.5 | 3.7 (0.2) | 3.5 |
| TOMATO SAUCE | 1.4 (0.1) | 0.6 | 1.2 (0.1) | 0.6 |
| POPCORN | 1.0 (0.1) | 0.6 | 1.2 (0.1) | 0.6 |

Note. Values are mean values (standard error of the mean) or medians of times per week, converted from the original Dietary Screener Questionnaire response options ( $0=$ Never, $1=1$ time last month, 2=2-3 times last month, 3=1 time per week, 4=2 times per week, 5=3-4 times per week, 6=5-6 times per week, 7=1 time per day, 8=2 or more times per day)

## Parent beverage consumption

Similar to their children, parents overall consumption of beverages within the non-taxed sugar-free category ( $59.3 \mathrm{oz} /$ day for City of Seattle parents; $64.3 \mathrm{oz} /$ day for comparison area parents) was higher than the two sugary beverages categories (taxed and non-taxed sugar added) for both City of Seattle and comparison area parents. Like their children, tap and bottled water had the highest average parent consumption within the non-sugar-added beverage category ( $23.1 \mathrm{oz} /$ day for tap and 15.9 oz /day for bottled water in City of Seattle; $18.3 \mathrm{oz} / \mathrm{day}$ for tap and $18.5 \mathrm{oz} /$ day for bottled water). This was followed by non-flavored milk ( $7.4 \mathrm{oz} /$ day and 7.4 oz /day respectively), $100 \%$ fruit juice ( $5.0 \mathrm{oz} /$ day and $5.7 \mathrm{oz} /$ day respectively), and unsweetened tea or coffee ( $3.3 \mathrm{oz} /$ day and 2.7 oz / day) among City of Seattle and comparison area parents.

The category of taxed beverages had the next highest consumption among the beverage categories for both City of Seattle ( $14.3 \mathrm{oz} /$ day) and comparison area parents ( $21.4 \mathrm{oz} /$ day). Among City of Seattle parents, prepared tea or coffee with sugar constituted the highest consumption within this taxed beverage category ( $5.5 \mathrm{oz} / \mathrm{day}$ ), followed by soda/pop with sugar ( $4.2 \mathrm{oz} / \mathrm{day}$ ), and then fruit-flavored beverage with sugar ( $2.9 \mathrm{oz} /$ day). The comparison area parents had a slightly different order of highest consumption among taxed beverages, with soda/pop with sugar ( $7.4 \mathrm{oz} /$ day) being the highest consumed in this beverage category, followed by prepared tea or coffee with sugar ( $5.4 \mathrm{oz} /$ day) , and then fruit-flavored beverage with sugar ( $3.8 \mathrm{oz} /$ day ).

The non-taxed sugar-added category had the lowest consumption relative to the other two categories ( 7.0 oz /day in City of Seattle parents and $9.8 \mathrm{oz} /$ day in comparison area parents). Most of the consumption in this category was driven by parent consumption of tea or coffee that was self-prepared with sugar ( 5.6 oz /day in City of Seattle; $6.3 \mathrm{oz} /$ day in comparison area). Alcoholic drink consumption was lowest among beverage categories for both Seattle and comparison area parents ( $1.6 \mathrm{oz} /$ day and 2.5 oz /day respectively.

Similar to their children, the largest absolute difference among overall beverage categories between the City of Seattle and the comparison area in average consumption was for taxed beverages. These differences were driven mainly by differences in soda/pop consumption, with less difference in fruit-flavored beverage, energy drinks, and sport drinks with sugar. Details

The non-taxed sugar-added category had the lowest parent consumption relative to the other two categories ( $7.0 \mathrm{oz} /$ day in City of Seattle parents and $9.8 \mathrm{oz} /$ day in comparison area parents). Most of the consumption in this category was driven by parent consumption of tea or coffee that was self-prepared with sugar (5.6 oz/day in City of Seattle; $6.3 \mathrm{oz} /$ day in comparison area). about parent beverage consumption are provided in Table 4.

TABLE 4. PARENT BEVERAGE CONSUMPTION WITHIN THE SEASAW SAMPLE

| BEVERAGES | CITY OF SEATTLE |
| :--- | :--- | :--- | :--- | :--- | :--- |
| RESIDENCE |  |$\quad$| COMPARISON AREA |
| :---: |
| RESIDENCE |


| - 100\% FRUIT JUICE | $5.0(0.5)$ | 2.9 | $5.7(0.6)$ | 2.9 |
| :--- | :--- | :--- | :--- | :--- |
| - NON-FLAVORED MILK* | $7.4(0.7)$ | 2.9 | $7.4(0.6)$ | 4.3 |
| - UNSWEETENED TEA OR COFFEE | $3.3(0.5)$ | 0.0 | $2.7(0.5)$ | 0.0 |
| - OTHER FLAVORED DRINKS WITH NO OR LOW CALORIE |  |  |  |  |
| (NLC) SWEETENER | $1.3(0.4)$ | 0.0 | $3.0(0.5)$ | 0.0 |
| O NLC FRUIT-FLAVORED DRINKS | $0.6(0.2)$ | 0.0 | $1.8(0.5)$ | 0.0 |
| O NLC SODA/POP | $0.3(0.2)$ | 0.0 | $0.5(0.2)$ | 0.0 |
| O NLC ENERGY DRINKS | $0.5(0.2)$ | 0.0 | $1.1(0.3)$ | 0.0 |
| O NLC SPORTS DRINKS | $2.1(0.4)$ | 0.0 | $2.5(0.5)$ | 0.0 |
| O TEA OR COFFEE WITH NCL SWEETENER | $\mathbf{1 . 6 ( 0 . 4 )}$ | $\mathbf{0 . 0}$ | $\mathbf{2 . 5 ( 0 . 4 )}$ | $\mathbf{0 . 0}$ |

Note. Values are means (standard errors of the mean) or medians of ounces per day based on the multiplicative of derived daily frequency and habitual volume reported on the modified beverage consumption questionnaire used; for beverage domains with multiple beverage types being combined, total values are the sums of daily ounces per day for each type within that domain; *Nonflavored milk includes cow's milk, soy milk, nut milks that have no added sugar and regardless of fat content.

## DIscussion

The Child Cohort component of the Seattle Sweetened Beverage Tax evaluation has been successfully launched in a short period of time. The baseline beverage consumption data for children and parents as well as the data on the quality of children's diets came from a new study in which we recruited and enrolled low-income as well as a racially and ethnically diverse sample of families and children living in the City of Seattle or in south King County (comparison area). We focus on a low-income population for health equity reasons and because these populations generally tend to have higher sugary beverage consumption and are more sensitive to price changes. The Child Cohort data form the basis on which to evaluate consumption impacts of the Seattle SBT. Establishing baseline allows for evaluation of short- and long-term changes in child and parent beverage consumption (by beverage category or within specific beverage types) and substitution among beverage types. The additional collection of some aspects of children's diet quality will allow for exploring substitution between children's beverage consumption and other common sources of added sugar in children's diet (e.g., if children reduce sugary beverage consumption, do they increase consumption of high-sugar foods?).

We found that both children and parents within the City of Seattle and the comparison area report the highest consumption for beverages without added sugar, particularly tap and bottled water. Unflavored milk and 100\% juice consumption were also among the higher individual beverages that children and parents consumed that were not water. This non-taxed sugar-free beverage consumption was followed by moderate consumption of taxed beverages. Soda/pop and fruit-flavored beverages with sugar had the highest average consumption for children in this beverage category. Prepared tea or coffee with sugar and soda/pop with sugar had the highest average consumption for parents in this beverage category. The beverage category with the lowest average consumption was non-taxed sugar-added beverages, although this category had fewer individual beverage types in it than the other beverage categories. Most flavored beverages with no or low calorie sweeteners had among the lowest average consumption, particularly for children (most < $1 \mathrm{oz} /$ day on average). There were differences between the City of Seattle and comparison area samples in both child and parent consumption of taxed beverages.

Among the foods queried on the Dietary Screener Questionnaire, children most frequently consumed the more healthful foods of fruits, green leafy and other vegetables, and whole grain bread. Among the most frequently consumed less healthful foods by children were cheese, beef/pork/sausage, and chocolate and other candy. We found similar patterns of child diet quality between the children in the City of Seattle and children in the comparison area.

There are limitations to the methods and the findings of the baseline Child Cohort component. The methods were limited to child and/or parent report of child beverage consumption and diet quality and parent report of their own beverage consumption. There are likely biases to such reports, including possible intentional (e.g., wanting to not
report consumption of foods or beverages thought to be less healthful) and unintentional biases (e.g., challenges with recalling frequency of consumption). The participants, although from low-income households (by design) and being racially and ethnically diverse, were not randomly selected and are not geographically or demographically representative of the City of Seattle or the comparison areas. More details about the limitations of the Child Cohort methods can be found in the baseline methods report provided to the City of Seattle in February 2018.

Attempts were made to have demographically similar participants in the City of Seattle and the comparison areas within the Child Cohort. This was successful for some demographic characteristics (e.g., child age, child sex), but on other demographic characteristics the City of Seattle and comparison areas differ (e.g., child race, household income, food insecurity). The relative order or ranking of the average child and parent consumption of beverage categories (non-added-sugar beverages, beverages that would be subject to Seattle's Sweetened Beverage Tax, sugar-added beverages not subject to Seattle's Sweetened Beverage Tax) was similar between the City of Seattle and comparison area. However, children and parents in the comparison areas had higher absolute average consumption of the sugary beverages that are subject to the Seattle SBT compared to children and parents in the City of Seattle. This highlights the importance of collecting baseline data and not assuming similar starting points, while also highlighting the need to use strategies in the longitudinal analysis (baseline to 6 -month to 1 -year to 2-year follow-up) that can account for the sample demographic and baseline beverage consumption differences. However, the lower level of City of Seattle children and parent's sugary beverage consumption may make it difficult to observe a reduction in consumption of these types of beverage over time. It is notable that the child dietary quality findings were very similar between the City of Seattle and comparison area.

## Future work \& CONSIDERATIONS FOR ONGOING EVALUATION

We will continue to prepare the baseline data to be ready for analysis when the post-tax data become available. This will include scoring the Dietary Screener Questionnaire to derive child-specific estimates of added sugar from common foods (using age-based volume of consumption estimates from national data), exploring strategies for addressing sporadic missing data (e.g., volume not reported for a beverage reported as consumed), and establishing a longitudinal analysis plan that can adjust for any existing baseline and demographic differences.

We are also in the process of preparing for the first post-tax evaluation time point at 6-months post-tax (starting in May/June 2018). For the 6-month and subsequent time points, we will re-contact and re-connect with the same families enrolled and engaged in the baseline data collection. They will complete the same child beverage consumption, parent beverage consumption, and child dietary quality surveys in order to enable evaluation of change over time using the same methods. We will also collect household demographic information for characteristics that may change over time (e.g., household income, food security).

Having multiple short-term (6-month) and long-term (12-month and 24-month) data collection for the Child Cohort will allow us to more reliably estimate the impact of the tax on consumption, examine the impact on trajectory of consumption, and explore differences throughout critical seasonal fluctuations in consumption of sugary beverages in particular among both children and parents. The Child Cohort component of the overall evaluation, in combination with other components of the Seattle SBT evaluation (e.g., store audits, store scanner data), will provide critical information about the public health impact of this tax, particularly on low-income populations with children, better our understanding of how the tax is impacting consumption and for whom, and has the potential to inform other policy needs and approaches to promote better child health.

## SECTION 3 | ADULT SURVEY: NORMS AND ATTITUDES


#### Abstract

Objective: As part of the tax implementation, the public will likely experience increased exposure to information about sugary beverages and their adverse health effects through heightened media attention during the course of adopting and implementing a tax. Subsequently, this increased awareness of the negative health effects of sugary beverages may drive changes in norms about sugary beverages and related issues, and could lead to reduced sugary beverage consumption ${ }^{1}$. This section will investigate whether people's perception of the healthfulness of sugary beverages and perceptions of the economic effects of sweetened beverage taxes change as a result of the tax and whether any observed change is larger (or smaller) among low-income populations in comparison to higher-income populations.


Methods: Participants were recruited between October and December 2017 from Seattle ( $\mathrm{N}=851$ ) and between December 2017 and January 2018 in a comparison area ( $\mathrm{N}=863$ ), whose demographics are similar to that of Seattle. The comparison area included residents of Minneapolis, MN and the combined region of Rockville City and Bethesda, MD and Arlington, VA (henceforth referred to as D.C. metro). The survey was offered online and via telephone in three languages (English, Spanish, and Vietnamese). We also recruited a large sample of low-income adults, defined as < $260 \%$ of the Federal Poverty Level (FPL).

Post-stratification weights were applied to all prevalence estimates based on the known population totals for race/ ethnicity, gender, age, and household income as determined by the 5 -year American Community Survey estimates (2012-2016). We present descriptive analyses of the responses for Seattle and the comparison area separately. We qualitatively examine similarities and differences in responses according to race/ethnicity and income.

Seattle and the comparison area are well-matched on a number of demographic characteristics including gender, age, and household income level. However, there is a lower proportion of people who are non-Hispanic Black ( $7 \%$ Seattle, $13 \%$ comparison) and people who are Hispanic ( $7 \%$ Seattle, $12 \%$ comparison) in Seattle, as compared to the comparison area. A greater proportion of participants in the control area are below $260 \%$ FPL (46\%), compared to survey participants in Seattle (37\%).

Results: A majority of participants supported the Sweetened Beverage Tax (SBT) in Seattle (58\%) and correspondingly, believed that the tax will help improve the health and well-being of children (58\%) and the public's health more generally (55\%). Most participants in Seattle perceived that the tax will not negatively affect small businesses ( $53 \%$ ) nor result in job loss ( $66 \%$ ). Slightly less than half ( $47 \%$ ) believed the tax will positively impact low-income people and people of color, whereas $42 \%$ perceived that the SBT would negatively impact lowincome people and people of color, and $11 \%$ reported they "don't know". Moreover, $77 \%$ of participants in Seattle reported that they do not intend to cross-border shop for sugary beverages. Corresponding with generally positive perceptions of the tax, more than $80 \%$ of participants in Seattle believed that sugary beverage consumption is related to adverse health conditions, including dental health problems ( $87 \%$ ), obesity ( $86 \%$ ), diabetes ( $87 \%$ ), and heart disease ( $71 \%$ ). Aligned with these beliefs about the healthfulness of sugary beverages, consumption of sugary beverages in Seattle was lower than the national average-- only $16 \%$ of those surveyed in Seattle reported consuming one or more sugary beverages per-day, which compares with $50 \%$ nationally. We observed some differences in perceptions by income and race/ethnicity among Seattle participants. Perceptions of the tax and of sugary beverages were similar along many dimensions for Seattle and the comparison area.

[^4]
## SECTION 3 | ADULT SURVEY: NORMS AND ATTITUDES

## Objective

As part of the tax implementation, the public will likely experience increased exposure to information about sugary beverages and their health effects through heightened media attention during the course of adopting and implementing a tax. An unanswered question is whether this heightened attention could change the public's perception of the health consequences and social acceptability of consuming sugary beverages, and that in turn, this change could create a non-price pathway to reducing consumption. If this is the case, a tax may be associated with behavior change, even among those who are not sensitive to price increases. The objective of this survey is to examine whether the implementation of the sweetened beverage tax changes adults' norms and attitudes around sugary beverage consumption.

## Methods

## Survey design.

This survey was designed to investigate whether Seattle's SBT changes residents' perceptions about sugary beverages and the tax itself. In designing this survey, we gathered questions from various sources in order to align with previous data collection efforts, to the extent feasible. ${ }^{2}$ After collating questions from all sources, we assessed question overlap and relevance to our survey objective. This survey queried individuals on questions in the following six domains: 1) current consumption of sugary beverages ( 1 item); 2) norms and attitudes towards the tax itself ( 4 items); 3 ) norms and attitudes on unintended economic impacts ( 6 items); 4) norms and attitudes towards the healthfulness of sugary beverages ( 24 items); 5) perceptions on government regulation of individual behaviors ( 1 item); and 6) demographic characteristics ( 12 items). In Seattle, participants were queried specifically about the SBT that was to be implemented on January 1, 2018. In the comparison area (described below), participants were queried about sugary beverage taxes more generally. The survey was administered online and via the telephone and was offered in three languages: English, Spanish, and Vietnamese.

Participants' beliefs around the tax, its economic impacts and the healthfulness of sugary beverages were queried as 4 -category likert scales where response options included strongly approve (strongly agree/very likely/very healthy), somewhat approve (somewhat agree/somewhat likely/somewhat healthy), somewhat disapprove (somewhat disagree/somewhat unlikely/somewhat unhealthy), and strongly disapprove (strongly disagree/ very unlikely/very unhealthy). In addition, for some questions, participants were read two statements and asked to indicate if the first or second statement was "much closer" or "somewhat closer" to their own attitude or perception. These four categories are collapsed into two categories: the first statement was closer, or the second statement was closer. Participants were also given the option to indicate that they "don't know" in responses to our queries.

## Data collection and approach.

Measuring population-level attitudes over time both in Seattle and a comparison area will allow us to control for secular changes in attitudes toward sugary beverages that are unrelated to the tax. We identified a comparison group, comprised of two areas of the US, that we determined to be similar to Seattle in their economic, political, and demographic characteristics, based on a comparison of demographic characteristics from the American Community Survey (ACS). The comparison area is comprised of individuals from Minneapolis, MN and the combined region of Rockville and Bethesda, MD and Arlington, VA (henceforth referred to as D.C. metro). Participants were recruited between October and December 2017 from Seattle ( $\mathrm{N}=851$ ) and between December 2017 and January 2018 in the comparison area ( $\mathrm{N}=863$ ).

Data were collected with the assistance of a professional survey research firm, Ironwood Insights, LLC. Ironwood identified and recruited participants in Seattle and the comparison area based on participants' zip code of residence and their demographic characteristics (e.g. race/ethnicity). We aimed to recruit a sample that is racially/ethnically

[^5]similar to the general population of Seattle and the comparison area, based on the 5-year American Community (ACS) sample (2012-2016). In addition, because low-income populations, as compared to their higher-income counterparts, are more likely to consume sugary beverages ${ }^{3}$ and be more sensitive to price increases, our sampling strategy aimed to collect a large sample of low-income adults. Low-income was defined as < $260 \%$ of the Federal Poverty Level (FPL) ${ }^{4}$ and was based on tiers in Apple Health (Medicaid) and the median household income in Seattle (\$70,594 [ACS 5-year]). At baseline, we successfully recruited 395 low-income participants in Seattle (46\% of total sample) and 410 low-income participants in the comparison area ( $48 \%$ of total sample) ${ }^{5}$.

## Descriptive analysis.

We created survey weights using the raking method, a post-stratification procedure whereby the adjusted weights add up to the known population totals (as determined by the 5-year ACS) for race/ethnicity, gender, age, and income. For our comparison area, the derived weight is a weighted average based on the prevalence of the characteristic in the ACS and the number of individuals from each area in our data. ${ }^{6}$ For these analyses, race and ethnicity are mutually exclusive categories and individuals are categorized as follows: people who are non-Hispanic white, people who are non-Hispanic Black, people who are non-Hispanic Asian, people who are non-Hispanic of "other" races, and people who are Hispanic. People who are Native Hawaiian and Pacific Islanders, people who are American Indian and Alaska Natives, and those individuals who reported two or more races are categorized as nonHispanic of an "other" race.

In these analyses, participants' beliefs were collapsed and are presented as 3-category variables (e.g. sugary beverages cause serious health effects, likely, unlikely, or don't know). Individuals who refused to provide a response were excluded from the analysis. We first present the demographic characteristics of our sample. Then, our descriptive analyses present participants' perceptions of the economic impacts of the tax, as well as their perceptions on the healthfulness of sugary beverages, in Seattle. Additionally, we present Seattle participants' perceptions of the economic impacts of the tax and the healthfulness of sugary beverages stratified by level of income and race/ethnicity. Finally, we briefly compare perceptions in Seattle versus the comparison area. All results presented are based on weighted analyses (i.e. analyses using survey weights described above).

## Demographics.

As detailed in Table 1, Seattle and the comparison area are well-matched on a number of demographic characteristics including gender, age, household income level, and Medicaid participation rates. We observe some differences by race/ethnicity, level of educational attainment, and the percent of the population below 260\% FPL when comparing participants in Seattle versus the comparison area samples. There is a lower proportion of people who are non-Hispanic Black ( $7 \%$ in Seattle, $14 \%$ in comparison) and people who are Hispanic ( $7 \%$ in Seattle, $12 \%$ in comparison) in Seattle compared to the comparison area. Conversely, there is a higher proportion of people who are non-Hispanic white (66\% in Seattle, 60\% in comparison) and people who are non-Hispanic Asian ( $15 \%$ in Seattle, $9 \%$ in comparison area) in Seattle as compared to the comparison area. The level of educational attainment is higher in Seattle versus the comparison area; 38\% of Seattle participants have completed college or university, as compared to $30 \%$ of participants in the comparison area. A greater proportion of participants in the comparison area are below $260 \%$ FPL (46\%), compared to survey participants in Seattle (37\%). These differences reflect actual population differences between Seattle and the comparison areas.

[^6]
## TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF SURVEY PARTICIPANTS IN SEATTLE AND THE COMPARISON AREA

$\mathrm{N}(\%)^{1}$

| SEATTLE ${ }^{2}$ |  |
| :--- | ---: | ---: |
| $(\mathbf{N}=851)$ | COMPARISON <br> AREA |
| $\mathbf{( N = 8 6 3 )}$ |  |$|$| GENDER | $349(50 \%)$ | $471(50 \%)$ |
| :--- | ---: | ---: |
| MALE | $499(50 \%)$ | $389(50 \%)$ |
| FEMALE | $588(66 \%)$ | $543(60 \%)$ |
| RACE/ETHNICITY | $60(7 \%)$ | $68(14 \%)$ |
| NON-HISPANIC WHITE | $69(15 \%)$ | $76(9 \%)$ |
| NON-HISPANIC BLACK/AFRICAN AMERICAN | $78(6 \%)$ | $40(5 \%)$ |
| NON-HISPANIC ASIAN ${ }^{4}$ | $56(7 \%)$ | $127(12 \%)$ |


| AGE |  |  |
| :--- | ---: | ---: |
| $18-30$ YEARS OLD | $133(19 \%)$ | $172(22 \%)$ |
| $31-40$ YEARS OLD | $152(22 \%)$ | $192(25 \%)$ |
| $41-50$ YEARS OLD | $136(21 \%)$ | $138(18 \%)$ |
| $51-64$ YEARS OLD | $167(24 \%)$ | $166(21 \%)$ |
| $\geq 65+$ YEARS OLD | $250(14 \%)$ | $194(14 \%)$ |
| EDUCATION | $24(2 \%)$ | $52(5 \%)$ |
| SOME HIGH SCHOOL | $79(8 \%)$ | $112(13 \%)$ |
| COMPLETED HIGH SCHOOL | $199(20 \%)$ | $215(24 \%)$ |
| SOME COLLEGE OR VOCATIONAL TRAINING | $294(38 \%)$ | $243(30 \%)$ |
| COMPLETED COLLEGE OR UNIVERSITY | $241(32 \%)$ | $220(27 \%)$ |
| COMPLETED GRADUATE OR PROFESSIONAL DEGREE |  |  |
| INCOME LEVEL RELATIVE TO FPL | $395(37 \%)$ | $410(46 \%)$ |
| LOW-INCOME: $<260 \% ~ F P L$ | $456(63 \%)$ | $453(54 \%)$ |


| HOUSEHOLD LEVEL INCOME |  |  |
| :--- | ---: | ---: |
| $<\$ 30,000$ | $242(21 \%)$ | $177(21 \%)$ |
| $\$ 30,000-59,999$ | $213(21 \%)$ | $246(20 \%)$ |
| $\$ 60,000-89,999$ | $137(21 \%)$ | $153(24 \%)$ |
| $\$ 90,000-120,000$ | $92(15 \%)$ | $105(16 \%)$ |
| $>\$ 120,000$ | $126(22 \%)$ | $132(19 \%)$ |
| MEDICAID PARTICIPATION |  |  |
| MEDICAID, NO | $627(78 \%)$ | $665(81 \%)$ |
| MEDICAID, YES | $203(22 \%)$ | $163(19 \%)$ |
| POLITICAL AFFILIATION |  |  |
| DEMOCRAT | $462(57 \%)$ | $360(48 \%)$ |
| INDEPENDENT | $236(32 \%)$ | $249(33 \%)$ |
| REPUBLICAN | $71(10 \%)$ | $131(17 \%)$ |
| OTHER | $13(2 \%)$ | $17(3 \%)$ |

FPL $=$ Federal Poverty Level
${ }^{1} \mathrm{~N}$ is unweighted to show actual sample size whereas percentages are based on weighted analyses. Therefore, the percentages displayed will
be different (weighted results) from the number you get by dividing the total $N$ by the cell-specific $N$ (unweighted percent).
${ }^{2}$ Missing data: gender ( $n=3$ ); ethnicity ( $n=3$ ); age ( $n=13$ ), education ( $n=14$ ), household income ( $n=41$ ); Medicaid participation ( $n=21$ ); political affiliation ( $n=69$ ).
${ }^{3}$ Comparison area includes Minneapolis and D.C. Metro. Missing data: gender ( $n=3$ ); race/ethnicity ( $n=9$ ); age ( $n=1$ ), education ( $n=21$ ), household income ( $n=50$ ); Medicaid participation ( $n=35$ ); political affiliation ( $n=106$ ).
${ }^{4}$ Native Hawaiian and Pacific Islanders, American Indian and Alaska Natives, and those reporting two or more races are categorized as non-Hispanic "Other".

## Results

Perceptions of health and economic impacts of the TAX and healthfulness of sugary beverages in Seattle: OVERALL AND ACCORDING TO INCOME AND RACE/ETHNICITY

## Overall perceptions of the health and economic impacts of the tax in Seattle.

A majority of participants supported the Sweetened Beverage Tax in Seattle (58\%), with 37\% of participants reporting that they did not support the tax and 5\% reporting that they "don't know". Correspondingly, most residents believed that the tax will help improve the public's health (Table 2). In particular, $58 \%$ of participants in Seattle perceived that the SBT will improve the health and well-being of children and $55 \%$ believed the tax will improve the public's health more generally. Overall, participants did not perceive that the tax will have adverse economic consequences. Most participants in Seattle believed that the tax will not negatively affect small businesses (53\%) nor result in job loss ( $66 \%$ ). Seattle participants largely did not perceive that the tax would negatively impact their own finances ( $79 \%$ ). Participants were also queried as to whether the tax would positively or negatively impact low-income people and people of color; $47 \%$ of participants in Seattle perceived that the SBT would positively impact low-income people and people of color, whereas $42 \%$ perceived that the SBT would negatively impact low-income people and people of color, and $11 \%$ reported they "don't know".

While some participants did not, a majority of participants support the tax and correspondingly believe that the tax will help improve the public's health, without having adverse economic effects.

Contrary to a common hypothesis that a sweetened beverage tax will increase cross-border shopping,
$77 \%$ of participants in Seattle reported that they do not intend to cross-border shop for sugary beverages.

Contrary to a common hypothesis that a beverage tax will increase crossborder shopping (i.e. shopping for sugary beverages in nearby areas that are not subject to the tax), $77 \%$ of participants in Seattle reported that they will not cross-border shop for sugary beverages. Notably, responses were very similar among those participants who live close to the border (defined as within one mile of the North or South Seattle border) as compared to those who did not live close to the border (data not shown). Most participants (71\%) believed that they will continue to have autonomy over their beverage selection, despite the tax.

## Overall perceptions of healthfulness of sugary beverages in Seattle.

For context, consumption of sugary beverages in our Seattle sample was lower than national-level estimates, which suggest that $50 \%$ of adults consume one or more sugary beverage per-day. ${ }^{8,9}$ In Seattle, $16 \%$ of those surveyed consumed one or more sugary beverage per-day (Table 3).

Corresponding with lower-than-average trends in sugary beverage consumption, more than $80 \%$ of participants in Seattle believed that sugary beverages increase one's chance of developing serious health conditions ( $82 \%$ ), dental health problems ( $87 \%$ ), obesity ( $86 \%$ ), and diabetes ( $87 \%$ ) and $71 \%$ agreed that sugary beverages cause heart disease. Similarly, approximately $90 \%$ of participants in Seattle perceived that drinking soda/pop could lead to health problems. Approximately $85 \%$ of participants perceived that fruit-flavored beverages, sweetened coffee and tea, and energy drinks could lead to health problems. Moreover, nearly $84 \%$ of participants perceived that added sugar is related to serious health problems.

More than $80 \%$ of participants perceived water and unflavored milk to be healthy. On the contrary, only $17 \%$ of participants perceived diet beverages to be healthy. Notably, a higher proportion of participants report that filtered ( $92 \%$ ) or bottled water ( $88 \%$ ) was healthy, compared to tap water ( $83 \%$ ). Consumers of sugary beverages reported that they are most likely to substitute filtered, tap water for sugary beverages (77\%). Below, we further examine

[^7]the extent to which these perceptions vary by income and race/ethnicity in Seattle. Prior evidence documents differences in consumption by race/ethnicity and income. ${ }^{7}$ Thus, examining overall perceptions may not identify important differences for subsets of the population.

## Perceived health and economic impacts of tax in Seattle and by income level.

We observed some variation by household income level in Seattle participants' perceptions around the economic impacts of the tax (Table 2). Although a majority of participants in both higher- and low-income populations supported the tax, support for the tax was higher among higher-income participants (defined as $\geq 260 \%$ FPL) ( $62 \%$ ), as compared to low-income participants (51\%). Fewer low-income participants (47\%), as compared to high-income ( $60 \%$ ), perceived that the tax would improve the public's health.

Although the majority of participants did not believe that the tax would negatively impact their family's finances, a higher proportion of higher-income ( $85 \%$ ) versus low-income ( $69 \%$ ) participants believed that the tax would not negatively affect their family's finances. Similarly, a greater proportion of higher-income participants ( $75 \%$ ), versus low-income ( $64 \%$ ), perceived that the tax will not limit their individual choice to consume certain beverages. Half ( $50 \%$ ) of the higher-income participants surveyed reported that the tax will positively impact low-income people and people of color, whereas $41 \%$ reported that the SBT will negatively impact low-income people and people of color, and $10 \%$ reported that they "don't know". Support for the tax was lower among lower-income participants.

## TABLE 2. PERCEIVED HEALTH AND ECONOMIC IMPACTS OF TAX IN SEATTLE OVERALL AND BY INCOME LEVEL

|  | SEATTLE $(\mathrm{N}=851)^{1,2}$ | $\begin{aligned} & <260 \% \text { FPL } \\ & (\mathrm{N}=395)^{1,2} \end{aligned}$ | $\begin{aligned} & \geq 260 \% \text { FPL } \\ & (\mathrm{N}=456)^{1,2} \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| OPINION ON TAX ${ }^{3}$ |  |  |  |
| APPROVE | 58\% | 51\% | 62\% |
| DISAPPROVE | 37\% | 43\% | 34\% |
| DON'T KNOW | 5\% | 6\% | 4\% |
| CHILD WELL-BEING ${ }^{4}$ |  |  |  |
| TAX WILL IMPROVE CHILD HEALTH AND WELL-BEING | 58\% | 53\% | 62\% |
| TAX WILL NOT IMPROVE CHILD HEALTH AND WELL-BEING | 38\% | 42\% | 35\% |
| DON'T KNOW | 4\% | 6\% | 3\% |
| PUBLIC HEALTH ${ }^{4}$ |  |  |  |
| TAX WILL IMPROVE PUBLIC HEALTH | 55\% | 47\% | 60\% |
| TAX WILL NOT IMPROVE PUBLIC HEALTH | 41\% | 46\% | 37\% |
| DON'T KNOW | 4\% | 7\% | 3\% |
| CROSS-BORDER SHOPPING ${ }^{4}$ |  |  |  |
| PARTICIPANT WILL NOT CROSS-BORDER SHOP BECAUSE OF THE TAX | 77\% | 74\% | 79\% |
| PARTICIPANT WILL CROSS-BORDER SHOP BECAUSE OF THE TAX | 20\% | 20\% | 20\% |
| DON'T KNOW | 9\% | 11\% | 1\% |
| SMALL BUSINESSES ${ }^{4}$ |  |  |  |
| TAX WILL NOT NEGATIVELY AFFECT SMALL BUSINESSES | 53\% | 48\% | 55\% |
| TAX WILL NEGATIVELY AFFECT SMALL BUSINESSES | 39\% | 41\% | 37\% |
| DON'T KNOW | 9\% | 11\% | 7\% |
| JOB LOSS ${ }^{4}$ |  |  |  |
| TAX WILL NOT RESULT IN JOB LOSS | 66\% | 59\% | 71\% |
| TAX WILL RESULT IN JOB LOSS | 23\% | 25\% | 22\% |
| DON'T KNOW | 11\% | 16\% | 8\% |

FPL $=$ Federal Poverty Level
${ }^{1} \%$ are weighted values
${ }^{2}$ Missing data: opinion on tax ( $n=1$ ); cross-border shopping ( $n=4$ ), small business ( $n=1$ ); job loss ( $n=1$ ); family finances ( $n=0$ ); impact on low-income people/people of color ( $n=4$ ); individual choice ( $n=1$ )
${ }^{3}$ Responses included: strongly disapprove, somewhat disapprove, somewhat approve, strongly approve. These four categories are collapsed into two categories: approve, disapprove.
${ }^{4}$ Participants were read two statements and asked to indicate if the first statement was much closer, the first statement was somewhat closer, the second statement was much closer, or the second statement was somewhat closer. These four categories are collapsed into two categories: the first statement was closer, or the second statement was closer.

| FAMILY FINANCES |  |  |  |
| :--- | :---: | :---: | :---: |
| TAX WILL NOT NEGATIVELY AFFECT FAMILY FINANCES | $79 \%$ | $69 \%$ | $85 \%$ |
| TAX WILL NEGATIVELY AFFECT FAMILY FINANCES | $17 \%$ | $24 \%$ | $14 \%$ |
| DON'T KNOW | $4 \%$ | $7 \%$ | $2 \%$ |
| IMPACT ON LOW-INCOME PEOPLE/PEOPLE OF COLOR ${ }^{4}$ |  |  |  |
| TAX WILL POSITIVELY IMPACT LOW-INCOME PEOPLE/PEOPLE OF <br> COLOR <br> TAX WILL NEGATIVELY IMPACT LOW-INCOME PEOPLE/PEOPLE OF <br> COLOR | $47 \%$ | $43 \%$ | $50 \%$ |
| DON'T KNOW | $42 \%$ | $44 \%$ | $41 \%$ |
| INDIVIDUAL CHOICE |  |  |  |

Among lower-income participants, $43 \%$ reported that the tax will positively impact low-income people and people of color, $44 \%$ reported the SBT will negatively impact low-income people and people of color and $13 \%$ reported that they "don't know".

## Perceived healthfulness of sugary beverages in Seattle and by income level.

Low-income participants in Seattle reported consuming more sugary beverages per week, compared to their highincome participants (Table 3); 22\% of low-income participants reporting consuming one or more beverages perday, as compared to $12 \%$ of higher-income participants. This difference in consumption was aligned with some differences in perceptions around healthfulness of sugary beverages, whereby higher-income participants less often reported that sugary beverages are healthy. Specifically, a larger proportion of higher-income, versus lowincome, individuals believed that sugary beverages ( $85 \%$ higher-income, $77 \%$ low-income) or added sugar ( $89 \%$ higher-income, $77 \%$ low-income) cause serious health effects. Aligned with this trend, higher-income participants, compared to low-income, were more likely to perceive that non-taxed beverages (e.g. water, unflavored milk) are healthy. Low-income sugary beverage consumers reported that they are less likely to substitute tap water ( $65 \%$ versus $75 \%$ among higher-income) or unsweetened coffee or tea ( $59 \%$ versus $71 \%$ among higher-income).

TABLE 3. CONSUMPTION AND PERCEIVED HEALTHFULNESS OF SUGARY BEVERAGES IN SEATTLE OVERALL AND BY INCOME LEVEL

|  | SEATTLE $(\mathrm{N}=851)^{1,2}$ | $\begin{aligned} & <260 \% \text { FPL } \\ & (N=395)^{1,2} \end{aligned}$ | $\begin{aligned} & \geq 260 \% \text { FPL } \\ & (N=456)^{1,2} \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| CONSUMPTION |  |  |  |
| NONE OR < 1 WEEK | 45\% | 36\% | 50\% |
| 1 WEEK | 16\% | 16\% | 16\% |
| 2-6 WEEK | 22\% | 24\% | 21\% |
| $\geq 1$ DAY | 16\% | 22\% | 12\% |
| DON'T KNOW | 1\% | 2\% | 1\% |
| SUGARY BEVERAGES CAUSE THE FOLLOWING: ${ }^{3}$ |  |  |  |
| SERIOUS HEALTH EFFECTS |  |  |  |
| AGREE | 82\% | 77\% | 85\% |
| DISAGREE | 17\% | 21\% | 14\% |
| DON'T KNOW | 2\% | 2\% | 1\% |
| DENTAL HEALTH |  |  |  |
| AGREE | 87\% | 85\% | 88\% |
| DISAGREE | 12\% | 13\% | 11\% |
| DON'T KNOW | 1\% | 1\% | 0\% |
| OBESITY |  |  |  |
| AGREE | 86\% | 84\% | 88\% |


| disagree | 13\% | 15\% | 12\% |
| :---: | :---: | :---: | :---: |
| DON'T KNOW | 1\% | 2\% | 1\% |
| DIABETES |  |  |  |
| AGree | 87\% | 85\% | 87\% |
| DISAGREE | 12\% | 12\% | 12\% |
| DON'T KNOW | 2\% | 3\% | 1\% |
| HEART DISEASE |  |  |  |
| AGree | 71\% | 69\% | 73\% |
| DISAGREE | 20\% | 21\% | 20\% |
| DON'T KNOW | 9\% | 10\% | 7\% |
| ADDED SUGAR RAISES CHANCE OF HEALTH PROBLEMS: ${ }^{3}$ |  |  |  |
| AGREE | 84\% | 77\% | 89\% |
| DISAGREE | 12\% | 17\% | 10\% |
| DON'T KNOW | 4\% | 6\% | 2\% |
| MOST PEOPLE SHOULD DRINK SUGARY DRINKS: |  |  |  |
| NONE OR < 1 WEEK | 30\% | 28\% | 31\% |
| 1 WEEK | 32\% | 31\% | 33\% |
| 2-6 WEEK | 23\% | 25\% | 22\% |
| $\geq 1$ DAY | 9\% | 9\% | 9\% |
| DON'T KNOW | 6\% | 7\% | 6\% |
| DRINKING THE FOLLOWING BEVERAGE INCREASES CHANCE OF HEALTH PROBLEMS: ${ }^{3}$ |  |  |  |
| SODA/POP |  |  |  |
| AGREE | 90\% | 88\% | 91\% |
| disagree | 6\% | 8\% | 6\% |
| DON'T KNOW | 3\% | 4\% | 3\% |
| FRUIT-FLAVORED DRINKS |  |  |  |
| AGREE | 85\% | 79\% | 88\% |
| DISAGREE | 10\% | 14\% | 8\% |
| DON'T KNOW | 5\% | 6\% | 4\% |
| SPORTS DRINKS |  |  |  |
| AGREE | 73\% | 68\% | 76\% |
| DISAGREE | 18\% | 21\% | 17\% |
| DON'T KNOW | 9\% | 11\% | 7\% |
| SWEETENED COFFEE AND TEA |  |  |  |
| AGREE | 83\% | 78\% | 85\% |
| disagree | 12\% | 14\% | 11\% |
| DON'T KNOW | 6\% | 8\% | 4\% |
| ENERGY DRINKS |  |  |  |
| agree | 85\% | 80\% | 88\% |
| disagree | 7\% | 8\% | 6\% |
| DON'T KNOW | 9\% | 12\% | 7\% |
| THE FOLLOWING BEVERAGES ARE HEALTHY: ${ }^{4}$ |  |  |  |
| TAP WATER |  |  |  |
| HEALTHY | 83\% | 75\% | 88\% |
| UNHEALTHY | 14\% | 22\% | 10\% |
| DON'T KNOW | 2\% | 4\% | 2\% |
| FILTERED TAP WATER |  |  |  |
| HEALTHY | 92\% | 85\% | 96\% |
| UNHEALTHY | 6\% | 10\% | 3\% |
| DON'T KNOW | 2\% | 5\% | 1\% |
| BOTTLED WATER |  |  |  |
| HEALTHY | 88\% | 81\% | 92\% |
| UNHEALTHY | 9\% | 14\% | 6\% |
| DON'T KNOW | 3\% | 5\% | 2\% |
| UNFLAVORED MILK |  |  |  |
| healthy | 82\% | 77\% | 84\% |
| UNHEALTHY | 14\% | 18\% | 12\% |
| DON'T KNOW | 4\% | 5\% | 3\% |
| UNSWEETENED TEA/COFFEE |  |  |  |
| HEALTHY | 77\% | 72\% | 80\% |
| UNHEALTHY | 19\% | 22\% | 17\% |
| DON'T KNOW | 4\% | 6\% | 3\% |
| DIET DRINKS |  |  |  |
| HEALTHY | 17\% | 19\% | 16\% |
| UNHEALTHY | 80\% | 77\% | 81\% |
| DON'T KNOW | 3\% | 4\% | 3\% |


| LIKELY TO SUBSTITUTE THE FOLLOWING BEVERAGES (AMONG CONSUMERS): ${ }^{\mathbf{5}}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| TAP WATER |  |  |  |
| LIKELY | 71\% | 65\% | 75\% |
| UNLIKELY | 28\% | 34\% | 24\% |
| DON'T KNOW | 1\% | 1\% | 1\% |
| FILTERED TAP WATER |  |  |  |
| LIKELY | 77\% | 72\% | 81\% |
| UNLIKELY | 21\% | 26\% | 18\% |
| DON'T KNOW | 2\% | 2\% | 1\% |
| BOTTLED WATER |  |  |  |
| LIKELY | 73\% | 71\% | 74\% |
| UNLIKELY | 26\% | 28\% | 25\% |
| DON'T KNOW | 1\% | 2\% | 1\% |
| UNFLAVORED MILK |  |  |  |
| LIKELY | 50\% | 48\% | 51\% |
| UNLIKELY | 49\% | 50\% | 47\% |
| DON'T KNOW | 2\% | 2\% | 2\% |
| UNSWEETENED COFFEE/TEA |  |  |  |
| LIKELY | 66\% | 59\% | 71\% |
| UNLIKELY | 33\% | 38\% | 28\% |
| DON'T KNOW | 2\% | 3\% | 1\% |
| DIET DRINKS |  |  |  |
| LIKELY | 35\% | 33\% | 36\% |
| UNLIKELY | 63\% | 65\% | 62\% |
| DON'T KNOW | 2\% | 2\% | 2\% |
| FPL = Federal Poverty Level |  |  |  |
| ${ }^{1} \%$ are weighted values |  |  |  |
| ${ }^{2}$ Missing data: fruit-flavored drinks ( $n=2$ ); sports drinks ( $n=1$ ); coffee/tea ( $n=1$ ); energy drinks ( $n=1$ ); healthy filtered water ( $n=1$ ); healthy coffee/tea ( $n=1$ ); substitute diet drinks ( $n=1$ ). |  |  |  |
| ${ }^{3}$ Responses included: strongly agree, somewhat agree, somewhat disagree, strongly disagree. These four categories are collapsed into two categories: agree, disagree. |  |  |  |
| ${ }^{5}$ Responses included: very likely, somewhat likely, somewhat unlikely, very unlikely These four categories ar collapsed into two categories: likely, unlikely |  |  |  |

Perceived health and economic impacts of tax in Seattle, by race/ethnicity.
Although trends by race/ethnicity were largely similar to those observed in the aforementioned general results in Seattle (Table 2), some differences by race/ethnicity warrant mention (Table 4). In Seattle, support for the tax was highest among people who are non-Hispanic white ( $63 \%$ ). There was lower support for the tax among people who are non-Hispanic of "other" races (55\%), people who are Hispanic (52\%), and people who are non-Hispanic Asian (48\%). Support for the tax was lowest among people who are non-Hispanic Black (45\%). People who are non-Hispanic white ( $58 \%$ ) were more likely to perceive that the tax would improve the public's health, followed by people who are non-Hispanic Asian (54\%), people who are Hispanic (54\%), people of "other" races (42\%), and people who are non-Hispanic Black (41\%).

Additionally, a larger proportion of people who are non-Hispanic white ( $83 \%$ ), people who are non-Hispanic of "other" races ( $82 \%$ ), and people who are non-Hispanic Asian ( $74 \%$ ), compared to people who are Hispanic (67\%) and people who are non-Hispanic Black (64\%), perceived that the tax would not negatively impact their family's finances. Despite lower levels of support for the tax, $53 \%$ of people who are non-Hispanic Black perceived that the tax will positively impact low-income people and people of color, $32 \%$ reported that the tax will negatively impact low-income people and people of color, and $15 \%$ reported that they "don't know". Comparatively, $49 \%$ of people who are non-Hispanic white, $48 \%$ of people who are non-Hispanic of "other" races, $48 \%$ of people who are Hispanic, and $37 \%$ of people who are non-Hispanic Asian agreed that tax will positively impact low-income people and people of color.

## TABLE 4. PERCEIVED HEALTH AND ECONOMIC IMPACTS OF TAX IN SEATTLE, BY RACE/ETHNICITY

|  | NON-HISPANIC WHITE ${ }^{1,2}$ $(N=588)$ | $\begin{aligned} & \text { NON-HISPANIC } \\ & \text { BLACK }^{1,2} \\ & (\mathrm{~N}=60) \end{aligned}$ | $\begin{aligned} & \text { NON-HISPANIC } \\ & \text { ASIAN } \\ & (\mathrm{N}=66) \end{aligned}$ | NON-HISPANIC OTHER RACE ${ }^{1,2,3}$ $(N=78)$ | HISPANIC ${ }^{1,2}$ $(N=56)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OPINION ON TAX ${ }^{4}$ |  |  |  |  |  |
| APPROVE | 63\% | 45\% | 48\% | 55\% | 52\% |
| DISAPPROVE | 34\% | 51\% | 45\% | 41\% | 42\% |
| DON'T KNOW | 4\% | 4\% | 7\% | 4\% | 7\% |
| CHILD WELL-BEING ${ }^{5}$ |  |  |  |  |  |
| TAX WILL IMPROVE CHILD HEALTH AND WELL-BEING | 61\% | 46\% | 59\% | 45\% | 60\% |
| TAX WILL NOT IMPROVE CHILD HEALTH AND WELL-BEING | 36\% | 45\% | 37\% | 51\% | 39\% |
| DON'T KNOW | 3\% | 9\% | 4\% | 5\% | 1\% |
| PUBLIC HEALTH ${ }^{5}$ |  |  |  |  |  |
| TAX WILL IMPROVE PUBLIC HEALTH | 58\% | 41\% | 54\% | 42\% | 54\% |
| TAX WILL NOT IMPROVE PUBLIC HEALTH | 38\% | 50\% | 40\% | 51\% | 46\% |
| DON'T KNOW | 3\% | 10\% | 6\% | 7\% | 0\% |
| CROSS-BORDER SHOPPING ${ }^{5}$ |  |  |  |  |  |
| PARTICIPANT WILL NOT CROSS-BORDER SHOP BECAUSE OF THE TAX | 78\% | 77\% | 76\% | 82\% | 71\% |
| PARTICIPANT WILL CROSS-BORDER SHOP BECAUSE OF THE TAX | 21\% | 14\% | 17\% | 17\% | 26\% |
| DON'T KNOW | 2\% | 9\% | 7\% | 1\% | 3\% |
| SMALL BUSINESSES ${ }^{5}$ |  |  |  |  |  |
| TAX WILL NOT NEGATIVELY AFFECT SMALL BUSINESSES | 53\% | 46\% | 52\% | 44\% | 63\% |
| TAX WILL NEGATIVELY AFFECT SMALL BUSINESSES | 40\% | 38\% | 32\% | 47\% | 35\% |
| DON'T KNOW | 7\% | 16\% | 16\% | 10\% | 2\% |
| JOB LOSS ${ }^{5}$ |  |  |  |  |  |
| TAX WILL NOT RESULT IN JOB LOSS | 67\% | 61\% | 65\% | 64\% | 76\% |
| TAX WILL RESULT IN JOB LOSS | 25\% | 22\% | 16\% | 20\% | 19\% |
| DON'T KNOW | 8\% | 17\% | 20\% | 15\% | 5\% |
| FAMILY FINANCES ${ }^{5}$ |  |  |  |  |  |
| TAX WILL NOT NEGATIVELY AFFECT FAMILY FINANCES | 83\% | 64\% | 74\% | 82\% | 67\% |
| TAX WILL NEGATIVELY AFFECT FAMILY FINANCES | 16\% | 30\% | 15\% | 14\% | 26\% |
| DON'T KNOW | 1\% | 6\% | 11\% | 4\% | 7\% |
| IMPACT ON LOW-INCOME PEOPLE/PEOPLE OF COLOR ${ }^{5}$ |  |  |  |  |  |
| TAX WILL POSITIVELY IMPACT LOW-INCOME PEOPLE AND PEOPLE OF COLOR | 49\% | 53\% | 37\% | 48\% | 48\% |
| TAX WILL NEGATIVELY IMPACT LOW-INCOME PEOPLE AND PEOPLE OF COLOR | 41\% | 32\% | 49\% | 41\% | 45\% |
| DON'T KNOW | 10\% | 15\% | 14\% | 11\% | 7\% |
| INDIVIDUAL CHOICE ${ }^{5}$ |  |  |  |  |  |
| PEOPLE WILL HAVE THE CHOICE TO DRINK THE BEVERAGES THEY WANT | 74\% | 64\% | 60\% | 72\% | 66\% |
| PEOPLE WILL NOT HAVE THE CHOICE TO DRINK THE BEVERAGES THEY WANT | 23\% | 32\% | 32\% | 23\% | 34\% |
| DON'T KNOW | 4\% | 4\% | 8\% | 5\% | 0\% |
| ${ }^{1} \%$ are weighted values |  |  |  |  |  |
| ${ }^{2}$ Missing data: ethnicity ( $n=3$ ); opinion on tax ( $n=1$ ); cross-border shopping ( $n=4$ ), small business ( $n=1$ ); job loss ( $n=1$ ); family finances ( $n=0$ ); impact on low-incom people/people of color ( $n=4$ ); individual choice ( $n=1$ ) <br> ${ }^{3}$ Native Hawaiian and Pacific Islanders, American Indian and Alaska Natives, and those reporting two or more races are categorized as non-Hispanic "Other". <br> ${ }^{4}$ Responses included: strongly disapprove, somewhat disapprove, somewhat approve, strongly approve. These four categories are collapsed into two categories: approve, disapprove |  |  |  |  |  |
| ${ }^{5}$ Participants were read two statements and asked to indicate if the first statement was much closer, the first statement was somewhat closer, the second statement was much closer, or the second statement was somewhat closer. These four categories are collapsed into two categories: the first statement was closer, or the second statement was closer. |  |  |  |  |  |

## Perceived healthfulness of sugary beverages by race/ethnicity in Seattle.

When looking at results regarding healthfulness of sugary beverages by race/ethnicity, we observed two key differences (Table 5). First, consumption of sugary beverages is higher among people who are non-Hispanic Black and Hispanic; $26 \%$ of people who are non-Hispanic Blacks and $20 \%$ of people who are Hispanic reported consuming
one or more sugary beverages per-day, whereas only $17 \%$ of people of "other" races, $16 \%$ of people who are nonHispanic white, and $10 \%$ of people who are non-Hispanic Asian, reported doing so. Second, perceptions around the effect of sugary beverage consumption on health conditions differed somewhat by race/ethnicity. Generally consistent with the aforementioned trends in consumption, fewer people who are non-Hispanic Black (65\%), as compared to people who are non-Hispanic white (84\%), non-Hispanic Asian (84\%), non-Hispanics of an "other" race (78\%), and Hispanic (77\%), agreed that sugary beverages could cause serious health problems. Approximately, $80 \%$ of people who are non-Hispanic Black agreed that sugary beverages could cause obesity, which was lower than people who are non-Hispanic Asian (90\%), non-Hispanic white (87\%), Hispanic (84\%) and people of "other" races ( $84 \%$ ). In addition, fewer people who are Hispanic ( $76 \%$ ), compared to non-Hispanic "other" races ( $90 \%$ ), nonHispanic white (89\%), non-Hispanic Asian (86\%), and non-Hispanic Black (84\%) perceived that sugary beverages cause dental caries. Finally, fewer people who are non-Hispanic Black (76\%) and Hispanic (78\%), compared to people who are non-Hispanic white (87\%), non-Hispanic Asian (82\%), and non-Hispanic of "other" races (81\%), perceived that added sugar raises the chance of health problems.

Relatedly, when queried about specific beverages, fewer people who are non-Hispanic Black (68\%), compared to people who are Hispanic ( $89 \%$ ), people who are non-Hispanic white ( $88 \%$ ), people who are non-Hispanic of an "other" race (83\%) and people who are non-Hispanic Asian (80\%) believed that fruit-flavored beverages increase the chance of health problems. Similar trends were observed for soda/pop, sports drinks, sweetened coffee and tea, and energy drinks.

There were also some differences by race/ethnicity around non-taxed, substitution beverages. People who are Hispanic (68\%) were less likely to perceive that tap water was healthy, compared to people who are non-Hispanic white (87\%), non-Hispanic Asian (81\%), and non-Hispanic Black (75\%). Among sugary beverage consumers, people who are Hispanic ( $75 \%$ ) and non-Hispanic white ( $73 \%$ ) were more likely to report that they would substitute tap water for sugary beverages, compared to $68 \%$ of people who are non-Hispanic "other" races, $68 \%$ of people who are non-Hispanic Black, and 60\% of people who are non-Hispanic Asian.


| DISAGREE | 20\% | 23\% | 14\% | 33\% | 19\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DON'T KNOW | 7\% | 17\% | 12\% | 9\% | 6\% |
| ADDED SUGAR RAISES CHANCE OF HEALTH |  |  |  |  |  |
| PROBLEMS: ${ }^{4}$ |  |  |  |  |  |
| AGREE | 87\% | 76\% | 82\% | 81\% | 78\% |
| disagree | 11\% | 18\% | 11\% | 15\% | 20\% |
| DON'T KNOW | 2\% | 6\% | 7\% | 4\% | 3\% |
| MOST PEOPLE SHOULD DRINK SUGARY DRINKS: |  |  |  |  |  |
| NONE OR < 1 WEEK | 30\% | 21\% | 34\% | 27\% | 29\% |
| 1 WEEK | 31\% | 26\% | 34\% | 41\% | 39\% |
| 2-6 WEEK | 25\% | 32\% | 20\% | 15\% | 16\% |
| $\geq 1$ DAY | 9\% | 14\% | 4\% | 8\% | 9\% |
| DON'T KNOW | 6\% | 7\% | 9\% | 9\% | 7\% |
| DRINKING THE FOLLOWING BEVERAGE INCREASES CHANCE OF HEALTH PROBLEMS: ${ }^{4}$ |  |  |  |  |  |
| SODA/POP |  |  |  |  |  |
| AGREE | 91\% | 82\% | 89\% | 90\% | 93\% |
| DISAGREE | 6\% | 10\% | 9\% | 7\% | 4\% |
| DON'T KNOW | 3\% | 8\% | 3\% | 3\% | 3\% |
| FRUIT-FLAVORED DRINKS |  |  |  |  |  |
| AGREE | 88\% | 68\% | 80\% | 83\% | 89\% |
| DISAGREE | 8\% | 21\% | 16\% | 14\% | 2\% |
| DON'T KNOW | 4\% | 11\% | 5\% | 3\% | 9\% |
| SPORTS DRINKS |  |  |  |  |  |
| AGREE | 75\% | 49\% | 71\% | 72\% | 85\% |
| disagree | 17\% | 30\% | 23\% | 21\% | 8\% |
| DON'T KNOW | 9\% | 20\% | 6\% | 7\% | 7\% |
| SWEETENED COFFEE AND TEA |  |  |  |  |  |
| AGREE | 84\% | 68\% | 81\% | 81\% | 87\% |
| DISAGREE | 11\% | 19\% | 13\% | 15\% | 10\% |
| DON'T KNOW | 5\% | 13\% | 6\% | 5\% | 3\% |
| ENERGY DRINKS |  |  |  |  |  |
| AGREE | 85\% | 63\% | 86\% | 90\% | 95\% |
| disagree | 6\% | 14\% | 9\% | 5\% | 4\% |
| DON'T KNOW | 9\% | 24\% | 5\% | 5\% | 2\% |
| THE FOLLOWING BEVERAGES ARE HEALTHY: ${ }^{5}$ |  |  |  |  |  |
| TAP WATER |  |  |  |  |  |
| HEALTHY | 87\% | 75\% | 81\% | 71\% | 68\% |
| UNHEALTHY | 11\% | 21\% | 16\% | 27\% | 28\% |
| DON'T KNOW | 2\% | 3\% | 3\% | 2\% | 4\% |
| FILTERED TAP WATER |  |  |  |  |  |
| HEALTHY | 95\% | 93\% | 86\% | 90\% | 80\% |
| UNHEALTHY | 4\% | 4\% | 10\% | 6\% | 17\% |
| DON'T KNOW | 2\% | 3\% | 5\% | 4\% | 4\% |
| BOTTLED WATER |  |  |  |  |  |
| HEALTHY | 90\% | 89\% | 85\% | 89\% | 77\% |
| UNHEALTHY | 8\% | 6\% | 11\% | 8\% | 15\% |
| DON'T KNOW | 2\% | 5\% | 5\% | 3\% | 8\% |
| UNFLAVORED MILK |  |  |  |  |  |
| Healthy | 83\% | 71\% | 92\% | 76\% | 69\% |
| UNHEALTHY | 14\% | 23\% | 4\% | 20\% | 26\% |
| DON'T KNOW | 4\% | 6\% | 4\% | 4\% | 5\% |
| UNSWEETENED TEA/COFFEE |  |  |  |  |  |
| HEALTHY | 80\% | 66\% | 77\% | 66\% | 71\% |
| UNHEALTHY | 17\% | 24\% | 18\% | 27\% | 28\% |
| DON'T KNOW | 3\% | 10\% | 5\% | 7\% | 1\% |
| DIET DRINKS |  |  |  |  |  |
| HEALTHY | 16\% | 28\% | 20\% | 14\% | 21\% |
| UNHEALTHY | 82\% | 65\% | 77\% | 83\% | 78\% |
| DON'T KNOW | 3\% | 7\% | 3\% | 4\% | 1\% |
| LIKELY TO SUBSTITUTE THE FOLLOWING BEVERAGES (AMONG CONSUMERS): ${ }^{6}$ |  |  |  |  |  |
| TAP WATER |  |  |  |  |  |
| LIKELY | 73\% | 68\% | 60\% | 68\% | 75\% |
| UNLIKELY | 25\% | 32\% | 38\% | 30\% | 25\% |
| DON'T KNOW | 2\% | 0\% | 2\% | 2\% | 0\% |


| FILTERED TAP WATER | 79\% | 62\% | 77\% | 78\% | 79\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LIKELY | 19\% | 36\% | 21\% | 21\% | 21\% |
| UNLIKELY | 2\% | 2\% | 2\% | 2\% | 0\% |
| DON'T KNOW |  |  |  |  |  |
| BOTTLED WATER |  |  |  |  |  |
| LIKELY | 72\% | 77\% | 72\% | 67\% | 82\% |
| UNLIKELY | 27\% | 21\% | 26\% | 32\% | 18\% |
| DON'T KNOW | 1\% | 2\% | 2\% | 2\% | 0\% |
| UNFLAVORED MILK |  |  |  |  |  |
| LIKELY | 49\% | 50\% | 54\% | 46\% | 46\% |
| UNLIKELY | 49\% | 48\% | 44\% | 51\% | 54\% |
| DON'T KNOW | 2\% | 3\% | 2\% | 3\% | 0\% |
| UNSWEETENED COFFEE/TEA |  |  |  |  |  |
| LIKELY | 73\% | 50\% | 55\% | 62\% | 61\% |
| UNLIKELY | 27\% | 44\% | 43\% | 35\% | 39\% |
| DON'T KNOW | 1\% | 6\% | 2\% | 4\% | 0\% |
| DIET DRINKS |  |  |  |  |  |
| LIKELY | 40\% | 26\% | 27\% | 31\% | 22\% |
| UNLIKELY | 58\% | 72\% | 70\% | 67\% | 78\% |
| DON'T KNOW | 2\% | 2\% | 2\% | 2\% | 0\% |

${ }^{1} \%$ are weighted values
${ }^{2}$ Missing data: ethnicity( $n=3$ ); fruit-flavored drinks ( $n=2$ ); sports drinks ( $n=1$ ); coffee/tea ( $n=1$ ); energy drinks ( $n=1$ ); healthy filtered water ( $n=1$ ); healthy coffee/ tea ( $n=1$ ); substitute diet drinks ( $n=1$ ).
${ }^{3}$ Native Hawaiian and Pacific Islanders, American Indian and Alaska Natives, and those reporting two or more races are categorized as non-Hispanic "Other".
${ }^{4}$ Responses included: strongly agree, somewhat agree, somewhat disagree, strongly disagree. These four categories are collapsed into two categories: agree, disagree
${ }^{5}$ Responses included: very healthy, somewhat healthy, somewhat unhealthy, very unhealthy. These four categories are collapsed into two categories: healthy, unhealthy.
${ }^{6}$ Responses included: very likely, somewhat likely, somewhat unlikely, very unlikely. These four categories are collapsed into two categories: likely, unlikely.

## Perceptions of health and economic impacts of the tax and healthfulness of sugary beverages in Seattle VERSUS THE COMPARISON AREA

In this section, we compare the overall attitudes and beliefs of the Seattle population to those of the comparison area population. Our hope was that our comparison area would be similar to Seattle on many attitudes and beliefs at baseline.

## Perceived health and economic impacts of tax in Seattle and the comparison area.

Similar to results reported in Seattle ( $58 \%$ approved of the tax), a majority of participants in the comparison area supported the tax ( $53 \%$ ) (Table 6). A majority of participants in both Seattle and the comparison area perceived that a SBT will improve the health and well-being of children ( $58 \%$ Seattle, $59 \%$ comparison area) and the public's health ( $55 \%$ Seattle, $56 \%$ comparison area). Similar to Seattle, participants in the comparison area believed that the tax will not result in job loss ( $66 \%$ Seattle, $55 \%$

Support for a sweetened beverage tax was similar in Seattle and the comparison area. comparison area). However, a smaller proportion of participants in the comparison area, compared to Seattle, perceived that a SBT would negatively affect small businesses ( $53 \%$ Seattle, $46 \%$ comparison area). Participants in the comparison area were equally split on their perception of tax impacts on low-income people and people of color; $43 \%$ of participants in the comparison area believed the tax will positively impact low-income people and people of color, $43 \%$ of participants in the comparison area believed the tax will negatively impact low-income people and people of color, and $14 \%$ reported they "don't know". This is somewhat different than participants in Seattle where $47 \%$ believed the tax will positively impact low-income people and people of color, $42 \%$ believed the tax will negatively impact low-income people and people of color, and $11 \%$ reported they "don't know".

| TABLE 6. PERCEIVED ECONOMIC IMPACTS OF TAX IN SEATTLE AND COMPARISON AREA |  |  |  |
| :---: | :---: | :---: | :---: |
|  | SEATTLE ${ }^{1,2}$ $(\mathrm{N}=851)$ | $\begin{aligned} & \text { COMPARISON } \\ & \text { AREA }{ }^{1,3} \\ & (\mathrm{~N}=863) \end{aligned}$ |  |
| OPINION ON TAX ${ }^{4}$ |  |  |  |
| APPROVE | 58\% | 53\% |  |
| DISAPPROVE | 37\% | 41\% |  |
| DON'T KNOW | 5\% | 7\% |  |
| CHILD WELL-BEING ${ }^{5}$ |  |  |  |
| TAX WILL IMPROVE CHILD HEALTH AND WELL-BEING | 58\% | 59\% |  |
| TAX WILL NOT IMPROVE CHILD HEALTH AND WELL-BEING | 38\% | 36\% |  |
| DON'T KNOW | 4\% | 6\% |  |
| PUBLIC HEALTH ${ }^{5}$ |  |  |  |
| TAX WILL IMPROVE PUBLIC HEALTH | 55\% | 56\% |  |
| TAX WILL NOT IMPROVE PUBLIC HEALTH | 41\% | 38\% |  |
| DON'T KNOW | 4\% | 6\% |  |
| CROSS-BORDER SHOPPING ${ }^{5}$ |  |  |  |
| PARTICIPANT WILL NOT CROSS-BORDER SHOP BECAUSE OF THE TAX | 77\% | 73\% |  |
| PARTICIPANT WILL CROSS-BORDER SHOP BECAUSE OF THE TAX | 20\% | 21\% |  |
| DON'T KNOW | 3\% | 6\% |  |
| SMALL BUSINESSES ${ }^{5}$ |  |  |  |
| TAX WILL NOT NEGATIVELY AFFECT SMALL BUSINESSES | 53\% | 46\% | ${ }^{1} \%$ are weighted values |
| TAX WILL NEGATIVELY AFFECT SMALL BUSINESSES | 39\% | 42\% |  |
| DON'T KNOW | 9\% | 12\% | ${ }^{2}$ Missing data: opinion on tax ( $n=1$ ); cross- |
| JOB LOSS ${ }^{5}$ |  |  | job loss ( $n=1$ ); family finances ( $n=0$ ); impact |
| TAX WILL NOT RESULT IN JOB LOSS | 66\% | 55\% | on low-income people/people of color ( $n=4$ ); |
| TAX WILL RESULT IN JOB LOSS | 23\% | 30\% | individual choice ( $n=1$ ) |
| DON'T KNOW | 11\% | 16\% |  |
| FAMILY FINANCES ${ }^{5}$ |  |  | ${ }^{3}$ Comparison area includes Minneapolis and DC Metro. Missing data: opinion on tax ( $n=2$ ); child wellbeing ( $n=2$ ); public health ( $n=1$ ) |
| TAX WILL NOT NEGATIVELY AFFECT FAMILY FINANCES | 79\% | 67\% |  |
| TAX WILL NEGATIVELY AFFECT FAMILY FINANCES | 17\% | 26\% |  |
| DON'T KNOW | 4\% | 6\% | ${ }^{4}$ Responses included: strongly disapprove, somewhat disapprove, somewhat approve, strongly approve. These four categories are collapsed into two categories: approve, |
| IMPACT ON LOW-INCOME PEOPLE/PEOPLE OF COLOR ${ }^{5}$ |  |  |  |
| TAX WILL POSITIVELY IMPACT LOW-INCOME PEOPLE AND PEOPLE OF COLOR | 47\% | 43\% |  |
| TAX WILL NEGATIVELY IMPACT LOW-INCOME PEOPLE AND |  |  | disapprove. |
| PEOPLE OF COLOR | 42\% | 43\% | ${ }^{5}$ Participants were read two statements and |
| DON'T KNOW | 11\% | 14\% | asked to indicate if the first statement was |
| INDIVIDUAL CHOICE ${ }^{5}$ |  |  | much closer, the first statement was somewhat |
| PEOPLE WILL HAVE THE CHOICE TO DRINK THE BEVERAGES THEY WANT | 71\% | 66\% | closer, the second statement was much closer, or the second statement was somewhat closer. |
| PEOPLE WILL NOT HAVE THE CHOICE TO DRINK THE BEVERAGES THEY WANT | 26\% | 28\% | These four categories are collapsed into two categories: the first statement was closer, or |
| DON'T KNOW | 3\% | 6\% | the second statement was closer. |

## Perceived healthfulness of sugary beverages in Seattle and the comparison area.

At this baseline time point, consumption of sugary beverages tended to be higher in the comparison area versus Seattle; $23 \%$ of participants in the comparison area reported consuming one or more sugary beverages per-day, compared to $16 \%$ in Seattle (Table 7). But consumption among participants in the comparison area was still far lower than the national average among adults. ${ }^{10}$

Overall, perceived healthfulness of sugary beverages was very similar in Seattle and the comparison area. In both Seattle and the comparison area, participants perceived that sugary beverages have adverse effects on health,

[^8]including serious health conditions ( $82 \%$ Seattle, $81 \%$ comparison), dental health ( $87 \%$ Seattle, $86 \%$ comparison), obesity ( $86 \%$ Seattle, $83 \%$ comparison), diabetes ( $87 \%$ Seattle, $85 \%$ comparison), and heart disease ( $71 \%$ Seattle, $74 \%$ comparison). A similar proportion of participants in both groups perceived that drinking soda/pop, fruitflavored beverages, sweetened teas and coffees, and energy drinks could lead to health problems and that added sugar is related to serious health problems. Likewise, about $80 \%$ of participants in Seattle and the comparison area perceived water and unflavored milk to be healthy, whereas only about $20 \%$ of participants indicated that diet drinks were healthy.

TABLE 7. CONSUMPTION AND PERCEIVED HEALTHFULNESS OF SUGARY BEVERAGES IN SEATTLE AND COMPARISON AREA

|  | SEATTLE ${ }^{1,2}$ $(N=851)$ | COMPARISON AREA ${ }^{1,3}$ $(N=863)$ |
| :---: | :---: | :---: |
| CONSUMPTION |  |  |
| NONE OR < 1 WEEK | 45\% | 29\% |
| 1 WEEK | 16\% | 20\% |
| 2-6 WEEK | 22\% | 27\% |
| $\geq 1$ DAY | 16\% | 23\% |
| DON'T KNOW | 1\% | 1\% |
| SUGARY BEVERAGES CAUSE THE FOLLOWING: ${ }^{4}$ |  |  |
| SERIOUS HEALTH EFFECTS |  |  |
| AGREE | 82\% | 81\% |
| DISAGREE | 17\% | 15\% |
| DON'T KNOW | 2\% | 4\% |
| DENTAL HEALTH |  |  |
| AGREE | 87\% | 86\% |
| DISAGREE | 12\% | 10\% |
| DON'T KNOW | 1\% | 4\% |
| OBESITY |  |  |
| AGREE | 86\% | 83\% |
| DISAGREE | 13\% | 13\% |
| DON'T KNOW | 1\% | 4\% |
| DIABETES |  |  |
| AGREE | 87\% | 85\% |
| DISAGREE | 12\% | 11\% |
| DON'T KNOW | 2\% | 4\% |
| HEART DISEASE |  |  |
| AGREE | 71\% | 74\% |
| DISAGREE | 20\% | 18\% |
| DON'T KNOW | 9\% | 8\% |
| ADDED SUGAR RAISES CHANCE OF HEALTH PROBLEMS: ${ }^{4}$ |  |  |
| AGREE | 84\% | 84\% |
| DISAGREE | 12\% | 10\% |
| DON'T KNOW | 4\% | 6\% |
| MOST PEOPLE SHOULD DRINK SUGARY DRINKS: |  |  |
| NONE OR < 1 WEEK | 30\% | 25\% |
| 1 WEEK | 32\% | 32\% |
| 2-6 WEEK | 23\% | 21\% |
| $\geq 1$ DAY | 9\% | 14\% |
| DON'T KNOW | 6\% | 9\% |
| DRINKING THE FOLLOWING BEVERAGE INCREASES |  |  |
| CHANCE OF HEALTH PROBLEMS: ${ }^{4}$ |  |  |
| SODA/POP |  |  |
| AGREE | 90\% | 90\% |
| DISAGREE | 6\% | 5\% |
| DON'T KNOW | 3\% | 6\% |
| FRUIT-FLAVORED DRINKS |  |  |
| AGREE | 85\% | 81\% |
| DISAGREE | 10\% | 10\% |
| DON'T KNOW | 5\% | 9\% |
| SPORTS DRINKS |  |  |
| AGREE | 73\% | 69\% |


| DISAGREE | 18\% | 18\% |  |
| :---: | :---: | :---: | :---: |
| DON'T KNOW | 9\% | 13\% |  |
| SWEETENED COFFEE AND TEA |  |  |  |
| AGREE | 83\% | 81\% |  |
| DISAGREE | 12\% | 11\% |  |
| DON'T KNOW | 6\% | 9\% |  |
| ENERGY DRINKS |  |  |  |
| AGREE | 85\% | 82\% |  |
| DISAGREE | 7\% | 6\% |  |
| DON'T KNOW | 9\% | 13\% |  |
| THE FOLLOWING BEVERAGES ARE HEALTHY: ${ }^{5}$ |  |  |  |
| TAP WATER |  |  |  |
| HEALTHY | 83\% | 78\% |  |
| UNHEALTHY | 14\% | 18\% |  |
| DON'T KNOW | 2\% | 5\% |  |
| FILTERED TAP WATER |  |  |  |
| HEALTHY | 92\% | 88\% |  |
| UNHEALTHY | 6\% | 8\% |  |
| DON'T KNOW | 2\% | 4\% |  |
| BOTTLED WATER |  |  |  |
| HEALTHY | 88\% | 89\% |  |
| UNHEALTHY | 9\% | 6\% |  |
| DON'T KNOW | 3\% | 4\% |  |
| UNFLAVORED MILK |  |  |  |
| HEALTHY | 82\% | 80\% |  |
| UNHEALTHY | 14\% | 13\% |  |
| DON'T KNOW | 4\% | 7\% |  |
| UNSWEETENED TEA/COFFEE |  |  |  |
| HEALTHY | 77\% | 72\% |  |
| UNHEALTHY | 19\% | 22\% |  |
| DON'T KNOW | 4\% | 6\% |  |
| DIET DRINKS |  |  |  |
| HEALTHY | 17\% | 18\% |  |
| UNHEALTHY | 80\% | 78\% |  |
| DON'T KNOW | 3\% | 5\% |  |
| LIKELY TO SUBSTITUTE THE FOLLOWING BEVERAGES (AMONG CONSUMERS): ${ }^{\text {² }}$ |  |  |  |
| TAP WATER |  |  |  |
| LIKELY | 71\% | 69\% | $1 \%$ are weighted values |
| UNLIKELY | 28\% | 28\% | \% are weighted values |
| DON'T KNOW | 1\% | 3\% | ${ }^{2}$ Missing data: fruit-flavored drinks ( $n=2$ ); sports |
| FILTERED TAP WATER |  |  | drinks ( $n=1$ ); coffee/tea ( $n=1$ ); energy drinks ( $n=1$ ); |
| LIKELY | 77\% | 77\% | healthy filtered water ( $n=1$ ); healthy coffee/tea |
| UNLIKELY | 21\% | 20\% | ( $n=1$ ); substitute diet drinks ( $n=1$ ). |
| DON'T KNOW | 2\% | 3\% |  |
| BOTTLED WATER |  |  | ${ }^{3}$ Comparison area includes Minneapolis and DC Metro. Missing data: energy drinks ( $n=1$ ) |
| LIKELY | 73\% | 75\% |  |
| UNLIKELY | 26\% | 23\% | ${ }^{4}$ Responses included: strongly agree, somewhat |
| DON'T KNOW | 1\% | 3\% | agree, somewhat disagree, strongly disagree. |
| UNFLAVORED MILK |  |  | These four categories are collapsed into two |
| LIKELY | 50\% | 54\% | categories: agree, disagree |
| UNLIKELY | 49\% | 43\% |  |
| DON'T KNOW | 2\% | 3\% | ${ }^{5}$ Responses included: very healthy, somewhat |
| UNSWEETENED COFFEE/TEA |  |  | healthy, somewhat unhealthy, very unhealthy. |
| LIKELY | 66\% | 62\% | These four categories are collapsed into two |
| UNLIKELY | 33\% | 35\% | categories: healthy, unhealthy. |
| DON'T KNOW | 2\% | 3\% | ${ }^{6}$ Responses included: very likely, somewhat likely, somewhat unlikely, very unlikely. These four categories are collapsed into two categories: likely, |
| DIET DRINKS |  |  |  |
| LIKELY | 35\% | 40\% |  |
| UNLIKELY | 63\% | 57\% | unlikely. |
| DON'T KNOW | 2\% | 3\% |  |

## DIscussion

A majority of participants in Seattle supported the tax. Support for the tax, and the overall belief that the tax will not have unintended economic consequences corresponded to participants' perceptions that sugary beverages are generally unhealthy and can lead to adverse health problems.

The baseline results suggest that support for the tax may be somewhat lower among people who are non-Hispanic Black ( $45 \%$ support the tax) and low-income participants ( $51 \%$ support the tax) within Seattle. We speculate that these differences in support may be related to these participants' perceptions about how the tax could affect their own income and their general perceptions around healthfulness. For example, fewer people who are non-Hispanic Black, as compared to people who are non-Hispanic white, perceived that sugary beverages raise risk of serious health problems and fewer Hispanics believed that added sugar raises the chance of health problems.

Overall, consumption of sugary beverages is relatively low in both Seattle and the comparison area, compared to the national average. This was expected based on the fact that the median household income in Seattle and the comparison area is relatively high, which we would expect to correlate to lower levels of sugary beverage consumption. However, somewhat unexpectedly, consumption was somewhat higher in the comparison area versus Seattle. This may be driven by differences in the demographic characteristics of the two groups. However, in unstratified results, perceptions around the economic impacts of the tax and the healthfulness of sugary beverages were quite similar in Seattle versus the comparison area.

As described, Seattle and the comparison area are well-matched on a number of demographic characteristics; however, we observed some differences by race/ethnicity, level of educational attainment, and the percent of the population below $260 \%$ FPL. Although the comparison area was selected because the demographic characteristics were very similar, the observed differences in Seattle versus comparison area participants in our sample are similar to those observed in the 5 -year ACS data itself. For example, about $30 \%$ of the population of Seattle has incomes $<200 \%$ of the FPL as compared to approximately $40 \%$ of the population in Minnesota. Thus, we believe the small differences in the demographic characteristics in Seattle versus the comparison area are reflective of small differences in the actual demographic makeup of these two communities. We will control for any differences in demographic characteristics in the regression-based analyses that will be conducted for the longitudinal analysis of change in norms and attitudes. Furthermore, our goal for matching on demographics was to produce a sample with similar norms and attitudes, and we were successful in this, with very similar responses about norms and attitudes between Seattle and the comparison area.

## Limitations.

This study will employ a rigorous quasi-experimental design to evaluate the impact of Seattle's tax on norms and attitudes about the healthfulness of sugary beverage consumption as well as acceptability of the tax. The present findings form the baseline assessment of norms and attitudes about sugary beverage taxes. This component of the evaluation is unique to Seattle, as other cities have not employed a quasi-experimental design with a large sample to evaluate changes in norms and attitudes over time. Nevertheless, two key limitations are worth noting. One limitation of this adult survey is that our list of phone numbers was purchased from multiple companies that sell this information. Respondents to this telephone/web survey may be different on unobserved factors compared to the general population (a limitation of most survey research). In addition, our analyses will rely on repeat crosssectional samples, as we will recruit a new sample of participants in Seattle and the comparison area for the endline sample, rather than following the same people over time.

## FUtURE WORK

In addition to the sample collected in 2017-2018, our plan is to collect endline data in January 2019 among a new cross-sectional sample of participants, both in Seattle and the comparison area. However, it is possible that the "Yes to Affordable Groceries" campaign will have a presence in Seattle and may further influence the attitudes about the sweetened beverage tax. Our tentative plan is to consider delaying our follow-up of norms and attitudes until a few months after the November vote so that we are surveying individuals some time after any such campaign has ended.

Our endline analyses will measure whether attitudes towards the healthfulness of sugary beverages and the tax itself have changed over time, while controlling for any changes in norms toward sugary beverages that are unrelated to the tax. Additionally, we will investigate whether any change in norms related to the tax is different among low- versus higher-income participants.

## CONSIDERATIONS FOR ONGOING EVALUATION

As noted in the results, non-Hispanic Blacks had the lowest level of support for the tax (although still fairly high support: $45 \%$ ); however, a majority of non-Hispanic Blacks (53\%) perceived that the tax will positively impact low-income people and people of color. Although interviewers did not report that participants had any difficulty in answering this question, it is plausible that "positive" may have had the connotation of "definitely" when administering this survey (i.e. the tax will definitely impact low-income people and people of color). To better assess the validity of this question, and the word choice used, during our endline data collection we will add a second question that asks if the tax will or will not affect low-income people and people of color and compare the results.

## SECTION 4 | PROCESS EVALUATION OF STAKEHOLDER PERCEPTIONS


#### Abstract

Objective: The objective of the stakeholder interviews and focus groups was to understand the pre-tax perceptions about the Sweetened Beverage Tax (SBT) from the following perspectives: Seattle residents and specifically lowerincome households, beverage retailers, tax administrators, and city officials.

Methods: This component uses a qualitative study design. Interview guides included questions to understand perceptions about 1) sweetened beverage consumption, 2) the Sweetened Beverage Tax and use of its revenues, 3) implementation of the Sweetened Beverage Tax, and 4) anticipated consumer and business impacts. Using purposive sampling, snowball sampling, and convenience sampling, we recruited participants through our contacts with City of Seattle staff, the Sweetened Beverage Tax Community Advisory Board, and community partners. Each focus group was assigned a facilitator and note-taker, while each interview was conducted by one interviewer. A hybrid of deductive and inductive content analysis was used to analyze the data. This report details the data collected between October 2017 and February 2018 to understand pre-tax/early tax perceptions and implementation. The final sample of participants (consumers, businesses, and City of Seattle staff/officials) included six focus groups (comprised of 54 participants from two adult consumer groups, three youth consumer groups, and one group of restaurateurs) and 16 one-on-one interviews (two community organizations, four distributors/ manufacturers, five retailers, and five City of Seattle staff and elected officials). One adult focus group was conducted in Somali and English while all other data were collected in English.


Results: Consumer and business participants shared the perspective that consumption of sweetened beverages was common and that most sweetened beverages were unhealthy. After the tax, some consumers anticipated they would be less inclined to buy sweetened beverages, while other consumers said they would consider cross-border shopping for sweetened beverages. Knowledge about the Sweetened Beverage Tax varied, with Councilmembers, distributors, and a health advocacy organization being the most knowledgeable. Communication about the tax was seen as both a facilitator and a barrier. While distributors and some restaurateurs were aware of the tax and received communication from the City of Seattle about the tax, they and other businesses wanted more information about how the implementation would impact their type of business. Business participants varied on whether they would absorb or pass the tax onto clients and consumers, with one distributor, small retailers, and some restaurateurs expressing they would pass the tax onto others. Councilmembers expressed concerns about the potential negative impact of the tax on small businesses and job loss, which was the impetus for providing exemptions to small manufacturers and assuring tax revenues would fund job training programs. While consumers and Councilmembers felt that the tax would negatively financially impact low-income people and communities of color more than other populations, they also felt the tax and its revenue usage had potential to reduce sweetened beverage consumption and improve health for these communities. All groups supported the idea of using revenues to support health-promoting activities like expanding access to healthy foods for low-income populations.

## SECTION 4 | PROCESS EVALUATION OF STAKEHOLDER PERCEPTIONS

## Objective

The objective of the stakeholder interviews and focus groups was to understand the pre-tax perceptions about the Sweetened Beverage Tax from the following perspectives: Seattle residents and specifically lower-income households, food retailers, tax administrators, and city officials. Topics included 1) attitudes about, purchasing and consumption of sugar-sweetened beverages; 2) perceptions about the Sweetened Beverage Tax and proposed use of its revenues, 3) concerns related to implementation of the tax, and 4) perceived anticipated consumer and business impacts.

## Methods

## Study participants.

Stakeholder types (Table 1) identified for inclusion were those who would be potentially impacted by or engaged in the process of implementing the Sweetened Beverage Tax:

- City of Seattle staff and elected officials;
- Consumers and community-based organizations representing low-income populations likeliest to experience impact of the SBT or benefit from the tax revenues (i.e., teenage youth and communities of color) and
- Business sector (distributors, manufacturers, grocers, restaurateurs).

We used a purposive sampling approach to identify and recruit participants and snowball sampling to recruit additional stakeholders. To identify City staff and tax administrators we received names of potential participants from the Office of the City Auditor. We identified elected officials who represented differing perspectives on the Sweetened Beverage Tax to recruit for interviews. To recruit businesses, we used attendance logs from public comment meetings for the Sweetened Beverage Tax and sought input from City of Seattle staff, Sweetened Beverage Tax Community Advisory Board, and Evaluation Team. To recruit small retailers, we identified small grocery stores, ethnic grocery stores, and independent coffee or bubble tea shops using the same food license list used for the store audit component of this evaluation, narrowed the list to stores designated as "small store only" or "coffee" within neighborhoods with higher density of households with lower-income populations and communities of color: Seattle's Central District, International District, Beacon Hill, and Rainier Valley. We then approached a convenience sample of stores or shops within a quarter-mile radius for each neighborhood. To recruit adults and youth representing lower-income people and people of color, we used a convenience sample drawn from existing relationships the Sweetened Beverage Tax Community Advisory Board or Public Health - Seattle \& King County (PHSKC) had with Seattle schools and community organizations. We offered tokens of appreciation to youth participants ( $\$ 20$ movie or Amazon gift cards), adult focus group participants ( $\$ 25$ Safeway gift cards), and grocery store participants ( $\$ 25$ Amazon gift cards).

| TABLE 1. STAKEHOLDERS INCLUDED IN INTERVIEWS OR FOCUS GROUPS (FGs) AT BASELINE ASSESSMENT |  |
| :---: | :---: |
| STAKEHOLDER TYPE | PARTICIPANTS |
| CITY OF SEATTLE STAFF AND ELECTED OFFICIALS | - CITY OF SEATtLE STAFF ENGAGED IN PLANNING OR ADMINISTERING THE TAX (2 INTERVIEWS) <br> - COUNCILMEMBERS OR THEIR DESIGNATED STAFF (3 OF 4 ATTEMPTED) |
| CONSUMERS | 3 FGs WITH YOUTH OF COLOR <br> - 23 PARTICIPANTS TOTAL ACROSS THREE LOCAL HIGH SCHOOLS SERVING CENTRAL DISTRICT, BEACON HILL, GEORGETOWN, AND RAINIER VALLEY <br> 2 FGs WITH ADULTS OF COLOR (OF 3 ATTEMPTED) <br> - 15 PARTICIPANTS AT A SUBSIDIZED HOUSING SITE (IN SOMALI AND ENGLISH) <br> - 4 PARTICIPANTS AT A COMMUNITY-BASED ORGANIZATION (IN ENGLISH) |


|  | - HEALTH ADVOCACY ORGANIZATION (1 INTERVIEW) |
| :--- | :--- |
| COMMUNITY-BASED ORGANIZATIONS | - COMMUNITY-BASED ORGANIZATION SERVING LOW-INCOME AND |
|  | YOUTH OF COLOR (1 INTERVIEW OF 2 ATTEMPTED) |
|  |  |
|  | - DISTRIBUTOR (2 INTERVIEWS, INCLUDES ONE MANUFACTURER |
|  | WHO DISTRIBUTES) |
|  | - MANUFACTURER WHO USES DISTRIBUTORS, HAS LIMITED |
|  | SELF-DISTRIBUTION |
|  | - MANUFACTURER EXEMPT FROM SWEETENED BEVERAGE TAX |
|  | - SMALL, INDEPENDENT GROCERY STORE OWNERS OF COLOR IN |
|  | CENTRAL DISTRICT, BEACON HILL, AND RAINIER VALLEY (3 |
|  | INTERVIEWS OF 12 ATTEMPTED) |
|  | • RETAIL OR RESTAURANT ASSOCIATION (2 INTERVIEWS) |
|  | 1FG WITH 12 RESTAURATEURS (OF 2 ATTEMPTED) |

Note: Identities of participants are withheld to protect confidentiality.

## Participant characteristics.

We completed a total of six focus groups (two adult consumer focus groups, three youth consumer focus groups, one restaurant owner/manager focus group) and 16 stakeholder interviews. To protect confidentiality, identities of participants are withheld.

City of Seattle staff and elected officials. We conducted in-person interviews with two City of Seattle staff engaged in the planning or administration of the tax, two Councilmembers, and one Councilmember's Chief of Staff. Comments from the Chief of Staff are included as Councilmember feedback, as this person was designated to speak on behalf of that Councilmember. A fourth Councilmember declined due to competing demands.

Consumers. The youth focus groups included twenty-three youth of color from high schools serving students in the Central District, Beacon Hill, Georgetown, and Rainier Valley. The adult consumer focus groups included one group comprised of four African American participants at a community-based organization and one group comprised of 15 participants of African or Middle Eastern descent (conducted in English and Somali) at a subsidized housing site.

Community-Based Organizations. We completed interviews with a representative from a community-based organization representing low-income, youth of color, and two representatives from an organization involved in advocating for passage of the SBT. A third community-based organization declined due to lack of time.

Distributors and manufacturers. The sample of distributors/manufacturers included one distributor and three manufacturers with varying levels of revenue and distribution (i.e., one manufacturer with limited levels of selfdistribution, one manufacturer who mainly self-distributed, one large manufacturer whose company partnership included bottlers who distribute).

Restaurateurs. We conducted one interview with a representative from the local restaurant business alliance, which helped inform our strategy for recruiting representatives from the restaurant industry. The focus group of restaurant owners and managers was assembled by a representative from the local restaurant business alliance. Participating restaurateurs included those who owned or managed quick-service or franchise fast food restaurants and full-service restaurants.

Small/Ethnic/Immigrant-owned store retailers. We conducted one interview with a representative from a local retail alliance, which helped inform our strategy for recruiting small store retailers. Our three interviewees among store retailers were people of color who owned stores in the Central District, Beacon Hill, and Rainier Valley, respectively. We attempted several others. Nine of the 12 stores we visited and one immigrant-owned retail business alliance were not available for interviews: three stores were closed; three gas station mini-marts and the business alliance in Seattle declined due to lack of time; one coffee shop did not complete the interview due to lack of time; two bubble tea shops declined because their managers were not present.

## Interview and focus group guides.

Semi-structured interview and focus group guides included concepts and questions (Table 2) that were informed by priorities highlighted in the Sweetened Beverage Tax ordinance, literature review, the Sweetened Beverage Tax Evaluation Team, the Berkeley beverage tax evaluation, and the Sweetened Beverage Tax Community Advisory Board. Information gathered from the interviews with two City of Seattle staff who were engaged in planning or administration of the tax were used to provide the researcher with background context about the SBT development and implementation process, and are not reported as results.

The interview and focus group guides are included in Appendix B.

| TABLE 2. STAKEHOLDERS AND KEY CONCEPTS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | CONCEPTS | CITY STAFF AND ELECTED OFFICIALS | CONSUMERS AND COMMUNITY-BASED ORGANIZATIONS | BUSINESS SECTOR |
| 1 | KNOWLEDGE ABOUT SWEETENED BEVERAGE TAX AND REVENUE USE | X | X | X |
|  | PROCESS OF IMPLEMENTATION (BARRIERS AND FACILITATORS) | X |  | X |
| 3 | IMPACT ON |  |  |  |
|  | - JOB AND ECONOMIC INDICATORS (BUSINESS PRACTICES, REVENUES, VOLUME) | X |  | X |
|  | - beverage prices \& SALES | X | X | X |
|  | - CONSUMER CHOICES/PURCHASES | X | X | X |
|  | - SWEETENED BEVERAGE CONSUMPTION |  | X |  |
|  | PERCEPTIONS ABOUT SWEETENED BEVERAGE CONSUMPTION |  | X | X |

## Data collection.

Semi-structured interviews and focus group data were collected between October 2017 and February 2018. Each focus group was assigned a facilitator and note-taker, while each interview was conducted by one interviewer. PHSKC staff experienced with facilitation and note-taking conducted five of the six focus groups and all interviews. One focus group was conducted in Somali and English by community-based organization staff, who PHSKC trained so that a standard approach was used in all focus groups. Although interviews and focus groups were not recorded (to maximize participation), notes were taken on a laptop. Facilitators and note-takers were asked to regularly pause and repeat back participant statements to confirm accuracy and to allow the note-taker time to capture what was said. Following each interview and focus group, data were reviewed for completeness and accuracy.

## Data analysis.

All data were coded and analyzed by one researcher. To identify themes, a hybrid of deductive and inductive methods was used. The coding scheme started with pre-determined key concepts or constructs (Table 2). Additional themes or sub-themes within each construct were then inductively identified.

## Results

## Key themes from focus groups and interviews

## Councilmembers.

## Perceived impact and use of revenues from Sweetened Beverage Tax

All three Councilmembers were knowledgeable about the tax and its intended goal of using policy to impact health-related behaviors. The three also expressed that while this tax could contribute to better health outcomes, the tax alone would not be sufficient. To do so, they felt broader strategies would be needed and using SBT revenues to invest in programs to promote health and well-being were part of those strategies. The three Councilmembers anticipated that the tax would result in higher prices for taxed items which would be passed onto consumers, and shared a universal concern about the tax disproportionately impacting consumers in
low-income communities and communities of color. Two Councilmembers were concerned about the exemption of diet sodas from an equity perspective, pointing to research that indicated higher income populations were more likely to consume these beverages. Two Councilmembers expressed concerns the tax may have a disproportionate negative impact on small, independently-owned businesses by leading to lower sales and revenues, and potentially contributing to job losses. One Councilmember indicated the inclusion of funding from SBT revenues for job re-training programs and an exemption for small manufactures from the tax to mitigate concerns about negative impact on jobs and some businesses. One Councilmember highlighted the importance of community-driven resource allocation. All three expressed the need to allocate SBT revenues for programs designed to promote health, nutrition, and well-being for low-income communities and communities of color and supported the composition and role of the SBT Community Advisory Board in making these recommendations.

## Consumers.

> Some consumers said that they might spend a little more on a sugar-sweetened beverage occasionally, while others said that they might make a different, cheaper choice or just not buy sugar-sweetened beverages at all.

Low awareness of impending tax
Consumers expressed having limited awareness and knowledge about the Sweetened Beverage Tax. Few consumer focus group participants stated that they had heard or seen signs about the Sweetened Beverage Tax. Most participants stated that they did not know how the City planned to use Sweetened Beverage Tax revenue. Some youth stated that they had heard Sweetened Beverage Tax revenue would go towards helping people get food.

## Perceived impact on purchases, beverage consumption, and cross border shopping

The focus group facilitator provided a brief explanation of the SBT to gather consumer perceptions about how they felt about the tax and how they might respond to the change in price. Consumers were not sure how the SBT would change their overall spending. Some consumers said that they might spend a little more on a sugar-sweetened beverage occasionally, while others said that they might make a different, cheaper choice or just not buy sugar-sweetened beverages at all. Both youth and adults indicated that their response to the tax would depend on the size of the tax for the volume they intended to purchase. Youth indicated the tax might not change their purchase of a single soda, but could change their purchase of larger volumes, like a six-pack. They would consider buying less or not buying soda, or consider buying something else. Some youth said that since candy wasn't being taxed, they might just buy more candy instead of a soda. Other youth said they would drink water instead. Youth noted that healthier, alternative options like bottled water or $100 \%$ juices (e.g., Odwalla, Naked) are often expensive. A few youth and adults said that they would not switch from regular soda to diet soda just because the latter was exempt. At one focus group, all youth agreed that if healthier beverages were cheaper, people would be more likely to buy and drink them. Among consumers who said they regularly or occasionally drank sugar-sweetened beverages, many said that they drank sugarsweetened beverages that they or family members made at home and not subject to the tax. For this group, it was unclear if they intended to reduce consumption of non-taxed sugar-sweetened beverages after the tax began. Consumer participants, particularly youth, said that they would consider crossing the Seattle border to buy taxable sugar-sweetened beverages at a lower price, although this opinion was not universal and some said they wouldn't go out of their way to buy a soda.

## Impact of Sweetened Beverage Tax on low-income people \& communities of color

Almost all of the consumer participants felt that the tax would financially hit their communities (i.e., low-income people and communities of color) the hardest. However, several consumers stated that it might be a good thing for sugar-sweetened beverages to cost more if it meant people drank less of it, since health conditions like obesity, diabetes, and cavities were big problems in their communities. Some consumers stated that the tax might be good for the communities if the revenues went towards helping them, but that the City needed to be held accountable for using those funds for healthy food access, particularly for low-income populations.

## Community-Based Organizations (CBOs).

High awareness and mixed opinions of Sweetened Beverage Tax
The CBOs interviewed expressed high awareness and knowledge about the SBT. This was not surprising since both organizations interviewed have been involved with either advocating for the tax or are represented on the Sweetened Beverage Tax Community Advisory Board. The health advocacy organization stated that it supported the tax, and felt that if the City used revenues to support populations expected to be most affected by the SBT, then concerns about the SBT's regressivity would be allayed. The other community organization interviewed had mixed feelings about the tax due to concerns about low-income populations and communities of color being disproportionately burdened by the tax, but was supportive of the public health intent to reduce obesity. They were also supportive of the Community Advisory Board's role in determining how to prioritize revenue to support the health of low-income populations, particularly communities of color.

The CBOs also had mixed opinions about the impact of the tax on overall sugar-sweetened beverage consumption. One organization anticipated a reduction, whereas the other community-based organization thought that it depended on how price sensitive certain individuals were, particularly youth.

## Business Sector.

## Perceived facilitators and challenges to Sweetened Beverage Tax implementation.

Mixed levels of understanding about the tax
All manufacturer/distributors were aware of the SBT and stated that they understood the SBT. Restaurateurs were aware of the SBT, but most said that they did not feel they had a clear understanding about the tax, its nuances, and implications for their businesses. One restaurateur thought the tax would be repealed, leading to others in the group who said they had heard the same; however, participants could not verify the source of this information. The three small store owners had different levels of awareness and understanding about the SBT. Two small store owners said that they understood the key points about the SBT while one store owner was unaware of the SBT.

## Communications about the Sweetened Beverage Tax

Information about the SBT came from different sources for distributors, manufacturers, and retailers. The distributor and large manufacturers said they created information for their clients (e.g., retailers, restaurateurs, or manufacturers who use their distribution services) about the SBT after they had received information from the City about the tax. The two manufacturers said they had received limited information about the SBT from the City but had received information from other sources such as local business alliances or chamber of commerce. Several restaurateurs said they received information from the local restaurant alliance and only a few said they received communications from the City about the SBT. All participants indicated that they wanted more information from the City about how the SBT would affect them. Several expressed concern that

consumers would not know about the tax and that it was an unfair burden on restaurant staff to have to explain the SBT to patrons. Of the two small storeowners who had heard about the tax, both had received information from their distributors. One had also learned about it from someone who came into the store to post a flyer from "Keep Seattle Livable for All," a group funded by the American Beverage Association.

## Implementation challenges

The greatest challenge stated by the one major distributor interviewed (distribution only; no manufacturing) was the time required to work with clients (i.e., retailers) to reconfigure their invoicing systems to track taxable sugar-sweetened beverages and determine how to itemize these on receipts. This challenge was compounded by clients' variability in responsiveness and readiness for how they wanted the tax tracked in their systems. Several restaurateurs stated that they did not know what was expected of them to prepare for the tax.

All restaurateurs expressed a "mandate overload" and stated that it was challenging to juggle the Sweetened Beverage Tax with other competing mandates like the liquor tax, increased minimum wage, and sick leave. Interviewees stated that the challenge with these laws was that they were all implemented in close succession.

## Exemptions

Several restaurateurs and two manufacturers expressed frustrations about certain exemptions that were included or not included in the SBT. Several restaurateurs said that they felt that the City disregarded their concerns and exemption recommendations (for example, taxing syrups used for cocktails) made at stakeholder meetings before SBT rules were finalized. One manufacturer expressed gratitude for the exemption for small manufacturers but thought that the low ceiling set for the exemption had negative implications for business growth in that small manufacturers would need to cap growth in order to remain exempt. Another manufacturer who did not qualify for the small business exemption expressed anger that their "low-sugar" soda would not qualify as exempt [Note: The Sweetened Beverage Tax does include exemptions for low-sugar alternatives, but levels for exemption were too low to include this manufacturer's product.] Lastly, some consumers and retailers expressed cynicism that the exemption for products with milk as the primary ingredient was not due to the healthfulness of milk but successful lobbying by business interests. One grocer also wondered why diet sodas were exempted; this respondent believed that diet sodas are also unhealthy.

## Perceived potential impact of Sweetened Beverage Tax on beverage prices and sales.

Passing costs to consumers versus absorbing costs
One of the distributors and two small store owners stated that they would pass the tax directly onto retailers and consumers, respectively. While the majority of restaurateurs indicated that they would pass the tax onto consumers, two manufacturers and some restaurateurs said that they might have to absorb some part of the costs due to concerns over decreased sales if the tax was fully passed onto consumers. These restaurateurs also stated concerns over losing business to non-Seattle businesses if they were to raise prices. Participants in the restaurant group who ran businesses with refillable soda fountain drinks, particularly self-refill stations that often include both taxed and non-taxed beverages, were unclear about how they would appropriately apply the tax.

## Varied perceptions of small store owners of the potential impacts on sales

Among the grocery store owners interviewed, one was deeply concerned about reduced sales. This owner said that they had heard from customers if the store raised prices, they would stop buying sodas from the store. For the small store owner who was unaware of the tax,

Most stakeholders who were unaware about the revenue allocations stated higher approval of the Sweetened Beverage Tax after PHSKC shared with them that a proportion of Sweetened Beverage Tax revenue would go towards expanding healthy food access for low-income populations, and that Sweetened Beverage Tax revenue priorities would be shaped by the Community Advisory Board. since their store also sold food and other products, with taxable sugar-sweetened beverages comprising only a small portion of their products, that owner felt that the tax would only have a minor impact on the store's sales. The third grocer didn't anticipate the SBT having much of an impact on sales.

On the other hand, restaurateurs were in agreement that the SBT would cut into already narrow profit margins as a result of potential impact on sales if they were to increase prices.

## Mixed support for the Sweetened Beverage Tax.

Most retailers and two manufacturer/distributors stated that they felt negatively towards the SBT due to fears of decreased sales. However, the majority of retailers and manufacturer/distributors also stated that they valued the public health intent of obesity reduction behind the tax. All participants said that they understood the need to address obesity and over-consumption of sugar.
...despite anticipating a disproportionate negative impact of the tax, consumers of color from Seattle's Central and South areas were the most positive about the potential health benefits of the Sweetened Beverage Tax. The projected revenue usage for expanding healthy food access appeared to be an acceptable benefit from the negative impact of increased cost.

Many also expressed the opinion that the SBT was primarily being used for revenue purposes rather than for public health benefit. Most stakeholders who were unaware about the revenue allocations stated higher approval of the Sweetened Beverage Tax after PHSKC shared with them that a proportion of Sweetened Beverage Tax revenue would go towards expanding healthy food access for low-income populations, and that Sweetened Beverage Tax revenue priorities would be shaped by the Community Advisory Board.

## Consumer and business sector perceptions about sweetened beverage consumption

Consumers and business participants shared a similar perception that people consume too much sugar and that many sugar-sweetened beverages are unhealthy. While most business participants indicated that they never or rarely drank sodas, over half of adult and youth consumer participants said that they drank sugar-sweetened beverages. Sugar-
sweetened beverage consumers stated that the most common types of sugar-sweetened beverages consumed at home were self-prepared, like Kool-Aid or sweetened tea or coffee.

## DIscussion

Overall, knowledge and perception of the tax and its impacts varied greatly for consumers and business stakeholders. There was limited awareness among consumers about the tax and SBT revenue usage. This lack of clarity highlighted an emerging need to improve communication overall and about where to find more detailed information about the tax and how revenues would be used. In this instance, the real-time findings from the process evaluation led to rapid action by the City and Community Advisory Board to make SBT information more easily accessible by March 2018: the City created fact sheets providing an overview of the tax and how revenues will be used in the next budget year and improved the searchability of the City of Seattle Financial and Administrative Services' Sweetened Beverage Tax and the Sweetened Beverage Tax Community Advisory Board web pages. In addition, the Community Advisory Board and an advocacy organization have committed to improving opportunities to increase consumer awareness and understanding about sweetened beverages, the SBT, and how SBT revenues can help benefit the community.

Notably, despite anticipating a disproportionate negative impact of the tax, consumers of color from Seattle's Central and South areas were the most positive about the potential health benefits of the SBT. The projected revenue usage for expanding healthy food access appeared to be an acceptable benefit from the negative impact of increased cost. In addition, many consumers thought that the tax might help decrease sugar-sweetened beverage consumption.

For businesses, the primary facilitator for information about the tax was communication that came from distributors and the local restaurant alliance, who separately interpreted information that the City of Seattle provided to the public. Distributors provided their interpretation to retail clients; while the restaurant alliance provided it to their members.

Perceptions of the tax were generally more negative amongst business stakeholders such as distributors, manufacturers, and retailers who were largely skeptical or opposed to the tax, although most supported the need for strategies to address obesity. These business stakeholders expressed concerns over how revenues lost due to the SBT would impact tight profit margins, which participants felt were already being undercut by other taxes and ordinances on businesses. Some of the negative feelings may also have been exacerbated by uncertainty or lack of clarity around tax details, as well as misinformation about the tax being repealed or how SBT revenues would be used.

## Limitations.

There were several limitations to this component of the evaluation. The three-month overlap with the holiday season limited participant availability. To maximize participation, we extended the data collection period through February 2018. While we didn't have a list of distributors from which to recruit participants, the public comment attendance list and subsequent referrals allowed us to hear from several types of businesses who manufacture or sell beverages. In some localities, restaurant alliances have been vocal opponents of these taxes. It is important to note that the restaurant owner focus group was assembled by a local restaurant alliance. However, it should also be noted that the alliance did not take a formal stand on the SBT. Although we first recruited community or business sector participants who had been actively engaged in the development of the ordinance, we also succeeded in including community and business sector participants who had not been previously engaged around the tax. We did not record interviews and focus groups, so were unable to listen to recordings to confirm quotations. However, we repeated statements to participants during the interview and focus group sessions to ensure accuracy of notes taken. To help mitigate limitations, findings from the interviews and focus groups will be triangulated with baseline data from the adult survey of norms and attitudes. Together, the data will provide a more complete picture of baseline attitudes and perceptions around sugar-sweetened beverages and the impact of the Sweetened Beverage Tax.

## FUTURE WORK \& CONSIDERATIONS FOR ONGOING EVALUATION

The stakeholder interviews and focus groups established pre-tax perceptions for local consumers and businesses who manufacture or sell sugar-sweetened beverages. After communicating with City of Seattle Financial and Administrative Services, we have learned that the City will use their existing channels of communication with businesses to directly respond to tax implementation questions. Since our norms and attitudes adult survey component of the evaluation was also able to capture perceptions of the tax and sugar-sweetened beverage consumption from a sizeable number of respondents with low income and representative of the race/ethnic composition of Seattle, we will rely on that data source going forward to monitor changes in perceptions and approval of the tax by consumers. Finally, the store audits will provide an alternative means of assessing the degree to which store owners pass on the cost of the tax to consumers by increasing the price of taxed beverages, so we will rely on the store audits to assess that aspect of implementation. For all of these reasons, we plan to seek input from the Sweetened Beverage Tax Community Advisory Board and the City Review Team about limiting or eliminating originally proposed stakeholder interviews and focus groups at 12-months. Resources would be reallocated to support the expanded food security assessment activities in 2018.

## APPENDIX A \| EVALUATION TEAM STRUCTURE AND TEAM BIOGRAPHIES

## APPENDIX A \| EVALUATION TEAM STRUCTURE AND TEAM BIOGRAPHIES

## Seattle's Sweetened Beverage Tax Evaluation Team structure

The Seattle Office of the City Auditor established a contract with Public Health - Seattle \& King County to complete the evaluation outlined in Section 5B of the Sweetened Beverage Tax Ordinance. The Sweetened Beverage Tax (SBT) Evaluation Team is comprised of academic researchers and public health practitioners which includes national experts on policy evaluation, food policy, obesity, sugary beverages and beverage taxes, dietary assessment, and assessment of beverage purchasing. As described below, each organization contributed to the overall study design and led different components of the baseline evaluation: Public Health - Seattle \& King County coordinated the research efforts, served as the point of contact with the City of Seattle, and led the process evaluation; the University of Washington co-led and coordinated the SBT Evaluation Team's overall research efforts, served as the point of contact for national academic research advisors, and led the store audits as well as the norms and attitudes survey; Seattle Children's Research Institute led the child cohort study; and Healthy Food America contributed to the overall study design and co-led the design of the norms and attitudes survey. The Office of the City Auditor contributed to the study design, monitored progress, and served as the point of contact with the City Review Team (comprised of staff representing City Council, City Budget Office, Finance and Administrative Services, Executive Office, and City Departments, such as the Human Services Department and the Office of Sustainability and Environment) to review the methods and reports from the SBT Evaluation Team.

## BIOGRAPHIES

Nadine Chan, Ph.D., M.P.H., is the Assistant Chief of the Assessment, Policy Development, and Evaluation unit at Public Health - Seattle \& King County and Clinical Assistant Professor of Epidemiology at the University of Washington School of Public Health and Community Medicine. She has published, led, and co-led studies evaluating cross-sector strategies to improve health equity. Her work includes mixed-method studies of complex policy and program interventions, including conducting natural experiments, to study changes in policies, systems, and environments and their impacts on health outcomes (e.g., evaluations of the King County menu labeling policy, the Partnerships to Improve Community Health initiative, Communities Putting Prevention to Work Initiative, and launch of the evaluation for the Best Starts for Kids Initiative.) As the Assistant Chief of Assessment, Policy Development, and Evaluation at Public Health - Seattle \& King County, Dr. Chan provides oversight of a nationally recognized team of researchers responsible for community assessment and evaluation, and who routinely analyze population-level datasets and administrative program data. Dr. Chan's work has been funded by the Centers for Disease Control, Robert Wood Johnson Foundation, King County, and City of Seattle. Dr. Chan received her undergraduate degree in cell biology from the University of California at Berkeley, masters and doctoral degrees from the University of Washington School of Public Health and Community Medicine, and completed a postdoctorate fellowship on cancer prevention disparities at the University of California in San Francisco.

For this study, Dr. Chan is the point of contact between the City of Seattle Office of the Auditor and the Evaluation Team and co-leads the Evaluation Team with Dr. Jesse Jones-Smith. Dr. Chan coordinates and monitors the contracted research efforts; convenes and documents weekly Evaluation Team meetings; writes, reviews, and presents reports (monthly progress reports, annual evaluation plan, document of completion of data collection, and the baseline evaluation report) to the Office of the City Auditor as requested; serves as the point of contact with the SBT Community Advisory Board and the City Review Team; and contributes to the study design, writing and review of reports, publications, and presentations for this study.
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Roxana Chen, Ph.D., M.P.H., is an Affiliate Assistant Professor in the Department of Health Services at the University of Washington and social research scientist at Public Health - Seattle \& King County. Dr. Chen received her Master of Public Health in Behavioral Sciences and Health Promotion at the University of Illinois at Chicago and her Ph.D. in Health Services from the University of Washington. Her areas of research include chronic disease disparities and
cross-sectoral strategies between health and housing to improve health. She has expertise in community-based participatory research and using mixed methods to evaluate community and population-level interventions.

Dr. Chen leads the process evaluation of stakeholder perceptions about the SBT and is responsible for leading the analysis and reporting about the SBT process evaluation. She also provides input on the food security and food bank analysis evaluation. She attends weekly STB Evaluation Team meetings and will contribute to reports and publications about the SBT.

Jessica Jones-Smith, Ph.D., M.P.H., R.D., is an obesity epidemiologist and Associate Professor in the Department of Health Services (primary) and Epidemiology (joint) and a core faculty member of the Nutrition Sciences Program at the University of Washington School of Public Health. She holds an MPH in Public Health Nutrition from the University of California, Berkeley and a Ph.D. in Nutrition Epidemiology from the University of North Carolina at Chapel Hill. She completed a postdoctoral fellowship at the University of California, San Francisco and spent 4 years as an Assistant Professor at Johns Hopkins Bloomberg School of Public Health before arriving at the University of Washington. Dr. Jones-Smith studies social, environmental, and economic causes and correlates of obesity risk. Specifically, her research focuses on investigating distal drivers of nutrition-related health inequities and follows three main lines: 1) investigating community and individual economic resources as causal factors in obesityrelated health status; 2) evaluating the obesity-related impacts of health and social policies; and 3) documenting disparities in nutrition-related diseases based on socioeconomic factors and race/ethnicity, across the lifespan and in numerous populations. Dr. Jones-Smith has previously used a natural experiment approach to evaluate how increased economic resources stemming from the opening of Native American-owned casinos has impacted the weight related-health outcomes of Native American mothers and children. She has also recently evaluated the impacts of the economic recession on children's BMI, the impact of a nationwide advocacy campaign on obesityrelated legislation, and the impacts of the WIC package change on healthy food availability in Baltimore City. Her current approach combines public health nutrition and epidemiologic methods with econometric techniques to study these topics.

Dr. Jones-Smith co-leads the overall evaluation with Dr. Nadine Chan and directly leads the store audit component and co-leads the norms and attitudes component, including leading study design, overseeing data collection and manuscript/report writing. She facilitates the weekly calls. She contributes to drafting, reviewing and editing study reports and documents. She is the main point of contact for external scientific advisors.
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Melissa Knox is a Lecturer in the Department of Economics at the University of Washington and a Research Affiliate at the University's Center for Studies in Demography and Ecology. She received her Ph.D. in Economics from the University of California, Berkeley. Her areas of research include the determinants of demand for health insurance and other health care products. Additionally, she has investigated the impact of access to health insurance on health, education, and labor market outcomes. She has a particular interest in the impact of access to health care on health disparities by race, gender, and ethnicity.

Dr. Knox will assist with research design and planning for the adult survey and retail audit portions of the study. She will also analyze data and assist in writing reports and publications on these topics. She attends weekly team meetings.

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Jim Krieger, M.D., M.P.H., is founding Executive Director of Healthy Food America (HFA) and Clinical Professor at University of Washington Schools of Medicine and Public Health. He previously worked for 25 years at Public Health - Seattle \& King County as Chief of Chronic Disease Prevention.

He is a nationally recognized expert in obesity and chronic disease prevention using scientific evidence and advocacy to change food policy and industry practices and promote health equity. His work has led to improvements in school nutrition and physical activity, implementation of the nation's second menu labeling regulation, reduction in exposure to sugary beverages, and increased access to healthy foods for low income people. His current work is focused on promoting healthy food consumption by reducing added sugars in the American diet.

He has led and evaluated numerous healthy community initiatives and public health policies, including Steps to Health, Communities Putting Prevention to Work (CPPW), Transforming the Health of South King County (CTG), King County Partnerships in Community Health (PICH), and the King County menu labeling ordinance.

His work has been funded by NIH, CDC, and many private foundations. He was a member of the Institute of Medicine Committee on Local Government Action to Prevent Childhood Obesity and its Committee on Evaluating Progress in Obesity Prevention. He has received numerous awards for his work, including the US Secretary of Health and Human Services Innovation in Prevention Award. He has authored more than 70 peer-reviewed publications. He received his undergraduate degree at Harvard, MD at the University of California, San Francisco and MPH at University of Washington.

Dr. Krieger co-led the development of the baseline methods and interpretation for the norms and attitudes component, provided input regarding baseline methods for all other aspects of evaluation, supported efforts for participant outreach in the stakeholder and child cohort components, and provided input regarding conceptual framework for all evaluation components. Dr. Krieger served on the SBT Evaluation Team from November 2017 until February 2018 and was not involved in the analyses or interpretation of data or the writing of this report. Dr. Krieger is a formal member of the SBT Advisory Committee.

## $\infty \infty \infty$

Vanessa M. Oddo, Ph.D., M.P.H., is a post-doctoral fellow in the Department of Health Services at the University of Washington School of Public Health. Dr. Oddo received her Master of Public Health in Public Health Nutrition from Tufts University and her Ph.D. in Nutrition from the Johns Hopkins Bloomberg School of Public Health. She uses epidemiologic and econometric research methods to investigate understudied factors that are modifiable through policy-level changes, primarily employment status and working conditions as determinates of obesity and chronic disease risk and the role of economic resources on obesity risk.

Dr. Oddo attends weekly Evaluation Team meetings. In coordination with Dr. Jones-Smith and Dr. Jim Krieger, Dr. Oddo co-leads the adult survey of norms and attitudes. She coordinates the data collection and analyses for the adult survey. She is also responsible for leading report and manuscript writing for the adult survey component of the evaluation, in collaboration with Dr. Jones-Smith and the SBT Evaluation Team. In addition, she provides input on the retail audit component of the SBT evaluation.

## $\infty \times \infty>\infty$

Mary Podrabsky, M.P.H., R.D., is a Research Coordinator at the University of Washington Center for Public Health Nutrition (UW-CPHN), and Clinical Instructor in the Nutritional Sciences Program. She has a Bachelor of Science degree in Food, Nutrition and Institution Management from Washington State University, and completed her dietetic internship at Rush Medical Center in Chicago, IL. Ms. Podrabsky received her Master of Public Health - Nutritional Sciences degree from the University of Washington. She is skilled in a variety of qualitative and quantitative research methods and in her position at UW-CPHN, she has served as Research Coordinator and Project Manager for more than 20 nutrition and physical activity policy and environment-related research and evaluation projects.

Ms. Podrabsky attends weekly Evaluation Team meetings and provides input on various aspects of evaluation implementation, as well as oversight of UW project budget and contract administration.

Maya Rowland, M.P.H., is a research coordinator at Seattle Children's Research Institute, Center for Child Health, Behavior and Development. She has a bachelor's degree in Child and Family Studies from Portland State University and a background in health education and social work for at-risk youth. Ms. Rowland earned her Master of Public Health from the Oregon MPH program and has since worked on public health research projects for the US Preventive Services Task Force at the Kaiser Permanente Center for Health Research and at Oregon Health and Science University, she also conducted program evaluations for the Oregon Health Authority. Her research areas include child and adolescent health, health equity, and disease prevention. Ms. Rowland currently works with Dr. Saelens on the Sweetened Beverage Tax evaluation project as well as other projects related to family-based interventions for child weight management.

Ms. Rowland will coordinate and co-supervise the child cohort team in child/family recruitment, retention, data collection, and data processing. She attends weekly Evaluation Team meetings and will contribute to reports and publications for the project.

Brian E. Saelens, Ph.D., is a Professor of Pediatrics and Psychiatry \& Behavioral Sciences at the University of Washington and Principal Investigator at Seattle Children's Research Institute. Dr. Saelens is trained as a clinical/health psychologist, with a bachelor's degree in Psychology from Cornell University and a master's and Ph.D. from the State University of New York at Buffalo. Dr. Saelens' research interests include pediatric obesity treatment and prevention. His work examines strategies to improve the efficacy and reach of family-based weight management interventions for youth with already elevated weight status. He also explores how environmental factors and policies influence physical activity and eating behaviors in children and adults. He collaborates with community partners and local public health practitioners to help implement policy, systems, and environment change around healthy eating and active living in South King County. Dr. Saelens is a member of the King County Children and Youth Advisory Board for the Best Starts for Kids initiative. His research and evaluation work has been funded by the National Institutes of Health, CDC, USDA, and the Robert Wood Johnson Foundation. He has authored over 200 peer-reviewed scientific publications.

Dr. Saelens will lead the child cohort component of Seattle's Sweetened Beverage Tax (SBT) evaluation. In coordination with Ms. Rowland, he will supervise the child cohort team in child/family recruitment, retention, and data collection for the child cohort. He will conduct and coordinate with biostatistical support at Seattle Children's (and the rest of the SBT team) on analyses for the child cohort data. Dr. Saelens will also be responsible for leading report writing and other dissemination products for the child cohort component and will collaborate with the SBT team on report writing and dissemination products for other SBT components. Dr. Saelens attends weekly Evaluation Team meetings.

## $\infty \infty$

Lina Pinero Walkinshaw, M.P.H., is a Research Coordinator at the University of Washington Center for Public Health Nutrition (UW-CPHN). She received her bachelor's degree in Sociology, Anthropology, and Spanish from Carleton College, and her Master of Public Health from the Community Oriented Public Health Practice program at the University of Washington. Ms. Pinero Walkinshaw has expertise in managing and conducting primary data collection efforts, and is skilled in qualitative and quantitative study implementation and data analysis. Her work focuses primarily on policies and programs to support food access, food security, and health equity as it relates to nutrition.

Ms. Pinero Walkinshaw attends weekly SBT Evaluation Team meetings. In coordination with Dr. Jones-Smith, Ms. Pinero Walkinshaw manages the retail audits. She coordinates the retail audit data collection and analyses, and assists with report and manuscript writing for the retail audit component of the evaluation. In addition, she
provides input on the other evaluation components.

## Acknowledgments

A baseline study with this level of complexity would have had many more limitations had it not been for the tremendous help we received from community and subject matter experts. We are so very grateful to the many participants who made time to share their perspectives with us. Spanish, Vietnamese, and Somali translations were conducted by ‘TranslateMe!’, Ms. Vananh Vuong, Mr. Abdullahi Jama, and Mr. Mohamed Ali. Mr. Abdullahi Jama additionally served as a community liaison with Somali grocers for the retail audits. Several groups and individuals quickly mobilized for outreach, recruitment, hosting, or facilitating data collection events: Atlantic Street Family Center, Kaylin Bolt, Ninona Boujrada, Kalayaan Domingo, Seattle Restaurant Alliance, Somali Health Boarde, Val Thomas-Matson, Healthy King County Coalition, and Kalayaan Domingo. The Seattle Sweetened Beverage Tax Community Advisory Board provided input on the survey content and outreach to ensure the data represented diverse perspectives. We gathered scientific input from researchers with experience in survey design and in the evaluation of beverage taxes in other localities, including Philadelphia, Berkeley, Mexico, Cook County and Oakland: Dr. Sara Bleich, Dr. Shu Wen Ng, Dr. Lisa Powell, Dr. Jen Falbe, and the Bloomberg Philanthropies Sugar Sweetened Beverage Tax External Advisory Committee. In addition, Dr. Dan Taber contributed to the conceptualization and design of this study and Dr. Phil Hurvitz contributed to the geospatial analytic work and the University of Washington Urban Form Lab allowed us to use their list of categorized food businesses for King County. To add a comparison site to the norms and attitudes survey, we received funding from Kaiser Permanente and the University of Washington's Center for the Study of Demography and Ecology (through a grant received by Dr. Melissa Knox). The SeaSAW Kid's Cohort team would like to thank and acknowledge the following individuals and organizations who contributed their time and energy to this work: Fahmo Abdulle, Adriana Arghira, Suet Sen 'Ellen' Chau, Trina Colburn, Columbia City Health Clinic, Federal Way Multi-Service Center, Carmen Flores, Tierra Gogue Garcia, HealthPoint Medical Centers, Katie Hellerud, Alina Hyunh, King County Housing Authority, Leschi Elementary School, Sarah Mendivel, New Holly Housing Community, Tammy Nguyen, North Helpline Food Bank, Suzanne Peck, Fredericka Pie, Amanda Marchese, Diana Prise, Rainier Valley Food Bank, Rainier Vista Housing Community, The Seattle Children's Research Associate Core, Alexandra Smith, Jenny Thach, Jonny Fernandez Trujillo, and The University District Food Bank.

Again, the Evaluation Team is very grateful to all the contributors who provided input in the four month span of time to go from study design to completion of baseline data collection. We believe in the importance of evaluating public health policies and acknowledge the attention and funding the City of Seattle has provided for this study. This study is more rigorous and represents diverse perspectives because of the many contributions we received.

## APPENDIX B | SURVEY INSTRUMENTS

Item 1 | Store audit survey instruments
i. Beverage store

## Data Tracking

Business Study ID
Business Name and Address

Business City
Data Collection Date
Data Collector Name
Audit Start Time
Audit End Time
Survey Completion Code

Survey Disposition Code

Did this store receive a $\$ 10$ cash incentive?

Cash incentive receipt:
Take photo of receipt, upload here
Did you use petty cash to purchase an item at this store?

How much petty cash did you spend?

What did you spend the petty cash on?

Petty cash receipt:
Take photo of receipt, upload here
Notes
data tracking time stamp

> (Type in Store Name \& Address)SeattleKentAuburn
O Federal Way
$\qquad$
$\qquad$
$\qquad$
$\qquad$CompletedPartially CompletedNot StartedNot Eligible


Temporarily not accessible
Not safe
Asked to leave / Observation not allowed by staff
Not accessible for audit (i.e. only clerk-assisted
Does not meet study criteria (describe in notes)
()

()
()

## ()

$\qquad$
$\qquad$

## General Checkout

Business Study ID
Type of StoreCoffee Shop, non-chainCoffee Shop, chainBubble Tea Shop
Are there pre-packaged fast food or other individual, ready-to-eat items available (e.g., display cases/refrigerated coolers with salads, sandwiches, yogurts, fruit cups, etc.)?

Number of cash registersYesNo
$\bigcirc 1$
$\bigcirc 2$
$\bigcirc 3$
$\bigcirc 4$
$\bigcirc 5$
$\bigcirc 6$
7
$\bigcirc 8$
$\bigcirc 9$
$\bigcirc 10$ and over

Does the store have parking on-site?

Are these available at CHECK-OUT:

Yes
O No
(e.g. parking lot or designated stalls)
$\square$ Milk, flavoredMilk, unflavoredBottled Water, plain
Soda, regularSoda, diet
Other sweetened beverage
$\square$ None of the above
general checkout time stamp

## Coffee

Business Study ID

## Drip Coffee, Hot: 12 Ounces

## May be called "Coffee" or "Brewed Coffee" on the menu

| Drip Coffee, self-serve or barista-served | 〇 Yes <br> ○ No |
| :--- | :--- |


| Price |  |
| :--- | :--- |
| Sale $99.99=$ |  |
|  | $\bigcirc$ Yes |
|  | $\bigcirc$ No |

Sale Price
$\overline{\text { (99.99 }=\text { Not able to obtain price) }}$
Extra sale price information

## Latte, Hot: 12 Ounces

Note: "chai latte" not included here, this is for coffee lattes only

Latte Coffee drink, plain NO flavor or sweetener $\quad$| 〇 Yes |
| :--- |
| ○ No |

| Price |  |
| :--- | :--- |
|  |  |
| Sale | $\bigcirc 9.99$ |
|  | $\bigcirc$ Yes |
|  | $\bigcirc$ No |

Sale Price
(99.99 = Not able to obtain price)

Extra sale price information
Latte Coffee drink, with sugar sweetener/flavoring

How is the sweetener/flavor price listed on the menu?Yes
O
(Ask if you can't tell between sugar \& sugar-free)
Flavor cost listed separate from drink
Flavored drink is listed with flavor price included
Price of flavor/sweetner add-on:
$\overline{\text { (99.99 }=\text { Not able to obtain price) }}$
Price total of sweetened beverage:
$\overline{\text { (99.99 }=\text { Not able to obtain price) }}$
Price total of sweetened beverage:
$\overline{(99.99=\text { Not able to obtain price) }}$

## Sale

Yes
○
No
Sale Price
(99.99 = Not able to obtain price)

Extra sale price information
Latte Coffee drink, with sugar-FREE sweetener/flavoring
$\bigcirc$ Yes

Ono
(Ask if you can't tell between sugar \& sugar-free)
How is the sweetener/flavor price listed on the menu?
Flavor cost listed separate from drinkFlavored drink is listed with flavor price included
Price of flavor/sweetner add-on:
$\overline{\text { (99.99 }=\text { Not able to obtain price) }}$
Price total of sweetened beverage:
$\overline{(99.99=\text { Not able to obtain price) }}$
Price total of sweetened beverage:
$\overline{(99.99=\text { Not able to obtain price) }}$
Sale
Yes
○ No
Sale Price
$\overline{(99.99=\text { Not able to obtain price) }}$
Extra sale price information

## Chocolate Mocha: 12 Ounces

Chocolate Mocha Coffee, regular chocolate (not white)
$\bigcirc$ YesNo

Price
$\overline{\text { (99.99 }=\text { Not able to obtain price) }}$
SaleYes
○
$\overline{(99.99=\text { Not able to obtain price) }}$
coffee time stamp $\qquad$

## Bubble Tea

Business Study ID

## Bubble Tea: Standard 16 Ounces

Milk Tea, with sugar sweetener/flavoring

## Price

## Sale

Sale Price
$\overline{(99.99=\text { Not able to obtain price) }}$
Extra sale price information
Milk Tea, with sugar-free sweetener/flavoring

## Price

Yes(If multiple flavor options, choose cheapest option)$\overline{(99.99=\text { Not able to obtain price) }}$
YesNo
,
$\overline{(99.99=\text { Not able to obtain price) }}$
SaleYesNo

## Sale Price

$\overline{\text { (99.99 }=\text { Not able to obtain price) }}$
Extra sale price information
"Fruit" or "Flavored" Tea, with sugar
sweetener/flavoring
(i.e. a non-milk bubble tea)

Name of tea on menu:
Price
O
(Ask if you can't tell if it has sugar. If multiple flavor options, choose cheapest option.)
$\qquad$
$\overline{(99.99=\text { Not able to obtain price) }}$
SaleYesNo

## Sale Price

$\overline{\text { (99.99 }=\text { Not able to obtain price) }}$
Extra sale price information
"Fruit" or "Flavored" Tea, with sugar-free sweetener/flavoring
(i.e. a non-milk bubble tea)
Yes
O No
(Ask if you can't tell if it has sugar. If multiple flavor options, choose cheapest option.)

Name of tea on menu:
Price
$\overline{(99.99=\text { Not able to obtain price) }}$
SaleYesNo

## Sale Price

$\overline{(99.99=\text { Not able to obtain price) }}$
Extra sale price information
Smoothie, with sugar sweetener/flavoring
Y Yes
(Ask if you can't tell if it has sugar)
Price
(99.99 = Not able to obtain price)

Sale
Yes
O No
Sale Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

Extra sale price information

## Upload Menu Picture

Menu Picture: Upload picture of Bubble Tea Shop menu
tea time stamp
Tea Notes:
(e.g., "Only $220 z$ bubble tea sold. Prices here are for 22oz.")

## Interiordisplay

Business Study ID

## Interior Item Displays

Interior item displays include any written signs，posters，pictures，or featured products arranged to help sell that item

| Sugary flavor or sweetner，not combined with a drink | $\begin{aligned} & \bigcirc \text { Yes } \\ & \bigcirc \text { No } \end{aligned}$ |
| :---: | :---: |
| e．g．，＂Try our chocolate syrup！＂ |  |
| Sugar－free drink of any kind（tea，coffee，other） | $\begin{aligned} & \bigcirc \text { Yes } \\ & \text { No } \end{aligned}$ |
| Sweetened，Flavored Coffee | $\begin{aligned} & \text { 〇 Yes } \\ & \text { No } \end{aligned}$ |
| Sweetened，Flavored Tea | $\begin{aligned} & \text { 〇Yes } \\ & \text { ONo } \end{aligned}$ |
| Regular Soda | $\begin{aligned} & \bigcirc \text { Yes } \\ & \text { No } \end{aligned}$ |


| Diet Soda | ○ Yes |
| :--- | :--- |
|  | ○ No |
| Regular Energy Drink | 〇 Yes |
| （e．g．，Monster，Red Bull） | ○ No |
| Diet Energy Drink | 〇 Yes |
|  | ○No |

Regular Sports Drink
（e．g．，Gatorade，Powerade，Vitamin Water）
Yes
○ No
Diet Sports Drink
Yes
O No
Juice Drinks
Yes
○ No
100\％Juice
Ne
ONo
Plain Bottled Water
Yes
○ No
Unflavored Milk
Yes
○ No
Flavored Milk
Yes
ONo
interior time stamp $\qquad$

Confidential

Interior Display Notes:
Display Notes: $\quad$ (e.g., "sugary flavor advertised")
erior Display Notes:
Interior Display Notes: $\square$


Display Notes: $\quad$ (e.g., "sugary flavor advertise
Display Notes: $\quad$ (e.g., "sugary flavor advertised")
((e.g., "sugary flavor advertised")

都


## Exteriormarketing

Business Study ID
Exterior Marketing of Any Beverage
Count and write down the number of ads that include...

## Flavored Coffee

\# of Flavored, Sweetened Coffee ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of Flavored, Sweetened Coffee ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
(00 = None)
(00 = None)
(00 = None)
(00 = None)

## Sweetened Tea

\# of Flavored, Sweetened Tea/Bubble Tea ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of Flavored, Sweetened Tea / Bubble Tea ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
(00 = None)
(00 = None)
(00 = None)
(00 = None)

## Sugar-Free Sweetened Drinks

\# of Flavored sugar-free, drink of any kind (tea, coffee, other) ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
(00 = None)
(00 = None)
\# of Flavored sugar-free, drink of any kind (tea, coffee, other) ads on property
(00 = None)
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

| Confide |
| :--- |
| Prc |
| ex |
|  |
|  |
|  |
|  |

\author{

}

Confidential
Property Price Promotion Ad Total $\quad$ (00 = None)
Price Promotion Ad Total Page
Property Price Promotion Ad Total $\quad$ (00 = None)

Price Promotion Ad Total Page 2 of 2
Property Price Promotion Ad Total $\quad$ (00 = None)

Item 1 | STORE AUDIT SURVEY INSTRUMENTS
ii. FAST FOOD

## Data Tracking

Business Study ID

Business Name and Address

Business City

Data Collection Date

Data Collector Name

Audit Start Time

Audit End Time

Survey Completion Code

Survey Disposition Code

Did this store receive a $\$ 10$ cash incentive?

Cash incentive receipt:
Take photo of receipt, upload here
Did you use petty cash to purchase an item at this store?

How much petty cash did you spend?

What did you spend the petty cash on?

Petty cash receipt:
Take photo of receipt, upload here

## ()


()

## ()

## ()

## ()

CompletedPartially CompletedNot Started()Temporarily not accessibleNot safeAsked to leave / Observation not allowed by staffNot accessible for audit ( i.e. only clerk-assisted
()Yes
()
()Yes
()

## ()

$$
\overline{(1)}
$$

Confidential

Notes:

tracking time stamp $\overline{(\text { ) }}$

tracking time stamp

()

Notes
$\square$




## Fountaindrinks

Business Study ID

## Fountain Drinks

| Are any fountain drinks available? | $\begin{aligned} & \bigcirc \text { Yes } \\ & \bigcirc \text { No } \\ & \text { ( ) } \end{aligned}$ |
| :---: | :---: |
| "Kids" fountain drinks available | $\begin{aligned} & \bigcirc \text { Yes } \\ & \bigcirc \text { No } \\ & \text { ( ) } \end{aligned}$ |
| Ounces |  |
|  | () |
| Price |  |
|  | $\overline{(99.99}=$ Not able to obtain price) |
| Sale | $\begin{aligned} & \bigcirc \text { Yes } \\ & \bigcirc \text { No } \\ & \text { ( ) } \end{aligned}$ |
| Sale Type | Reduced price Reduced price per quantity Buy one get one Other <br> () |

Sale Price

Extra sale price information
"Small" fountain drinks available

Ounces

Price

Sale

Sale Type
$\overline{(99.99}=$ Not able to obtain price)
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box )

## ()

No
()
()
(99.99 = Notable

Yes
()Reduced priceReduced price per quantity
Buy one get one
$\square$

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information
"Medium" fountain drinks available
()


Ounces

Price
Sale
Sale Type
( $99.99=$ Not able to obtain price)

Sale Price

Extra sale price information
"Large" fountain drinks available

$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

## ()


()

Price

Sale

Sale Type
( $99.99=$ Not able to obtain price)
$\bigcirc$ Yes

()Reduced priceReduced price per quantityBuy one get one

Sale Price

$$
\begin{aligned}
& (55.55=\text { Sale information in Extra Sales Price Info } \\
& \text { box ) }
\end{aligned}
$$

Extra sale price information
"XL" fountain drinks available

## ()

OYes

()

Ounces

$$
\overline{()}
$$

Price

$$
\overline{(99.99}=\text { Not able to obtain price) }
$$

Sale

Sale Type
Yes
O No
()Reduced priceReduced price per quantityBuy one get oneOther
()

Sale Price

Extra sale price information
"XXL" fountain drinks available
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

Yes
( )

Ounces
()

Price

Sale

Sale Type
$\overline{(99.99=\text { Not able to obtain price) }}$
$\bigcirc$ Yes
( )
$\square$ Reduced priceReduced price per quantityBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Drink Availability

Which fountain drinks are available:

Other fountain drink:

Other fountain drink:

Other fountain drink:

Other fountain drink:

Other fountain drink:

## ()

()

## ()

## ()

## Refills

Are free refills offered for fountain beverages at
Yes this location?
( If no sign and the machine is self-serve, then YES it is free refill)

## Self-Service

Is the fountain beverage machine self-serve?

fountain drinks time stamp

## General Checkout

Is the restaurant (check if yes):

Restaurant type:

## ()

In a Food Court or MallIn a shared space with a Grocery or Department StoreIn a shared space with a Gas Station or Convenience StoreIn a shared space with another Restaurant None of the above ()Burger and FriesMexican / Latin AmericanFried Chicken / Fried FishSandwich or Sub Shop (e.g., Subway, Quiznos)Pastry or bakeryPizzeria/ItalianChinese/Pan-AsianOther
()

Other restaurant type:

Is the food order (check if yes):

Number of exterior walls visible from parking lot or street

## ()

Placed at the counter Picked up at the counterPaid for at the counterNone of the above
()
$\bigcirc 1$
$\bigcirc$
○ 4 or more
( If 4+, enter 4)
Does the restaurant have (check if yes):

Are these available at CHECK-OUT:
general checkout time stamp

Outdoor seating
Parking on-site
Drive-thru
Exterior play areaIndoor play area
Free water accessible to customersNone of the above
()Milk, flavoredMilk, unflavored
Bottled Water, plain
Soda, regularSoda, dietOther sweetened beverage
None of the above
()
()

## Coca－Cola

| Coca－Cola 12 oz | $\begin{aligned} & \text { 〇 Yes } \\ & \text { 〇 No } \\ & \text { ( ) } \end{aligned}$ |
| :---: | :---: |
| Price |  |
|  | $\overline{(99.99}=$ Not able to obtain price） |
| Sale | $\bigcirc$ Yes |
|  | ONo |
|  | （ ） |
| Sale Type | $\square$ Reduced price |
|  | Reduced price per quantity |
|  | Buy one get one |
|  | $\square$ Other |
|  | （ ） |

## Sale Price

Extra sale price information

| Coca－Cola 16.9 oz | ○ Yes <br> 〇 No <br> （） |
| :--- | :--- |

## Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

## Sale

## Sale Type

Yes No
（）
（55．55＝Sale information in Extra Sales Price Info box ）

## （）

○
No
$\square$ Reduced priceReduced price per quantityBuy one get oneOther
（）
Sale Price

Extra sale price information

Coca－Cola 20 oz
$\overline{\text {（55．55 }}$＝Sale information in Extra Sales Price Info box ）

## （）


Yes

（）

Price
( $99.99=$ Not able to obtain price)
Sale

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

## Sale Price

Extra sale price information
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

## ()

## Diet Coke

Diet Coke 12 ozYes
No
()

Price
( $99.99=$ Not able to obtain price)
SaleYes
ON
()

## Sale Type

Reduced priceReduced price per quantityBuy one get oneOther()

Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box )

## ()

Diet Coke 16.9 oz

( $99.99=$ Not able to obtain price)
SaleYes

()
Sale TypeReduced priceReduced price per quantityBuy one get one
()

Other
()

Sale Price
Extra sale price information

Diet Coke 20 oz
(55.55=Sale information in Extra Sales Price Info box )

## ()

YesNo
()

Price
Sale
Sale Type
$\overline{(99.99}=$ Not able to obtain price)
Reduced price
Reduced price per quantityBuy one get one Other
()

## Sale Price

$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## ()

## Pepsi

Pepsi 12 oz
Yes
O No
()

| Price |  |
| :--- | :--- |
|  |  |
| Sale | 99.99 |
|  | ○ Yes |
|  | ○No |
|  | () |

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

## Sale Price

$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

Extra sale price information

Pepsi 20 ozYes ( )

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type

No
()
$\square$ Reduced price
Reduced price per quantityBuy one get one
(1)
( )

## Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )
()

## Diet Pepsi

Diet Pepsi 12 ozYes
() No
( )

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeYes
N
()Reduced priceReduced price per quantityBuy one get one
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## ()

Diet Pepsi 20 oz

()

Price
$\overline{(99.99=\text { Not able to obtain price) }}$
SaleYes
No
()

Reduced price
Reduced price per quantity
Buy one get oneOther
()
(55.55=Sale information in Extra Sales Price Info

Extra sale price information
soda time stamp
box )

## ()

()

## Energydrink

Business Study ID

## Monster

Monster 16 oz


Price
$\overline{(99.99=}$ Not able to obtain price)
Sale

Sale Type

()Reduced priceReduced price per quantityBuy one get one
Other
()

Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box )

## Monster Zero Ultra

Monster Zero Ultra 16 oz


Price
$\overline{(99.99}=$ Not able to obtain price)
$\begin{array}{ll} & \\ \text { Sale } 99.99 \\ & \bigcirc \mathrm{Yes} \\ \bigcirc \mathrm{No} \\ & \\ & \end{array}$
Sale Type
$\begin{array}{ll} & \\ \text { Sale } 99.99 \\ & \bigcirc \mathrm{Yes} \\ \bigcirc \mathrm{No} \\ & \\ & \end{array}$
$\begin{array}{ll} & \\ \text { Sale } 99.99 \\ & \bigcirc \mathrm{Yes} \\ \bigcirc \mathrm{No} \\ & \\ & \end{array}$
$\begin{array}{ll} & \\ \text { Sale } 99.99 \\ & \bigcirc \mathrm{Yes} \\ \bigcirc \mathrm{No} \\ & \\ & \end{array}$
()
Reduced priceReduced price per quantity
Buy one get oneOther
()

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Red Bull



Price

Sale
Sale Type
Sale
Sale Type
$\overline{(99.99}=$ Not able to obtain price)

()
Reduced price
Reduced price per quantity
Buy one get oneOther
()

Sale Price

Extra sale price information

Red Bull 16 oz
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

## ()

Yes
No
()

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale
〇 Yes
( )
Sale TypeReduced priceReduced price per quantityBuy one get one
$\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## ()

## Red Bull Sugarfree

Red Bull Sugarfree 8.4 oz
$\bigcirc$ Ye
No
()

Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

## Sale

Sale TypeYes

)Reduced priceReduced price per quantityBuy one get one
$\square$ Other
()

## Sale Price

Extra sale price information

Red Bull Sugarfree 16 oz

Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

Yes
()
No
()

| Price |  |
| :--- | :--- |
| Sale 99.99 |  |
|  | ○ Yes |
|  | 〇No |
|  | () |

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

Sale Price

Extra sale price information
energy drink time stamp
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

()

## Sportsdrink

Business Study ID

## Gatorade

Gatorade 20 oz


Price
$\overline{(99.99=}$ Not able to obtain price)
Sale

Sale Type

()Reduced priceReduced price per quantityBuy one get one
$\square$ Other
()

Sale Price

Extra sale price information

Gatorade 32 oz
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )
()
Yes
No
()

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
Sale
No
( )

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Gatorade G2

Gatorade G2 20 ozYes

()

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Gatorade G2 32 oz
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

## ()

Yes
No
()

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale
Yes
No
()

Sale TypeReduced priceReduced price per quantityBuy one get one
$\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## ()

## Powerade

Powerade 20 oz
Yes
()

Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

## Sale

Sale Type

( )Reduced priceReduced price per quantityBuy one get one
$\square$ Other
()

Sale Price

Extra sale price information

| Powerade 32 oz | ○ Yes <br> 〇No <br> () |
| :--- | :--- |

## Price

$$
\overline{(99.99}=\text { Not able to obtain price) }
$$

Sale
Yes
O No
()

Sale Type

Sale Price

Extra sale price information
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

## ()

## Powerade Zero

Powerade Zero 20 oz
$\bigcirc$
No
()

Price
( $99.99=$ Not able to obtain price)
Sale
O
Yes O No
()

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

Extra sale price information

## Powerade 32 oz

## ()

OYes

()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale

Sale Type
O Yes
()Reduced priceReduced price per quantity
Buy one get oneOther
()

## Sale Price

Extra sale price information
sports drink time stamp
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

## ()

()

## Teacoffee

Business Study ID

## Arizona Green Tea

$\begin{array}{ll}\text { Arizona Green Tea } 23 \mathrm{oz} & \begin{array}{l}\text { 〇 Yes } \\ \text { 〇No } \\ \text { () }\end{array}\end{array}$
Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

()
Reduced price
Reduced price per quantityBuy one get one
Other
()

Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box )

## Arizona Zero Calorie Green Tea

Arizona Zero Calorie Green Tea 23 oz

$$
\overline{()}
$$



Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeYes
N
( )Reduced priceReduced price per quantity
Buy one get oneOther
()

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Pure Leaf Sweet Tea

| Pure Leaf Sweet Tea 18.5 oz | ○ Yes <br> ○ No |
| :--- | :--- |
| () |  |

Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

Sale

Sale Type

Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box )

## Pure Leaf Unsweetened Tea

Pure Leaf Unsweetened Tea 18.5 oz $\quad$| $\bigcirc$ Yes |
| :--- |
| ○ No |

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
$\begin{array}{ll}\text { Sale } & \bigcirc \text { Yes } \\ & \bigcirc \text { No } \\ \text { Sale Type } & () \\ & \square \text { Reduced price } \\ & \square \text { Reduced price per quantity } \\ & \square \text { Buy one get one } \\ & \square \text { Other }\end{array}$
Sale Price

Extra sale price information
tea coffee time stamp
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## ()

## Juice

Business Study ID

## ()

## Minute Maid (Cranberry Cocktail)

Minute Maid (Cranberry Cocktail) 12 oz OR 15.2 oz

○ $120 z$
15.2 oz
$\bigcirc$
()

Price

Sale | $\bigcirc \mathrm{Yes}$ |
| :--- |
| 〇No |
| () |

Sale Type

Sale Price

Extra sale price information
$\bigcirc \mathrm{N}$
( $99.99=$ Not able to obtain price)Reduced priceReduced price per quantity
Buy one get one
$\square$ Other
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )
()

## Minute Maid 100 \% Juice (Orange)

Minute Maid 100 \% Juice (Orange) 12 oz OR 15.2 oz

Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

Sale

Sale TypeYes No
()
〇 12 oz15.2 oz
()
Reduced price
Reduced price per quantityBuy one get one $\square$ Other
()

## Sale Price

## $\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information
()

## Tropicana (Cranberry Cocktail)

Tropicana (Cranberry Cocktail) 12 oz OR 15.2 oz
〇 12 oz
15.2 oz
()
()

Price

Sale

Sale Type

Sale Price

Extra sale price information
Yes
$\bigcirc \mathrm{N}$
()
(99.99 = Not able to obtain price)Reduced priceReduced price per quantity
Buy one get oneOther
()
(55.55=Sale information in Extra Sales Price Info box )
()

## Tropicana 100\% Juice (Orange)

Tropicana 100\% Juice (Orange) 12 oz OR 15.2 oz
12 oz15.2 oz
()
()

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information
juice time stamp
〇 Yes
No
()Reduced priceReduced price per quantity
Buy one get oneOther
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## ()

## Kidsdrinks

Business Study ID

## Capri Sun Juice

Capri Sun Juice 6 oz $\quad \begin{aligned} & \bigcirc \text { Yes } \\ & \text { 〇 No }\end{aligned}$
Price
$\overline{(99.99=\text { Not able to obtain price) }}$
Sale

Sale Type

Reduced price
Reduced price per quantityBuy one get one
$\square$ Other
()

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## Capri Sun 100\% Juice

Capri Sun 100\% Juice 6 ozYes
( )
)

Price
$\overline{(99.99=\text { Not able to obtain price) }}$
Sale

Sale TypeYes
N
( )
()

|  |  |
| :--- | :--- |
| Sale 99.99 |  |
|  | $\bigcirc$ Yes |
|  | ( No |

Reduced price
Reduced price per quantity
Buy one get oneOther
()

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

Confidential
kid drink time stamp
drink

```
*
```

onfidential
正

## Water

## ()

## Ice Mountain

| Ice Mountain, 20 oz, or if not available, 16.9 oz | $\bigcirc 16.9 \mathrm{oz}$ |
| :--- | :--- |
|  | $\bigcirc 20$ oz |
|  | ( None |


| Price |  |
| :--- | :--- |
| Sale | $(99.99=$ Not able to obtain price $)$ |
|  | $\bigcirc$ Yes |
| Sale Type | $\bigcirc$ No |
|  | () |
|  | $\square$ Reduced price |
|  | $\square$ Reduced price per quantity |
|  | $\square$ Buy one get one |
|  | $\square$ Other |

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )
()

## Aquafina Water

Aquafina Water, 20 oz , or if not available, 16.9 oz

Price
$\overline{(99.99=\text { Not able to obtain price) }}$
Sale

Sale Type

Sale Price

Extra sale price information16.9 oz20 oz
()

| Price |  |
| :--- | :--- |
|  |  |
| Sale | 〇Y.99 |
|  | 〇 Yes |
|  | () |Reduced priceReduced price per quantityBuy one get one Other

()

## $\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

$$
\overline{()}
$$

## Dasani Water

Dasani Water, 20 oz, or if not available, 16.9 oz16.9 oz20 oz
()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale
YesNo
()

Sale TypeReduced priceReduced price per quantityBuy one get one
Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## LaCroix Sparkling Water

LaCroix Sparkling Waterr, 12 oz
○ 16.9 oz
$\bigcirc 20$ oz
$\bigcirc$ None
()

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale
〇 Yes
No
()

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information
water time stamp

## ()

()

## Milk

Business Study ID

## ()

An $80 z$ carton of milk is the school lunch size of milk box. The Horizon brand of milk boxes are also $80 z$.

## Milk Whole, unflavored (cheapest)

Milk Whole, unflavored (cheapest), 8 oz
Yes
( )

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Milk 2\%, unflavored (cheapest)

Milk 2\%, unflavored (cheapest), 8 oz
Y Yes
No
()

Price
$\overline{(99.99=}$ Not able to obtain price)
Sale

Sale Type
$\bigcirc$ Yes
()Reduced priceReduced price per quantityBuy one get oneOther
()

## Sale Price

$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Milk 1\%, unflavored (cheapest)



Price


Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box )

## ()

## Milk Skim / Fat-free, unflavored (cheapest)

| Milk Skim / Fat-free, unflavored (cheapest), 8 oz | ○ Yes <br> ○ No |
| :--- | :--- |
| () |  |

Price
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes
O
()Reduced priceReduced price per quantityBuy one get oneOther
()

Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box )

## ()

## Chocolate Milk, Any fat (cheapest)

Chocolate Milk, Any fat (cheapest), 8 ozYes

()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

()Reduced priceReduced price per quantity
Buy one get oneOther
()

## Sale Price

Extra sale price information
milk time stamp
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

## ()

()

## Exteriormarketing

Business Study ID

## ()

Exterior Marketing of Any Beverage
Count and write down the number of ads that include...

## Regular Soda

\# of regular soda ads on building exterior
(i.e. Signs on the door, exterior walls)
( $00=$ None)
Exterior Price Promotion Ad Total
( $00=$ None)
\# of regular soda ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( 00 = None)

## Diet Soda

\# of diet soda ads on building exterior
(i.e. Signs on the door, exterior walls)
( 00 = None)
Exterior Price Promotion Ad Total
( 00 = None)
\# of diet soda ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( 00 = None)

## Regular Energy Drinks

\# of energy drink ads on building exterior
(i.e. Signs on the door, exterior walls)
(00 = None)
Exterior Price Promotion Ad Total
\# of energy drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( 00 = None)

$$
\text { ( } 00 \text { = None) }
$$

## Diet Energy Drinks

\# of diet energy drink ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of diet energy drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( 00 = None)
( $00=$ None)
( 00 = None)
( 00 = None)

## Regular Sports Drinks

\# of sports drink ads on building exterior
(i.e. Signs on the door, exterior walls)
( $00=$ None)
Exterior Price Promotion Ad Total
( 00 = None)
\# of sports drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( 00 = None)
( 00 = None)

## Diet Sports Drinks

\# of diet sports drink ads on building exterior (i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of diet sports drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total

$$
\text { ( } 00 \text { = None) }
$$

( 00 = None)
( 00 = None)
( 00 = None)

## Juice Drinks

\# of juice ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of juice ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( 00 = None)
(00 = None)

## 100\% Juice Drinks

\# of $100 \%$ juice ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of 100\% juice ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( $00=$ None $)$
( $00=$ None)
( $00=$ None $)$

## Plain Bottled Water

\# of water ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of water ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( $00=$ None)
( $00=$ None)
( $00=$ None)

## Unflavored Milk

\# of unflavored milk ads on building exterior
(i.e. Signs on the door, exterior walls)
( $00=$ None)
Exterior Price Promotion Ad Total
( 00 = None)
\# of unflavored milk ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None $)$
( $00=$ None $)$

## Flavored Milk

\# of flavored milk ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of flavored milk ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
exterior marketing time stamp
( $00=$ None $)$

$$
\text { ( } 00 \text { = None) }
$$

( $00=$ None)
(00 = None)

## ()

## Item 1 | StORE AUDIT SURVEY INSTRUMENTS

 iii. Grocery store
## Data Tracking

Business Study ID
Business Name and Address

Business City

Data Collection Date

Data Collector Name

Audit Start Time

Audit End Time

Survey Completion Code

Survey Disposition Code

Did this store receive a $\$ 10$ cash incentive?

Cash incentive receipt:
Take photo of receipt, upload here
Did you use petty cash to purchase an item at this store?

How much petty cash did you spend?

What did you spend the petty cash on?

Petty cash receipt:
Take photo of receipt, upload here
Notes
(Type in Store Name \& Address)Seattle
Kent
Auburn
()
Federal Way
()

## ()

()

## ()

## ()

CompletedPartially CompletedNot StartedNot Eligible
( )

Temporarily not accessibleNot safeAsked to leave / Observation not allowed by staffNot accessible for audit ( i.e. only clerk-assisted


Does not meet study criteria (describe in notes)
()
$\bigcirc$ Yes
No
( )

Yes
$\bigcirc \mathrm{N}$
()
()
()

## ()

[^9]$\qquad$


[^10] O ค


## General Checkout

Business Study ID
Type of StoreSuperstore (Walmart, Target)
Supermarket (Safeway, QFC)Grocery (Red Apple, "mom \& pop")Small Store (Chain \& non-chain convenience, gas stations, "mom \& pop")
( )

Please record any notes about the type of store if needed, or if the store doesn't clearly fit into one of the above categories:

Does the store accept EBT/SNAP?

Does the store accept WIC?

Are there fast food or other individual, ready-to-eat items available (e.g., display cases/refrigerated coolers with salads, pizza, hot dogs, fried chicken, etc.)?

Is 50\% or more of the store's inventory beer, wine, and/or liquor?

Does the store sell any tobacco products?

Yes

()
Yes
No
()

Number of cash registers
2
$\bigcirc 4$
$\begin{array}{r}\bigcirc \\ \bigcirc \\ \hline\end{array}$

$\bigcirc$
10 and over
()

Does the store have parking on-site?
$\bigcirc$ Yes
$\bigcirc \mathrm{N}$
()

Does the store sell gasoline?YesNo
()

Is there fresh meat available?Yes No ()

Does the store have a:Butcher or fresh meat service counter
Deli counter
BakeryPharmacyBankNone of the above
()

Are these available at CHECK-OUT:Milk, flavored Milk, unflavored Bottled Water, plain Soda, regularSoda, dietOther sweetened beverage None of the above
()
general checkout time stamp

Business Study ID

## Coca-Cola

| Coca-Cola 7.5 oz | ○ Yes |
| :--- | :--- |
| ○ No |  |
| () |  |

Price
Sale

Sale Type

Sale Price

Extra sale price information

Coca-Cola 12 oz
Can be can or bottle, choose cheapest
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$

## Price

$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box)

| Price |  |
| :--- | :--- |
| Sale 99.99 |  |
|  | ○ Yes |
|  | ○No |
|  | () |

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

## Sale Price

$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box)

Extra sale price information

## ()

## Coca-Cola 16.9 oz

$\bigcirc$ Ye
No
( )

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Coca-Cola 20 oz
$(55.55=$ Sale information in Extra Sales Price Info
box )
()
O Yes
N
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Coca-Cola 1 Liter

Price

Sale

Sale Type
(55.55=Sale information in Extra Sales Price Info box)
()
Yes
O
()

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Yes
O
()
)

Yes
No
()

Reduced price
Reduced price per quantityMinimum quantity required to get reduced price
Buy one get one
Other
()Reduced price
Reduced price per quantityMinimum quantity required to get reduced price
Buy one get one
Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information

Coca-Cola 1.25 Liter
()Yes
() No
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes

()

NoReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$(55.55=$ Sale information in Extra Sales Price Info
box )

Extra sale price information

Coca-Cola 2 Liter

Price
()Yes
() N
()
( $99.99=$ Not able to obtain price)
Sale

Sale Type
Yes
No
()

Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box)

Extra sale price information

Coca-Cola 6 Pack / 7.5 oz
()Yes
O No
()

Price

\begin{tabular}{|c|c|}
\hline Sale \& \[
\begin{aligned}
\& \text { O Yes } \\
\& \text { ○ No } \\
\& \text { () }
\end{aligned}
\] \\
\hline Sale Type \& \begin{tabular}{l}
Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
Other \\
()
\end{tabular} \\
\hline Sale Price \& (55.55=Sale information in Extra Sales Price Info box) \\
\hline Extra sale price information \& () \\
\hline Coca-Cola 12 Pack / 12 oz \& \[
\begin{aligned}
\& \text { O Yes } \\
\& \text { ○ No } \\
\& \text { () }
\end{aligned}
\] \\
\hline Price \& (99.99 = Not able to obtain price) \\
\hline Sale \& \[
\begin{aligned}
\& \text { O Yes } \\
\& \text { ○ No } \\
\& \text { () }
\end{aligned}
\] \\
\hline Sale Type \& \begin{tabular}{l}
Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price

<br>
Buy one get one <br>
Other <br>
()
\end{tabular} <br>

\hline
\end{tabular}

Sale Price

Extra sale price information
sodal time stamp
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box)
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$
box)

## ()

O Yes
()
( $99.99=$ Not able to obtain price)
Reduced price per quantity
Minimum quantit
Other
()
()
()

Business Study ID

## Diet Coke

Diet Coke 7.5 ozYes
No
( )

Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

Sale

Sale Type

Sale Price

Extra sale price information

Diet Coke 12 oz
(55.55=Sale information in Extra Sales Price Info box)

## ()

Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

No
()


## Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

## Sale

Yes
No
( )

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

## Sale Price

$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)

Extra sale price information

## ()

Diet Coke 16.9 oz


No
()
Yes
No
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information
Diet Coke 20 oz
$(55.55=$ Sale information in Extra Sales Price Info
box )
()
O Yes
O No
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Diet Coke 1 Liter
Yes
ON
()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale
Yes
O
()

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get one
$\square$ Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information

Diet Coke 1.25 Liter
()Yes
()
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes

()

No
Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$(55.55=$ Sale information in Extra Sales Price Info
box )

Extra sale price information

Diet Coke 2 Liter

## ()

OYes
O No
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type
Yes
No
()

Reduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get one
$\square$ Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box)

Extra sale price information

Diet Coke 6 Pack / 7.5 oz

## ()

O Yes
O No
()

Price

| Sale | $\begin{aligned} & \text { O Yes } \\ & \text { ○ No } \\ & \text { () } \end{aligned}$ |
| :---: | :---: |
| Sale Type | Reduced price Reduced price per quantity Minimum quantity required to get reduced price Buy one get one Other <br> () |

Sale Price

Extra sale price information

Diet Coke 12 Pack / 12 oz
$(55.55=$ Sale information in Extra Sales Price Info
box )
()
O Yes


Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Coke Zero

Coke Zero 7.5 oz


Price
$\overline{(99.99=\text { Not able to obtain price) }}$
SaleYes
( )

Sale TypeReduced price
Reduced price per quantityMinimum quantity required to get reduced price
Buy one get oneOther
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box $99.99=$ Not able to obtain price)

Extra sale price information

Coke Zero 12 oz
()Yes
$\bigcirc \mathrm{O}$
( )

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$

## Sale

Sale Type

Sale Price

Extra sale price information

Coke Zero 16.9 oz

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale Type

Sale Price

Extra sale price information

Yes
No
()
$\square$ Reduced price Reduced price per quantityMinimum quantity required to get reduced price
Buy one get one $\square$ Other
()

> (55.55=Sale information in Extra Sales Price Info box $99.99=$ Not able to obtain price)
()Yes
ONo
()
)

```
Yes
```

No
()

Reduced price
$\square$ Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
$\square$ Other
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box $99.99=$ Not able to obtain price)
()

Coke Zero 20 oz
$\bigcirc$ Yes
( )

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Coke Zero 1 Liter

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale Type

Sale PriceYes

()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box $99.99=$ Not able to obtain price)

## ()

YesNo
() No

Yes

()
Reduced price
$\square$ Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()
Reduced priceReduced price per quantity
Minimum quantity required to get reduced priceBuy one get one
Other
()

> (55.55=Sale information in Extra Sales Price Info box $99.99=$ Not able to obtain price)

Extra sale price information

Coke Zero 1.25 Liter

## ()

Yes(1)
()

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale
Yes
No
( )

Sale TypeReduced price
Reduced price per quantityMinimum quantity required to get reduced price
Buy one get oneOther
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box $99.99=$ Not able to obtain price)

Extra sale price information

Coke Zero 2 Liter
()Yes
$\bigcirc \mathrm{O}$
( )

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$

## Sale

Sale Type

Sale Price

Extra sale price information

Coke Zero 6 Pack / 7.5 oz

Price

Sale

Sale Type

Sale Price

Extra sale price information

> (55.55=Sale information in Extra Sales Price Info box $99.99=$ Not able to obtain price)


ON
()
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$

```
Yes
```

No
()

Reduced price
$\square$ Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
$\square$ Other
()

## ()

Yes
No
)
Yes
No
()
$\square$ Reduced price Reduced price per quantityMinimum quantity required to get reduced price
Buy one get one $\square$ Other
()

> (55.55=Sale information in Extra Sales Price Info box $99.99=$ Not able to obtain price)
()

## Coke Zero 12 Pack / 12 oz

Yes $\bigcirc$ No
( )

Price
$\overline{(99.99}=$ Not able to obtain price)

Sale

Sale Type

()

No
Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

## Sale Price

(55.55=Sale information in Extra Sales Price Info box $99.99=$ Not able to obtain price)

Extra sale price information
soda2 time stamp

()
()

Business Study ID

## Mountain Dew

Mountain Dew 12 ozYes
No
()

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
Sale

Sale Type

Sale Price

Extra sale price information

Mountain Dew 2 Liter
(55.55=Sale information in Extra Sales Price Info box)
()
Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Price
(99.99 = Not able to obtain price)

Sale

Sale Type
Yes
No
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

## Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box)

## ()

## Diet Mountain Dew

Diet Mountain Dew 12 oz
〇 Y Yos
$(\mathrm{No}$

Price

Sale

Sale Type

Sale Price

Extra sale price information

## Diet Mountain Dew 2 Liter

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale TypeYes
N
( )Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)

Extra sale price information
$(55.55=$ Sale information in Extra Sales Price Info
box )
()Yes
N
()
( $99.99=$ Not able to obtain price)


No
()

Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
Other
()
()

## Dr. Pepper

## Dr. Pepper 12 oz

〇 Y Yos
()

Price

Sale

Sale Type

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$


()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)

Extra sale price information

Dr. Pepper 20 oz
()
$\bigcirc \mathrm{Yes}$
()

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale TypeYes
N
()
Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$(55.55=$ Sale information in Extra Sales Price Info
box $)$

Extra sale price information

Dr. Pepper 2 Liter

## ()

Yes
○ No
()

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale
Yes
No
()

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

Dr. Pepper 12 Pack / 12 oz
()Yes

( )

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeYes
N
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Diet Dr. Pepper

Diet Dr. Pepper 12 oz


Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type
$\bigcirc$ Yes No
( )
Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

Diet Dr. Pepper 20 oz

Price

Sale

Sale Type

Sale Price

Extra sale price information

Diet Dr. Pepper 2 Liter

Price

Sale

Sale Type

Sale Price

Extra sale price information

Diet Dr. Pepper 12 Pack / 12 oz
( $99.99=$ Not able to obtain price)
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box)
()

()

No
()
Reduced price
Reduced price per quantityMinimum quantity required to get reduced price
Buy one get one
Other
()

Yes
No
()
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$
box $)$Yes
ONo
()

Price
(99.99 = Not able to obtain price)
Sale
Yes

( )

Sale Type
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()

Other

## Sale Price

$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$
box $)$
Extra sale price information
soda4 time stamp

## ()

()

## Gatorade

Business Study ID

## Gatorade <br> Gatorade 20 oz <br> Yes <br> No <br> ()

Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

Sale

Sale Type

Sale Price

Extra sale price information

Gatorade 32 oz
(55.55=Sale information in Extra Sales Price Info box)
()
Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Price
(99.99 = Not able to obtain price)

Sale

Sale Type
Yes
O
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box)

Extra sale price information

## ()

Gatorade 8 Pack / 20 oz
Yes
№
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes

()Reduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get one
Other
()

Sale Price
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)

Extra sale price information

## Powder Gatorade Mix

Powdered Gatorade Mix, 18.4 oz
$\bigcirc$ Yes
()
( $99.99=$ Not able to obtain price)
Sale

Sale Type

Sale Price
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)

Extra sale price information

Powdered Gatorade Mix, 51 oz
()
○ Yes
( $)$

Price
$\overline{\text { ( } 99.99}=$ Not able to obtain price)
Sale
$\bigcirc$
No
()

Sale TypeReduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()

Other

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

Powdered Gatorade Mix, 76.5 oz
()Yes

( )

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale Type

Sale Price

Extra sale price information

Powdered Gatorade Mix, 8-pack "Powder Packs"

Price
$(55.55=$ Sale information in Extra Sales Price Info
box )

Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeYesNo
()

Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one $\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$

Extra sale price information
$\square$ Other
()

Yes
No
( )
()

()

Yes
No
box)
()

## Gatorade G2

Gatorade G2 20 ozYes
()
)

Price
$\overline{(99.99=}$ Not able to obtain price)
Sale

Sale Type

()Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price

$$
\begin{aligned}
& (55.55=\text { Sale information in Extra Sales Price Info } \\
& \text { box })
\end{aligned}
$$

Extra sale price information

Gatorade G2 32 oz
()Yes

()

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale TypeYes
N
()
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$(55.55=$ Sale information in Extra Sales Price Info
box )

Extra sale price information

Gatorade G2 8 Pack / 20 oz
()Yes () )

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale
Yes
No
( )

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get oneOther
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information
gatorade time stamp

## Powder Gatorade G2 Mix

Powder Gatorade G2 Mix, 19.4 oz


Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type
Yes
()
()
$\square$ Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price

$$
\begin{aligned}
& (55.55=\text { Sale information in Extra Sales Price Info } \\
& \text { box })
\end{aligned}
$$

Extra sale price information

Powder Gatorade G2 Mix, 51 oz

## ()

Yes
○
( )

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale Type
Yes
No
()

Reduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get one
Other
()

Sale Price
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

Extra sale price information

Powder Gatorade G2 Mix, 8-pack individual serving size

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale

Sale Type
O Yes
() No
O Yes

O No
()
$\square$ Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

Business Study ID

## Jarritos

## Note: May be in Hispanic food aisle

| Jarritos, 12.5 oz | O Yes <br> ○ No <br> () |
| :--- | :--- |


| Price | $\overline{199.99}$ |
| :--- | :--- |
|  |  |
| Sale | ○ Yes |
|  | ○No |
|  | () |

## Sale Type

Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther()

## Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box )

## Jarritos Light

Jarritos Light, 12.5 ozYes
ONo
()

Price
(99.99 = Not able to obtain price)

Sale
Yes
ON
()

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$
Other
()

Sale Price
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box)

Extra sale price information

## Cheapest Non-Name Brand Soda

Does the store sell any non-name brand soda, not yet included?

Cheapest Non-Name Brand Soda, 2 Liter

Name of Cheapest Non-Name Brand Soda, 2 Liter:

Price

Sale

Sale Type

Sale Price

Extra sale price information

Cheapest Non-Name Brand Soda, 12 Pack / 12 oz

Name of Cheapest Non-name Brand Soda, 12pk / 12oz:

Price
(99.99 = Not able to obtain price)

Sale

Sale Type

Sale Price

Extra sale price information
.


## Powerade

Business Study ID

## Powerade

| Powerade 20 oz | ○ Yes |
| :--- | :--- |
| 〇No |  |
| () |  |

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
Sale

Sale Type

Sale Price

Extra sale price information

Powerade 32 oz
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box)

## ()


()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type
Yes
No
( )
Reduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get oneOther
()

Sale Price
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)

Extra sale price information

Powerade 8 Pack / 20 oz

## ()

Yes
No
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes
(
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)

Extra sale price information

## Powerade Zero

Powerade Zero 20 oz
$\bigcirc$ Yes
()
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes

()Reduced price Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box)

Extra sale price information

Powerade 32 oz

## ()

Y Yes

()

Price
$\overline{\text { ( } 99.99}=$ Not able to obtain price)
SaleYes
No
()

Sale Type
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information

Powerade 8 Pack / 20 oz
()

Yes
ONo
()

Price
( $99.99=$ Not able to obtain price)

## Sale

Sale Type

Sale Price

Extra sale price information
powerade time stamp
(55.55=Sale information in Extra Sales Price Info box)
()
()

## Energydrink

Business Study ID

## Monster

| Monster 16 oz | ○ Yes |
| :--- | :--- |
| 〇No |  |
| () |  |

Price
Sale
Sale Type
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
Yes
No
()
$\square$ Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

## Sale Price

Extra sale price information

Monster 24 oz
(55.55=Sale information in Extra Sales Price Info box)

## ()



○
()

## Price

$\overline{(99.99}=$ Not able to obtain price)
Sale
Yes
No
( )

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)

Extra sale price information

Monster 4 Pack / 16 oz

## ()

Yes
No
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes

()Reduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get one
Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)

Extra sale price information

## Monster Zero Ultra

Monster Zero Ultra 16 oz


Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type
O Y
No
()Reduced price Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$
box )
Extra sale price information

Monster Zero Ultra 24 oz

## ()

$\bigcirc$ Yes

()

Price
(99.99 = Not able to obtain price)

SaleYes
O No
()

Sale Type
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$
box $)$
Extra sale price information

Monster Zero Ultra 4 Pack / 16 oz

Price

Sale
Sale Type
Sale
Sale Type

Sale Price

Extra sale price information
()Yes

( )
 box)
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$Yes
N
()
)
Reduced price
Reduced price per quantity
Minimum quantity required to get reduced priceBuy one get one
Other
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)

Sale PriceReduced price
Reduced price per quantityMinimum quantity required to get reduced price
Buy one get oneOther
()
()

## Red Bull

Red Bull 8.4 oz
Y Yes
()
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeYes $\bigcirc \mathrm{N}$
()Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information

Red Bull 12 oz

Price

Sale

Sale Type

Sale Price

Extra sale price information

Red Bull 16 oz

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Red Bull 4 Pack / 8.4 oz

Price

$$
\begin{aligned}
& (55.55=\text { Sale information in Extra Sales Price Info } \\
& \text { box ) }
\end{aligned}
$$

()Yes
$\bigcirc \mathrm{N}$
()

O Yes
No
()

Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
$\square$ Other
()
(55.55=Sale information in Extra Sales Price Info box)
()Yes ONo ()
(99.99 = Not able to obtain price)

| Sale | $\begin{aligned} & \text { O Yes } \\ & \text { ○ No } \\ & \text { () } \end{aligned}$ |
| :---: | :---: |
| Sale Type | Reduced price Reduced price per quantity Minimum quantity required to get reduced price Buy one get one Other <br> () |

Sale Price
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

Extra sale price information

## Red Bull Sugarfree

Red Bull Sugarfree 8.4 oz
O Yes
()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale
$\bigcirc$ Yes

()

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

Sale Price
$(55.55=$ Sale information in Extra Sales Price Info
box )

Extra sale price information

Red Bull Sugarfree 12 oz

## ()

$\bigcirc$ Yes
()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale
OYes
()

Sale TypeReduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()

Other

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

Red Bull Sugarfree 16 oz
()Yes
$\bigcirc \mathrm{N}$
( )

Price
$\overline{\text { ( } 99.99}=$ Not able to obtain price)
Sale

Sale TypeYes
N
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)

Extra sale price information

Red Bull Sugarfree 4 Pack / 8.4 oz
()


Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale TypeYesNo
()

Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price

Extra sale price information
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box)

[^11]$\qquad$
$\qquad$

## Vitaminwater

Business Study ID

## Vitamin Water

Vitamin Water 20 ozYes
O
()

Price

$$
\text { ( } 99.99=\text { Not able to obtain price) }
$$

Sale

Sale Type

Sale Price

Extra sale price information
Vitamin Water 6 Pack / 16.9 oz
(55.55=Sale information in Extra Sales Price Info box)
()


Price
(99.99 = Not able to obtain price)

Sale

Sale Type
Yes
No
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

## Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Vitamin Water Zero

Vitamin Water Zero 20 ozYes

( )

Price
$\overline{(99.99=}$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Vitamin Water Zero 6 Pack / 16.9 oz

Price

Sale

Sale Type
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)

Extra sale price information
vitamin water time stamp
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$
box $)$ box)
()


## Juice

Business Study ID

## Minute Maid (Cranberry Cocktail or Cranberry/Apple/Raspberry Cocktail)

| Minute Maid Cranberry or Cranberry/Apple/Raspberry Cocktail, 12 oz (or 15.2 oz) | 12 oz (priority) 15.2 oz No 12 or $15.20 z$ <br> () |
| :---: | :---: |
| Price $\quad \overline{(99.99=\text { Not able to obtain price) }}$ |  |
|  |  |
| Sale | $\begin{aligned} & \text { O Yes } \\ & \text { 〇 No } \\ & \text { () } \end{aligned}$ |
| Sale Type | Reduced price Reduced price per quantity Minimum quantity required to get reduced price Buy one get one $\square$ Other <br> () |

Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box)
()

## Minute Maid (Fruit Punch)

Minute Maid Fruit Punch, 59 ozYes
()

Price

$$
\text { ( } 99.99=\text { Not able to obtain price) }
$$

Extra sale price information

Sale

Sale Type

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)Yes
()
$\square$ Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

## Minute Maid 100 \% Juice (Orange)

Minute Maid 100\% Juice Orange, 12oz (or 15.2 oz)

Price

Sale

Sale Type

## Sale Price

Extra sale price information

Minute Maid 100\% Juice Orange, 59oz Carton (or 59oz Jug)

```
\bigcirc12 oz (priority)
```

```15.2 oz
()
()
```

(99.99 = Not able to obtain price)
$\bigcirc$ Yes
( )Reduced priceReduced price per quantityMinimum quantity required to get reduced price $\square$ Buy one get oneOther
()

## $\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

59 oz Carton (priority)59 oz Jug
()
()

Price

$$
\overline{(99.99=\text { Not able to obtain price) }}
$$

Sale

Sale Type

Sale Price

Extra sale price information
Reduced priceReduced price per quantity
$\square$ Minimum quantity required to get reduced priceBuy one get one
()
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)

## ()

## Tropicana (Cranberry Cocktail)

| Tropicana Cranberry Cocktail, $120 z$ (or 15.2 oz ) | 12 oz (priority) 15.2 oz No 12 or $15.20 z$ () |
| :---: | :---: |
| Price |  |
|  | ( $99.99=$ Not able to obtain price) |
| Sale | $\begin{aligned} & \text { O Yes } \\ & \text { O No } \\ & \text { () } \end{aligned}$ |
| Sale Type | Reduced price Reduced price per quantity Minimum quantity required to get reduced price Buy one get one Other |

## Sale Price

## Extra sale price information

$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## Tropicana Twister (Fruit Punch)

Tropicana Twister Fruit Punch, 59oz


Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale

Sale Type

Sale Price

Extra sale price information

()
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Tropicana 100\% Juice (Orange)

Tropicana 100\% Juice Orange, $120 z$ (or 15.2 oz)

Price

Sale

Sale Type

Sale Price

Extra sale price information

Tropicana 100\% Orange Juice, 59oz Jug (or 59 oz Carton)

Price

Sale

Sale Type

Sale Price

Extra sale price information

O 12 oz (priority)15.2 oz

○
()
(99.99 = Not able to obtain price)Yes

()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

## (55.55=Sale information in Extra Sales Price Info box )

()59 oz Jug (priority)O 59 oz Carton
None
()

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$


()
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$
box $)$

## ()

## Cheapest Non-Name Brand Juice

Cheapest Non-Name Brand Juice, 12 oz (or 15.2 oz )

Name of Cheapest Non-Name Brand Juice:

Price

Sale

Sale Type

Sale Price

Extra sale price information
juice time stamp

O 12 oz (priority)
○ 15.2 oz
()
()

## ()

( $99.99=$ Not able to obtain price)
$\bigcirc$ Yes

()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$
box $99.99=$ Not able to obtain price)

## ()

()

## Teacoffee

Business Study ID

## Arizona Green Tea

## If original Green Tea not available, any flavor OK



Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeNo
()

Sale Type
Sale Price
Extra sale price informationReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

| () |  |
| :--- | :--- |
| Arizona Green Tea 128 oz | $\bigcirc \mathrm{Yes}$ |
|  | $\bigcirc \mathrm{No}$ |

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type
Yes
No
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Arizona Zero Calorie Green Tea

## If original Green Tea not available, any flavor OK



Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
Sale

Sale Type

Sale Price

Extra sale price information

Arizona Zero Calorie Green Tea 128 oz

Price

Sale

Sale Type

Sale Price

Extra sale price information
$\overline{(99.99}=$ Not able to obtain price)
Yes
No
()
$\square$ Reduced price
Reduced price per quantityMinimum quantity required to get reduced price
Buy one get one
Other
()
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box)
()

()

No
()
$\bigcirc \mathrm{N}$
( )
$\square$ Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
$\square$ Other
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)
()

## Pure Leaf Sweet Tea

| Pure Leaf Sweet Tea 18.5 oz | $\begin{aligned} & \text { O Yes } \\ & \text { ○ No } \\ & \text { () } \end{aligned}$ |
| :---: | :---: |
| Price |  |
|  | ( 99.99 = Not able to obtain price) |
| Sale | $\begin{aligned} & \text { O Yes } \\ & \text { ○ No } \\ & \text { () } \end{aligned}$ |
| Sale Type | Reduced price Reduced price per quantity Minimum quantity required to get reduced price Buy one get one $\square$ Other <br> () |

## Sale Price

Extra sale price information

Pure Leaf Sweet Tea 64 oz

Price
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$
box )
()Yes
()
$\begin{array}{ll} & \\ \text { Sale } & (99.99 \\ & \text { ○ Yes } \\ & \text { ○ No } \\ & \text { () }\end{array}$
Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box)
()

## Pure Leaf Unsweetened Tea

Pure Leaf Unsweetened Tea 18.5 oz $\quad$| 〇 Yes |
| :--- |
| ( ) No |

Price
Sale
Sale Type

Sale Price

Extra sale price information

Pure Leaf Unsweetened Tea 64 oz

Price
$(55.55=$ Sale information in Extra Sales Price Info
box $)$

## ()



|  |  |
| :--- | :--- |
| Sale | 99.99 |
|  | ○ Yes |
|  | ( No |

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Starbucks Frappuccino, Bottled

| Starbucks Frappuccino 13.7 oz | ○ Yes <br> 〇No |
| :--- | :--- |
| () |  |

Price

Sale

Sale Type

Sale Price

Extra sale price information

Starbucks Frappuccino 9.5 oz
()
(55.55=Sale information in Extra Sales Price Info box)

硅Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()
( $99.99=$ Not able to obtain price)


No
()

(99.99 = Not able to obtain price)

Sale

Sale TypeYes

()
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price

$$
\begin{aligned}
& (55.55=\text { Sale information in Extra Sales Price Info } \\
& \text { box ) }
\end{aligned}
$$

Extra sale price information

Starbucks Frappuccino, coffee flavor 4 Pack / 9.5 oz

Price
()

()
( $99.99=$ Not able to obtain price)
SaleYes
No
()

Sale Type
$\square$ Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information
tea coffee time stamp

## Lemonade

Business Study ID

## Powder Country Time Lemonade Mix

| Country Time Lemonade Powder Mix, 19 oz | 〇 Yes <br> 〇 No |
| :--- | :--- |
| () |  |

Price
Sale
Sale Type

## Sale Price

Extra sale price information

Country Time Lemonade Powder Mix, 29 oz

## Price

Sale

Sale Type

Sale Price

Extra sale price information

Country Time Lemonade Powder Mix, 82.5 oz
( $99.99=$ Not able to obtain price)
(55.55=Sale information in Extra Sales Price Info box)

## ()

No
()
Yes
O No
()Reduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get oneOther
()
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

## ()

Y
No
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information
Country Time Lemonade Powder Mix, 116 oz
()
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box)Yes
O
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type
Yes
No
()

Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

## Sale Price

Extra sale price information

Country Time Lemonade Powder Mix, 10-pack individual serving size packets
(55.55=Sale information in Extra Sales Price Info box)

## ()

Yes$\bigcirc \mathrm{N}$
()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale
Yes
O
()

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$

Sale Price
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

Extra sale price information

## Powder Crystal Lite Lemonade Mix

Crystal Lite Lemonade Powder Mix, 6-pack "pitcher" packetsYes
ON
()

Priority = regular lemonade, if not available, pink lemonde or sweet tea is OK

Price
Sale
Sale Type

Sale Price

Extra sale price information

Crystal Lite Lemonade Powder Mix, 10-pack "on-the-go" packets

Priority = regular lemonade, if not available, pink lemonde or sweet tea is OK

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale

Sale Type
O Yes
$\qquad$
()Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

Sale Price
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$
box $)$
Extra sale price information

## 

lemonade time stamp


$\qquad$

## Milk

Business Study ID

Milk Whole, unflavored (cheapest)

Note: Cheapest includes sale price
$\begin{array}{ll}\text { Milk Whole, unflavored (cheapest), } 1 / 2 \text { gallon } & \begin{array}{l}\text { ○ Yes } \\ \text { 〇 No }\end{array} \\ \text { () }\end{array}$

## Price

$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Milk Whole, unflavored (cheapest), 1 gallon

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information
Yes
No
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Milk 2\%, unflavored (cheapest)

## Note: Cheapest includes sale price

| Milk $2 \%$, unflavored (cheapest), $1 / 2$ gallon | 〇 Yes <br> 〇 No |
| :--- | :--- |
| () |  |

Price
Sale
Sale Type

## Sale Price

Extra sale price information

Milk 2\%, unflavored (cheapest), 1 gallon

Price
Extra sale price information

Sale

Sale Type

Sale Price

Extra sale price information
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box)
Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()
( $99.99=$ Not able to obtain price)
Yes
№
()
()
Yes
()

$$
\overline{(99.99=\text { Not able to obtain price })}
$$

O No
()

YesReduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get one
$\square$ Other
()
$\overline{\text { ( } 55.55=\text { Sale information in Extra Sales Price Info }}$ box)

## ()

## Milk 1\%, unflavored (cheapest)

Milk 1\%, unflavored (cheapest), 1/2 gallonYes
()
)

Price

Sale

Sale Type

Sale Price

Extra sale price information

Milk 1\%, unflavored (cheapest), 1 gallon

Price
$(55.55=$ Sale information in Extra Sales Price Info
box $)$

## ()


$\begin{array}{ll} & \\ \text { Sale } & 99.99 \\ & \bigcirc \text { Yes } \\ & \bigcirc \text { No } \\ & ()\end{array}$
Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box )

Extra sale price information

## Milk Skim / Fat-free, unflavored (cheapest)

## Note: Cheapest includes sale price

| Milk Skim / Fat-free, unflavored (cheapest), $1 / 2$ | 〇 Yes |
| :--- | :--- |
| gallon | ○ No |

Price
Sale
Sale Type
$\overline{(99.99}=$ Not able to obtain price)
Yes

No
()

Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

## Sale Price

Extra sale price information

Milk Skim / Fat-free, unflavored (cheapest), 1 gallon

Price

Sale

Sale Type

Sale Price

Extra sale price information
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)
()

$\bigcirc \mathrm{N}$
()
$\bigcirc$ Ye
No
()
$\square$ Reduced priceReduced price per quantityMinimum quantity required to get reduced price
Buy one get one
$\square$ Other
()
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)
()

## Chocolate Milk, Any fat (cheapest)

## Note: Cheapest includes sale price

Chocolate Milk, Any fat (cheapest), $140 z$
A 14 oz bottle of milk is usually the single-serving bottles, e.g., the Nesquick bottlesYes
No
()

Price
Sale
Sale Type
$\overline{(99.99}=$ Not able to obtain price)
Ye

No
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

## Sale Price

Extra sale price information

Chocolate Milk, Any fat (cheapest), 1/2 gallon

Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)
()
$\bigcirc \mathrm{Y}$
()
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale Type

Sale Price

Extra sale price information

Chocolate Milk, Any fat (cheapest), 1 gallon
(55.55=Sale information in Extra Sales Price Info box)

## ()



Price
$\overline{(99.99}=$ Not able to obtain price)
Sale
Yes

( )

Sale Type
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()

Other

## Sale Price

$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$
box $)$
Extra sale price information
milk time stamp

## Water

Business Study ID

## Ice Mountain

Ice Mountain, 8 ozYes
No
()

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
Sale

Sale Type

Sale Price

Extra sale price information

Ice Mountain, 20 oz (if not available, 16.9 oz )

Price

Sale

Sale Type

Sale Price
(55.55=Sale information in Extra Sales Price Info box)

Extra sale price information

Ice Mountain, 24 pk / 16.9 oz

## ()

Yes
()

Price
$\overline{(99.99}=$ Not able to obtain price)
Sale

Sale TypeYes

()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

Sale Price
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Aquafina Water

Aquafina Water, 20 oz (if not available, 16.9 oz)20 oz (priority)16.9 oz
()

Price

$$
\text { ( } 99.99=\text { Not able to obtain price) }
$$

| Sale | O Yes |
| :--- | :--- |
| ○ No |  |
| () |  |

Sale Type
$\square$ Reduced priceReduced price per quantity
Minimum quantity required to get reduced priceBuy one get one
()

Sale Price $\begin{aligned} & \overline{(55.55=\text { Sale information in Extra Sales Price Info }} \begin{array}{l}\text { box })\end{array}\end{aligned}$
Extra sale price information

## ()

## Dasani Water

Dasani Water, 20 oz (if not available, 16.9 oz )20 oz (priority)
16.9 oz
$\bigcirc$ None
()

Price
$\overline{(99.99}=$ Not able to obtain price)

| Sale | O Yes <br> ○ No |
| :--- | :--- |
|  | () |
| Sale Type | Reduced price |
|  | Reduced price per quantity |
|  | Minimum quantity required to get reduced price |
|  | $\square$ Buy one get one |
|  | $\square$ Other |

Sale Price
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

Extra sale price information

## Cheapest Bottled Water

Cheapest Bottles Water, 20 oz (if not available, 16.9 oz)

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale

Sale Type

Sale Price

Extra sale price information


Yes ()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()
(55.55=Sale information in Extra Sales Price Info box)

## ()

## LaCroix Sparkling Water

LaCroix Sparkling Waterr, 12 oz12 oz


None
()

Price
(99.99 = Not able to obtain price)

SaleYes
()

Sale Type
$\square$ Reduced price
Reduced price per quantity
Minimum quantity required to get reduced price
Buy one get one
Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information
water time stamp

## Fountaindrinks

Business Study ID

## Fountain Drinks



Ounces
Price
Sale
Sale Type

Sale Price
Extra sale price information
"Small" fountain drinks available
Sale Price
Extra sale price information
"Small" fountain drinks available
Sale Price
Extra sale price information
"Small" fountain drinks available
()

Sale Type

$$
\text { ( } 99.99=\text { Not able to obtain price) }
$$

Reduced price
Reduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$
Other
()

Yes
()
(55.55=Sale information in Extra Sales Price Info box )

## ()

No
()

Ounces

Price
()

$$
\text { ( } 99.99=\text { Not able to obtain price) }
$$

SaleYes

()

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one

Sale Price
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information
"Medium" fountain drinks available
()


Ounces

Price
Sale
Sale Type
()
( $99.99=$ Not able to obtain price)
OYes
O
()
$\square$ Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

## Sale Price

Extra sale price information
"Large" fountain drinks available
(55.55=Sale information in Extra Sales Price Info box)
()
Yes
○ No
()

## Ounces

Price
()
$\begin{array}{ll}\text { Price } & \\ & (99.99 \\ \text { Sale } & \text { O Yes } \\ & \text { ○No } \\ & \text { () }\end{array}$
Sale Type

Sale Price

Extra sale price informationReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()
(55.55=Sale information in Extra Sales Price Info box)

## ()

"XL" fountain drinks availableYes

No
()

Ounces

Price

## ()

$\overline{\text { ( } 99.99}=$ Not able to obtain price)

## Sale

Sale Type

Sale Price

Extra sale price information
"XXL" fountain drinks available
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box)
()
Yes
N
()

Ounces

Price
()
$\begin{array}{ll}\text { Price } & (99.99=\text { Not able to obtain price) } \\ \text { Sale } & \bigcirc \text { Yes } \\ & \bigcirc \text { No } \\ \text { Sale Type } & () \\ & \square \text { Reduced price } \\ & \square \text { Reduced price per quantity } \\ & \square \text { Minimum quantity required to get reduced price } \\ & \square \text { Buy one get one } \\ & \square \text { Other } \\ & ()\end{array}$

## Sale Price

Extra sale price information
(55.55=Sale information in Extra Sales Price Info box)

## ()

## Drink Availability

Which fountain drinks are available:
Coke
Diet CokePepsiDiet PepsiSpriteSprite ZeroFantaMountain DewDiet Mountain DewDr PepperDiet Dr PepperRoot BeerSweetened TeaUnsweetened Tea / Diet TeaLemonadeLite LemonadeSports DrinkDiet Sports DrinkEnergy DrinkDiet Energy DrinkJuice Drink100\% JuiceWaterOther
()

Other fountain drink:

Other fountain drink:

## ()

Other fountain drink:

Other fountain drink:

Other fountain drink:

## Refills

Are free refills offered for fountain beverages at


ONo
( If no sign and the machine is self-serve, then YES it is free refill)

Confidential

## Self-Service

Is the fountain beverage machine self-serve?

fountain drinks time stamp

## Snacks

Business Study ID

## Lay's Regular Potato Chips, Salted

Lay's Regular Potato Chips, Salted 2.75 oz $\quad$| $\bigcirc$ Yes |
| :--- |
| ○ No |

Price
Sale
Sale Type

## Sale Price

Extra sale price information

Lay's Regular Potato Chips, Salted 10 oz
Might be called "Family Size"
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box)

## Price

## ()

Yes
N
()

|  |  |
| :--- | :--- |
| Sale 99.99 |  |
|  | $\bigcirc$ Yes |
|  | $\bigcirc$ No |
|  | () |

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

## Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

## ()

## Pringles Regular Potato Chips, Salted

## Salted, Original=Priority, if not available, any flavor pringles OK

Pringles Regular Potato Chips, Salted 2.36 oz $\quad$| $\bigcirc$ Yes |
| :--- |
| 〇No |

Price
Sale
Sale Type
$\overline{\text { ( } 99.99=\text { Not able to obtain price })}$
Yes

No
()
$\square$ Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
$\square$ Other
()

## Sale Price

Extra sale price information

Pringles Regular Potato Chips, Salted 5.2 oz

Price
$\overline{\text { ( } 99.99=\text { Not able to obtain price) }}$
Sale

Sale Type

Sale Price

Extra sale price information
$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )
(1) No
( )Reduced price Reduced price per quantityMinimum quantity required to get reduced price
Buy one get one
$\square$ Other
()
(55.55=Sale information in Extra Sales Price Info box)

## ()

## Cookies, Original Oreos

## Cookies, Original Oreos 2 oz

O Yes
() No

Price

Sale

Sale Type

Sale Price

Extra sale price information

Cookies, Original Oreos 14.3 oz
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$
box )
()


Price
( $99.99=$ Not able to obtain price)
Sale

Sale TypeYes
ON
()
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box)

Extra sale price information

## Little Debbie Honey Buns

| Little Debbie Honey Buns 3 oz | ○ Yes |
| :--- | :--- |
| 〇No |  |
| () |  |


| Price |  |
| :---: | :---: |
|  | ( 99.99 = Not able to obtain pric |
| Sale | $\begin{aligned} & \text { O Yes } \\ & \text { O No } \\ & \text { () } \end{aligned}$ |
| Sale Type | Reduced price Reduced price per quantity Buy one get one Other |

## Sale Price

Extra sale price information

Little Debbie Honey Buns 10.6 oz
(55.55=Sale information in Extra Sales Price Info box)

## ()

OYes
○ No
()

## Price

( $99.99=$ Not able to obtain price)
Sale
Yes
()

Sale TypeReduced priceReduced price per quantityBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

Extra sale price information ()

## Reese's Peanut Butter cups

Reese's Peanut Butter cups 1.5 oz (2pk)
O Yes
O No
()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale
Yes No
( )

Sale Type
Reduced price
Reduced price per quantity
Buy one get one
$\square$ Other
()

## Sale Price

$\overline{(55.55=S a l e ~ i n f o r m a t i o n ~ i n ~ E x t r a ~ S a l e s ~ P r i c e ~ I n f o ~}$ box )

Extra sale price information
snacks time stamp

## ()

()

## Groceries

Business Study ID

## Produce

| Banana | ○ 1 lb |
| :--- | :--- |
|  | ○ Each |
| ○ None |  |
| () |  |

Price
Sale
Sale Type

Sale Price

Extra sale price information

Red Delicious Apple
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$
box )
()1 lbEach
()

Price

Sale

Sale Type
( $99.99=$ Not able to obtain price)
$\bigcirc$ Yes
()Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
()

Sale Price
$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$
box )

Extra sale price information

| Yellow Onions | ○ 1 lb <br> ○ Each <br> ○ None <br> () |
| :--- | :--- |


| Price |  |
| :--- | :--- |
|  |  |
| Sale | $(99.99=$ Not able to obtain price $)$ |
|  | ○ Yes |
|  | ○ No |
| Sale Type | () |
|  |  |
|  | $\square$ Reduced price |
|  | $\square$ Reduced price per quantity |
|  | $\square$ Minimum quantity required to get reduced price |
|  | $\square$ Buy one get one |
|  | $\square$ Other |

Sale Price $\quad$\begin{tabular}{l}

$\overline{(55.55=\text { Sale information in Extra Sales Price Info }}$| box $)$ |
| :--- |

\end{tabular}

| Extra sale price information | () |
| :--- | :--- |
|  |  |
| Tomatoes (cheapest) | $\bigcirc 1 \mathrm{lb}$ |
|  | $\bigcirc$ Each |
|  | 〇None |
|  | () |


| Price | $(99.99$ |
| :--- | :--- |
|  | Sale |
|  | ○ Yes |
|  | 〇No |
|  | () |


| Sale Type | $\square$ Reduced price |
| :--- | :--- |
|  | $\square$ Reduced price per quantity |
| $\square$ Minimum quantity required to get reduced price |  |
|  | $\square$ Buy one get one |
| $\square$ Other |  |

## Sale Price

Extra sale price information
$\overline{\text { (55.55=Sale information in Extra Sales Price Info }}$ box )

## ()

## Bakery

White Bread (cheapest), 1 loaf


Price
( $99.99=$ Not able to obtain price)

| Sale | O Yes <br> ○ No |
| :--- | :--- |
|  | () |
| Sale Type | Reduced price |
|  | Reduced price per quantity |
|  | Minimum quantity required to get reduced price |
|  | $\square$ Buy one get one |
|  | $\square$ Other |

## Sale Price

$\overline{\text { (55.55 }=\text { Sale information in Extra Sales Price Info }}$ box )

Extra sale price information

## Refridgerated

White Eggs (cheapest), 1 dozen

()

Price

$$
\text { ( } 99.99 \text { = Not able to obtain price) }
$$

Sale
$\bigcirc$ Yes

()

Sale TypeReduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get oneOther
()

Sale Price
$\overline{\text { (55.55 }}$ =Sale information in Extra Sales Price Info box )

Extra sale price information

$$
\overline{(1)}
$$

## Cereal

Frosted Flakes Cereal, 15 oz

Yes
()

Price
( $99.99=$ Not able to obtain price)
SaleYes
()

Sale Type
(55.55=Sale information in Extra Sales Price Info box )

Extra sale price information

Original Cheerios Cereal, 12 oz
()

Yes
ONo
()

Price
( $99.99=$ Not able to obtain price)
Sale

Sale Type
Reduced priceReduced price per quantityMinimum quantity required to get reduced priceBuy one get one
Other
()

Sale Price
(55.55=Sale information in Extra Sales Price Info box)

Extra sale price information
groceries time stamp

## Interiordisplay

Business Study ID

## Interior Item Displays Please walk around the entire inside of the store to make sure no sections are skipped



Regular Energy Drink
(e.g., Monster, Red Bull)

Diet Energy Drink

Regular Sports Drink
(e.g., Gatorade, Powerade, Vitamin Water)

Diet Sports Drink

Juice Drinks

100\% Juice

Plain Bottled Water

Unflavored MilkEnd-aisle displaySpecial floor display No display
()

Juice
End-aisle display
Special floor display
()

No display
(
$\square$ End-aisle displaySpecial floor displayNo display
()End-aisle displaySpecial floor display
()
p





-


#  

## Exteriormarketing

Business Study ID
Exterior Marketing of Any Beverage
Count and write down the number of ads that include...

## Regular Soda

\# of regular soda ads on building exterior
(i.e. Signs on the door, exterior walls)
( $00=$ None $)$
Exterior Price Promotion Ad Total
\# of regular soda ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total

$$
\text { ( } 00 \text { = None) }
$$


( $00=$ None)

## Diet Soda

\# of diet soda ads on building exterior
(i.e. Signs on the door, exterior walls)
( 00 = None)
Exterior Price Promotion Ad Total
( $00=$ None $)$
\# of diet soda ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None $)$
( $00=$ None)

## Regular Energy Drinks

\# of energy drink ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of energy drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
(00 = None)
( $00=$ None)
( $00=$ None $)$

## Diet Energy Drinks

\# of diet energy drink ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of diet energy drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( 00 = None)
( $00=$ None)
( 00 = None)
( 00 = None)

## Regular Sports Drinks

\# of sports drink ads on building exterior
(i.e. Signs on the door, exterior walls)
( $00=$ None)
Exterior Price Promotion Ad Total
( 00 = None)
\# of sports drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( 00 = None)
( 00 = None)

## Diet Sports Drinks

\# of diet sports drink ads on building exterior (i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of diet sports drink ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total

$$
\text { ( } 00 \text { = None) }
$$

( 00 = None)
( 00 = None)
( 00 = None)

## Juice Drinks

\# of juice ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of juice ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( 00 = None)
(00 = None)

## 100\% Juice Drinks

\# of $100 \%$ juice ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of 100\% juice ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( $00=$ None $)$
( $00=$ None)
( $00=$ None $)$

## Plain Bottled Water

\# of water ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of water ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
( $00=$ None)
( $00=$ None)
( $00=$ None)

## Unflavored Milk

\# of unflavored milk ads on building exterior
(i.e. Signs on the door, exterior walls)
( $00=$ None)
Exterior Price Promotion Ad Total
( 00 = None)
\# of unflavored milk ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
( $00=$ None)
(00 = None)

## Flavored Milk

\# of flavored milk ads on building exterior
(i.e. Signs on the door, exterior walls)

Exterior Price Promotion Ad Total
\# of flavored milk ads on property
(e.g., Signs in the parking lot, on a post, sandwich board, billboard)

Property Price Promotion Ad Total
exterior marketing time stamp
( $00=$ None $)$

$$
\text { ( } 00 \text { = None) }
$$

( $00=$ None)
( $00=$ None $)$
()

ITEM 2 | CHILD COHORT SURVEY INSTRUMENTS
i. SCREENING QUESTIONNAIRE

Thank you for your interest in the Seattle Area Shopping and Wellness or SeaSAW Study! To see if your family is eligible, we need to ask you a few questions.

1. What is your child's age? 7-10 or 12-17 (if multiple eligible children, choose one with closest birthday to today)
2. What is your home address (including zip code)?

Street address: $\qquad$ , Unit \#: $\qquad$
City: $\qquad$ , State: $\qquad$ , Zipcode: $\qquad$
3. Does your child live in your residence on average five days per week or more?
a. Yes
b. No
4. Are you planning on moving out of the area (King County) anytime in the next $1-2$ years?
a. Yes
b. No
5. How many adults (including yourself) live in your household? $\qquad$ adults
6. How many children under 18 live in your household? $\qquad$ children
7. Please reference the chart below and tell us if your total gross annual household income (before taxes and other things taken out) including all sources of income for your household is above or below the annual or monthly income associated with your household size.
a. Above b. Below

| Household <br> Size | Annual | Monthly |
| :---: | ---: | ---: |
| 1 | $\$ 37,627.20$ | $\$ 3,135.60$ |
| 2 | $\$ 50,668.80$ | $\$ 4,222.40$ |
| 3 | $\$ 63,710.40$ | $\$ 5,309.20$ |
| 4 | $\$ 76,752.00$ | $\$ 6,396.00$ |
| 5 | $\$ 89,793.60$ | $\$ 7,482.80$ |
| 6 | $\$ 102,835.20$ | $\$ 8,569.60$ |
| 7 | $\$ 115,876.80$ | $\$ 9,656.40$ |
| 8 | $\$ 128,918.40$ | $\$ 10,743.20$ |
| 9 | $\$ 145,236.00$ | $\$ 12,103.00$ |
| 10 | $\$ 161,553.60$ | $\$ 13,462.80$ |

For the following questions, please answer what is most accurate for your child (if parent) or you (if adolescent) in the past week:

| How often did your child (you): | Never or <br> almost <br> never | Less than 1 <br> time per <br> week | $1-2$ times <br> per week | $3-4$ times <br> per week | 5 or more <br> times per <br> week |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 9. Eat at restaurants? | 1 | 2 | 3 | 4 | 5 |
| 10. Eat food served from a school <br> cafeteria? | 1 | 2 | 3 | 4 | 5 |
| 11. Not counting restaurants or school, <br> how many times did your child (you) <br> meals away from home (e.g., friends <br> home, other family members' home)? | 1 | 2 | 3 | 4 | 5 |

12. Does your child ever drink sugary beverages like: regular soda/pop (such as Coke or Sprite), fruit-flavored drinks (like Sunny Delight), coffee or tea drinks with added sugar (like Starbucks Frappucinnos, Arizona Iced Tea, Chai Tea, bubble tea), or regular sports drinks or energy drinks (such as Gatorade or Red Bull)?
a.Yes
b. No

## Please Provide Your Contact Information:

Parent First Name: $\qquad$ , Parent Last Name: $\qquad$
Parent Phone: $\qquad$ , Parent Email: $\qquad$

## Item 2 | Child COHORt SURVEY instruments

 ii. Dietary screener questionnaireThese questions are about foods you ate or drank during the past month, that is, the past 30 days. When answering, please include meals and snacks at home, at work or school, in restaurants, and anyplace else.
Mark an $\mathbf{X}$ to indicate your answer. To change your answer, completely fill the box for the incorrectly marked answer ( $\boldsymbol{\lambda}_{\mathbf{~}}$ ).
Then mark an X in the correct one. Your answers are important.

How old are you (in years)?
 years

Are you male or female?MaleFemale

During the past month, how often did you eat hot or cold cereals? Mark one $\mathbf{X}$.
1 time last month
2-3 times last month1 time per week2 times per week3-4 times per week5-6 times per week1 time per day
2 or more times per day

During the past month, what kind of cereal did you usually eat? - Print cerea


If there was another kind of cereal that you usually ate during the past month, what kind was it? - Print cereal, if none leave blank.


During the past month, how often did you have any milk (either to drink or on cereal)? Include regular milks, chocolate or other flavored milks, lactose-free milk, buttermilk. Please do not include soy milk or small amounts of milk in coffee or tea. Mark one $\mathbf{X}$.
$\square$ Never $\rightarrow$ Go to question 8.
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square 3-4$ times per week
$\square 5-6$ times per week
$\square 1$ time per day
$\square$ 2-3 times per day
$\square 4-5$ times per day
$\square 6$ or more times per day
During the past month, what kind of milk did you usually drink? Mark one $\mathbf{X}$.
$\square$ Whole or regular milk
$\square 2 \%$ fat or reduced-fat milk$1 \%, 1 / 2 \%$, or low-fat milk
$\square$ Fat-free, skim or nonfat milk
$\square$ Soy milk
$\square$ Other kind of milk - Print milk. $\square$


During the past month, how often did you drink regular soda or pop that contains sugar? Do not include diet soda. Mark one $\mathbf{X}$.Never1 time last month2-3 times last month1 time per week2 times per week3-4 times per week5-6 times per week1 time per day2-3 times per day4-5 times per day6 or more times per day ren

9 During the past month, how often did you drink $100 \%$ pure fruit juices such as orange, mango, apple, grape and pineapple juices? Do not include fruit-flavored drinks with added sugar or fruit juice you made at home and added sugar to. Mark one $\mathbf{X}$.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square$ 2-3 times per day
$\square$ 4-5 times per day
$\square 6$ or more times per day

During the past month, how often did you drink coffee or tea that had sugar or honey added to it? Include coffee and tea you sweetened yourself and presweetened tea and coffee drinks such as Arizona Iced Tea and Frappuccino. Do not include artificially sweetened coffee or diet tea.


Never1 time last month2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square$ 2-3 times per day
$\square 4-5$ times per day
$\square 6$ or more times per day

During the past month, how often did you drink sweetened fruit drinks, sports or energy drinks, such as Kool-Aid, lemonade, Hi-C, cranberry drink, Gatorade, Red Bull or Vitamin Water? Include fruit juices you made at home and added sugar to. Do not include diet drinks or artificially sweetened drinks.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square$ 2-3 times per day
$\square 4-5$ times per day
$\square 6$ or more times per day

During the past month, how often did you eat fruit? Include fresh, frozen or canned fruit. Do not include juices.Never1 time last month2-3 times last month1 time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day
During the past month, how often did you eat a green leafy or lettuce salad, with or without other vegetables?
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day
(14) During the past month, how often did you eat any kind of fried potatoes, including french fries, home fries, or hash brown potatoes?

```
\square \mp@code { N e v e r }
\square 1 \text { time last month}
```

```2-3 times last month
\(\square 1\) time per week
\(\square 2\) times per week
\(\square\) 3-4 times per week
\(\square\) 5-6 times per week
\(\square 1\) time per day
```

```2 or more times per day
```

During the past month, how often did you eat any other kind of potatoes, such as baked, boiled, mashed potatoes, sweet potatoes, or potato salad?
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day

During the past month, how often did you eat refried beans, baked beans, beans in soup, pork and beans or any other type of cooked dried beans? Do not include green beans.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square 5-6$ times per week
$\square 1$ time per day
$\square 2$ or more times per day

During the past month, how often did you eat brown rice or other cooked whole grains, such as bulgur, cracked wheat, or millet? Do not include white rice.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day

During the past month, not including what you just told me about (green salads, potatoes, cooked dried beans), how often did you eat other vegetables?
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day

During the past month, how often did you have Mexican-type salsa made with tomato?

$\square 1$ time last month<br>$\square$ 2-3 times last month<br>$\square 1$ time per week<br>$\square 2$ times per week<br>$\square$ 3-4 times per week<br>$\square$ 5-6 times per week<br>$\square 1$ time per day<br>$\square 2$ or more times per day

20
During the past month, how often did you eat pizza? Include frozen pizza, fast food pizza, and homemade pizza.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square 5-6$ times per week
$\square 1$ time per day
$\square 2$ or more times per day

During the past month, how often did you have tomato sauces such as with spagetti or noodles or mixed into foods such as lasagna? Do not include tomato sauce on pizza.
$\square 1$ time last month2-3 times last month1 time per week2 times per week3-4 times per week5-6 times per week1 time per day2 or more times per day

During the past month, how often did you eat any kind of cheese? Include cheese as a snack, cheese on burgers, sandwiches, and cheese in foods such as lasagna, quesadillas, or casseroles. Do not include cheese on pizza.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day2 or more times per day

During the past month, how often did you eat red meat, such as beef, pork, ham, or sausage? Do not include chicken, turkey or seafood. Include red meat you had in sandwiches, lasagna, stew, and other mixtures. Red meats may also include veal, lamb, and any lunch meats made with these meats.Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day

During the past month, how often did you eat any processed meat, such as bacon, lunch meats, or hot dogs? Include processed meats you had in sandwiches, soups, pizza, casseroles, and other mixtures.
Processed meats are those preserved by smoking, curing, or salting, or by the addition of preservatives. Examples are: ham, bacon, pastrami, salami, sausages, bratwursts, frankfurters, hot dogs, and spam.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day

25 During the past month, how often did you eat whole grain bread including toast, rolls and in sandwiches? Whole grain breads include whole wheat, rye, oatmeal and pumpernickel. Do not include white bread.Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day

26 During the past month, how often did you eat chocolate or any other types of candy? Do not include sugar-free candy.

```
\square \mp@code { N e v e r }
\square 1 \text { time last month}
\square 2-3 times last month
\square 1 \text { time per week}
\square 2 \text { times per week}
```

```3-4 times per week
```

```5-6 times per week
```

```1 time per day
```

```2 or more times per day
```

During the past month, how often did you eat doughnuts, sweet rolls, Danish, muffins, pan dulce, or pop-tarts? Do not include sugar-free items.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day

During the past month, how often did you eat cookies, cake, pie or brownies? Do not include sugar-free kinds.
$\square$ Never
$\square 1$ time last month
$\square$ 2-3 times last month
$\square 1$ time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day
During the past month, how often did you eat ice cream or other frozen desserts? Do not include sugar-free kinds.Never1 time last month2-3 times last month1 time per week2 times per week3-4 times per week5-6 times per week1 time per day2 or more times per day

During the past month, how often did you eat popcorn?Never1 time last month
2-3 times last month1 time per week
$\square 2$ times per week
$\square$ 3-4 times per week
$\square$ 5-6 times per week
$\square 1$ time per day2 or more times per day

Item 2 | CHild COHORT SURVEY instruments
iii. Child survey

## Beverage Consumption Questionnaire for Child Cohort (SeaSAW) CHILD

$\qquad$ Date $\qquad$

To be completed by parent if child is 7-10 years old or by 12-17 year old themselves.
Updated 12202017

We want to learn about the types and amounts of different beverages that your child drinks. Please read the list of beverages and mark if your child has had the beverage in the past month. If they drink something at least once a week, I will ask about how much they usually have each time they drink that type of beverage. For example, if your child drinks fruit juice as part of a snack after school each school day but does not drink it any other time throughout the day or on the weekend, you would tell me she drinks it 5 times each week. Do not count beverages used in cooking or other preparations such as milk in cereal. There are no right or wrong answers. We want to get an honest picture of what your child drinks.

|  | A) How Often Do You Drink It? (Choose One) |  |  |  |  |  |  |  | B) How Much Each Time? (Choose One) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Beverage | Never or less than 1 time per week- go to next beverage | 1 time per week | 2-3 <br> times <br> per <br> week | 4-6 <br> times <br> per <br> week | 1 time per day | 2+ <br> times <br> per <br> day | 3+ <br> times <br> per <br> day |  | Less than 6 fl oz (3/4 cup) Size of most juice boxes | $\begin{aligned} & 8 \mathrm{fl} \mathrm{oz} \\ & \text { (1 cup) } \end{aligned}$ | 12 fl oz (1 <br> $1 / 2$ cups) <br> Size of a <br> regular <br> can of <br> soda/pop | 16 fl oz <br> (2 cups) <br> Size of <br> most <br> sports <br> drinks/ <br> bottled <br> drinks | More <br> than 20 <br> fl oz <br> cups (2 <br> $1 / 2$ cups) |
| 1. Tap water |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 2. Plain bottled water (e.g., Aquafina, Dasani, Smart Water) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 3. Flavored water without added sugar or other caloric sweeteners (e.g., coconut water; club soda or bubbly water; aqua frescas without sugar or other caloric sweeteners such as honey) or other flavored waters with low or no calories (e.g., La Croix, Mio, Vitamin Water Zero, Sobe Life Water) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 4. $100 \%$ Fruit juice (e.g., orange, apple, Honest Kids) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 5. Fruit-flavored drinks with added sugar that are ready to drink - in bottle/can or from a drink fountain/dispenser (e.g., lemonade, Sunny Delight, Hawaiian Punch) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |


| Type of Beverage | Never or less than 1 time per week- go to next beverage | 1 <br> time <br> per <br> week | 2-3 <br> times <br> per <br> week | 4-6 <br> times <br> per <br> week | $\begin{aligned} & 1 \text { time } \\ & \text { per } \\ & \text { day } \end{aligned}$ | 2+ <br> times <br> per <br> day | 3+ <br> times <br> per <br> day |  | Less than 6 fl oz (3/4 cup) Size of most juice boxes | $\begin{aligned} & 8 \mathrm{fl} \mathrm{oz} \\ & \text { (1 cup) } \end{aligned}$ | 12 fl oz (1 <br> $1 / 2$ cups) <br> Size of a <br> regular <br> can of <br> soda/pop | $\begin{aligned} & 16 \mathrm{fl} \mathrm{oz} \\ & (2 \text { cups }) \end{aligned}$ <br> Size of most sports drinks or bottled drinks | More <br> than 20 <br> fl oz <br> cups (2 <br> $1 / 2$ cups) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6. Regular milk with no added sugar (cow, almond, or other plant or nut milks)(e.g., $2 \%$ milk, Silk Unsweetened Almond Milk) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 7. Flavored milk (e.g., chocolate, strawberry, horchata, or sweetened vanilla almond milk) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 8. Regular soft drinks, soda, or pop (e.g., Coke, Pepsi Sprite, Root Beer, Orange Soda, Jarritos, Dr. Pepper); not including diet soda |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 9. Diet or low or no calorie soft drinks, soda, or pop (e.g., Coke Zero Sugar, Diet Pepsi) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 10. Tea or coffee drink with sugar or syrups added (in bottle/can or prepared by barista or seller) (e.g. Arizona Iced Tea, Snapple, Pure Leaf, Starbucks Frappuccino, mocha, or bubble teas) or hot chocolate |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 11. Tea or coffee drink you/your child prepared to which you added sugar, honey, or syrups |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 12. Tea or coffee drink (prepared by you/your child, by a barista or seller, or in a bottle/can) with low or no calorie sweetener or flavoring added |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 13. Tea or coffee without sugar or other flavorings or sweeteners added (plain or with milk/cream) (made at home or purchased) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 14. Regular energy drinks (e.g., Red Bull, Rockstar, Monster) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |


| Type of Beverage | Never or less than 1 time per week-go to next beverage | 1 <br> time <br> per <br> week | 2-3 <br> times <br> per <br> week | 4-6 <br> times <br> per <br> week | 1 time per day | 2+ <br> times <br> per <br> day | 3+ <br> times <br> per <br> day |  | Less than 6 fl oz (3/4 cup) <br> Size of most juice boxes | 8 fl oz (1 cup) | $12 \mathrm{fl} \mathrm{oz} \mathrm{(1}$ <br> $1 / 2$ cups) <br> Size of a <br> regular <br> can of <br> soda/pop | 16 fl oz <br> (2 cups) <br> Size of <br> most <br> sports <br> drinks <br> or <br> bottled <br> drinks | More <br> than 20 <br> fl oz <br> cups (2 <br> $1 / 2$ cups) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15. Regular sports drinks that are ready to drink from a bottle or drink fountain/dispenser (e.g., Gatorade, Powerade, Vitamin Water) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 16. Low or no calorie sports drinks (e.g., Gatorade G2) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 17. Fruit-flavored drinks or sports drinks prepared by you/your child (e.g., Kool Aid, made-frompowder lemonade or Gatorade) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 18. Are there any other beverages you have consumed in the past month that we did not already capture? <br> Other $\qquad$ |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 19. Other |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 20. Other |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 21. Other |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |

Please describe other beverages in as much detail as you can: Brand, flavor, diet or not.

Item 2 | Child cohort survey instruments iv. Adult survey
$\qquad$

## Updated 12202017

We want to learn about the types and amounts of different beverages that you drink. Please choose the best answer for each of the questions below. If you drink something at least once a week, please answer how much you usually have each time you drink that type of beverage. For example, if you drink fruit juice as part of a snack after work each weekday day but do not drink it any other time throughout the day or on the weekend, you would choose 5 times each week. Do not count beverages used in cooking or other preparations such as milk in cereal or in coffee. There are no right or wrong answers. We want to get an honest picture of what you drink.

|  | A) How Often Do You Drink It? (Choose One) |  |  |  |  |  |  |  | B) How Much Each Time? (Choose One) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Beverage | Never or less than 1 time per week- go to next beverage | 1 <br> time <br> per <br> week | 2-3 <br> times <br> per <br> week | 4-6 <br> times <br> per <br> week | 1 time <br> per <br> day | 2+ <br> times <br> per <br> day | 3+ <br> times <br> per <br> day |  | Less than 6 fl oz (3/4 cup) Size of most juice boxes | $\begin{aligned} & 8 \mathrm{fl} \mathrm{oz} \\ & (1 \text { cup) } \end{aligned}$ | $12 \mathrm{fl} \mathrm{oz}(1$ <br> $1 / 2$ cups) <br> Size of a <br> regular <br> can of <br> soda/pop | 16 fl oz (2 cups) <br> Size of <br> most <br> sports <br> drinks <br> or <br> bottled <br> drinks | More <br> than 20 <br> fl oz <br> cups (2 <br> $1 / 2$ cups) |
| 1. Tap water |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 2. Plain bottled water (e.g., Aquafina, Dasini, Smart Water) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 3. Flavored water without added sugar or other caloric sweeteners (e.g., coconut water; club soda or bubbly water; aqua frescas without sugar or other caloric sweeteners such as honey) or other flavored waters with low or no calories (e.g., La Croix, Mio, Vitamin Water Zero, Sobe Life Water) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 4. $100 \%$ Fruit juice (e.g., orange, apple, Honest Kids) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 5. Fruit-flavored drinks with added sugar that are ready to drink - in bottle/can or from a drink fountain/dispenser (e.g., lemonade, Sunny Delight, Hawaiian Punch) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |


| Type of Beverage | Never or less than 1 time per week- go to next beverage | 1 <br> time <br> per <br> week | 2-3 <br> times <br> per <br> week | 4-6 <br> times <br> per <br> week | $\begin{aligned} & 1 \text { time } \\ & \text { per } \\ & \text { day } \end{aligned}$ | 2+ <br> times <br> per <br> day | 3+ <br> times <br> per <br> day |  | Less than 6 fl oz (3/4 cup) Size of most juice boxes | $\begin{aligned} & 8 \mathrm{fl} \mathrm{oz} \\ & \text { (1 cup) } \end{aligned}$ | 12 fl oz (1 <br> $1 / 2$ cups) <br> Size of a <br> regular <br> can of <br> soda/pop | $\begin{aligned} & 16 \mathrm{fl} \mathrm{oz} \\ & (2 \text { cups }) \end{aligned}$ <br> Size of most sports drinks or bottled drinks | More <br> than 20 <br> fl oz <br> cups (2 <br> $1 / 2$ cups) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6. Regular milk with no added sugar (cow, almond, or other plant or nut milks)(e.g., $2 \%$ milk, Silk Unsweetened Almond Milk) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 7. Flavored milk (e.g., chocolate, strawberry, horchata, or sweetened vanilla almond milk) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 8. Regular soft drinks, soda, or pop (e.g., Coke, Pepsi Sprite, Root Beer, Orange Soda, Jarritos, Dr. Pepper); not including diet soda |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 9. Diet or low or no calorie soft drinks, soda, or pop (e.g., Coke Zero Sugar, Diet Pepsi) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 10. Tea or coffee drink with sugar or syrups added (in bottle/can or prepared by barista or seller) (e.g. Arizona Iced Tea, Snapple, Pure Leaf, Starbucks Frappuccino, mocha, or bubble teas) or hot chocolate |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 11. Tea or coffee drink you/your child prepared to which you added sugar, honey, or syrups |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 12. Tea or coffee drink (prepared by you/your child, by a barista or seller, or in a bottle/can) with low or no calorie sweetener or flavoring added |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 13. Tea or coffee without sugar or other flavorings or sweeteners added (plain or with milk/cream) (made at home or purchased) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 14. Regular energy drinks (e.g., Red Bull, Rockstar, Monster) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |


| Type of Beverage | Never or less than 1 time per week- go to next beverage | 1 time per week | 2-3 <br> times <br> per <br> week | 4-6 <br> times <br> per <br> week | 1 time per day | 2+ <br> times <br> per <br> day | 3+ <br> times <br> per <br> day |  | Less than 6 fl oz (3/4 cup) <br> Size of most juice boxes | 8 fl oz (1 cup) | 12 fl oz (1 <br> $1 / 2$ cups) <br> Size of a <br> regular <br> can of <br> soda/pop | 16 fl oz <br> ( 2 cups) <br> Size of <br> most <br> sports <br> drinks <br> or <br> bottled drinks | More <br> than 20 <br> fl oz <br> cups (2 <br> $1 / 2$ cups) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15. Regular sports drinks that are ready to drink from a bottle or drink fountain/dispenser (e.g., Gatorade, Powerade, Vitamin Water) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 16. Low or no calorie sports drinks (e.g., Gatorade G2) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 17. Fruit-flavored drinks or sports drinks prepared by you/your child (e.g., Kool Aid, made-frompowder lemonade or Gatorade) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 18. Beer, Ales, Wine Coolers, Non-Alcoholic or Light Beer. |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 19. Hard Liquor (shots, rum, tequila, etc.) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 20. Wine (red, white, or rose) |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 21. Are there any other beverages you have consumed in the past month that we did not already capture? <br> Other $\qquad$ |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 22. Other |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 23. Other |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |
| 24. Other |  |  |  |  |  |  |  | $\rightarrow$ |  |  |  |  |  |

For 'Other'; provide as complete a description as possible including brand, name of beverage, and any other information.

Item 2 | CHild COHORT SURVEY instruments v. Household Information survey
$\qquad$ Date $\qquad$

## SeaSAW Household Information Survey

It is important for us to know who is in the SeaSAW study. As with all the information we collect, this household and personal information will be kept confidential and not linked to you or anyone in your family. We will not share this information with anyone else and we will combine this information with the hundreds of other children and families in SeaSAW when we report findings.

## About your child:

What is your child's birthdate? $\qquad$
What is your child gender?
$\square$ Male $\square$ Female $\square$ Self-identify $\qquad$
Is your child of Hispanic or Latino origin? (Check all that apply.)
$\square$ NOT HISPANIC/LATINO $\square$ MEXICAN/ MEXICAN AMERICAN/ CHICANO
$\square$ CUBAN
$\square$ CENTRAL AMERICAN
■DOMINICAN
$\square$ SPANIARD
$\square$ PUERTO RICAN $\square$ SOUTH AMERICAN $\square$ LATIN AMERICAN $\square$ OTHER HISPANIC/LATINO

What race(s) do you consider your child? (Check all that apply.)
$\square A F R I C A N ~ A M E R I C A N /$
BLACK/AFRICAN
$\square$ ALASKA NATIVE $\square$ WHITE/CAUCASIAN
$\square A S I A N ~ I N D I A N ~$
$\square C A M B O D I A N$
$\square C H I N E S E$
$\square$ FILIPINO
-HMONG
-INDONESIAN
$\square J A P A N E S E$
-KOREAN
$\square$ LAOTIAN
$\square$ MALAYSIAN
$\square$ PAKISTANI
$\square$ SINGAPOREAN
$\square$ TAIWANESE
$\square$ THAI
-VIETNAMESE
-OTHER ASIAN
$\square$ NATIVE HAWAIIAN
$\square F I J I A N$
$\square G U A M A N I A N$ or CHAMORRO
$\square$ MARIANA ISLANDER
$\square M E L A N E S I A N$
$\square$ MICRONESIAN
$\square S A M O A N$
$\square T O N G A N$
$\square O T H E R ~ P A C I F I C$ ISLANDER
$\square$ WASHINGTON INDIAN
-OTHER AMERICAN INDIAN

What is your child's current height? $\qquad$ inches or $\qquad$ cm

What is your child's current weight? $\qquad$ lbs or $\qquad$ kg

## About parent (you):

Age of Parent/Caregiver: $\qquad$
Gender of Parent or Caregiver:
$\square$ Male $\square$ Female $\square$ Self-identify $\qquad$
Are you of Hispanic or Latino origin? (Check all that apply.)

| $\square$ NOT HISPANIC/LATINO | $\square$ MEXICAN/ MEXICAN AMERICAN/CHICANO |
| :--- | :--- |
| $\square$ CUBAN | $\square$ CENTRAL AMERICAN |
| $\square$ DOMINICAN | $\square$ SOUTH AMERICAN |
| $\square$ SPANIARD | $\square$ LATIN AMERICAN |
| $\square$ PUERTO RICAN | $\square$ OTHER HISPANIC/LATINO |

What race(s) do you consider yourself? (Check all that apply.)
$\square$ AFRICAN AMERICAN/
BLACK
$\square$ ALASKA NATIVE
$\square$ WHITE/CAUCASIAN
$\square$ ASIAN INDIAN
$\square$ CAMBODIAN
$\square$ CHINESE
$\square$ FILIPINO
$\square$ HMONG
$\square$ INDONESIAN
$\square$ JAPANESE
$\square K O R E A N ~$
$\square$ LAOTIAN
$\square$ MALAYSIAN
$\square$ PAKISTANI
$\square$ SINGAPOREAN
$\square T A I W A N E S E$
$\square$ THAI
$\square$ VIETNAMESE
口OTHER ASIAN
-NATIVE HAWAIIAN
$\square F I J I A N$
$\square G U A M A N I A N$ or CHAMORRO
$\square$ MARIANA ISLANDER
$\square$ MELANESIAN
$\square$ MICRONESIAN
$\square S A M O A N$
$\square T O N G A N$
■OTHER PACIFIC ISLANDER
$\square$ WASHINGTON INDIAN
$\square$ OTHER AMERICAN INDIAN $\square$ SINGAPOREAN

Do you speak a language other than English at home? Yes No
If yes, what language do you primary speak at home? $\qquad$
If yes, how well do feel that you speak English?
$\square$ Very well
$\square$ Well
$\square$ Not well
$\square$ Not at all
What was your highest education level you completed?
Did not complete high school
$\square$ Completed high school or got a GED
$\square$ Some college or vocational training
$\square$ Completed college or university
$\square$ Completed graduate or professional degree
What is the highest level of education among all the adults in your household? (Choose one)
$\square$ Did not complete high school
$\square$ Completed high school or got a GED
$\square$ Some college or vocational training
$\square$ Completed college or university
$\square$ Completed graduate or professional degree
What is your current employment status?
$\square$ Unemployed
$\square$ Full-time caregiver or stay-at-home parent
$\square$ Employed full-time
$\square$ Employed part-time
$\square$ Temporary unemployed or looking for work
$\square$ Permanently disabled and not working
$\square$ Retired and currently not working
$\square$ On temporary medical leave
Do you rent or own the house or apartment you currently live in?RentOwnOther
What is your marital status?
$\square$ Married or living with partner
$\square$ Widowed/divorced/separated
$\square$ Single and never married

## About Your Household

## Where you Shop:

When you OR THE MAIN FOOD SHOPPER IN YOUR HOME go food shopping, how often do you go to each of these types of stores?

|  | Never <br> or <1 <br> time per <br> month | 1 time per <br> month | 1 time every <br> other week | 1 time <br> per <br> week | $2+$ times <br> per week |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 11. Large supermarket such as Safeway, QFC, Fred <br> Meyer, Albertsons, Whole Foods | 1 | 2 | 3 | 4 | 5 |
| 12. Warehouse store such as Costco | 1 | 2 | 3 | 4 | 5 |
| 13. Small to medium grocery store, such as Trader <br> Joes, Red Apple, or corner market | 1 | 2 | 3 | 4 | 5 |
| 14. Ethnic market or ethnic grocery store such as <br> Uwajimaya | 1 | 2 | 3 | 4 | 5 |
| 15. Discount/bargain store such as Grocery Outlet | 1 | 2 | 3 | 4 | 5 |
| 16. Convenience Store, such as 7-11 or AM/PM | 1 | 2 | 3 | 4 | 5 |
| 17. Farmer's market or produce stand | 1 | 2 | 3 | 4 | 5 |

Do you receive any federal or state assistance or benefits (please check all that apply)
$\square$ None
$\square$ SNAP
$\square$ WIC
$\square$ TANF
$\square$ Unemployment Insurance
$\square$ Other: $\qquad$
If yes, on what day of the month do you receive your benefit? $\qquad$

How many people (including yourself, adults, and children) generally eat dinner or an evening meal at/from your home on average day? $\qquad$ people

For the following statements, please tell us whether the statement was "often true, sometimes true, or never true for your household:
A. Within the past 12 months we worried whether our food would run out before we got any money to buy more.often truesometimes truenever truedon't know, or refused
B. Within the past 12 months the food we bought just didn't last and we didn't have money to get more.
$\square$ often truesometimes truenever truedon't know, or refused
C. Within the past 12 months we found it hard to buy healthy foods like fresh fruits and vegetables. $\square$ oflen true $\quad \square$ sometimes true $\quad \square$ never true $\quad \square$ don't know, or refused

We would like to get a better sense of your household income. Please think about the income that all earners in your household make combined. Is it easier for you to think about this for the whole year or monthly? (use the corresponding list). I am going to start reading some income ranges to you, please say 'stop' when we get to the range that best fits your [monthly or yearly] household income:

| Monthly | Yearly |
| :---: | :---: |
| <\$500 | <\$6000 |
| 500 -under 1000 | 6000 -under 12,000 |
| 1000 -under 2000 | 12000 -under 24,000 |
| 2000 -under 3000 | 24,000 -under 36,000 |
| 3000 -under 4000 | 36,000 -under 48,000 |
| 4000 -under 5000 | 48,000 -under 60,000 |
| 5000 -under 6000 | 60,000 -under 72,000 |
| 6000 -under 7000 | 72,000 -under 84,000 |
| 7000 - under 8000 | 84,000 -under 96,000 |
| 8000 - under9000 | 96,000 -under 108,000 |
| 9000 - under 10000 | 108,000 -under120,000 |
| >10000 | >120,000 |

ITEM 3 | AdULT SURVEY INSTRUMENTS

## Norms and Attitudes Survey Phone Version

Hello, my name is $\qquad$ . I'm working with the University of Washington and I am looking for someone to answer some questions about the sugary drink tax that will start in January in Seattle. There are no right or wrong answers and your answers will be kept confidential. Do you have a few minutes to answer some brief questions?

INTERVIEWER NOTE: if needed, the survey will take about 15 minutes to complete.

## Screener Questions

First, I'd like to ask you a few questions about your household to make sure you are eligible for this survey.

1. Can you tell me what zip code you live in? $\qquad$

## INTERVIEWER NOTES:

IF respondent does not live in any of the zip codes listed below, TERMINATE
IF respondent lives in a zip code entirely within city limits CONTINUE
If respondent lives in zip code that borders Northern city limits ask question 2
If respondent lives in zip code that borders Southern city limits as question 3 If DK OR REFUSED - TERMINATE

Zip codes clearly in Seattle city limits: 98101, 98102, 98103, 98104, 98105, 98107, 98109, 98112, 98115, 98116, 98119, 98121, 98122, 98125, 98126, 98134, 98144, 98154, 98164, 98174, 98177, 98195, 98199

Zip codes the overlap Seattle city limits in North: 98133, 98117
Zip codes the overlap Seattle city limits in South: 98146, 98136, 98106, 98108, 98118, 98178
2. Do you live above or below $145^{\text {th }}$ street?
$\square$ Above [TERMINATE]
$\square$ Below [CONTINUE]
DK/REFUSED - TERMINATE
3. Do you live within Seattle city limits?
$\square$ No [TERMINATE]
$\square$ Yes [CONTINUE]
DK / REFUSED - TERMINATE
4. Are you of Hispanic or Latino origin? (Check all that apply)
$\square$ No, not of Hispanic, Latino or Spanish origin
$\square$ Yes, Mexican, Mexican American or Chicano
$\square$ Yes, Puerto Rican
$\square$ Yes, Cuban
$\square$ Yes, another Hispanic, Latino or Spanish originDON'T KNOW
$\square$ REFUSED
5. What race(s) do you consider yourself? (Check all that apply)
$\square$ White
$\square$ Black or African American
$\square$ American Indian or Alaska Native (ASSIGN TO OTHER)
$\square$ Asian
$\square$ Native Hawaiian or Other Pacific Islander (ASSIGN TO ASIAN)
$\square$ Other $\qquad$
$\square$ DON'T KNOW - TERMINATE
$\square$ REFUSED - TERMINATE
6. How many adults (including yourself) live in your household? $\qquad$ adults IF DK/REFUSED - TERMINATE
7. How many children under 18 live in your household? $\qquad$ children

IF DK/REFUSED TERMINATE
8. Is your total annual household income above or below $\qquad$ per year?
IF DK/REFUSED TERMINATE

INTERVIEWER NOTE: use chart to get household size specific value for $260 \%$ FPL for this household
$\square$ Above ("high" income)
$\square$ Below ("low" income)
PROGRAMMING INSTRUCTIONS

| Household Size | Annual 260\% |  |
| :---: | :---: | :---: |
| Add Q2+Q3 | Insert in Q8 |  |
| 1 | $\$$ | 31,356 |
| 2 | $\$$ | 42,224 |
| 3 | $\$$ | 53,092 |
| 4 | $\$$ | 63,960 |
| 5 | $\$$ | 74,828 |
| 6 | $\$$ | 85,696 |
| 7 | $\$$ | 96,564 |
| 8 | $\$$ | 107,432 |

## Domain 1: Current Consumption

INTERVIEWER: READ DRINK TYPES IN BOLD ONLY - READ BRANDS IN PARENTHESIS ONLY IF NEEDED
Because we will be talking today about sugary drinks, I want to start off by telling you what we mean when we refer to sugary drinks. Sugary drinks include regular soft drinks, soda or pop (such as Coke, Pepsi, Sprite, Root Beer, Orange Soda, Jarritos, Dr. Pepper), fruit-flavored drinks (such lemonade, Sunny Delight, Hawaiian Punch), sports drinks (such as Gatorade, Powerade), sweetened teas or coffees (such as Arizona Iced Tea, Snapple, Pure Leaf, Starbucks Frappuccino, mochas, or bubble teas), and energy drinks (such as Red Bull, Rockstar, Monster). They do NOT include milk, $100 \%$ fruit juice, diet drinks, or artificially sweetened drinks.

To start off, I'm interested in learning about whether you drink sugary drinks.

1. During the past 30 days, did you drink sugary drinks never or less than 1 time per week, 1 time per week, 2-6 times per week, 1 time per day, or 2 or more times per day?Never or less than 1 time per week1 time per week2-6 times per week1 time per day $\square 2$ or more times per day
$\square$ Don't knowREFUSED

## Domain 2: Norms/Attitudes towards tax itself

Next, I'd like to tell you a little bit about the new tax on sugary drinks in Seattle.
Starting on January 1, 2018, the City of Seattle will start taxing sugary drinks. In Seattle, large distributors will now pay a 1.75 cents per ounce tax on sugary drinks. Taxed beverages include drinks that have added sugar. The tax will NOT include diet beverages, $100 \%$ fruit juices, or milk products. Money from the tax will help give more people access to healthy and affordable food, expand early education for pre-school aged kids, and help high school graduates enter college.
2. Have you heard of this tax, yes or no?
$\square$ Don't know
$\square$ REFUSED
3. Based on what you know, do you strongly disapprove, somewhat disapprove, somewhat approve, strongly approve of this tax?
$\square$ Strongly disapprove
$\square$ Somewhat disapprove
$\square$ Somewhat approve
$\square$ Strongly approve
4. I'm going to read you pairs of statements that people have made about this new tax on sugary drinks. After I read each pair, please tell me which statement is closer to your own view, even if neither is exactly right.
(INTERVIEWER PROMPT) Which statement comes closer to your own view?
$\qquad$ 4A 1. This tax WILL improve public health in Seattle.
2. This tax will NOT improve public health in Seattle.
$\qquad$ 4B 1. This tax WILL improve the health and well-being of children in Seattle.
2. This tax will NOT improve the health and well-being of children in Seattle.

## (AFTER CHOICE IS MADE, INTERVIEWER PROBE:) Is that MUCH closer or SOMEWHAT closer?

FIRST statement is MUCH closerFIRST statement is SOMEWHAT closerSECOND statement is MUCH closerSECOND statement is SOMEWHAT closer$\square$ Don't know
$\square$ REFUSED

## Domain 3: Unintended Impacts

Now, I'd like to ask a few questions on how the new tax on sugary drinks might affect people and businesses in Seattle.
5. Like I did earlier, I'm going to read you pairs of statements that people have made about this new tax on sugary drinks. After I read each pair, please tell me which statement is closer to your own view, even if neither is exactly right.
(INTERVIEWER PROMPT) Which statement comes closer to your own view?
$\qquad$
$\qquad$

Statement 1: I WILL travel to another city to buy sugary drinks so I don't have to pay the tax.

Statement 2: I will NOT travel to another city to buy sugary drinks because of the tax.
Statement 1: This tax will have a POSITIVE effect on Seattle's economy.
Statement 2: This tax will have a NEGATIVE effect on Seattle's economy.

| __ 5C | Statement 1: This tax WILL have a negative effect on small businesses in Seattle. <br> Small businesses may lose money and could even go out of business because of <br> the tax. <br> Statement 2: This tax will NOT have negative effects on small businesses in <br> Seattle. It's not likely that businesses will lose money or go out of business <br> because of the tax. |
| ---: | :--- |
| 5D | Statement 1: This tax WILL result in job loss in Seattle. <br> Statement 2: This tax will NOT result in job loss in Seattle. |
| 5E | Statement 1: This tax WILL have a negative impact on my family's finances |
| Statement 2: This tax will NOT have a negative impact on my family's finances. <br> people's health and well-being and help them access affordable, healthy food in <br> Seattle. <br> Statement 2: This tax will have a NEGATIVE impact on low-income and <br> minority people's finances, will drive up the cost of living for those who can least <br> afford to pay the tax, and further increase income inequality. |  |

(AFTER CHOICE IS MADE, INTERVIEWER PROBE:) Is that MUCH closer or SOMEWHAT closer?
$\square$ FIRST statement is MUCH closer
$\square$ FIRST statement is SOMEWHAT closer
$\square$ SECOND statement is MUCH closer
$\square$ SECOND statement is SOMEWHAT closer
$\square$ Don't know
$\square$ REFUSED

## Domain 4: Norms/Attitudes towards healthfulness of sugary drinks

## INTERVIEWER: READ DRINK TYPES IN BOLD ONLY - READ BRANDS IN PARENTHESIS ONLY IF NEEDED

6. Remembering back to how I defined sugary drinks earlier, I am now going to read you some statements about how sugary drinks affect health. Would it help if I repeated the definition? (INTERVIEWER NOTE: IF YES, read: Sugary drinks include regular soft drinks, soda or pop (such as Coke, Pepsi, Sprite, Root Beer, Orange Soda, Jarritos, Dr. Pepper), fruit-flavored drinks (such lemonade, Sunny Delight, Hawaiian Punch), sports drinks (such as Gatorade, Powerade), sweetened teas or coffees (such as Arizona Iced Tea, Snapple, Pure Leaf, Starbucks Frappuccino,
mochas, or bubble teas), and energy drinks (such as Red Bull, Rockstar, Monster). They do NOT include milk, $100 \%$ fruit juice, diet drinks, or artificially sweetened drinks.)

Using a scale of 1 to 4 , where 1 means Strongly Disagree and 4 means Strongly Agree, how much do you agree or disagree with the following statements. [READ EACH STATEMENT; REPEAT SCALE AS NEEDED]

Responses are:
Strongly disagree
$\square$ Somewhat disagree
$\square$ Somewhat agree
$\square$ Strongly agree
$\square$ Don't knowREFUSED

## INTERVIEWER: READ ‘DRINKING SUGARY DRINKS' WITH FIRST STATEMENT THEN REPEAT ONLY AS NECESSARY...

i. Drinking sugary drinks causes serious health problems.
ii. Drinking sugary drinks significantly raises a person's chances of dental health problems, including cavities and tooth decay.
iii. Drinking sugary drinks significantly raises a person's chances of obesity.
iv. Drinking sugary drinks significantly raises a person's chances of diabetes.
v. Drinking sugary drinks significantly raises a person's chances of heart disease.
7. Using the same scale of 1 means strongly Disagree and 4 means Strongly Agree, how much do you agree or disagree that consuming excessive amounts of sugar from any source, not only from drinks but also from foods such as cookies or cereals, can lead to serious health problems.

## $\square$ Strongly disagree

$\square$ Somewhat disagree
$\square$ Somewhat agree
$\square$ Strongly agree
$\square$ Don't know
$\square$ REFUSED
8. Now, thinking about how sugary drinks affect health, what is the MOST people should drink them? READ IF NECESSARY: Please tell me if it's never or less than 1 time per week, 1 time per week, 2-6 times per week, 1 time per day, or 2 or more times per day.
$\square$ Never or less than 1 time per week
$\square 1$ time per week
$\square$ 2-6 times per week
$\square 1$ time per day
$\square 2$ or more times per day
$\square$ Don't know
$\square$ REFUSED
9. Next, I am going to read a list of the types of sugary drinks. Please tell me whether you think regularly drinking each type of drink doesn't increase, probably increases, or definitely increases a person's chances of developing health problems like diabetes or becoming overweight.
(INTERVIEWER NOTE: READ ITEMS IN RANDOM ORDER - READ BRANDS IN PARENTHESIS ONLY IF NECESSARY)
i. Regular soft drinks, soda or pop, not including diet (e.g. Coke, Pepsi, Sprite, Root Beer, Orange Soda, Jarritos, Dr. Pepper)
ii. Fruit-Flavored drinks (e.g. lemonade, Sunny Delight, Hawaiian Punch)
iii. Sports drinks (e.g. Gatorade, Powerade)
iv. Sweetened teas or coffees (e.g. Arizona Iced Tea, Snapple, Pure Leaf, Starbucks Frappuccino, mocha, or bubble teas)
v. Energy drinks (e.g. Red Bull, Rockstar, Monster)

Responses for each drink are:
$\square$ Doesn't increase
$\square$ Probably increases
$\square$ Definitely increases
$\square$ Don't know
$\square$ REFUSED
INTERVIEWER NOTE: Skip question 9 if respondent answered, "never or less than 1 time per week" to question 1
10. Using a scale of 1 to 4 , where 1 means Very Unlikely and 4 means Very Likely, if you were to choose to drink something instead of a sugary drink, how likely would it be that you would choose each of the following? :
(INTERVIEWER NOTE: READ ITEMS IN RANDOM ORDER; REPEAT SCALE AS NEEDED)

i. Tap water<br>ii. Filtered tap water<br>iii. Bottled water (READ ONLY IF NECESSARY e.g., Aquafina, Dasani, Smart Water, La Croix, Mio)<br>iv. Unflavored Milk<br>v. Unsweetened coffee or tea<br>vi. Diet drinks (READ ONLY IF NECESSARY e.g. Diet coke, Coke Zero Sugar, Diet Pepsi)

Responses for each drink are:
$\square$ Very Unlikely
$\square$ Somewhat Unlikely
$\square$ Somewhat Likely
$\square$ Very Likely

Don't knowREFUSED
11. And, using a scale of 1 to 4 , where 1 means Very Unhealthy and 4 means Very Healthy, how healthy do you think each of these drinks are?
(INTERVIEWER NOTE: READ ITEMS IN RANDOM ORDER - REPEAT SCALE AS NEEDED

```
i. Tap water
ii. Filtered tap water
iii. Bottled water ((READ ONLY IF NECESSARY e.g., Aquafina, Dasani,
        Smart Water, La Croix, Mio)
iv. Unflavored Milk
    v. Unsweetened coffee or tea
vi. Diet drinks (READ ONLY IF NECESSARY) e.g. Diet Coke, Coke Zero
        Sugar, Diet Pepsi)
```

Responses for each drink are:Very Unhealthy
$\square$ Somewhat Unhealthy
$\square$ Somewhat HealthyVery HealthyDon't knowREFUSED
Domain 5: Norms/attitudes towards government regulation of individual behaviors
12. Similar to prior questions, I'm going to read you a pair of statements. After I read both statements please tell me which one comes closer to your own view, even if neither is exactly right.
(INTERVIEWER PROMPT) Which statement comes closer to your own view?
Statement 1: Under this tax, people will still have the CHOICE to drink what they want.
Statement 2: This tax will significantly LIMIT people's ability to choose what they drink.
(AFTER CHOICE IS MADE, INTERVIEWER PROBE:) Is that MUCH closer or SOMEWHAT closer?
$\square$ FIRST statement MUCH closer
$\square$ FIRST statement SOMEWHAT closer
$\square$ SECOND statement MUCH closer
$\square$ SECOND statement SOMEWHAT closer
$\square$ Don't know
$\square$ REFUSED

## Domain 6: Conclusion and Demographics

13. After hearing more about the tax, let me ask you again, do you strongly disapprove, somewhat disapprove, somewhat approve, or strongly approve of this tax?
$\square$ Strongly disapprove
$\square$ Somewhat disapprove
$\square$ Somewhat approve
$\square$ Strongly approve
$\square$ Don't know
$\square$ REFUSED

Finally, I want to ask you a few questions about yourself and your household.
14. What is your age?
$\square 18$-30
$\square 31-40$
$\square 41-50$
$\square$ 51-64
$\square 65+$
$\square$ REFUSED
15. What is your gender?$\square$ FemaleSelf-identify(Specify: $\qquad$ $\square$ REFUSED
16. What was your highest education level you completed?
$\square$ Some high school
$\square$ Completed high school
$\square$ Some college or vocational training
$\square$ Completed college or university
$\square$ Completed graduate or professional degree
$\square$ REFUSED
17. What is your marital status?Married
Widowed/divorced/separated
$\square$ Single and never married
$\square$ Living with partner
$\square$ REFUSED
18. DELETED - 11-08-17Are you the parent or legal guardian of any children under age 18 ?
$\square$ Yes $\square$ No $\square$ REFUSED
19. DELETED $=\mathbf{1 1 - 0 8}-17$ What is your current employment status?
$\square$ Unemployed
$\square$ Full-time homemaker
$\square$ Employed full-time
$\square$ Employed part-time
$\square$ Permanently disabled and not working
$\square$ Retired and currently not working
$\square$ On temporary medical leave
$\square$ REFUSED
20. DELETED 11-08-17 Do you speak a language other than English at home? $\square$ Yes $\square$ No If yes, how well do feel that you speak English?
$\square$ Not at all
$\square$ Not well
$\square$ Well
Very well
$\square$ DON'T KNOW
$\square$ REFUSED
21. Now, we don't want to know your exact income, but just roughly, could you tell me if your annual household income before taxes is:
$\square<\$ 30,000$
$\square$ \$30,000-\$59,999
$\square$ \$60,000-\$89,999
$\square$ \$90,000-\$120,000
$\square>\$ 120,000$
$\square$ DON'T KNOW
$\square$ REFUSED
22. Can you tell me if you have been covered by Medicaid in the last 12 months?
$\square$ Yes
$\square$ No
$\square$ DON'T KNOW
$\square$ REFUSED
23. Generally speaking, do you think of yourself as (ROTATE) a Democrat, an Independent, a Republican, or what?
$\square$ Democrat
$\square$ Independent
$\square$ Republican
$\square$ Other (SPECIFY)
$\square$ DON'T KNOW
$\square$ REFUSED
24. To help us make sure people from all Seattle neighborhoods are included in this survey, we would like to know the nearest intersection to your home. Please name the two cross-streets of this intersection.

What is the name of the first street?
INTERVIEWER NOTE: Confirm street spelling and directionals (e.g. N, S, NW, NE)
What is the name of the second street?
INTERVIEWER NOTE: Confirm street spelling and directionals (e.g. N, S, NW, NE)

```
ASK FUTURE RESEARCH SECTION (Q25 THROUGH Q34 IF:
s7=1 OR MORE CHILDREN UNDER 18
s8=BELOW FPL
OTHERWISE - SKIP TO CLOSING
```

Q25. You mentioned earlier that you have children under 18 living in your home. Do you have a child or children who are 7-10 years old OR 12-15 years old?

## $\square$ Yes (CONTINUE)

$\square$ No (SKIP TO CLOSING)
$\square$ REFUSED (SKIP TO CLOSING)
If you have more than one child that falls in these age groups, please think of your child with the closest birthday to today for the remaining questions.

Q26. Does this child live in your residence five days per week or more?
$\square$ Yes (CONTINUE)
$\square$ No (SKIP TO CLOSING)
$\square$ REFUSED (SKIP TO CLOSING)

Q27. Are you planning on moving out of the area (King County) anytime in the next 1 to 2 years?
$\square$ Yes (SKIP TO CLOSING-SELECT IF THEY HAVE A CONCRETE PLAN TO MOVE)
$\square$ No (CONTINUE)
$\square$ REFUSED (SKIP TO CLOSING)

| Q28. How often did your child: | Never or <br> almost <br> never | Less than 1 <br> time per <br> week | $1-2$ times <br> per week | 3-4 times <br> per week | 5 or more <br> times per <br> week |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Drink sugary beverages like: regular <br> soda/pop (such as Coke or Sprite), <br> fruit-flavored drinks (like Sunny <br> Delight), coffee or tea drinks with <br> added sugar (like Starbucks | 1 | 2 |  |  |  |
| Frappuccino's, Arizona Iced Tea, <br> Chai Tea, bubble tea), or regular <br> sports drinks or energy drinks <br> (such as Gatorade or Red Bull)? |  |  |  |  | 4 |

IF Q28=CODES 4 OR 5 - CONTINUE; OTHERWISE SKIP TO CLOSING

Q29. In addition to the survey you just completed, the University of Washington may be conducting a study in the near future about shopping habits and wellness in the Seattle area. Would you like to be contacted by a study team member to see if you might be interested in a future study, where you may be compensated for your time and opinions?YesNoREFUSED

Q30. Great! May I verify the best phone number to reach you? $\qquad$
Q31. May I have your email address: $\qquad$ (CONFIRM CORRECT ADDRESS)

Q32. And, may I have your first and last name?
First: $\qquad$
Last: $\qquad$
Q33. What is the best day and time to reach you?
Days:
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Time of Day
9am-noon
1pm-5pm
6pm - 9pm
Q34. Thank you - a study team member will reach out to you by email or phone in the near future to discuss the next steps.

CLOSING: Those are all of our questions. Thank you for taking the time to complete our survey.

Item 4 | Stakeholder instruments

Objective: To evaluate how key stakeholders experience and perceive the tax and its implementation

| Key Concepts | Key Informant Interviews |  |  |  |  | Focus <br> Groups |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Distributors Manufacturers | Retailers | Tax Administrators | City <br> Officials/ <br> Electeds | Health advocates | Consumers |
| 1. Knowledge about SBT | X | X | X | X | X | X |
| 2. Process of implementation (barriers and facilitators) | X | X | X |  |  |  |
| 3. Impact on job and economic indicators (business practices, revenues, volume) | X | X |  | X | X |  |
| 4. Impact of SBT on beverage prices \& sales | X | X |  | X | X | X |
| 5. Impacts on sweetened beverage consumption |  |  |  |  | X | X |
| 6. Impact on consumer spending (household food expenditures) |  |  |  |  | X | X |
| 7. Impact of SBT on consumer choices/purchases | X | X |  | X | X | X |
| 8. Attitudes about sweetened beverage consumption |  |  |  |  | X | X |

* Impact: Perceived (pre) and actual (post)


## Key Concepts for Focus Groups (Adult and Youth)

1. Knowledge about SBT (including use of SBT revenues)
2. Impact of SBT on beverage prices \& sales
3. Impacts on sweetened beverage consumption
4. Impact on consumer spending (household food expenditures)
5. Impact of SBT on consumer choices/purchases (including impact on community)
6. Attitudes about sweetened beverage consumption

## Focus Group Questions <br> General Knowledge \& Behaviors regarding

1. When you hear the terms "sugary beverages" or "sugar sweetened beverages", what does that mean to you? What types of drinks come to mind?
2. How often do you drink sugar-sweetened beverages such as sodas, fruit drinks, sports or energy drinks, sweetened coffee drinks or teas? On what occasions?
How much do you typically drink of these beverages?
3. What other kinds of beverages do you drink that are not considered "sugary beverages"?

How often do you drink other beverages?
How often do you drink water?
4. How would you describe the health effects of sugary drinks?

Do these effects differ depending on the type of drink?

## Attitudes \& Behaviors about the SBT and SBT's impacts (including price sensitivity/substitution, inclination to shop across the border)

5. Have you heard about the new tax on sugary drinks that's supposed to happen in Seattle? What do you know about it? What have you heard?

Brief description of SBT: A tax rate of $\$ 0.0175$ per whole fluid ounce of sweetened beverages that a distributor distributes. For example, for a 20 oz drink with some form of sweetener, the distributor would be taxed 35 cents. Right now, we don't know if or how much the distributor will pass that tax onto a store, and stores onto customers.
6. The tax is actually on Distributors of sugary beverages, not a tax directly on the people who buy it. What do you think about that?
Do you think the tax would cause hardship to anyone? (e.g., to small business, job loss)
7. If this ends up meaning that these drinks cost a little bit more, would this change how much of these drinks you buy?
(Probe: Would you buy more, less or the same amount of sugary drinks once the tax is in place?)
8. Would a higher price on these drinks make you buy something else instead? Like what? What beverages would you drink instead if the cost of soda, energy drinks, or sweet teas, etc. increased?
9. Would you go outside of Seattle to buy sugary drinks?
(Probe: What would you do to avoid paying the tax?)

## Perceptions about sugary beverage tax

10. What do you think about putting a tax on sugary beverages?
11. How would a tax like this impact your community?
(Probe: Would it hurt or benefit your community? How?)
12. Are you aware of how the money collected from the tax will be used?

How do you think it should be spent?

Key Concepts for Key Informant Interviews (Retailers, Distributers, Manufacturers, City staff and Councilmembers)

1. Knowledge about SBT
2. Process of implementation (barriers and facilitators)
3. Impact on job and economic indicators (business practices, revenues, volume)
4. Impact of SBT on beverage prices \& sales
5. Impact of SBT on consumer choices/purchases

## Retailers <br> General Knowledge

1. What do you think about the new sweetened beverage tax?
2. How does the tax apply to you? Is it clear to you which items are subject to the tax?
3. Where do you get information about how to apply the tax? Were implementation guidelines provided?

- What communication have you received from the city about the tax?
- What can be improved? What information would you like?)
- Have you had any communication with your customers about the tax?


## Overall Perceptions

4. What concerns do you have about this tax?
5. How do you anticipate the beverage tax will affect your business?

## Implementation Process

6. How likely are you to change pricing of sweetened beverages in your store/restaurant?

- How will the SBT impact the prices of products in your store(s)/restaurant(s)?
(Probes: Will some product prices be increased more than others? Will the increase apply to all store locations? How are those decisions made?)

7. How does your store/restaurant buy the beverages it sells?

If store/restaurant has a distributor:

- Have any distributors communicated with you about the tax? If yes, what types of communications? Who initiated? What did they tell you?

8. How would you describe the process of implementing the tax in your business?
(Probes: What are you doing in anticipation of the tax? How do you anticipate the tax changing any of your processes?)
9. What are some challenges to implementing the tax?
10. What types of supports would help you to implement this ordinance?

## Expected Impact

11. Will the tax have any impact on your customers?
12. Do you think customers will change their shopping practices as a result of the tax?
13. Do you think there are any good things about the tax? Bad things?

- Whom do you think the tax is good for? Bad for?
- What advice would you like to give the city about how to work with small businesses on health laws like this?


## Distributors/Manufacturers

## General Knowledge

1. What do you think about the new sweetened beverage tax?
2. How does the tax apply to you? Is it clear to you which items are subject to the tax?
3. Where do you get information about how to apply the tax? Were implementation guidelines provided?

- What communication have you received from the city about the tax? What types of communication? What was communicated to you?
- How satisfied are you with the communications from the City? What sort of communication was most effective? What can be improved? What information would you like?
- Have you had any communication with your customers about the tax?


## Overall Perceptions

4. What concerns do you have about this tax?
5. How do you anticipate the beverage tax will affect your business?

## Implementation Process

6. How would you describe the process of implementing the tax in your business?
(Probes: What are you doing in anticipation of the tax? How do you anticipate the tax changing any of your processes?)
7. What are some challenges to implementing the tax?
8. What types of supports would help you to implement this ordinance?
9. How likely are you to change pricing of sweetened beverages to retailers?
(Probes: Will some product prices be increased more than others? Will the increase apply to all store locations? How are those decisions made?)

## Expected Impact

10. Will the tax have any impact on your customers (retailers)?
11. Do you think customers will change their shopping practices as a result of the tax?
12. Do you think there are any good things about the tax? Bad things?

- Whom do you think the tax is good for? Bad for?
- What advice would you like to give the city about how to work with small businesses on health laws like this?


## City of Seattle - Tax Administrators

## City of Seattle - Tax Administrator

## Pre-Tax Implementation Process

1. What are (were) the major steps involved in implementing this SBT ordinance? What is going well? What has been challenging?
2. Which departments are/have been involved?

- Who/which depts. are the major decision-makers?
- What roles are they tasked with?
- Are there other departments that you think could/should be involved?


## Implementation Process

3. How would you describe the process for distributors/self-distributing retailers to implement this tax?
4. How will the tax be collected and what is being done to minimize burden on the tax payer?
5. Who is responsible for educating businesses?
6. What communication has the city initiated with distributors, retailers and other businesses directly affected by the tax?
(with information about the tax and how to comply)

- How are implementation guidelines provided?
- What forms of communications?
- What types of information was shared in these communications?
- To which types of businesses?
- How were these businesses identified?
- Even though the tax applies directly to distributors and self-distributing retailers only, what kind of outreach to retailers to explain the tax is happening or being considered?

7. Other than reading the law and city FAQ, what other ways can a business can determine whether a particular product is taxed or exempt? Are lists of taxed/untaxed products available to distributors? How about to retailers? (e.g., Philly website)

- What challenges, if any, have there been in specifying what beverages are taxed?
- Are there challenges in defining what constitutes a distribution and when a taxable event occurs?

8. What external factors affect successful implementation? [Ask at post-assessment.]
9. What are some challenges that distributors and retailers and small manufacturers might face as a result of the SBT?

- What resources are available to support them with implementation?

10. What kinds of things (concerns, questions) have distributors communicated with the city? What have they asked about/for?
11. What kinds of things (concerns, questions) have small manufacturers and retailers communicated with the city? What have they asked about/for?
12. What is the plan for ensuring compliance with the tax ordinance?

- When will compliance checks begin? Who is responsible for determining compliance?


## City of Seattle - City staff involved in SBT planning and Elected Officials

NB: Given limited time with Councilmembers, prioritize highlighted questions.

## Questions for City staff and Elected Officials

1. What do you think of the Seattle SBT?

- What are the goals or purpose of the Seattle SBT? (Short/long-term goals, revenue, impact SSB consumption, health awareness/improvement)
- What was the history or key events that led to the passage of the tax?

2. What were key concerns that emerged and how were they addressed?

- What concerns or questions have been raised since the passing of the tax and how have these been addressed?

3. What do you think about proposed plans for revenue generated by the tax?

- What would you change if you had the opportunity?

4. How do you think the tax will impact consumption of SSBs in Seattle? (related to Q1)
5. We've heard concerns about a tax like this being regressive. What are your thoughts about this?
6. Which communities do you think will be most impacted by the SBT?

- In what ways both positive and negative?

7. Looking ahead, what challenges do you anticipate with implementing the tax?
8. How do you anticipate the tax affecting local businesses? Any concerns?
9. How do you view the role of the SBT Community Advisory Board?
10. What other concerns do you have about the tax that haven't already been mentioned? (Employment, revenue loss, cross-border shopping, etc.)

## Key Concepts for Health/Community Advocates

1. Knowledge about SBT
2. Impact on job and economic indicators (business practices, revenues, volume)
3. Impact of SBT on beverage prices \& sales
4. Impacts on sweetened beverage consumption
5. Impact on consumer spending (household food expenditures)
6. Impact of SBT on consumer choice
7. Attitudes about sweetened beverage consumption

## Advocates

## General Knowledge

1. How was your organization involved in the development, passage, and/or rule-making for the SBT?
2. What do you think about the new sweetened beverage tax?

## Overall Perceptions

3. Do you think there are any good things about the tax? Bad things? Whom do you think the tax is good for? Bad for?
4. What advice would you like to give the city about how to work with small businesses and consumers on health laws like this?

## Implementation Process

5. Is your organization involved in the implementation or roll-out of the tax in any way? If so, how? (e.g., educating consumers, engaging with distributors and/or retailers)

## Expected Impact

6. Do you expect that the cost increase will be passed on to consumers?

- Will the costs be passed on equitably?

7. Which communities will be most impacted by the SBT?
8. How will the tax impact consumption of SSBs in Seattle?
9. What concerns do you have about the tax? (equity concerns)
10. What concerns do you have about the use of sugary beverage tax funds? (equity concerns)

## APPENDIX C \| STORE DEFINITIONS

## APPENDIX C | STORE DEFINITIONS

SBT Retail Audit<br>Store Type Definitions

## Grocery \& Food Stores

1) Superstore/Warehouse - Superstores carry a wide array of products usually including clothing, household items, and often children's items such as toys. Some general merchandize stores may also have a grocery or supermarket within the store. Examples include Walmart, Target, and Costco.
2) Supermarket - To qualify as a supermarket, the store must (1) sell fresh meat (uncooked, unprocessed, not frozen meat, not fish/seafood, not packaged deli meat); (2) have four or more cash registers (including self-checkout); and (3) have at least two of the following services: butcher, bakery and/or deli. The butcher, bakery and deli must be staffed service counters (i.e., availability of fresh bread and/or fresh meat does not count if there is not a separate, staffed service counter). Examples of supermarkets include Safeway, QFC, and Metropolitan Market.
3) Grocery Store - To qualify as a grocery store, the store must (1) sell fresh meat (uncooked, unprocessed, not frozen meat, not fish/seafood, not packaged deli meat) and (2) not meet all of the criteria for being a supermarket. Examples of grocery stores include Red Apple, Pioneer Square Market, Viet-Wah, and some ethnic and "mom-and-pop" food stores.
4) Small Stores - Store types A-D qualify as "small stores." These stores do not sell fresh meat. They may, but typically do not, have deli and/or bakery service counters. Please note there should not be butcher or fresh meat service counters and this is why they are identified as small stores.
a. Chain Convenience- This includes small chain stores that sell an edited selection of staple groceries and other convenience items, i.e., ready-to-heat and ready-to-eat foods. They often sell fresh milk and may have a deli or sell some processed meats (hot dogs, cold cuts, etc.) and other hot foods. Convenience stores are typically open long hours. Examples of convenience stores are 7-Eleven and Plaid Pantry. In this study, based on pre-screening, we will indicate chain versus non-chain status for field workers.
b. Non-Chain Convenience- This includes small, independently-owned stores that sell an edited selection of staple groceries and other convenience items, i.e., ready-to-heat and ready-to-eat foods. They often sell fresh milk and may have a deli or sell some processed meats (hot dogs, cold cuts, etc.) and other hot foods. Convenience stores are typically open long hours. Please note that corner stores will also be classified as non-chain convenience stores. Examples include Union Market, and many ethnic and "mom and pop" stores.
c. Discount Store - This includes small stores that sell a variety of goods like household, personal, and party supplies and household cleaning products, as well as some food and beverages, typically at discounted prices. We will include stores that have the word "dollar" or "discount" in the title. Examples include Dollar General and Dollar Tree.
d. Gas Station - This includes the quick-stop shops at gas stations. Gas station shops sell a selection of
snacks, beverages, convenience items, and ready-to-heat and ready-to-eat foods. They may sell a selection of staple groceries. To be a gas station store, these stores must have gas pumps connected to the store. A few stores, such as 7-11s, can be both "gas stations" and "chain convenience stores." The distinction is the presence of gas pumps. Examples include AMPM, 76, or Shell.
5) Drug Store/Pharmacy - This includes stores that sell prescription and over the counter medication, as well as additional merchandise including food and beverages. Examples include Walgreens, CVS, and Rite Aid.

## Beverage Stores

1) Coffee Shop - A small café that serves primarily coffee as well as other drinks. Usually but does not have to serve simple foods. Can be a separate building, or inside of a larger store or restaurant. Can be a drive-thru or a walk-in café. If it is a drive-thru only coffee stand, only survey if the coffee stand has a menu that is visible to the exterior. If there is no exterior menu, do not survey the shop.
2) Bubble Tea Shop - A small café that serves primarily bubble tea as well as other drinks, including coffee. Can serve simple food. Can be a separate building, or inside of a larger store or restaurant.

## Fast Food / Quick Service

1) Quick Service Chain - A restaurant that serves fast food cuisine and has minimal table service. Food is usually offered from a limited menu, cooked or prepped in bulk in advance and kept hot, finished and packaged to order, and usually available for take away, though seating may be provided. "Fast casual" are also included in this category, and tend to have more seating, and food items that are made-to-order. "Chain" quick-service refer to national fast-food brands (e.g., McDonalds, Dairy Queen, Taco Bell).
2) Quick Service Non-Chain - A restaurant that serves fast food cuisine and has minimal table service. Food is usually offered from a limited menu, cooked in bulk in advance and kept hot, finished and packaged to order, and usually available for take away, though seating may be provided. "Fast casual" are also included in this category, and tend to have more seating, and food items that are made-to-order. "Non-chain" quick-service refers to chains that are not national chains / brands. Local chains (e.g., Dicks, Pagliacci Pizza) are included in this category.

## APPENDIX D \| PRICING OF "GRAB-AND-GO" SIZE BEVERAGES

## APPENDIX D \| PRICING OF "GRAB-AND-GO" SIZE BEVERAGES

## Pricing of "grab-and-go" size beverages

Appendix D displays the mean pricing for all available "grab-and-go" size beverages, including all beverages less than or equal to 32 ounces. The prices of grab-and-go size beverages in Seattle and the comparison areas were similar. Compared to the mean prices of all sizes of beverages, the grab-and-go size beverages were more expensive. Among these smaller beverage sizes, sports beverages were the only beverage category where the diet beverage was less expensive than its regular version; this was true in both the regular and lowest price per ounce calculations and in Seattle and the comparison area.

## APPENDIX D. CENTS PER OUNCE OF ALL INDIVIDUAL-SIZE BEVERAGES ( $\leq 320 Z$ ) IN SEATTLE AND COMPARISON AREAS BY BEVERAGE TAX CATEGORY: LOWEST AND REGULAR PRICE

|  | LOWEST PRICE PER OUNCE |  |  | REGULAR PRICE PER OUNCE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SEATTLE | COMPARISON AREA | PRICE | SEATTLE | COMPARISON AREA | PRICE |
|  | MEAN CENTS/ OZ SE (N) | MEAN CENTS/ OZ SE (N) | DIFFERENCE <br> IN CENTS ${ }^{1}$ | MEAN CENTS/ OZ SE (N) | $\begin{gathered} \text { MEAN CENTS/ } \\ \text { OZ } \\ \text { SE (N) } \end{gathered}$ | DIFFERENCE <br> IN CENTS ${ }^{1}$ |
| TAXED BEVERAGES |  |  |  |  |  |  |
| SODA | $\begin{gathered} 8.9 \\ 0.086(856) \end{gathered}$ | $\begin{gathered} 8.8 \\ 0.10(897) \end{gathered}$ | 0.10 | $\begin{gathered} 9.2 \\ 0.088 \text { (853) } \end{gathered}$ | $\begin{gathered} 9.2 \\ 0.099(897) \end{gathered}$ | -0.037 |
| SPORTS BEVERAGES | $\begin{gathered} 6.4 \\ 0.13(375) \end{gathered}$ | $\begin{gathered} 6.5 \\ 0.14(354) \end{gathered}$ | -0.045 | $\begin{gathered} 7.1 \\ 0.12(372) \end{gathered}$ | $\begin{gathered} 7.1 \\ 0.12(354) \end{gathered}$ | 0.0080 |
| ENERGY BEVERAGES | $\begin{gathered} 21 \\ 0.31(490) \end{gathered}$ | $\begin{gathered} 20 \\ 0.28(562) \end{gathered}$ | 1.3 | $\begin{gathered} 23 \\ 0.30(484) \end{gathered}$ | $\begin{gathered} 22 \\ 0.28(561) \end{gathered}$ | 0.70 |
| JUICE BEVERAGES | $\begin{gathered} 13 \\ 0.31(124) \end{gathered}$ | $\begin{gathered} 13 \\ 0.41(126) \end{gathered}$ | -0.23 | $\begin{gathered} 13 \\ 0.32(123) \end{gathered}$ | $\begin{gathered} 14 \\ 0.41(126) \end{gathered}$ | -0.65 |
| COFFEE \& TEA, BOTTLED | $\begin{gathered} 6.9 \\ 0.23(201) \end{gathered}$ | $\begin{gathered} 6.8 \\ 0.21(204) \end{gathered}$ | 0.14 | $\begin{gathered} 7.2 \\ 0.23(201) \end{gathered}$ | $\begin{gathered} 7.3 \\ 0.22(204) \end{gathered}$ | -0.096 |
| COFFEE \& TEA, PREPARED | $\begin{gathered} 23 \\ 0.72(8) \end{gathered}$ | $\begin{gathered} 20 \\ 1.6(2) \end{gathered}$ | 2.4 | $\begin{gathered} 23 \\ 0.72(8) \end{gathered}$ | $\begin{gathered} 20 \\ 1.6(2) \end{gathered}$ | 2.4 |
| NON-TAXED SUGAR-FREE BEVERAGES |  |  |  |  |  |  |
| DIET SODA | $\begin{gathered} 8.8 \\ 0.076(555) \end{gathered}$ | $\begin{gathered} 8.6 \\ 0.079(508) \end{gathered}$ | 0.23 | $\begin{gathered} 9.2 \\ 0.072 \text { (554) } \end{gathered}$ | $\begin{gathered} 9.9 \\ 0.53(508) \end{gathered}$ | -0.72 |
| DIET SPORTS BEVERAGES | $\begin{gathered} 5.7 \\ 0.19(165) \end{gathered}$ | $\begin{gathered} 5.0 \\ 0.22 \text { (117) } \end{gathered}$ | 0.70 | $\begin{gathered} 6.7 \\ 0.17(165) \end{gathered}$ | $\begin{gathered} 6.1 \\ 0.21(116) \end{gathered}$ | 0.58 |
| DIET ENERGY BEVERAGES | $\begin{gathered} 22 \\ 0.43(416) \end{gathered}$ | $\begin{gathered} 20 \\ 0.29(489) \end{gathered}$ | 1.6 | $\begin{gathered} 23 \\ 0.42(410) \end{gathered}$ | $\begin{gathered} 22 \\ 0.29(488) \end{gathered}$ | 0.96 |
| 100\% JUICE | $\begin{gathered} 14 \\ 0.20(120) \end{gathered}$ | $\begin{gathered} 14 \\ 0.21(146) \end{gathered}$ | 0.22 | $\begin{gathered} 14 \\ 0.19(119) \end{gathered}$ | $\begin{gathered} 14 \\ 0.18(146) \end{gathered}$ | -0.097 |
| MILK | $\begin{gathered} 23 \\ 1.8(11) \end{gathered}$ | $\begin{gathered} 22 \\ 1.1(20) \end{gathered}$ | 0.90 | $\begin{gathered} 23 \\ 1.8(11) \end{gathered}$ | $\begin{gathered} 22 \\ 1.1(20) \end{gathered}$ | 0.90 |
| POWDERED SUGAR-FREE BEVERAGES ${ }^{2}$ | --- | --- | --- | --- | --- | --- |
| WATER | $\begin{gathered} 7.2 \\ 0.14(295) \end{gathered}$ | $\begin{gathered} 7.3 \\ 0.15(318) \end{gathered}$ | -0.017 | $\begin{gathered} 7.4 \\ 0.14(292) \end{gathered}$ | $\begin{gathered} 7.4 \\ 0.16(318) \end{gathered}$ | 0.056 |


| COFFEE \& TEA, BOTTLED | $\begin{gathered} 8.8 \\ 0.27(113) \end{gathered}$ | $\begin{gathered} 9.1 \\ 0.22(98) \end{gathered}$ | -0.27 | $\begin{gathered} 9.2 \\ 0.26(113) \end{gathered}$ | $\begin{gathered} 9.8 \\ 0.19(98) \end{gathered}$ | -0.66 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COFFEE \& TEA, PREPARED | $\begin{gathered} 27 \\ 0.88(81) \end{gathered}$ | $\begin{gathered} 26 \\ 0.66(72) \end{gathered}$ | 1.3 | $\begin{gathered} 27 \\ 0.88(81) \end{gathered}$ | $\begin{gathered} 26 \\ 0.66(72) \end{gathered}$ | 1.3 |
| NON-TAXED SUGAR-ADDED BEVERAGES |  |  |  |  |  |  |
| CHOCOLATE MILK | $\begin{gathered} 15 \\ 0.77(90) \end{gathered}$ | $\begin{gathered} 15 \\ 0.38(109) \end{gathered}$ | 0.75 | $\begin{gathered} 16 \\ 0.75(90) \end{gathered}$ | $\begin{gathered} 15 \\ 0.36(108) \end{gathered}$ | 0.81 |
| POWDERED SUGAR-ADDED BEVERAGES ${ }^{2}$ | --- | --- | --- | --- | --- | --- |
| COFFEE \& TEA, BOTTLED | $\begin{gathered} 22 \\ 0.32(128) \end{gathered}$ | $\begin{gathered} 20 \\ 0.35(120) \end{gathered}$ | 1.9 | $\begin{gathered} 23 \\ 0.29(127) \end{gathered}$ | $\begin{gathered} 22 \\ 0.25(120) \end{gathered}$ | 0.45 |
| COFFEE \& TEA, PREPARED | $\begin{gathered} 32 \\ 1.0(51) \end{gathered}$ | $\begin{gathered} 30 \\ 0.45(53) \end{gathered}$ | 2.6 | $\begin{gathered} 32 \\ 1.0(51) \end{gathered}$ | $\begin{gathered} 30 \\ 0.45(53) \end{gathered}$ | 2.6 |

${ }^{1}$ A negative price differences indicates the comparison area price is higher than the city of Seattle price 2 "-" indicate no beverage items observed in that category


[^0]:    Figure 1

[^1]:    ${ }^{1}$ For each beverage listed, we measured the pricing and availability of multiple packaging sizes (e.g., 12oz cans, 20oz bottles, 1 liter bottles, 12 packs of $120 z$ cans)

[^2]:    ${ }^{1}$ The lowest price takes the lowest available price from the day of the survey for each beverage; if the beverage was on sale, then the sale price is included in the lowest price; if the beverage was not on sale, then the regular price is included in the lowest price.
    ${ }^{2}$ A negative price difference indicates the comparison area price is higher than the City of Seattle price
    ${ }^{3}$ Gatorade G2, a diet sports beverage, is the one beverage in this category that does have added-sugar. Gatorade G2 is not taxed because it is below the tax's calorie threshold.
    ${ }^{4}$ Note that many of the sweetened coffees and teas are primary ingredient milk and therefore not taxed.

[^3]:    Note. Values are percentages when indicated or mean values (standard error). *There is variability in sample size based on refusal to answer or other missing; **The categories within race/ethnicity are mutually exclusive so each child is represented only once; Hispanic/Latinx ethnicity was considered first and if affirmative the child's race was not included in the race tabulation; ***All families needed to report being <312\% Federal Poverty level for household size (level at which families qualify for Apple Health child health insurance) on the screening questionnaire to be included in the sample.

[^4]:    ${ }^{1}$ The SBT evaluation project budget memo submitted 9/27/2017 to Council placed this component under "assessment of process of implementing the tax." Because we collect data from adults both about consumption and perception about sugary beverage we consider this component a part of studying the SBT Ordinance objective on the SBT impact on health behaviors.

[^5]:    ${ }^{2}$ We reviewed questions from the following sources: Communities Putting Prevention to Work in Seattle-King County; intercept survey in Berkeley, CA (Falbe et al); survey in Philadelphia, PA (Bleich et al); UC Berkeley Youth Beverage Survey; Niederdeppe et al 2014; Gollust et al. 2014; Gollust et al. 2017 and prior polls, including: Seattle 2017 and 2014, Vermont 2011, Berkeley 2013, El Monte 2012, DC 2010, Philadelphia 2010, Minnesota 2009, California 2010.

[^6]:    ${ }^{3}$ Centers for Disease Control and Prevention (2017). Get the Facts: Sugar-Sweetened Beverages and Consumption. https://www.cdc.gov/nutrition/data-statistics/sugar-sweetened-beverages-intake.html (accessed March 29, 2018).
    ${ }^{4}$ The Federal Poverty Level is based on household-level income and number of people residing in the household and is the minimum level of income deemed adequate to cover essential resources.
    ${ }^{5} 46 \%$ (Seattle) and 48\% (comparison area) are unweighted percentages, unlike the remainder of percentages presented in this chapter.
    ${ }^{6}$ The percent of participants in our comparison areas was as follows: 53\% resided in Minneapolis Minnesota, 21\% resided in Rockville, Maryland, $7 \%$ resided in Bethesda, Maryland, and 19\% resided in Arlington, Virginia. Therefore, the prevalence of non-Hispanic Blacks (for example) was multiplied as follows: 0.53 for Minneapolis, 0.21 for Rockville, 0.07 for Bethesda, and 0.19 for Arlington so that the derived weight sums to $100 \%$ and is a weighted average based on the prevalence of the characteristic in the ACS and the number of individuals from each area in our data.

[^7]:    ${ }^{8}$ Centers for Disease Control and Prevention (2017). Get the Facts: Sugar-Sweetened Beverages and Consumption. https://www.cdc.gov/nutrition/data-statistics/sugar-sweetened-beverages-intake.html (accessed March 29, 2018).
    ${ }^{9}$ These national-level data are collected through an in-person 24 -hour dietary recall interview, which covers dietary intake during the day ( 24 hours, midnight to midnight), using the USDA Multiple-Pass Method (MPM). On the contrary, our survey queries respondents on their sugary beverage consumption during the last 30-days, similar to the Behavioral Risk Factor Surveillance System. Thus, these are not the same methods of dietary data collection and we would expect some differences due to reporting method. However, differences in the data collection method would not likely account for a 30-percentage point different in sugary beverage consumption between our participants and the national-level data.

[^8]:    ${ }^{10}$ Centers for Disease Control and Prevention (2017). Get the Facts: Sugar-Sweetened Beverages and Consumption. https://www.cdc.gov/nutrition/data-statistics/sugar-sweetened-beverages-intake.html (accessed March 29, 2018). As described above the national-level data are collected through an in-person 24 -hour dietary recall interview and our survey queries respondents on their sugary beverage consumption during the last 30-days. However, differences in the data collection method would not likely account for a 30-percentage point different in sugary beverage consumption between our participants and the national-level data.

[^9]:    ,

[^10]:    

[^11]:    ()

