



bridging the gap

Research Informing Policies & Practices
for Healthy Youth

Research Brief
August 2014

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School Vending Machine Policies & Student Dietary Behaviors

Introduction

The objective of this study was to find out if the effect of vending machines in schools on students' soda and fast food consumption was influenced by state taxes and other policies. The study used Spring 2010 data from the National Youth Physical Activity and Nutrition Study (NYPANS) of the Centers

for Disease Control and Prevention (CDC). For this study, having vending machines meant students could use them to purchase soda or pop, sports drinks, or fruit drinks that are not 100% juice. The final study sample included 8245 students in 27 states.

Key Findings

- This study focused on only one part of the school food environment (removing vending machines) to explore how its effects depend on other policies, including factors outside the school. This was done to help explain why some policy initiatives, like removing vending machines, have been less successful than others.
- Students actually drank more soda if they did not have access to vending machines in school, but only if their state allowed soda to be sold in other school venues, such as cafeterias or school stores.
- Not having vending machines had less impact on students' soda consumption as state tax rates for soda increased.
- Fast food consumption among students was also higher when schools removed vending machines, but as state sales tax rates for restaurant food increased, this difference became progressively smaller.
- Other studies have shown that long-term, comprehensive changes in school food policies, including strengthening school meal standards, can lead to improvements in students' diets or weight status. This study is an example of how one isolated change, like removing vending machines from schools, can have an unintended effect. In order to reduce soda consumption, which is one of the biggest sources of calories in teen diets, we need to do more than just remove vending machines from schools.

This research brief is based on a study supported by Bridging the Gap. Study results were published in *PLOS ONE* in August 2014, "How state taxes and policies targeting soda consumption modify the association between school vending machines and student dietary behaviors: a cross-sectional analysis," by Daniel R. Taber, PhD, University of Texas Health Science Center at Houston; Jamie F. Chiqui, PhD, University of Illinois at Chicago (UIC); Renee Vuillaume, BA, Harvard University; Frank J. Chaloupka, PhD, UIC.



Bridging the Gap is a nationally recognized research program of the Robert Wood Johnson Foundation dedicated to improving the understanding of how policies and environmental factors affect diet, physical activity and obesity among youth, as well as youth tobacco use. For more information, visit www.bridgingthegapresearch.org and follow us on Twitter: [@BTGresearch](https://twitter.com/BTGresearch).

Suggested Citation: Taber D, Chiqui JF, Vuillaume R, Chaloupka FJ. School Vending Machine Policies & Student Dietary Behaviors. A BTG Research Brief. Chicago, IL: Bridging the Gap; 2014.