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## Local food prices: Effects on child eating patterns, food insecurity, and overweight

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Both under- and over-nutrition are important public health problems facing young children in the United States. In 2011, approximately 20.6 percent of U.S. households with children were food insecure,<sup>1</sup> defined as "having limited or uncertain availability of food, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways."<sup>2</sup> More than 26 percent of two- to five-year-old children were considered overweight (defined as having a body mass index [BMI] above the 85th percentile by age and gender) in 2009-2010, up from 21 percent in 1999 to 2000.<sup>3</sup> Being food insecure and being overweight during early childhood both have negative effects on children's short- and long-term health, social, and economic outcomes.<sup>4</sup>

A lack of affordable, nutritious foods is one of the neighborhood factors presumed to underlie both food insecurity and

obesity among children.<sup>5</sup> While general food prices (i.e., price per calorie) trended downward in recent decades, particularly the prices of snacks and sugar-sweetened beverages, the real prices of restaurant meals and fruits and vegetables increased,<sup>6</sup> with fruit and vegetable prices increasing by 17 percent between 1997 and 2003 alone.<sup>7</sup> Experimental work has found that children decrease their consumption of certain foods when the price is increased.<sup>8</sup> Living in areas with higher-priced fast foods and soda is associated with lower body weight and BMI, while higher fruit and vegetable prices demonstrate the opposite association.<sup>9</sup> These relationships appear to be larger among low-income children as compared to their higher-income counterparts,<sup>10</sup> presumably because their families have less disposable income with which to adapt to a higher-price environment. With a tight budget constraint, a family may purchase more poorer-quality, energy-dense foods,<sup>11</sup> which cost less per calorie than more nutritious foods,<sup>12</sup> although not by weight or average portion size.<sup>13</sup>

To help families purchase food, the United States spent \$103.3 billion in fiscal year 2011 on domestic food and nutrition assistance programs, much of which helps families

with children through the Supplemental Nutrition Assistance Program (SNAP; formerly known as the Food Stamp Program).<sup>14</sup> SNAP serves nearly one-half of all children at some point in their lives.<sup>15</sup> Research suggests that food assistance receipt increases total household food expenditures and reduces food insecurity.<sup>16</sup> Evidence also exists that food assistance and subsidized meals may help combat obesity among low-income children through the provision of nutritious foods;<sup>17</sup> however, one study found that SNAP, which has few nutritional restrictions, may contribute to child obesity in cities with high food prices.<sup>18</sup> In these studies, addressing selection into food assistance programs is difficult.<sup>19</sup>

Despite the importance of adequate nutrition during early childhood, to date, little research has examined how food prices relate to weight and food insecurity outcomes during early childhood,<sup>20</sup> and, with few exceptions,<sup>21</sup> most studies have estimated cross-sectional associations between food prices and child outcomes. Further, previous research has not isolated fresh fruits and vegetables, whose prices vary more than frozen and canned options. Moreover, despite findings that sugar-sweetened beverages account for nearly 15 percent of children's daily caloric intake<sup>22</sup> and soft drinks can have negative impacts on children's health,<sup>23</sup> little research has investigated associations between soft drink prices and children's weight, with the exception finding higher-priced soft drinks associated with lower BMIs among school-age children.<sup>24</sup>

We address these gaps in the literature by estimating how local food prices (overall fruits and vegetables, fresh fruits and vegetables, frozen and canned fruits and vegetables, fast food, and soda) influence the weight outcomes, food insecurity, and food consumption of children from infancy to 5 years of age.<sup>25</sup>

## Hypotheses

We hypothesize that: (1) high-priced fruits and vegetables and low-priced fast food and soft drinks may contribute to a greater likelihood of being overweight, higher BMI, and less nutritious food consumption; (2) high prices for fruits and vegetables, fast food, and soda may contribute to a greater likelihood of being food insecure; and (3) the prices of fresh fruits and vegetables will more strongly influence children's outcomes than frozen and canned fruits and vegetables.

## Data

The analysis linked data from the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B), a nationally representative study of approximately 10,700 children from birth to kindergarten entry, to city-level food price data from the ACCRA Cost-of-Living Index (COLI). The ECLS-B collected data when children were 9 months of age (2001 to 2002), 2 years of age (2003 to 2004), approximately 4 years of age

(preschool: 2005 to 2006), and at two waves of kindergarten entry (2006 to 2008), approximately 11,700 observations. This study used the first four waves of data, excluding the second kindergarten entry wave. The ACCRA COLI dataset, collected by the Council for Economic Research, is the main source of cost-of-living data in the United States that includes local food prices.<sup>26</sup> The ACCRA food price data were collected quarterly from more than 300 Core Based Statistical Areas (CBSA).

Children's BMI z-scores, overweight status, food consumption, and adult-level food insecurity served as the dependent variables. Using the Centers for Disease Control and Prevention (CDC) standards, standardized BMI z-scores and measures of overweight (BMI at or above the 85th percentile) were generated from measures of children's weight and height to allow for comparisons across age and gender. Parents' reports of children's consumption of several different types of foods (e.g., vegetables, sugar-sweetened beverages) over the previous 7 days were gathered at the preschool and kindergarten waves. Responses on the Core Food Security Module (CFSM) at each wave were used to create a binary measure of adult-level food insecurity, which may be more accurate than parents' reports of their children's experiences of food insecurity.

The independent variables included the average annual prices of the following items measured in the ACCRA data (inflation-adjusted to 2008 dollars and adjusted for the overall cost-of-living composite index): (1) six fruits and vegetables (potatoes, bananas, lettuce, canned sweet peas, canned peaches, and frozen corn); (2) three fast foods (the average price of a McDonald's quarter-pounder with cheese, the average price of a regular cheese pizza at Pizza Hut and/or Pizza Inn, and the average price of a fried chicken drumstick and thigh at Kentucky Fried Chicken and/or Church's Fried Chicken); and (3) a soft drink (2-liter bottle of Coca-Cola). For some analyses, fruits and vegetables were separated into: (1) fresh fruits and vegetables and (2) frozen and canned fruits and vegetables.

## Methods

Using Ordinary Least Squares (OLS), linear probability, and fixed effects (FE) models, the variability in food prices over time and among children who move residences was exploited, controlling for a range of child, maternal, and household characteristics.

## Findings

On average, the BMIs of children in the analysis sample were about one-half of a standard deviation above CDC recommendations. About 30 percent of children were overweight, and about 12 percent of children lived in households in which the adult respondent reported low or very low food

security. Overweight children faced higher average annual fruit and vegetable, fast food, and soft drink prices than their peers who were not overweight, but the standardized price ratios did not differ. Households with food insecure adults faced average lower fruit and vegetable prices than those with food secure adults.

### Effects of local food prices

Results indicate that higher-priced fruits and vegetables are associated with higher standardized measures of children's BMI. This relationship is driven by fresh (versus frozen or canned) fruits and vegetables. A 38-cent increase in the average annual price of fresh fruits and vegetables is linked with about a one-eighth to one-seventh of a standard deviation increase in children's BMI z-scores in the OLS and FE models. By comparison, the magnitude of this association is about two-thirds that of the association between living below the poverty line and BMI. Further, in the FE models, higher-priced soft drinks are associated with a lower likelihood of being overweight. Surprisingly, higher fast food prices are associated with a greater likelihood of being overweight in the FE models only. Food prices are largely unassociated with children's food consumption. Analyses that include each category of food prices in separate models show similar patterns.

## Discussion

The goal of this study was to estimate how local food prices influence the weight outcomes, food insecurity, and food consumption patterns of children from infancy to 5 years of age. Our study found that children living in areas with higher-priced fruits and vegetables averaged higher measures of standardized BMI scores, compared to their peers in areas with lower-priced fruits and vegetables. Building on previous research, we find that these associations are driven by changes in the prices of fresh, rather than frozen and canned, fruits and vegetables. The magnitude of this association is considerable, when taking into account that small changes in price are associated with small but significant changes in children's weight outcomes. A 38-cent increase in the average annual price of fresh fruits and vegetables is linked with about a one-eighth to one-seventh of a standard deviation increase in children's BMI z-scores in our OLS and FE models. While these changes reflect relatively small increases in children's BMI measures, the corresponding price changes are relatively small, as well. The range of food prices across geographic areas suggests that residential moves may expose children to areas with these or more substantial variation in prices.

Also consistent with hypotheses, higher soft drink prices were associated with a decrease in the likelihood of being overweight in the FE models. By contrast, surprisingly, higher fast food prices were associated with an increase in the likelihood of being overweight in the FE models, and among food assistance recipients in the linear probability models.

The FE models are more limited in their sample size, and the inclusion of a more selective subsample may underlie the differences between the OLS and LPM models and the FE models. Alternatively, this may be a result of endogeneity; that is, fast food outlets may respond to increased demand or preferences for fast food with higher prices.

Indeed, previous research indicates that fast food locales have substantial independent control over their prices.<sup>27</sup> Further, while the literature on the relationship between fruit and vegetable prices and child BMI is relatively consistent, the research on fast food prices and child weight outcomes is more mixed. While some studies have found a negative association between fast food prices and BMI or obesity among adolescents or adults,<sup>28</sup> longitudinal analyses using fixed effects models find lower or non-significant associations.<sup>29</sup>

Surprisingly, the mechanism through which food prices are expected to affect children's weight, their food consumption, was unassociated with food prices. This was true for the composite measures of eating habits (nutritious and nonnutritious foods) and the individual measures of fruit, vegetable, and fast food consumption. The use of parents' reports of children's food consumption across the previous 7 days, and only at two waves (preschool and kindergarten entry) is a major limitation. Parents, particularly those who are employed, may not be aware of what their children are eating, and the recall of foods eaten over the last week is subject to memory loss. Future research could incorporate more refined measures of children's food consumption, such as daily diaries, and test whether nutrition is a mediating factor between fruit and vegetable prices and children's BMI and overweight.

## Conclusion

This study identifies significant associations between food prices and child and family weight and food security outcomes, shedding light on promising policy initiatives. Results suggest that policies that subsidize the cost of fresh fruits and vegetables may be effective in improving the health and weight outcomes of young children. It is possible that the higher price of fruits and vegetables relative to other foods discourages households from purchasing them. SNAP is currently implementing new initiatives including financial incentives that reduce the costs of fruits and vegetables for recipients, which may better address children's weight outcomes.<sup>30</sup> More research on the interactions between food prices and public food assistance, particularly the effects of these new initiatives, is needed. ■

<sup>1</sup>A. Coleman-Jensen, M. Nord, M. Andrews, and S. Carlson, 2011, "Household Food Security in the United States in 2010," *SSRN Electronic Journal* 2011. doi:10.2139/ssrn.2116606

<sup>2</sup>Food insecurity measures both the quality and quantity of food based on an 18-item scale developed by the USDA. The scale captures experiences at the household level (in the last 12 months), such as running out of food,



perceptions that food in a household is of inadequate quality or quantity<sup>5</sup> and reduced food intake by adults or children, all because of financial constraints. A. Skalicky, A. F. Meyers, W. G. Adams, Z. Yang, J. T. Cook, and D. A. Frank, "Food Insecurity and Iron Deficiency Anemia in Low-Income Infants and Toddlers in the United States," *Maternal and Child Health Journal* 10 No. 2 (2006): 177–185.

<sup>3</sup>C. L. Ogden, M. D. Carroll, B. K. Kit, and K. M. Flegal, "Prevalence of Obesity and Trends in Body Mass Index among U.S. Children and Adolescents, 1999–2010," *JAMA: The Journal of the American Medical Association* 307 No. 5 (2012): 483–490. doi:10.1001/jama.2012.40

<sup>4</sup>K. Alaimo, C. M. Olson, E. A. Fongillo, and R. R. Briefel, "Food Insecurity, Family Income, and Health in U.S. Preschool and School-Aged Children," *American Journal of Public Health* 91 No. 5 (2001): 781–786; R. Bradley, R. Houts, P. Nader, M. O'Brien, J. Belsky, R. Crosnoe, and N.E.C.C.R. Network, "Body Mass Index and Its Relation to Internalizing and Externalizing Problems from Infancy through Middle Childhood," *The Journal of Pediatrics* 153 No. 5 (2008): 629–634; R. Crosnoe and C. Muller, "Body Mass Index, Academic Achievement and School Context: Examining the Educational Experiences of Adolescents at Risk of Obesity," *Journal of Health and Social Behavior* 45 (2004): 393–407; K. S. Slack and J. Yoo, "Food Hardship and Child Behavior Problems among Low-Income Children," *Social Service Review* 79 (2005): 511–536; R. Sturm, "The Effects of Obesity, Smoking, and Drinking on Medical Problems and Costs," *Health Affairs* 21 (2002): 241–253; M. Zaslow, J. Bronte-Tinkew, R. Capps, A. Horowitz, K. A. Moore, and D. Weinstein, "Food Insecurity during Infancy: Implications for Attachment and Mental Proficiency in Toddlerhood," *Maternal and Child Health Journal* 13 No. 1 (2009): 66–80.

<sup>5</sup>Institute of Medicine, *Preventing Childhood Obesity: Health in the Balance*, Washington, DC: Institute of Medicine, National Academies Press (2005); D. Rose, "Access to Healthy Food: A Key Focus for Research on Domestic Food Insecurity," *Journal of Nutrition* 1–3 No. 25 (2005): 1167–1169. doi:10.3945/jn.109.113183

<sup>6</sup>T. Christian and I. Rashad, "Trends in U.S. Food Prices, 1950–2007," *Economics & Human Biology* 7 No. 1 (2009): 113–120. doi:10.1016/j.ehb.2008.10.002

<sup>7</sup>J. Cawley, "The Economics of Childhood Obesity," *Health Affairs* 29 No. 3 (2010): 364–71. doi:10.1377/hlthaff.2009.0721

<sup>8</sup>L. H. Epstein, E. A. Handley, K. K. Dearing, D. D. Cho, J. N. Roemmich, and R. A. Paluch, "Purchases of Food in Youth: Influence of Price and Income," *Psychological Science* 17 No. 1 (2006): 82–89.

<sup>9</sup>M. A. Beydoun, L. Powell, and Y. Wang, "The Association of Fast Food, Fruit and Vegetable Prices with Dietary Intakes among U.S. Adults: Is There Modification by Family Income?," *Social Science & Medicine* 66 No. 11 (2008): 2218–2229; E. Han and L. M. Powell, "Effect of Food Prices on the Prevalence of Obesity among Young Adults," *Public Health* 125 No. 3 (2011): 129–135. doi:10.1016/j.puhe.2010.11.014; L. Powell and Y. Bao, "Food Prices, Access to Food Outlets, and Child Weight," *Economics and Human Biology* 7 No. 1 (2009): 64–72; L. Powell and F. J. Chaloupka, "Economic Contextual Factors and Child Body Mass Index," *NBER volume on Economic Aspects of Obesity*, 2010, Cambridge, MA: National Bureau of Economic Research, retrieved from <http://www.nber.org/chapters/c11818.pdf>; L. M. Powell, "Fast Food Costs and Adolescent Body Mass Index: Evidence from Panel Data," *Journal of Health Economics* 28 No. 5 (2009): 963–970. doi:10.1016/j.jhealeco.2009.06.009; R. Sturm and A. Datar, "Body Mass Index in Elementary School Children, Metropolitan Area Food Prices and Food Outlet Density," *Public Health* 119 No. 12 (2005): 1059–1068. doi:10.1016/j.puhe.2005.05.007; R. Sturm, L. Powell, J. F. Chiqui, and F. J. Chaloupka, "Soda Taxes, Soft Drink Consumption, and Children's Body Mass Index," *Health Affairs* 29 No. 5 (2010): 1052–1058; M. Wendt and J. E. Todd, *The Effect of Food and Beverage Prices on Children's Weights*, Economic Research Service, USDA, Washington, DC (2011).

<sup>10</sup>Powell and Bao, "Food Prices, Access to Food Outlets, and Child Weight"; L. Powell, E. Han, and F. J. Chaloupka, "Economic Contextual Factors, Food Consumption, and Obesity among U.S. Adolescents," *The Journal of Nutrition* 140 No. 6 (2010): 1175–1180. doi:10.3945/jn.109.111526; Sturm and Datar, "Body Mass Index in Elementary School Children."

<sup>11</sup>A. Drewnowski and S. E. Specter, "Poverty and Obesity: The Role of Energy Density and Energy Costs," *American Journal of Clinical Nutrition* 79 (2004): 6–16; A. Drewnowski, N. Darmon, and A. Briand, "Replacing Fats and Sweets with Vegetables and Fruits—a Question of Cost," *American Journal of Public Health* 94 No. 9 (2004): 1555–1559, available at <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1448493&tool=pmc-entrez&rendertype=abstract>.

<sup>12</sup>P. Monsivais and A. Drewnowski, "The Rising Cost of Low-Energy-Density Foods," *Journal of the American Dietetic Association* 107 No. 12 (2007): 2071–2076; P. Monsivais, J. McLain, and A. Drewnowski, "The Rising Disparity in the Price of Healthful Foods: 2004–2008," *Food Policy* 35 No. 6 (2010): 514–520. doi:10.1016/j.foodpol.2010.06.004

<sup>13</sup>A. Carlson and E. Frazão, (2012). *Are Healthy Foods Really More Expensive? It Depends on How You Measure the Price*, Economic Research Service, USDA, Washington, DC, (2012), available at <http://www.ers.usda.gov/publications/eib-economic-information-bulletin/eib96.aspx>.

<sup>14</sup>V. Oliveira, *The Food Assistance Landscape: Fiscal Year 2011 Annual Report*, Economic Information Bulletin No. 93, Economic Research Service, USDA, Washington, DC, March 2012; [http://www.ers.usda.gov/media/376910/eib93\\_1\\_.pdf](http://www.ers.usda.gov/media/376910/eib93_1_.pdf).

<sup>15</sup>M. R. Rank and T. A. Hirschl, "Estimating the Risk of Food Stamp Use and Impoverishment during Childhood," *Archives of Pediatric and Adolescent Medicine* 163 No. 11 (2009): 994–999.

<sup>16</sup>J. S. Bartfeld and H. M. Ahn, "The School Breakfast Program Strengthens Household Food Security among Low-Income Households with Elementary School Children," *Journal of Nutrition* 141 No. 3, (2011): 470–475; M. K. Fox, W. Hamilton, and B.-H. Lin, *Effects of Food Assistance and Nutrition Programs on Nutrition and Health*, Food Assistance and Nutrition Research Program, Economic Research Service, U.S. Department of Agriculture, Washington, DC, (2004), available at <http://www.ers.usda.gov/publications/fanrr19-4/fanrr19-4.pdf>; D. Rose, J. Habicht, and B. Devaney, "Household Participation in the Food Stamp and WIC Programs Increases the Nutrient Intakes of Preschool Children," *Journal of Nutrition* 128 No. 3 (1998): 548–555; S. Yen, M. Andrews, Z. Chen, and D. Eastwood, "Food Stamp Program Participation and Food Insecurity: An Instrumental Variables Approach," *American Journal of Agricultural Economics* 90 No. 1 (2008): 117–132.

<sup>17</sup>S. Hofferth and S. Curtin, "Poverty, Food Programs, and Childhood Obesity," *Journal of Policy Analysis and Management* 24 No. 4 (2005): 703–726; S. J. Jones, L. Jahns, B. A. Laraia, and B. Haughton, "Lower Risk of Overweight in School-Age Food Insecure Girls Who Participate in Food Assistance," *Archives of Pediatric and Adolescent Medicine* 157 (2003): 780–784; R. Kimbro and E. Rigby, "Federal Food Policy and Childhood Obesity: A Solution or Part of the Problem?" *Health Affairs* 29 No. 3 (2010): 411–428; M. D. Schmeiser, "The Impact of Long-Term Participation in the Supplemental Nutrition Assistance Program on Child Obesity," *Health Economics* 21 No. 4 (2012): 386–404. doi:10.1002/hec.1714

<sup>18</sup>Kimbro and Rigby, "Federal Food Policy and Childhood Obesity."

<sup>19</sup>R. Dunifon and L. Kowaleski-Jones, "The Influences of Participation in the National School Lunch Program and Food Insecurity on Child Well-Being," *Social Service Review* 77 No. 1 (2003): 72–92; P. E. Wilde, "Measuring the Effect of Food Stamps on Food Insecurity and Hunger: Research and Policy Considerations," *Journal of Nutrition* 137 (2007): 307–310.

<sup>20</sup>C. Gundersen, B. Kreider, and J. Pepper, "The Economics of Food Insecurity in the United States," *Applied Economic Perspectives and Policy* 33 No. 3 (2011): 281–303. doi:10.1093/aep/ppr022

<sup>21</sup>Kimbro and Rigby, "Federal Food Policy and Childhood Obesity"; Powell and Chaloupka, "Economic Contextual Factors and Child Body Mass Index"; Powell, "Fast Food Costs and Adolescent Body Mass Index: Evidence from Panel Data."

<sup>22</sup>Y. C. Wang, S. N. Bleich, and S. L. Gortmaker, "Increasing Caloric Contribution from Sugar-Sweetened Beverages and 100% Fruit Juices among U.S. Children and Adolescents, 1988–2004," *Pediatrics* 121 No. 6 (2008): e1604–1614. doi:10.1542/peds.2007-2834

<sup>23</sup>L. R. Vartanian, M. Schwartz, and K. D. Brownell, "Effects of Soft Drink Consumption on Nutrition and Health: A Systematic Review and Meta-Analysis," *American Journal of Public Health* 97 No. 4 (2007): 667–675.

<sup>24</sup>Wendt and Todd, *The Effect of Food and Beverage Prices on Children's Weights*.

<sup>25</sup>Morrissey and Jacknowitz's full report, *Food Assistance and Children's Eating Patterns, Food Insecurity, and Overweight: The Influence of Local Food Prices*, IRP RIDGE Center for National Food and Nutrition Assistance Research, Institute for Research on Poverty, University of Wisconsin–Madison, (2012) is available at <http://www.irlp.wisc.edu/publications/dps/pdfs/dp140913.pdf>.

<sup>26</sup>See the Council for Community and Economic Research (C2ER) website at <http://www.coli.org>.

<sup>27</sup>F. Lafontaine, *Pricing Decisions in Franchised Chains: A Look at the Restaurant and Fast-Food Industry*, National Bureau of Economic Research Working Paper No. 5247, Cambridge, MA (1995).

<sup>28</sup>Han and Powell, "Effect of Food Prices on the Prevalence of Obesity among Young Adults"; Powell, Han, and Chaloupka, "Economic Contextual Factors, Food Consumption, and Obesity among U.S. Adolescents."

<sup>29</sup>Han and Powell, "Effect of Food Prices on the Prevalence of Obesity among Young Adults"; Powell and Bao, "Food Prices, Access to Food Outlets, and Child Weight"; Powell, "Fast Food Costs and Adolescent Body Mass Index: Evidence from Panel Data"; R. Sturm and A. Datar, "Food Prices and Weight Gain during Elementary School: Five-Year Update," *Public Health* 122 No. 11 (2008): 1140–1143, doi:10.1016/j.puhe.2008.04.001

<sup>30</sup>For example, in New York City, SNAP participants who shop at participating farmers markets receive an extra \$2 for fruits and vegetables for every \$5 of benefits used. The Healthy Incentives Pilot (HIP) in Hampden, Massachusetts, is examining whether a financial incentive (an additional 30 cents for every dollar spent on targeted fruits and vegetables) increases fruit and vegetable consumption among SNAP recipients.

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