

The Evaluation of Seattle's Sweetened Beverage Tax
Frequently Asked Questions (FAQ) about the Impact of the Tax on Norms and Attitudes
8/20/2021

For detailed results from the study of the impact of the tax on norms and attitudes, please refer to the full report on the Office of City Auditor website:

<https://www.seattle.gov/cityauditor/reports#2021>

STUDY BACKGROUND

What is the Seattle Sweetened Beverage Tax norms and attitudes study?

The norms and attitudes study is a component of the City of Seattle's evaluation of the Sweetened Beverage Tax, conducted by researchers at the University of Washington, Public Health – Seattle & King County, and Seattle Children's Research Institute.

The purpose of this study is to understand what Seattle-area adults think about Seattle's Sweetened Beverage Tax and sugary beverages, and how those thoughts may have changed over the course of two years. This new report provides follow-up data to what we learned about norms and attitudes found at baseline, before implementation of the Sweetened Beverage Tax.

The 2018 baseline report is available online at:

<http://www.seattle.gov/Documents/Departments/CityAuditor/auditreports/SBTBaselineReport.pdf>

Who was surveyed as part of this study? (Table 1 of report)

We surveyed adults living in Seattle as well as adults living in comparison areas (over the phone or online) a few months before the new tax was implemented, and then again nearly two years after the Sweetened Beverage Tax was implemented (October-December 2017, and September-November 2019; the tax was implemented on January 1, 2018).

We chose Minneapolis, Minnesota, and three smaller cities in the Washington D.C. metro area to serve as our comparison areas. These cities **do not** have sugary drink taxes and are similar to Seattle in demographics, including income, race and ethnicity, education levels, and political leanings. Comparing the changes of opinions, habits, and behaviors of Seattle residents to residents in these similar areas without a sugary drink tax allowed us to identify which changes were related to the tax versus which changes may be more universal.

We conducted a repeated cross-sectional survey (meaning we surveyed different people at each time point) and included approximately 2,800 adults in total. We included individuals with both higher and lower incomes so that we could look at how the impact of the tax may have varied by household income level.

What did this study measure, or assess?

This study measured changes in sugary beverage tax-related norms and attitudes through two different methods described below. Both methods assess differences between Seattle residents and residents in the comparison areas to help isolate the effect of the tax.

Method 1: Measuring **differences in change over time** for Seattle versus the comparison areas to assess the impact of the Sweetened Beverage Tax on Seattle adult residents’:

- (1) attitudes and perceptions about the tax,
- (2) knowledge and attitudes about the healthfulness of sugary beverages, and
- (3) consumption of sugary beverages.

We did this by asking individuals in Seattle and the comparison areas questions on these topics in our baseline survey before the tax, as well as two years after the tax.

Method 2: Measuring **difference at one point-in-time, two-years after the tax** in Seattle compared to the comparison areas to assess:

- (1) perceived changes in sugary beverage consumption and reasons for those changes,
- (2) exposure to positive and negative media about the tax,
- (3) views regarding the use of tax revenue, and
- (4) perceptions about whether the tax is more burdensome for lower income populations.

We did this by asking individuals in Seattle and the comparison areas questions on these topics two years after the tax went into effect (these items were not measured in the baseline (pre-tax) survey).

STUDY RESULTS

We found notable differences over time between individuals with higher incomes and individuals with lower incomes in how they perceived the impacts of the tax, and their beliefs about sugary drinks.

- Specifically, our primary findings include that, two years after the tax:
 - Seattle residents with lower incomes largely did not change how they felt about the economic impacts of the tax. In contrast, the views about the economic impacts of the tax among Seattle residents with higher incomes became more negative two years after the tax.
 - Seattle residents with lower incomes had increasingly negative perceptions of the healthfulness of sugary beverages, with larger numbers believing that sugary beverages increase risk for chronic diseases. In contrast, higher income individuals in Seattle had no statistically significant change in their knowledge or beliefs about the health impacts of sugary beverages over the two years.
 - Among both higher and lower income Seattle residents, more people endorsed the idea that they would or do cross the Seattle border to shop for sugary beverages.

The rest of the FAQ describes in more detail the results by study method and research question.

Method 1: Measuring differences in perceptions, attitudes, and behaviors over time

This part of the study used a rigorous method called “difference-in-differences” to compare changes over time for adults in Seattle to changes over the same period of time for adults in the comparison areas. In this method, percentage points are used to indicate the degree of change among Seattle residents that is above and beyond the change assessed in the comparison areas.

How did overall support for the Sweetened Beverage Tax change over time? (Table 2 of report)

We found that most Seattle adults (90%) had heard of the tax, and that living with the tax over a two-year period did not impact overall support for the tax.

Specifically, we found no statistically significant change in the overall support for the tax among Seattle adults, after two years of living with the tax. Specifically, the percent of Seattle adults supporting the tax did decline from 60% to 58%, but there was a similar decline in support for sugary beverage taxes in the comparison areas, which points to a potential national trend in attitudes rather than an effect of living with the tax. Also, when looking at higher and lower income populations separately, neither group experienced a statistically significant change in the proportion who supported the tax after accounting for changes in the comparison areas.

How did beliefs about the impacts of the tax on the public’s health change over time? (Table 2 of report)

We found no statistically significant change in the perceived impact of the tax on the public’s health or child well-being in either the lower or higher income group in Seattle after accounting for the change in the comparison areas.

How did beliefs about the economic impacts of the tax change over time? (Table 2 of report)

The views about the impact of the tax on economic outcomes, such as on the economy in general, family finances, small business, or job loss, were fairly different according to household income level:

Seattle residents with lower incomes largely did not change how they felt about the economic impacts of the tax; there were no statistically significant changes in the proportion of the population who thought the Sweetened Beverage Tax would be bad for the economy, would negatively impact small businesses, would result in job loss, or would affect family finances. (See Table 2 of report.) Among Seattleites with lower incomes, the only attitude/behavior that changed significantly was cross-border shopping, with more who said they would cross the city border to shop for sugary beverages (+11 percentage points).

In contrast, the views about the impact of the tax among Seattle residents with higher incomes became more negative two years after the tax. These results were statistically significant compared to the change in beliefs among higher income adults in the comparison areas. Specifically, there were statistically significant changes in the proportion of higher income Seattle residents who believed the tax would negatively impact small businesses (+17 percentage points) and that the tax

would negatively impact family finances (+13 percentage points), as compared to higher income residents in the comparison areas.

Similar to the lower income group, more Seattle residents with higher income also endorsed the idea that they would or do shop across the border for sweetened beverages (+7.3 percentage points).

How did Seattle's Sweetened Beverage Tax affect resident's knowledge of the health impacts of sugary beverages? (Table 3 of report)

Two years after the Sweetened Beverage Tax was implemented, more Seattle residents with lower incomes believed that sugary beverages increase risk for chronic diseases (compared to changes among lower income adults in the comparison areas). Specifically, there was a statistically significant net increase of +7 percentage points of those who agreed that sugary beverages increase risk for diabetes, +8 percentage points for heart disease, +9 percentage points for dental problems, +14 percentage points for sugary beverages on health in general, and +15 percentage points for added sugar in general

There was also evidence that suggested lower income Seattle residents reduced their consumption of sugary beverages. Specifically, the proportion of adults who were high consumers of sugary beverages (>1 time per day) decreased in Seattle above and beyond changes in the comparison areas (-16.9 percentage points).

Many of these statistically significant differences in changes over time were the result of small improvements among people with lower incomes in Seattle compared to unexpected substantial worsening of the same outcomes among people with lower incomes in the comparison areas. For example, the proportion of high consumers decreased by 1.9 percentage points among Seattle respondents with lower incomes but increased by 15 percentage points among respondents in the comparison areas with lower incomes. For this reason, we consider the findings as *suggestive evidence* rather than *strong evidence* of decreased consumption and increased perceptions that sugary beverages are unhealthy.

Higher income individuals in Seattle had no statistically significant change in their knowledge or beliefs about the health impacts of sugary beverages over the two years, nor in the proportion who were high consumers of sugary beverages.

Method 2: Measuring point-in-time differences in perceptions of the tax and its revenues

The results presented in this section compare the perceptions of Seattle residents two years after the tax was passed to perceptions of residents in the comparison areas at the same point in time. Since the comparison areas have similar demographics to Seattle but do not have a sugary beverage tax, measuring their perceptions versus Seattle perceptions allows us to describe what norms and attitudes are associated with the tax and which may be influenced by other factors. However, for the questions in this section, we did not have pre-tax data.

Were Seattle respondents exposed to the tax, and any media about the tax? (Tables 5 and 6 of report)

More than 90% of those in Seattle had heard of the Sweetened Beverage Tax. Among those who had heard of the tax, 28% reported hearing or seeing positive media related to sugary beverage taxes, and 47% reported hearing or seeing negative media related to the tax. This suggests that negative press coverage and anti-tax coverage was more prevalent or more salient in Seattle than pro-tax coverage.

Lower income individuals (compared to higher income individuals), saw both more negative *and* more positive media about the tax – 32% of lower income individuals compared to 22% of higher income individuals saw, heard, or read something positive about the tax, and 50% compared to 43% saw, heard or read something negative about the tax.

Did respondents agree with the tax revenue priorities set by the ordinance and Seattle’s Sweetened Beverage Tax Community Advisory Board? (Table 7 of report)

The majority of respondents in Seattle (84%) and the comparison areas (79%) agreed with using sugary beverage tax revenues to improve food access as well as to expand services and support for young children. Those priorities generally align with the priorities included in the ordinance that established the tax and the priorities of the Sweetened Beverage Tax Community Advisory Board that advises and makes recommendations about revenue allocation.

Did respondents perceive the tax to be more burdensome for people with lower incomes? (Table 8 of report)

A tax is considered regressive if people with lower incomes bear more of the tax burden than people with higher incomes. Since this is often a concern raised about sugary beverage taxes, our study included a question about perceived regressive impacts of the tax. A majority thought that the tax would be more burdensome for people with low-incomes or people of color (76% in Seattle and 73% in the comparison areas). At the same time, in considering the burden of taxes, tax design experts now are beginning to consider whether “sin taxes” also offer greater health benefits for those who may be more financially burdened by the tax. In this survey, about half of individuals surveyed (49% in Seattle and 51% in the comparison areas) perceived that sugary beverage taxes will improve health and well-being and improve access to affordable healthy food for people with low-income and people of color in Seattle. Results were similar by income.

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