

Economist finds soda taxes aren't as regressive as previously feared and are effective

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The idea to place a "sin tax" on sugar-saturated drinks, such as soda, to combat ballooning obesity rates really took off in the 2010s.

European countries such as Finland and France placed taxes on the purchase of sugar-sweetened beverages, or SSBs, early in the decade. And in 2014, the city of Berkeley, California, became the first U.S. locality to levy a tax on SSBs. Six U.S. cities and dozens of jurisdictions around the world followed suit.

The theory behind such taxation is that higher prices will reduce consumption and yield health improvements given well-established links between SSBs and obesity, which has been found to contribute to weight gain, Type 2 diabetes, [heart disease](#), kidney diseases, non-alcoholic liver disease, tooth decay and gout.

But because the concept was relatively new, there was no research on whether soda taxes were actually making people healthier by, for example, reducing obesity or the incidence of Type 2 diabetes.

"There seems to be the potential for clear public health benefits," says James Flynn, a graduate student in the Department of Economics at the University of Colorado Boulder. "But there have been concerns about this being a regressive tax on lower-income people, a lot of whom are people of color."

Flynn was pursuing his master's degree in economics at Drexel University in Philadelphia when that city enacted its "[soda tax](#)." When he investigated the research on such taxes, he noticed that "none of them really answered the most important question: Are they actually making people healthier?"

So, he decided to search for an answer. Using what he calls "quasi-experimental methods," he crunched data from the U.S. government's semi-annual Youth Risk Behavioral Surveillance System from three cities with soda taxes—Philadelphia, San Francisco and Oakland, California—as well as control cities with no soda tax, and compared

those data to reported [body-mass index](#), or BMI, findings in the survey (Philadelphia was the only one of the three cities that had collected data about soda consumption).

"I tracked BMI from high school students. (BMI) is not a great measure and has problems, but I wanted to see if (taxes) resulted in changes, and I think it's safe to say (BMI) is a fair proxy for public-health improvements," he says.

His findings were published in September in the journal *Health Economics*.

"I find reductions in soda consumption in Philadelphia and average body mass index in Philadelphia, San Francisco and Oakland, with suggestive evidence that the improvements are concentrated among female and non-white respondents in both cases," he concludes in his research.

The declines in BMI were greatest among non-white females with higher BMI scores. The data for males, Flynn says, were "a little bit noisier, so it's hard to make a strong conclusion."

Still, his analysis suggests several important conclusions, he says,

- Soda taxes help decrease consumption;
- They are not as regressive as feared; and
- His study points the way to studying the effect of soda taxes on such health concerns as diabetes and high blood pressure.

"Of course, this is just one paper, from one dataset, and I don't want to overreach. But it does suggest there are some benefits being created (by soda taxes) that [policy makers](#) can use," Flynn says.

Flynn, who will graduate with his Ph.D. in economics in spring 2023,

describes himself as an "applied microeconomist" who focuses on health and labor, particularly the efficacy of public policy interventions.

More information: James Flynn, Do sugar-sweetened beverage taxes improve public health for high school aged adolescents? *Health Economics* (2022). [DOI: 10.1002/hec.4609](https://doi.org/10.1002/hec.4609)

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