

Plate Waste Audit Report



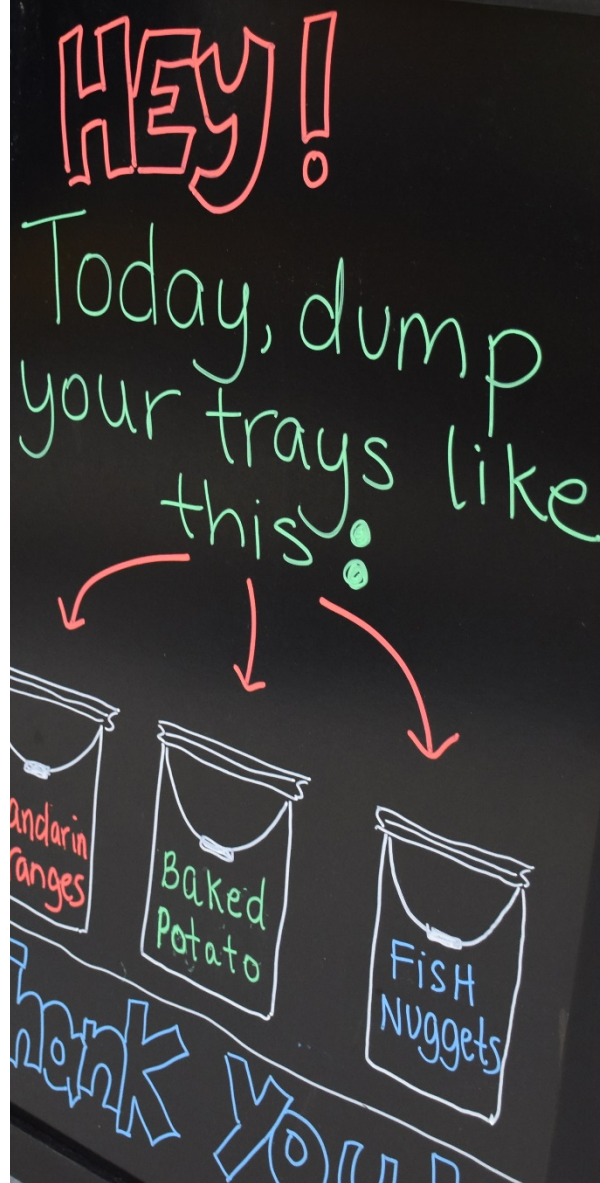
Illinois Extension

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

SEPTEMBER 21, 2018

LUDLOW ELEMENTARY - LUDLOW, IL

ABCs
of school nutrition



Pre-Audit Observations

University of Illinois Extension staff observed the lunchroom on Wednesday, September 19, 2018 to observe different aspects of the cafeteria:

- **Flow of students** into the cafeteria, through the serving line, to their seats, and to the waste bins at dismissal
- **Environmental factors** including temperature, noise level, how lunchroom monitor(s) interacted with students, and the time students had available to eat lunch
- Which **food items** students were most likely to eat during lunch and which foods were most thrown away
- **Waste collection** and **tray/utensil return**

Flow

Movement of students through the lunch line was smooth and quick. The first wave of students in K-5th grade were observed to receive 15 minutes to eat, and the second wave of students in 6th-8th grade were observed to receive 17.5 minutes to eat. In each meal period, we measured the time that the first student and last student had to eat by the time they were seated to the time they were dismissed to dispose of their trash. Because the serving line moves quickly, the first and last student have a similar amount of time to eat.

LUNCH MENU

Walking Tacos
Green Beans/Wax Beans
Refried Beans with Cheese
Fruit Cocktail
Milk

Environmental Factors

The cafeteria was very clean, smelled pleasant, and was kept at a comfortable temperature. The noise level of students was normal/acceptable. Mrs. Kissler, the lunchroom monitor, was even-tempered and patient yet acceptably firm with students; she did not yell or raise her voice or push the students to eat under pressure, and mainly just watched and let students eat and interact. She did take names of students who were deemed to be misbehaving.

Overall, the lunchroom monitor had a neutral to positive relationship with students and the monitor-student interaction was likely not detrimental to student consumption during lunch. The noise level, temperature, and smell of the cafeteria were also not likely to decrease student consumption during lunch.

Menu

The service model for the school nutrition program is Straight Serve with no choices. The most common food item to be eaten was the walking taco. The flavor station was commonly used by students to add seasoning to their foods. Most students emptied the taco contents (Doritos, meat) onto their trays and added the lettuce and cheese, then mixed the ingredients together. We estimate that about 40-60% of the walking taco entrée was eaten by most students. It was also noted that much of the green/wax beans, refried beans, and fruit cocktail was wasted. There was not a significant amount of milk waste.

Waste Collection

Students separate their waste during dismissal (dumping milk, separating silverware, throwing Extension staff would use Ludlow's current milk collection method to collect liquid milk waste and would replace the trash cans near the tray return with the waste collection buckets.

Additional Information Requested

After the lunch period was over, we requested information from Mrs. Judy Kissler about (1) the cost per serving for each of the lunch menu items that would be served on the day of the plate waste audit, (2) daily attendance for the past month, and (3) daily lunch participation for the past month.

Plate Waste Audit Results

The plate waste audit was conducted by four Extension staff members on Friday, September 21, 2018. Partially eaten foods and unopened foods/beverages left on the share table were weighed and counted.

General Meal Data

- # of reimbursable meals served: 36
- Overall average daily lunch participation: 79.7%.
 - Average daily attendance (25 days) is 53.24
 - Average daily lunch participation (14 days) is 42.43 meals

LUNCH MENU

Breaded Fish Nuggets
Whole Baked Potato
Mandarin Oranges
Milk

Food Waste Data

- 22.95 lbs total of food (41.9%) were wasted.
 - 64.4% of baked potatoes (8.69 lb)
 - 9.2% of mandarin oranges (0.83 lb)
 - 45.5% of fish nuggets (3.28 lb)
 - 38.8% of flavored milk (4.76 lb; 13.96 cartons of milk)
- Each reimbursable meals cost \$2.12 each for the main meal components, not including condiments.
 - \$26.28 of main foods served ended up as trash. Therefore, 34.4% of the food costs were wasted.

Strategies to Increase Consumption and Decrease Waste

Policy and Environment

The school already has a flavor station and share table, and provides recess before lunch, which are all ways to increase how much students eat and decrease the amount of wasted food. The Chow Hall Challenge is also a good way to give students an incentive to eat the food/menu they chose for the end of the month. We suggest measuring waste on that day to see if this menu is more popular to students and therefore has less waste than other days.

Depending on the classroom schedule available, adding 10 minutes to the time students have to be seated and eat their lunch gives them more opportunity to eat the food they have. If this is an option, we suggest asking several students if not having enough time to eat is one of the reasons they are not finishing their food. If the main reasons are menu choices and food preferences, then changing the time students have to eat food isn't as much of an influential factor as updating the school menu options.

Menu Changes

The baked potato may have been better received if shredded cheese were a topping option, or if served instead as baked potato wedges with a dipping sauce. It is suggested to ask students what

kind of dipping sauce they'd like with the fish nuggets. This may encourage students to eat more of the fish nuggets.

We suggest offering 2 or 3 choices within the fruit and/or vegetable components, so students can choose a fruit and vegetable they like most from what is offered. This way they are more likely to eat the fruit/vegetable they chose. This can be done within the Straight Serve model the school has now. In the beginning stages, choices within the fruit and vegetable components don't have to be provided every day. You can provide students with choices 1-2 days a week and see how it goes. Eventually, transitioning to the Offer vs Serve service model could further decrease waste as students are not required to take all five meal components.

If any of these changes are made, we suggest completing additional plate waste audits to see if students do eat more and waste less. You can complete 1-2 audits before changes are made and 1-2 audits after changes are made to look at an overall change in food waste and to see if there are any changes in how much students eat of each specific meal component.

Thank you for hosting a plate waste audit at your school and partnering with University of Illinois Extension! We are happy to provide useful information for your school nutrition program. If you have questions please contact us at schoolnutrition@illinois.edu.

Thank you!

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Your Plate Waste Audit Team from University of Illinois Extension

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