A Report on Food Waste at Huey Elementary

Shayla, Ethen, Jibreel, Jess, and Jarrett
• Philly is 5th largest school food service
• 166k kids meals served every day
• 29 million meals served each year
• $1.84 is the food cost of a satellite lunch
DO NOT USE HOT WATER FOR COOKING OR DRINKING
COOK AND SERVE

WHOLE GRAIN HOMESTYLE BREADED CHICKEN NUGGETS WITH MARINARA SAUCE WITH CHEESE

INGREDIENTS: MARINARA SAUCE (water, tomato puree (tomatoes less than 28% NTSS), corn syrup, modified food starch, high fructose corn syrup, corn syrup solids, sea salt, sugar, spices, tomato paste, onion, garlic, red pepper, natural flavor), CHEESE NUGGETS (Chicken, water, isolated egg white, enriched wheat flour, modified corn starch, natural flavor, muffin flour, salt, sugar, baking powder, monocalcium phosphate, dextrose, natural flavors, reduced sodium cheese, cheddar cheese, colby cheese, cream cheese, garlic powder, onion powder, garlic powder, black pepper, mozzarella cheese, monoglycerides, disodium phosphate, thiamine, niacin, iron, folate, vitamin D), natural flavor (including from extracts of oregano leaves, garlic, onion, basil, black pepper, parsley, red pepper, dextrose), ground white pepper, ground black pepper, natural color (including from extracts of turmeric, paprika), enrobed whole egg, artificial flavor, leavening (calcium silicate, sodium aluminum sulfate, potassium bicarbonate, monocalcium phosphate), low moisture margarine (soybean oil, water, fully hydrogenated soybean oil, partially hydrogenated soybean oil, salt, natural flavor), sea salt, onion powder, dextrose, contain: EGG, MILK, SOY, WHEAT.

CONTAINS: ENRICHED WHEAT FLOUR, PREPARED REFINED WHEAT, PREPARED EGG, PREPARED WHEAT FLOUR, PREPARED SOYBEAN OIL, PREPARED SOY WHEY, PREPARED DAIRY PRODUCTS, PREPARED VEGETABLES.

COOKING INSTRUCTIONS: Cook 24-27 minutes in a 325°F oven to a minimum of 165°F as verified by a food thermometer.

One 6.29 oz unit of Whole Grain Homestyle Breaded Chicken Nuggets (five .608 oz pieces) with Marinara Sauce with Cheese provides 2.25 oz equivalent meat/meat alternate, 1/2 cup red/orange vegetable and 1.00 oz equivalent grains for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 08-14.)

LOT#: PA12290Z-14324MOO

40 6.29 OZ UNITS (NET WEIGHT 15.73 LBS)

INSTITUTIONAL USE ONLY
• In 2012 a survey of 434 SDP employees, 64% of respondents report over half the food served is thrown out.
• 31% of food is wasted in the US.
We do not inherit the earth from our ancestors, we borrow it from our children.
Why is food waste important?

- There are hungry people, so food should not be thrown out. Divert hungry food to hungry people
- Wasted $ from taxes when food is thrown out because food costs $ + trash removal costs $
- We need food to learn and grow

How to Measure Food Waste?

Kindergarten

Need to test multiple days (over a three-week period)
1. Ask staff how many lunches
2. Weigh 1 lunch & multiply
3. Weigh the trash bag
4. Calculate:
   - total weight of food
   - total weight of packaging
   - total weight of wasted food

Cafeteria

Interviews and/or surveys
- Lunch
  - Ms. Johnson, Ms. Lembo, Ms. Robinson
- Ms. White of others
- Junior
- Ms. Andrews
- Students
  - Do you eat lunch?
  - Why or why not?
  - How and where do you eat?
  - Students
- Teachers:
  - Do you eat lunch?
  - Why or why not?
  - How and where do you eat?

Observation - coded notes
- Camera
  - Disturbing photos to get lunch time
  - Cafeteria
  - Floor/Tables
  - Checkout Table

What is wasted?

- Separate food
- Surveys
- Picture into categories
  - Who eats the food?
WORLD’S FIRST CO-INVESTIGATOR SELFIE!!!
Measuring Food Waste at Huey

Room: 205  Date: 11/12/14

Food Item Name

- **Entrée 1:** Chicken nuggets
- **Entrée 2:** Chick & chips
- **Veggie:**
- **Fruit:** Apples
- **Drink:** Milk
- **Other:** Chips
- **Other:** BBQ sauce

<table>
<thead>
<tr>
<th>Food Item Name</th>
<th>Weight of Packaging</th>
<th>Weight of Food Item &amp; Packaging</th>
<th>Number of Students Received</th>
<th>Total Weight of Food Item &amp; Packaging</th>
<th>Number Unopened in Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken nuggets</td>
<td>0.05 lb</td>
<td>0.35 lb</td>
<td>18</td>
<td>1.55 lb</td>
<td>0</td>
</tr>
<tr>
<td>Chick &amp; chips</td>
<td>0.05 lb</td>
<td>0.3 lb</td>
<td>6</td>
<td>1.8 lb</td>
<td>0</td>
</tr>
<tr>
<td>Apples</td>
<td>lb</td>
<td>Small</td>
<td></td>
<td>5.95 lb</td>
<td>2</td>
</tr>
<tr>
<td>Milk</td>
<td>0.05 lb</td>
<td>0.55 lb</td>
<td>19</td>
<td>10.75 lb</td>
<td>3</td>
</tr>
<tr>
<td>Chips</td>
<td></td>
<td></td>
<td></td>
<td>0.0 lb</td>
<td></td>
</tr>
<tr>
<td>BBQ sauce</td>
<td>0.95 oz lb</td>
<td></td>
<td></td>
<td>2.8 lb</td>
<td></td>
</tr>
<tr>
<td>Fruit cup</td>
<td>0.30 lb</td>
<td></td>
<td></td>
<td>0.30 lb</td>
<td></td>
</tr>
</tbody>
</table>

- Total Weight of Packaging: 2.118 lb
- Total Weight of All Food & Packaging: 23.045 lb

Weight of Food Served: 20.95 lb

Weight of Food Wasted: 8.282 lb

\[
\frac{8.282 \text{ lbs Wasted}}{20.95 \text{ lbs Served}} \times 100\% = 39.5\% \text{ Wasted}
\]
Amount of food served vs food wasted in K class

Average food waste in K class

- SERVED
- WASTED

LBS OF FOOD

DAYS OF LUNCH

10/28  11/12  11/18

- 35.8%
# of food served vs # of food unopened and wasted

<table>
<thead>
<tr>
<th></th>
<th>SERVED</th>
<th>UNOPEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEGGIES</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>MILK</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>FRUITS</td>
<td>50</td>
<td>20</td>
</tr>
</tbody>
</table>
# of vegetables served vs # of vegetables unopened and wasted

- Carrots: Served 10, Unopened 10
- Peas: Served 20, Unopened 10
- Bean Salad: Served 25, Unopened 15
Pros

- 1on1 Interview
- Takes time for a 1on1
- Takes time for data

Cons

- Not easy to set up
- Some people might not answer it
- Unknown accuracy
- Not meant for one person

Survey

- A lot of answers fast
- To one question

Anonymous

Age: 12

Circle the following correct answer:

BOY

4. How many times a week do you eat all of your school lunch?
   a. Never
   b. 1 or 2 times
   c. 3 or 4 times
   d. Everyday

5. What foods are you most likely to throw away? (circle all that apply)
   a. Meats
   b. Fruits
   c. Milk
   d. Vegetables

6. How much do you like the school food on a scale of 1 (worst) to 10.
   1
   2
   3
   4
   5
   6
   7
   8
   9
   10
How Many Times A Week Do You Eat All Of Your School Lunch?
Frequency of Responses

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>0%</td>
</tr>
<tr>
<td>1 or 2 times</td>
<td>10%</td>
</tr>
<tr>
<td>3 or 4 times</td>
<td>20%</td>
</tr>
<tr>
<td>Everyday</td>
<td>30%</td>
</tr>
</tbody>
</table>

How Many Times A Week Do You Eat All Of Your School Lunch?
% Responses by Reported Gender

- Girls
- Boys
What Foods Are You Most Likely To Throw Away?
Frequency of Responses

What Foods Are You Most Likely To Throw Away?
(Select all that apply)
Frequency of Responses by Reported Gender

Meats
Fruits
Milk
Vegetables

Girls
Boys
How Much Do You Like the School Food on a Scale of 1(Worst) to 10?
Frequency of Responses

% Responses by Reported Gender
1. What percent of food do you think is wasted?
   A: 60%
   A: 40-50%
   A: most of it
2. Why do kids waste food?
   A: Because they are wasteful.
   A: I think it’s because they don’t get the required nutrition taught at home.
3. What foods do kids waste the most?
   A: The vegetables
   A: The fresh vegetables
4. Why do you give out food to kids if you know they will throw it away?
   A: By law we have to give it to them. If they don’t eat it, that’s on them.
5. How would you reduce food waste?
   A: I don’t know, that’s a good question.
So let’s assume kids waste 35% of the food they are served.

- 166,144 meals served each day
  - 58,150 meals wasted
- About 45,000 satellite lunches served ($1.84) each day
  - $31,759 thrown into the trash

There are a minimum of 180 instructional days per year. What’s the yearly waste?

10,467,000 total meals wasted

$5,216,400 of satellite lunch food thrown into the trash
Reference

• SR Watkins Report: Communities Putting Prevention to Work
• Inside the Lunchroom: Worker’s Vision for Real Food and Safe Schools
• USDA Reducing Food Waste Infographic
• Interviews with:
  • 2 Huey lunch monitors
  • Huey Building Engineer
  • Huey Principal
  • Director of Food Services, School District of Philadelphia

Thank You

• Samuel B. Huey Elementary School
• Agatston Urban Nutrition Initiative
• Netter Center for Community Partnerships
• The Last Food Mile