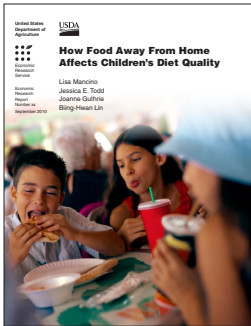


ERS *Report Summary*

Economic Research Service

October 2010

U.S. Department of Agriculture



This is a summary of an ERS report.

Find the full report at www.ers.usda.gov/publications/err104

How Food Away From Home Affects Children's Diet Quality

Lisa Mancino, Jessica E. Todd, Joanne Guthrie, and Biing-Hwan Lin

In recent decades, more and more American children have become overweight, and most now eat a low-quality diet—consuming too much calorie-dense, low-nutrient foods and too little fruits, vegetables, whole grains, and milk. Increased consumption of foods prepared outside the home has been identified as a possible cause of rising rates of obesity and poor diet quality.

What is the issue?

Among children ages 6-18, away-from-home foods are most likely to come from fast food outlets, restaurants, and schools. Increased consumption of such foods may be a cause of overweight, or it may just be correlated with other factors that increase risk of overweight, such as individual food preferences and access to myriad food outlets. Consumption of caloric sweetened beverages, which is associated with both overweight and eating out, may contribute to the effects of away-from-home foods on caloric intake and diet quality. In this study, previous research is advanced through an examination of the effects of both commercially prepared food away from home and all food from school on the diets of children, where all food from school includes foods available for purchase at schools, not only those offered as part of USDA reimbursable meals. Also, researchers separate the effects of caloric sweetened beverage consumption from the effects of away-from-home meals. The results may help to inform obesity prevention policies and strategies.

What are the findings?

Food obtained from fast food outlets, restaurants, and other commercial sources is associated with increased caloric intake and lower diet quality, as measured by the Healthy Eating Index (HEI), especially among children ages 13-18. These effects hold after employing a methodology that controls for the impacts of underlying personal characteristics and circumstances, such as access to food outlets, which might also affect food choices. This finding strengthens the argument that there is a causal relationship between food away from home and both increased caloric consumption and decreased dietary quality. It also supports policy and educational efforts to improve children's choices of away-from-home foods and beverages.

Consumption of caloric sweetened beverages when eating meals or snacks obtained at commercial food establishments or at school contributes to the adverse dietary effects of food away from home. About 35 percent of the caloric increase associated with food away from home is attributable to caloric sweetened beverages, as is 20 percent of the decline in HEI scores. Nevertheless, after controlling for the effects of consumption of caloric sweetened beverages, researchers find that, for all children, each away-from-home meal adds 65 calories and lowers diet quality scores by 4 percent, compared with meals prepared at home. For older children, the effect amounts to 107 additional calories for each away-from-home meal. These results suggest that food away from home and caloric sweetened beverages each contribute to the overall quantity and quality of the foods children consume.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

www.ers.usda.gov

The effects of food from school also differ between younger and older children. Again controlling for intake of caloric sweetened beverages, researchers find that consumption of all food from school does not appear to have negative effects on the diets of younger children (ages 6-13). However, among children ages 13-18, all food from school has effects similar to those of food away from home, increasing daily caloric intake by 145 calories and lowering diet quality scores by 3 percent, compared with food prepared at home. Older children and adolescents tend to consume more meals and snacks from all away-from-home sources than younger children. Thus, efforts to improve the quality of food away from home and food from school may especially benefit the older age group.

How was the study conducted?

Analysis is based on dietary recall data from the 2003-04 National Health and Nutrition Examination Survey and the 1994-96 Continuing Survey of Food Intakes by Individuals. Researchers used 2 days of dietary intake data from school-age children (ages 6-18) to obtain first-difference estimates of the effects of individual changes in the number of meals or snacks from foods prepared outside the home—from restaurants, fast food vendors and other commercial sources, or schools and day care centers—on diet quality. First-differencing, which controls for many personal characteristics and omits a great deal of selection bias, is also used to determine the effects of changes in consumption of caloric sweetened beverages on diet quality. Controlling for changes in beverage consumption provides a clearer picture of how food sources affect diet quality. Measures of diet quality include changes in total daily caloric intake, total daily HEI scores, and daily HEI component densities, such as fruit and vegetable cup equivalents per 1,000 calories of intake.