

HealthierUS School Challenge Lunches are More Nutritious than Lunches Brought from Home



Ethan A. Bergman, PhD, RD, CD, FADA
Linda Cashman, MS, RD, CD
Tim Englund, PhD
Tracee Watkins, MBA, CHE
Catherine Saade, RD
Emily Shaw, BS
Katie Weight Taylor, BA
Central Washington University

Keith Rushing, PhD, RD
National Food Service Management Institute
Applied Research Division
The University of Southern Mississippi

OBJECTIVES

The current investigation compared the nutritional content of lunches brought from home (LBFH) and lunches selected as part of the National School Lunch Program (NSLP) in HealthierUS School Challenge (HUSC) elementary schools to find how well meals met School Meal Initiative (SMI) guidelines.

METHODS

Digital photographs of lunches were taken before and after the meal was consumed. The photos were used to make a visual estimation of food items to determine nutritional content of meals selected and consumed. A custom computer program was used to link the amount food items on the trays to nutrient data for the items sourced from the product manufacturer, school foodservice staff and the USDA Child Nutrition Database.

- The nutrient content of 1,085 lunches from 560 students in four HUSC schools was determined and analyzed.
- Lunches selected and lunches consumed were considered separately.

RESULTS

Chi-square tests indicated a significant ($p < 0.05$) difference between the percent of NSLP meals and LBFH that met the various School Meal Initiative guidelines.

NSLP meals met the guidelines for lunches both selected and consumed more often for protein, calcium, iron, and vitamins A and C, and for the percentage of calories coming from total fat.

LBFH met the guidelines more often for food energy both selected and consumed.

A low percentage of selected NSLP meals or LBFH met all the SMI nutrient guidelines simultaneously.

Moreover, an even lower percentage of lunches consumed met the guidelines because the students often did not eat all that was selected.

Nonetheless, selected and consumed NSLP meals met the SMI guidelines more often than LBFH.

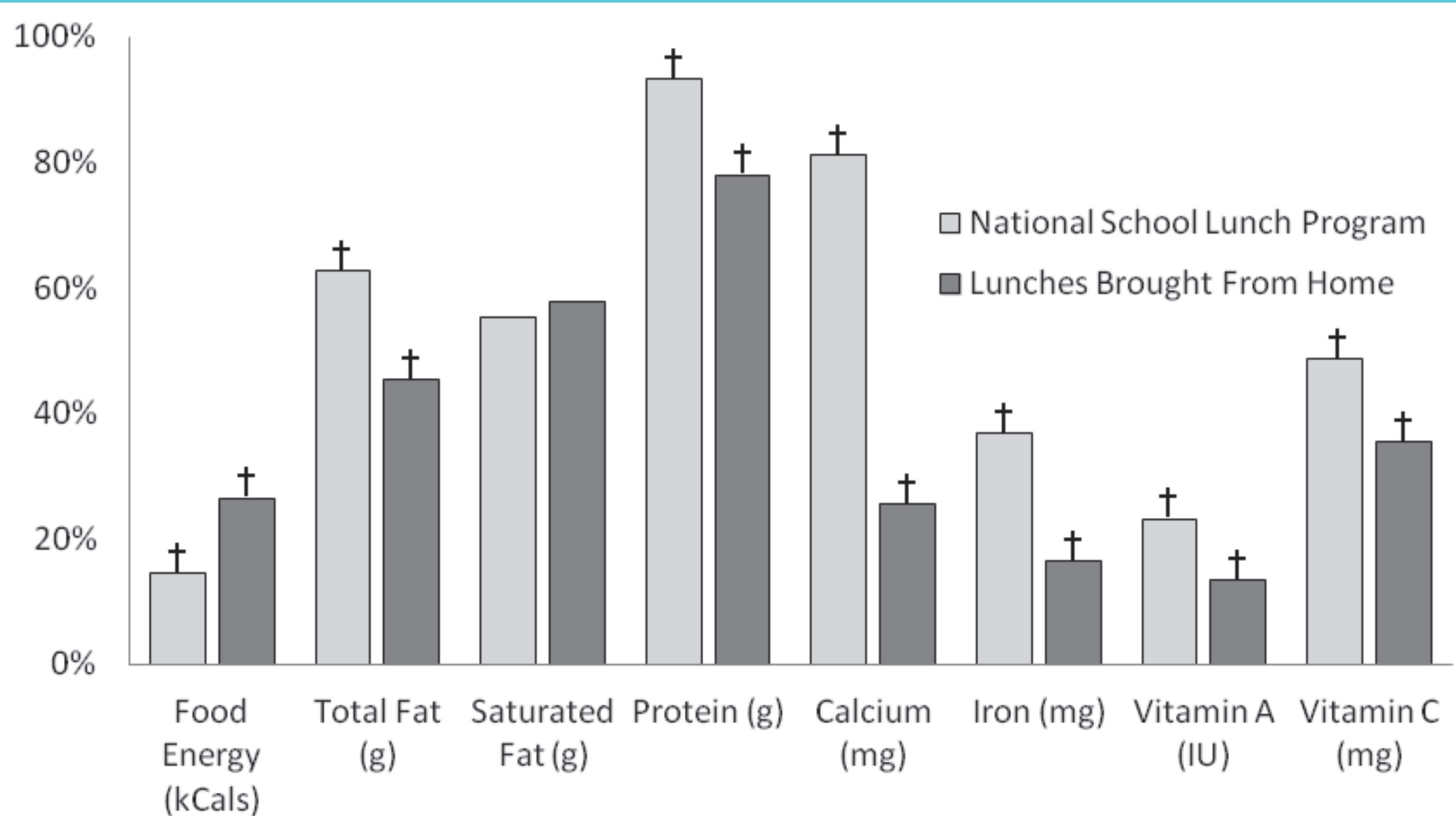


Figure 1. Percent of students meeting SMI guidelines for provided lunches. Daggers represent statistical difference between National School Lunch Program lunches and lunches brought from home.

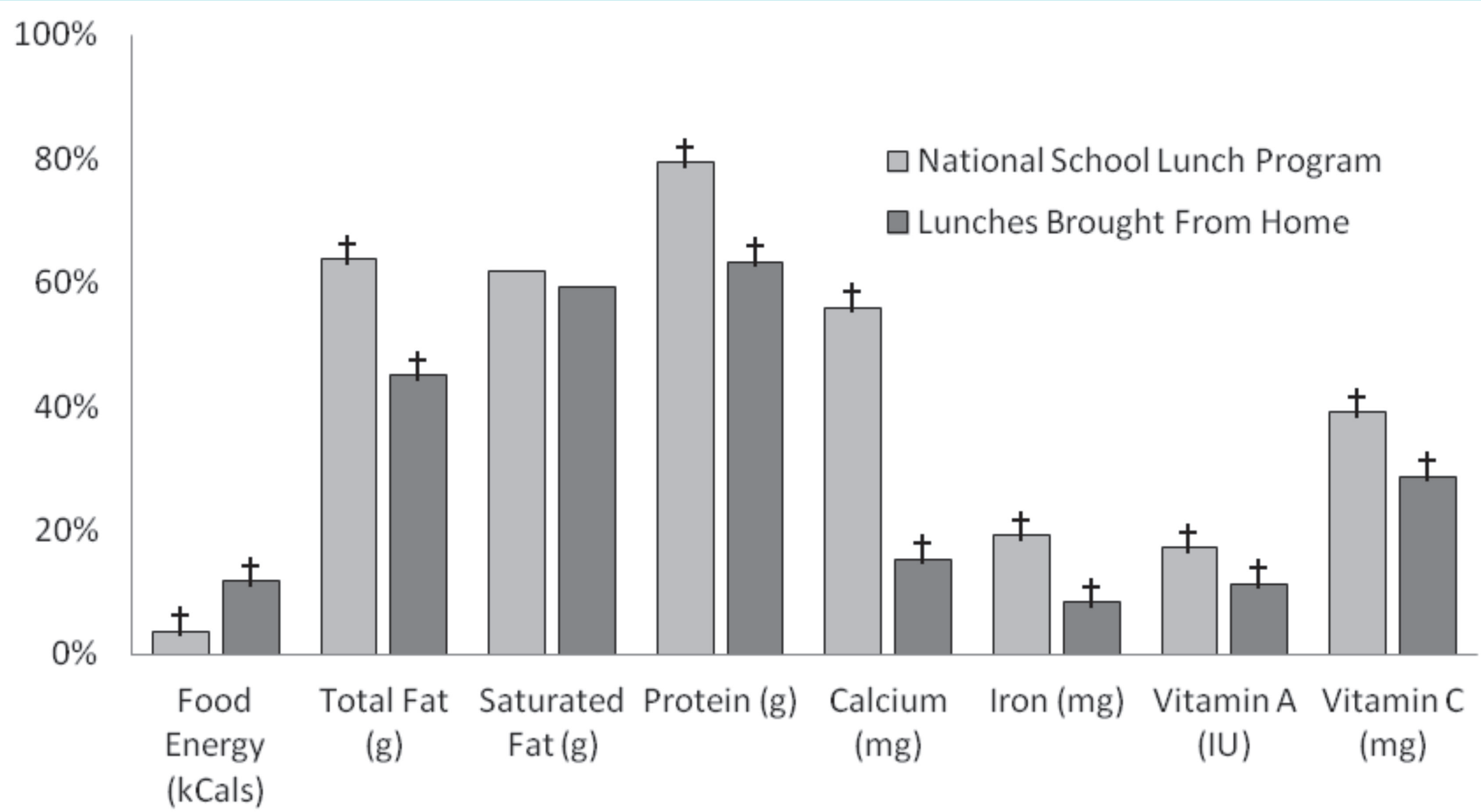


Figure 2. Percent of students meeting SMI guidelines for consumed lunches. Daggers represent statistical difference between National School Lunch Program lunches and lunches brought from home.

APPLICATION TO CHILD NUTRITION PROFESSIONALS

CNPs are doing a better job of meeting most of the NSLP guidelines with the menus they create when compared to LBFH.

CNPs may use HUSC criteria for menu planning to encourage the selection and consumption of nutrient rich foods to meet NSLP guidelines.

