

A summary of results from the six-month Sweetened Beverage Tax store survey, and the healthy food availability and food bank network study

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Overview of this report:

The purpose of this report is to summarize and share an overview of results of two key studies with the Seattle community, including those who participated in and supported this research. The two key studies included here are:

- ❖ The 6 Month Store Audits, Evaluation of Seattle’s Sweetened Beverage Tax
- ❖ The Healthy Food Availability and Food Bank Network Report

In 2018, University of Washington and Public Health Seattle and King County researchers conducted these studies with the goals of understanding:

- 1) How the City of Seattle’s Sweetened Beverage Tax effects the price of beverages in stores
- 2) What the availability and price of healthy foods looks like in Seattle neighborhoods
- 3) Who in the City of Seattle may be experiencing insufficient access to food
- 4) What the needs are of the Seattle food banks

To do this, researchers visited and surveyed approximately 200 stores in Seattle to gather information about what beverages are for sale and how much they cost, and what healthy food items are for sale and how much they cost. Researchers also surveyed and interviewed food bank staff and food bank clients, and used survey data that already existed about who in the city does and does not have sufficient access to food.

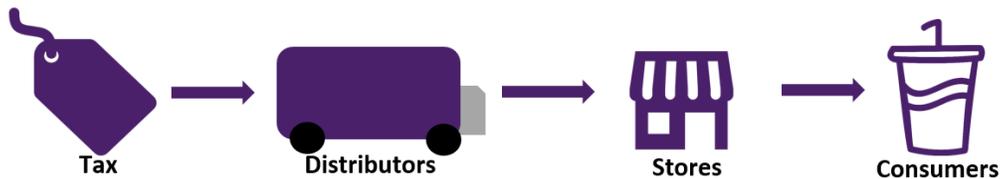
We report these same results in greater depth here:

- [6 Month Report: Store Audits. The Evaluation of Seattle’s Sweetened Beverage Tax. \(January 2019\)](#)
- [Healthy Food Availability & Food Bank Network Report. \(February 2019\)](#)

Frequently asked questions about the Sweetened Beverage Tax

What is the Sweetened Beverage Tax?

As of January 1, 2018, there is a tax on sugar-sweetened beverage products distributed within Seattle. The Sweetened Beverage Tax is not a sales tax charged directly on consumers. Instead, this tax makes distributors pay a tax on sugar-sweetened beverage products they distribute within the City of Seattle. Because it is the distributor who directly pays the tax on the beverages to the City of Seattle, the distributor can make the choice to pass the tax on to stores by raising the prices of products that they sell to stores. As the price that stores pay for the beverages go up, stores can also choose to pass this increased cost on to the consumers who buy the beverages. The tax rate is 1.75 cents per ounce on sugary beverages.



What types of beverages are subject to the Sweetened Beverage Tax?

This table lists the types of beverages that are taxed by the Sweetened Beverage Tax:

Taxed Beverages	Non-taxed Beverages
Regular sodas	Diet drinks
Energy and sport drinks	Bottled water
Fruit drinks	100% juice
Sweetened waters	Milk (including soy, rice, almond, coconut)
Pre-sweetened coffees and teas	Beverages for medical use
Syrups and concentrates used to make sugary drinks in coffee shops, restaurants and fast food	Infant or baby formula
	Alcoholic beverages

Why did Seattle pass this tax?

Research has shown that sugary drinks can be bad for health. Sugary drinks can lead to type 2 diabetes, heart disease and stroke, weight gain, and tooth decay. Taxing sugary drinks causes people to buy and drink fewer sugary drinks. It also raises tax revenue from sales on sugary beverages to help improve access to healthy food and fund programs and services for families with young children.

How is the City of Seattle using the money raised by this tax?

The money raised from this tax is paying for a range of nutrition, healthy food access, and early learning programs.

Program Categories	2018 Investment
<i>Healthy Food & Beverage Access</i> Programs that provide food, meals, or vouchers to help lower-income people buy healthy food; also includes programs that provide subsidies to schools and child care to increase servings of fruits and vegetables to children.	\$6.4 million
<i>Birth-to-Three Services</i> Programs that improve the social, emotional, educational, physical health, and mental health for children, especially those services that seek to reduce the disparities in outcomes for children and families based on race, gender, or other socioeconomic factors and to prepare children for a strong and fair start in kindergarten.	\$7.5 million
<i>Programs for good nutrition and physical activity</i> Community-based programs and activity to support good nutrition and physical activity.	\$1.2 million

Frequently asked questions about the 6-month store surveys

What is the 6-Month Store Survey?

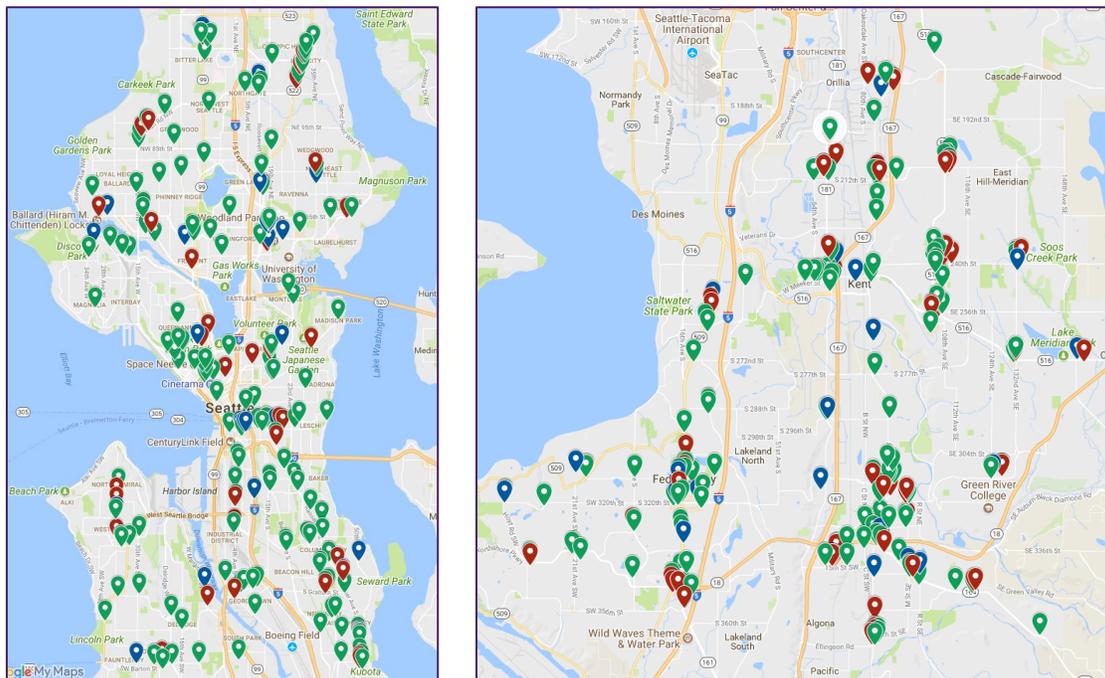
The 6-Month Store Survey is part of a three-year study to understand how much of Seattle's tax on distributors of sugary beverages is passed through to customers via higher retail prices (i.e. to understand how much stores raise prices because of the tax).

The study began just before tax went into effect and was repeated 6-months later (the 6-Month Store Survey). The survey was repeated again about 12 months after the tax was in place, and will be repeated for the last time about 24 months after the start of the tax.

How were store surveys done?

A trained research team from University of Washington traveled to over 400 stores in Seattle and a comparison area in South King County (including Federal Way, Kent, and Auburn, where there is no tax on sugary beverages) to collect information on the prices of taxed and non-taxed beverages. The team collected price information at supermarkets, grocery stores, corner stores, drug stores, gas stations, coffee shops, and counter-service restaurants.

Researchers calculated by how much more the beverage prices in Seattle increased compared to the beverage prices in Federal Way, Kent and Auburn. The beverage prices in Federal Way, Kent, and Auburn reflect the trend in price changes Seattle would have seen if the City had not passed the Sweetened Beverage Tax. These maps show all stores surveyed in Seattle (left) and Federal Way, Kent, and Auburn (right):



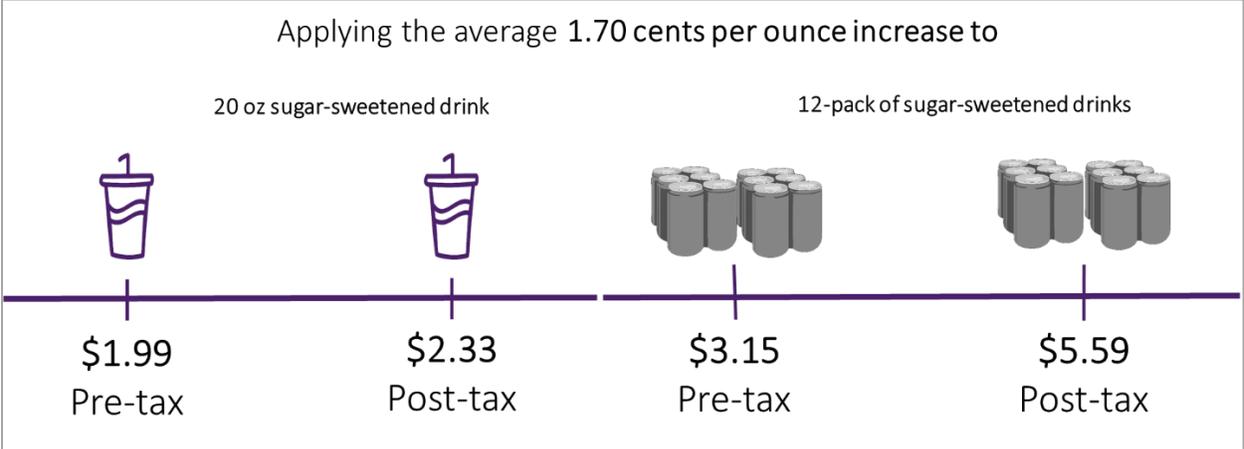
If this is a tax on sugary beverages, why are researchers also studying the prices of non-taxed beverages?

Researchers are also looking at whether the price of non-taxed beverages changed, since distributors and retailers may choose to spread the cost of the tax over a variety of products.

Sweetened Beverage Tax study results, 6-month stores surveys

What was the main finding of the 6-Month Store Survey?

This study found that, 6-months after the tax became law, distributors were raising the prices on beverages that they sold to stores in Seattle, and stores were in turn raising prices and passing the tax to consumers via higher retailer prices. On average, the “price pass-through” of the tax on sugary beverages was 1.70 cents per ounce. Since the tax rate is 1.75 cents per ounce, this amounts to a 97% price pass-through rate. For example:



Is it surprising that the prices of sugary beverages in Seattle increased because of the Sweetened Beverage Tax?

No. In response to the Sweetened Beverage Tax, we expected distributors to increase sugary beverage prices for retailers. Retailers, in turn, were expected to increase the prices of sugary beverages charged to consumers.

Did all types of sugary beverages increase in price?

In Seattle, the prices of all taxed beverages increased significantly, except for the price of sugary flavored syrup add-ons at coffee shops. Price increases were different for each sugary beverage type. For example, the average price pass-through ranged from 62% for bottled sugary coffee beverages to 111% for energy drinks. The average pass-through rate for soda was 102%.

Did the price increases of sugary beverages vary by store type?

Yes, the price increases of sugary beverages were different by store type. In the largest stores (for example, supermarkets and superstores), the average price pass-through was 86%. In smaller stores, like grocery stores, drug stores, and small stores, the average price pass through was more than 100%.

Store type	Average pass-through of taxed beverages
Supermarkets and superstores (e.g. Safeway, QFC, Target)	86% (1.50 cents per ounce)
Grocery stores (Red Apple, Viet-Wah)	104% (1.82 cents per ounce)
Drug stores (Walgreens, CVS, Rite Aid)	104% (1.82 cents per ounce)
Small stores (7-Eleven, gas stations, convenience stores)	103% (1.80 cents per ounce)

What about non-sugary beverages not subject to the tax – did these increase in price, too?

Prices of non-sugary beverages increased significantly, *but only in some store types*. For example, the price of non-taxed beverages did not increase in supermarkets and superstores. However, the price of non-taxed beverages did increase significantly in grocery stores, drug stores, and small stores. In these stores the prices of diet soda, diet energy drinks, bottled tea, and diet sports drinks increased. The price of bottled water did not increase and, in the majority of store types, neither did the price of milk.

Store type	Price increases in non-taxed beverages
Supermarkets and superstores (e.g. Safeway, QFC, Target)	None
Grocery stores (Red Apple, Viet-Wah)	0.47 cents per ounce
Drug stores (Walgreens, CVS, Rite Aid)	0.47 cents per ounce
Small stores (7-Eleven, gas stations, convenience stores)	0.77 cents per ounce

How did the owners of small stores describe their experiences with the tax after 6 months?

In addition to surveying stores for product availability and prices, researchers also conducted brief interviews with 31 storeowners, to ask them what their experience had been with the sweetened beverage tax so far, and how they were deciding to set their new prices now that the tax was in place. Researchers worked with community partners to interview store owners within the Somali-grocer community, specifically (14 of the 31 interviews were with Somali grocers).

Most storeowners reported that they had increased the prices in their stores since the tax started; two storeowners reported that their prices stayed the same. None of the storeowners reported lowering their drink prices. Below are storeowners' responses to these questions:

What has been your experience with the SBT?

Most storeowners felt that sales have decreased due to the increase in drink prices. Several stores reported that their customers are low-income, and therefore, their customers will not buy sugary beverages with higher prices. Some stores reported that it is cheaper for their customers to buy sugary beverages outside Seattle city limits since the city border is not far from the store or cheaper for their customers to buy at big box stores. Two grocer owners reported that their customers now purchase more water since the price of water is cheaper and customers know that sugary beverages are not good for their health.

- 10% (3/31) of stores reported a mixed experience with the tax
 - "For the business, it is not good. For the people, it is good because it is not healthy to drink sugary drinks." –*chain small store*
 - "In my understanding, the reason we have this tax is because of the health of the people but people won't quit drinking sugary beverages. It is the same as cigarettes. People come and buy a little less but still buy the drinks. During the summer, people buy a lot because it is got in the summer and people are dehydrated." –*small Somali grocer*
- 23% (7/31) of stores reported an indifferent experience with the SBT tax
 - "The same customers come and they don't mind the price change." –*small Somali grocer*

- “People complain but sales don't change. People keep buying the drinks.” – *chain small store*
- 68% (21/31) of stores reported a negative experience with the SBT tax
 - “Customers complain and still purchase or customers see price and leave. The border of Seattle is close so people go outside Seattle City Limits instead.” –*non-chain small store*
 - “Sales have drastically gone down. I would say sales have gone down 25-35%. Stores on border of Seattle are more drastically affected.” –*chain small store*

Where do you buy your products?

When the storeowners were asked where they purchase their drink products, all the storeowners reported that they purchase from Safeway, Costco, WinCo, Cash n Carry, and/or Restaurant Depot. Some store owners shop at these big box stores within Seattle and some shop at stores outside of Seattle where drinks are cheaper. Furthermore, some of the storeowners purchase drinks from a Coke distributor. Lastly, in order to determine the price of drinks for sale, many storeowners assess the price of the drinks based on the cost of the drinks from the big box store using the purchase receipt. The storeowners add a profit margin on top of the purchase cost. Each store utilizes a different price setting protocol, generally adding 20-50 additional cents to the purchase price of the drink as the price for sale at the Somali grocer.

- 45% (14/31) of stores reported buying only from big-box stores such as Restaurant Depot, Costco, Cash n Carry. All 14 of these stores are Somali grocers.
- 42% (13/31) of stores reported buying only from distributors such as Pepsi, Coke, McLane, and Columbia
- 13% (4/31) of stores reported buying from distributors and big-box stores. 2 of these stores were small Somali grocers.

How do you decide on the prices of your products?

Of the 14 stores that report buying from big box stores, 100% of stores report setting prices by adding on profit margins to purchase prices.

Of the 17 stores that report buying from distributors:

- 65% of stores report setting their own prices either by the individual store or the corporate franchise offices setting prices
- 29% of stores report that prices are set by the distributor
- 1 store reports that prices are set based on the influence of the distributor as well as the corporate store office

Healthy Food Availability and Food Bank Network study results

These healthy food availability and food bank network results are a resource for people and organizations interested in building equitable access to healthy food in Seattle. This results summary provides a comprehensive and updated snapshot of what access to healthy food looks like in Seattle.

We designed this assessment with input from the Sweetened Beverage Tax Community Advisory Board, the Seattle Sweetened Beverage Tax Evaluation City Review Team, and community and research experts. This assessment included five key sections:

1. What do we know about access to healthy food?

Research shows that simply improving the *availability* of healthy food has not been enough to make improvements in diet quality and health outcomes, or to close the healthy-eating gap between high- and low-income households. Our understanding of healthy food access has evolved from the original “food desert” concept (with an early and almost exclusive focus on physical distance between residents’ homes and local supermarkets) to include multiple dimensions of access including *availability*, *accessibility/convenience*, *affordability*, *acceptability*, and *accommodation*. In the Seattle area and elsewhere, research on food access has gone beyond simple measures of store proximity to consider the extent to which healthy food choices are associated with *affordability*, transportation mode (*accessibility/convenience*), type of grocery store (*accessibility/convenience*, and *accommodation*), and a variety of personal and social factors.

2. An assessment of food environments by neighborhood.

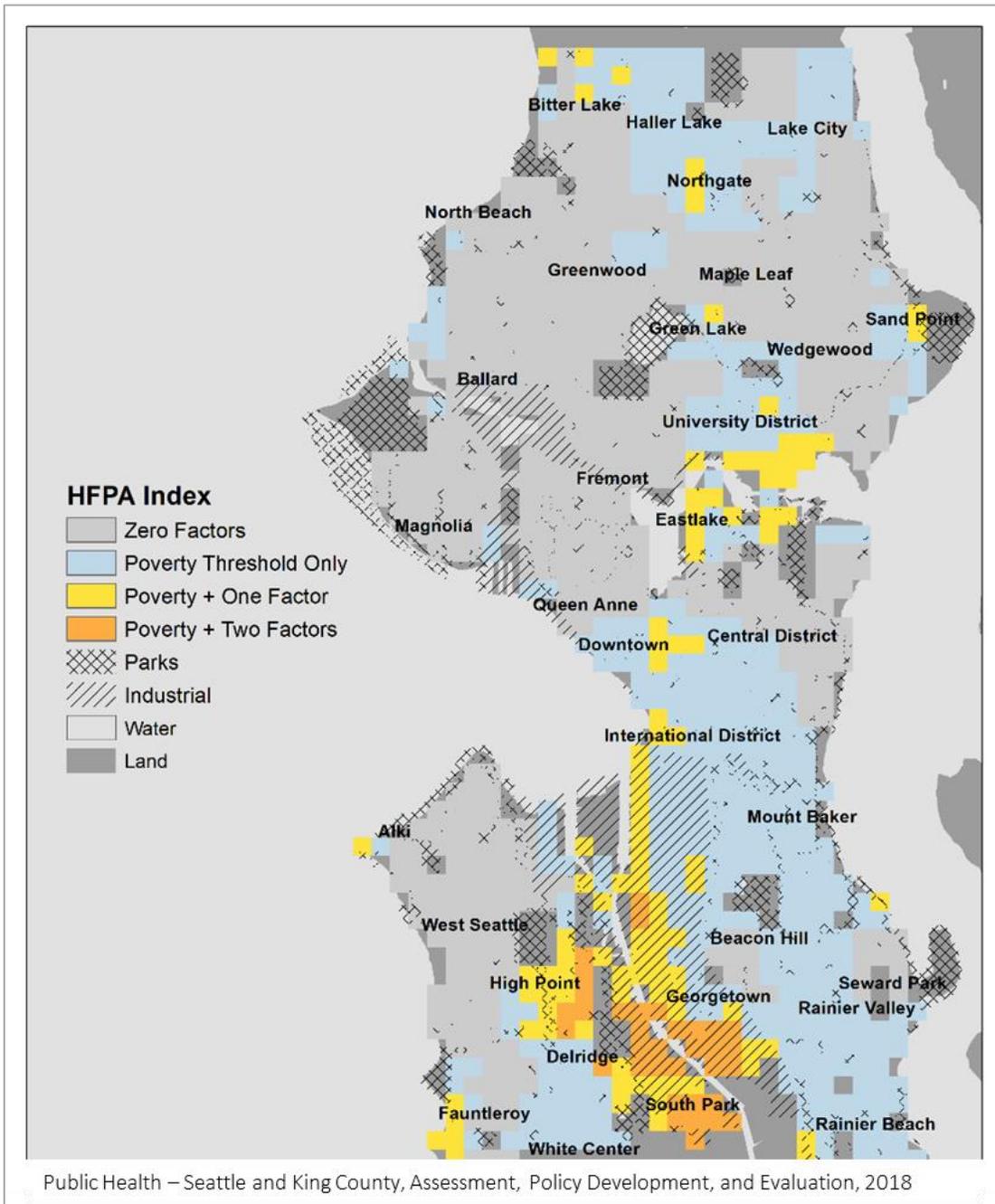
We find that healthy food priority areas (areas with limited access to healthy food) are clustered near Seattle’s southern boundary around the Duwamish waterway (including Georgetown, South Park, Delridge, and High Point neighborhoods). We also see pockets throughout Seattle including neighborhoods in the north end, where, although most of their neighbors are economically secure, low-income residents – especially those who rely on public transportation – may face challenges accessing healthy food.

While Delridge and areas in north and south Seattle are specified as food deserts according to United States Department of Agriculture, our additional analyses (not part of USDA or other research literature) show the following nuances:

- Areas with higher concentrations of poverty are located at the northern city boundary, pockets of areas around Greenwood and Sand Point, the University District, as well as from the Central District extending south into Southeast and West Seattle.
- People with longer travel times (by car, public transportation, or walking) to healthy food retailers lived in areas by water, Eastlake, the corridor around the Duwamish waterway (including Georgetown, South Park, Delridge, and High Point), and the University District.
 - Longer travel times are likely to impact lower-income households living in these areas more than wealthier households.
- One-way travel times to healthy options were almost four minutes longer for people living in areas with a profusion of food retailers selling less healthy options compared to areas with more balanced options for food (11 minutes vs. 7 minutes).
- The healthy food priority areas near the southern boundary around the Duwamish waterway (including Georgetown, South Park, Delridge, and High Point) overlapped on all three factors in our

neighborhood food environment assessment: lower income, longer travel times to healthy food retailers, and higher percentage of unhealthy food retailers. We also identified small areas across Seattle including neighborhoods in the north end, where, although most of their neighbors are economically secure, low-income residents – especially those who rely on public transportation – may face challenges in accessing healthy food.

This map shows the healthy food priority areas. In orange are the areas with the most need, followed by yellow, and then blue.

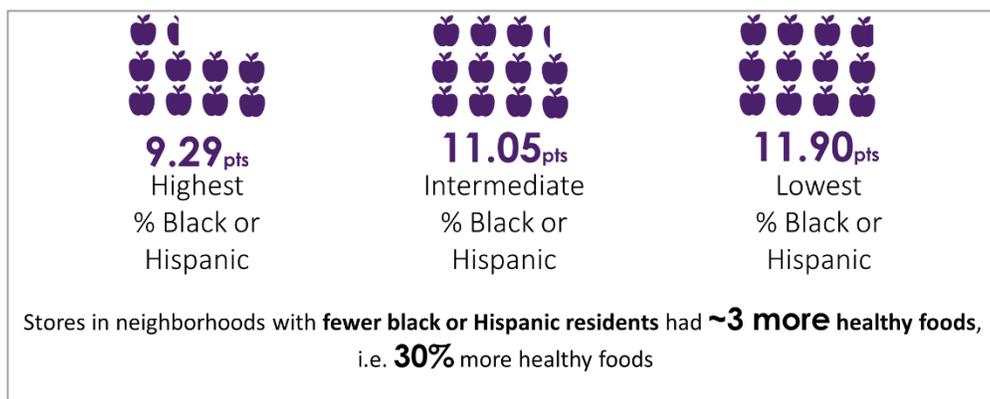


3. What is the price and availability of healthy food in Seattle stores?

We found that larger stores (warehouses, supermarkets, grocery stores) had more availability of healthy foods, compared to smaller stores (drug stores, small stores). On average, warehouses/superstores had the highest availability, followed closely by supermarkets and then grocery stores. Drug stores and small stores had a substantially less healthy food available as compared to the larger store types.

Despite carrying no fruit, vegetables, or meat, drug stores had a higher availability than small stores; this is largely due to the fact that drug stores consistently carried some eggs, beans, milk, and grains. The availability of foods in small stores ranged widely; 75% of all small stores carried milk, 69% carried grains, 56% carried fresh fruit, 50% carried proteins, and 25% carried fresh vegetables. Only one small store carried fresh meat.

Looking at price and availability differences by neighborhood, we found that lower-income neighborhoods and neighborhoods with more Black or Hispanic residents had fewer supermarkets and superstores, and more small stores, such as convenience stores. There was lower availability of healthy foods in lower-income neighborhoods and neighborhoods with more Black or Hispanic residents.



By price, the price of healthy foods tended to be lower in lower-income neighborhoods and neighborhoods with more Black or Hispanic residents. When available, protein, milk, grains, and vegetables tended to be less expensive in lower-income neighborhoods and neighborhoods with more

Black or Hispanic residents as compared to prices of these foods in neighborhoods of higher income and fewer Black or Hispanic residents. However, statistical confidence intervals around many of these estimates overlapped, indicating that the price differences are likely not statistically significant.

4. Who experiences food insecurity in Seattle, and who falls into the “food security gap”?

In Seattle, about 13% of adults experience food insecurity (not having enough money for food). Seattle families with children experienced higher rates of food insecurity, from 22% of families with young children (Best Starts for Kids Survey) to 51% of low-income families with children (Seattle Shopping and Wellness Survey).

Although rates of food insecurity differed by data source, patterns of disparity were similar across all data sources the study team examined. Food insecurity was highest among those with the lowest income and lowest educational attainment. In general, people of color experienced food insecurity at higher rates than white populations; and households in which the primary language spoken was *not* English were more likely than English-speaking households to experience food insecurity (the exception was Chinese-speaking households). Although no gender differences were found among adults or school-age children, rates of food insecurity were two times higher among individuals who identified as lesbian, gay, or bisexual (LGB) than among those who identified as heterosexual. Food insecurity increased with grade level for children in 8th, 10th, and 12th grades; and tended to be higher among young adults compared to adults in their mid-40s and older. We also found that participation in SNAP/Basic Food (government sponsored food assistance programs), and by inference food insecurity, continues to rise in Seattle for one age group – older adults. Not until 300% of the Federal Poverty Level (FPL) do we see food insecurity begin to drop to a low level for Seattle adults (an annual income of \$73,800 for a four-person family in 2017); for people of color, it is at 400% of the FPL (an annual income of \$98,400 for a four-person family in 2017). We estimated that 13,420 Seattle residents in 2017 fell into the “food security gap,” defined as residents not eligible for food assistance benefits yet lacked enough money to buy the food they needed. This estimate would be higher if it included people who, although receiving benefits, still experience food insecurity.

5. Meeting the need: what do we know about Seattle’s food bank network?

Seattle food bank survey respondents (n=25) reported distributing 22,885,225 pounds of food each year. Food banks described an increase in need, reporting more visits from older adults, homeless, and people living further north and south. Among the 60% of food bank respondents who reported a rise in visits over the last year, 39% reported their funding remained the same or was reduced. To keep up with demand, 65% of food bank respondents reported having to reduce the variety and 41% had to reduce the amount of food offered to each client. A majority (68%) of food banks reported having less than 10% of their budget for direct food purchases. Clients of food banks expressed the desire for consistent access to quality food such as fresh produce and proteins, and emphasized the importance of maintaining a sense of dignity at the food bank such as by creating experiences that replicate those at a grocery store. Food banks’ reported hours of distribution revealed limited hours over the weekend and evenings, which may signal an additional gap in access. To more effectively serve clients, staff emphasized addressing operational needs such as sufficient staffing and space, more purchasing power, and investments in coordinated mobile systems to support procurement and delivery.

FULL REPORT RESULTS (in English)

[6 Month Report: Store Audits. The Evaluation of Seattle’s Sweetened Beverage Tax. \(January 2019\)](#)

[Healthy Food Availability & Food Bank Network Report. \(February 2019\)](#)

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