



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Measuring Food Price Differentials Between Small and Large Retailers

Joseph T. Llobrera
Food Policy and Applied Nutrition Program
Friedman School of Nutrition Science and Policy
Tufts University
Joseph.Llobrera@tufts.edu

Selected Poster prepared for presentation at the Agricultural & Applied Economics Association's 2013 AAEA & CAES Joint Annual Meeting, Washington, DC, August 4-6, 2013.

Copyright 2013 by Joseph T. Llobrera. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided this copyright notice appears on all such copies.

Measuring Food Price Differentials Between Small and Large Retailers

Joseph T. Llobrera

Friedman School of Nutrition Science and Policy, Tufts University, Boston MA 02111

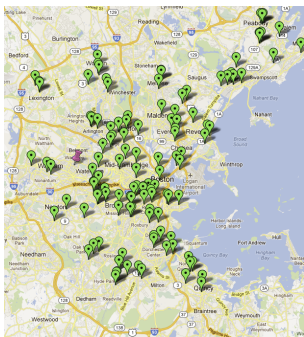
Introduction

- There is evidence that food prices are higher at small food stores, potentially contributing to disparities in access to healthful food, especially in urban areas^{1,2,3}.
- Meanwhile, recent policy initiatives seek to partner with small food stores to improve the selection of more healthful foods in urban neighborhoods.
- There is a need to systematically measure differences in food availability and price between small and large food stores⁴.



Research Objectives

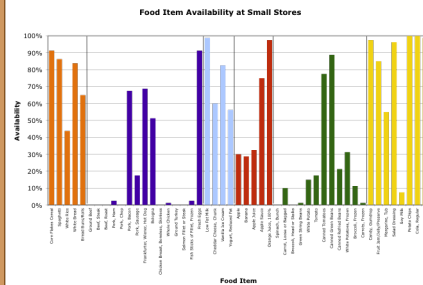
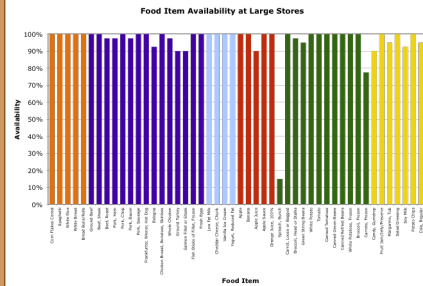
- Provide empirical evidence of differences in food availability and prices between small and large food retailers in the Boston metropolitan area.
- Improve on existing methods of community food price survey research through:
 - systematic research design ensuring representativeness of sampled geographic areas, retailers, and food items;
 - novel methods for handling variability in food item availability and missing price information;
 - use of price information on the lowest priced product and the product with the most shelf space.



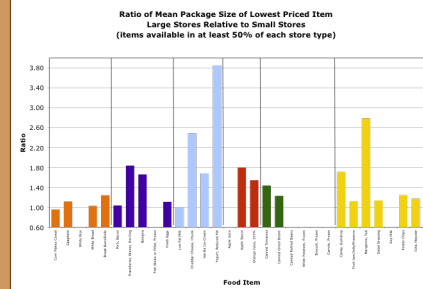
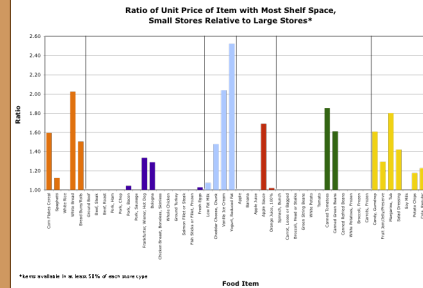
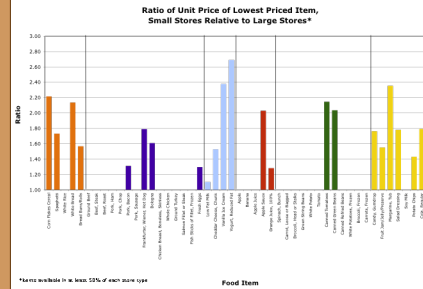
Method

- Adopted method used by the Bureau of Labor Statistics (BLS) to measure food prices, with modifications to make methods more accessible to individuals and community groups with limited time and financial resources.
- PSU areas: 40 out of 464 census tracts sampled using probability proportional to population size.
- Stores: matching sample of triplets (1 supermarket, 2 small retailers) within 1 mile of population-weighted tract centroid to represent the food retail environment in each PSU.
- Food items: adopted BLS methods to generate a set of 49 food items that are representative of US food spending and consumption patterns and provide sufficient coverage and detail on important categories of food at home spending, without making data collection excessively burdensome.

Results: Food Item Availability



Results: Food Item Prices



Conclusion and Discussion

- For most food items, availability was significantly lower at small stores compared to large stores. Seven items (low fat milk, orange juice, gumdrop candy, salad dressing, potato chips, regular cola, and bottled water) were highly available across both types of retailers
- The average price of the product with the lowest unit price and the produce with the most shelf space was consistently higher at small stores. A few food items (low fat milk, fresh 100% orange juice, and fresh eggs) served as loss-leaders at small stores and were priced competitively with large stores.
- The price difference between small and large stores may be attributed in part to differences in package size options. Large stores offer a wider range of package size options, including family or bulk size packaging that may be cheaper on a per unit basis.
- The methods and analysis developed in this study could be used to assess the impact of a healthy store initiative on the availability and price of healthful food options like fresh fruits and vegetables at neighborhood stores.

References

¹Andreyeva T., Blumenthal, D.M., Schwartz, M.B., Long, M.W., and Brownell, K.D.. 2008. Availability and prices of foods across stores and neighborhoods: the case of New Haven, Connecticut. *Health Affairs* 27(5): 1381-1388.

²Chung, C. and Myers, S.L., Jr. 1999. Do the poor pay more for food? An analysis of grocery store availability and food price disparities. *Journal of Consumer Affairs* 33(2): 276-296.

³Talukdar, D. 2008. Cost of being poor: retail price and consumer price search differences across inner-city and suburban neighborhoods. *Journal of Consumer Research* 35(3): 457-71.

⁴Kaufman, P.R., MacDonald, J.M., Lutz, S.M., and Smallwood, D.M. 1997. Do the poor pay more for food? Item selection and price differences affect low-income household food costs. *Agricultural Economic Report No. 759*. Washington, DC: US Department of Agriculture, Economic Research Service, Food and Rural Economics Division.

Acknowledgements

The author would like to thank his thesis committee: Parke Wilde, PhD, Beatrice Rogers, PhD, and Ephraim Leibtag, PhD.

Please contact Joseph.Llobrera@tufts.edu for more information. The views expressed are those of the author, all errors are my own. Results are preliminary, do not cite without permission.