

Plate Waste Case Study



2015-16 Plate Waste Study Results

Method



The quarter waste method was used to visually measure uneaten edible food and beverage thrown away by students. The quarter waste method assigns a numeric code based on portion of item left on plate:

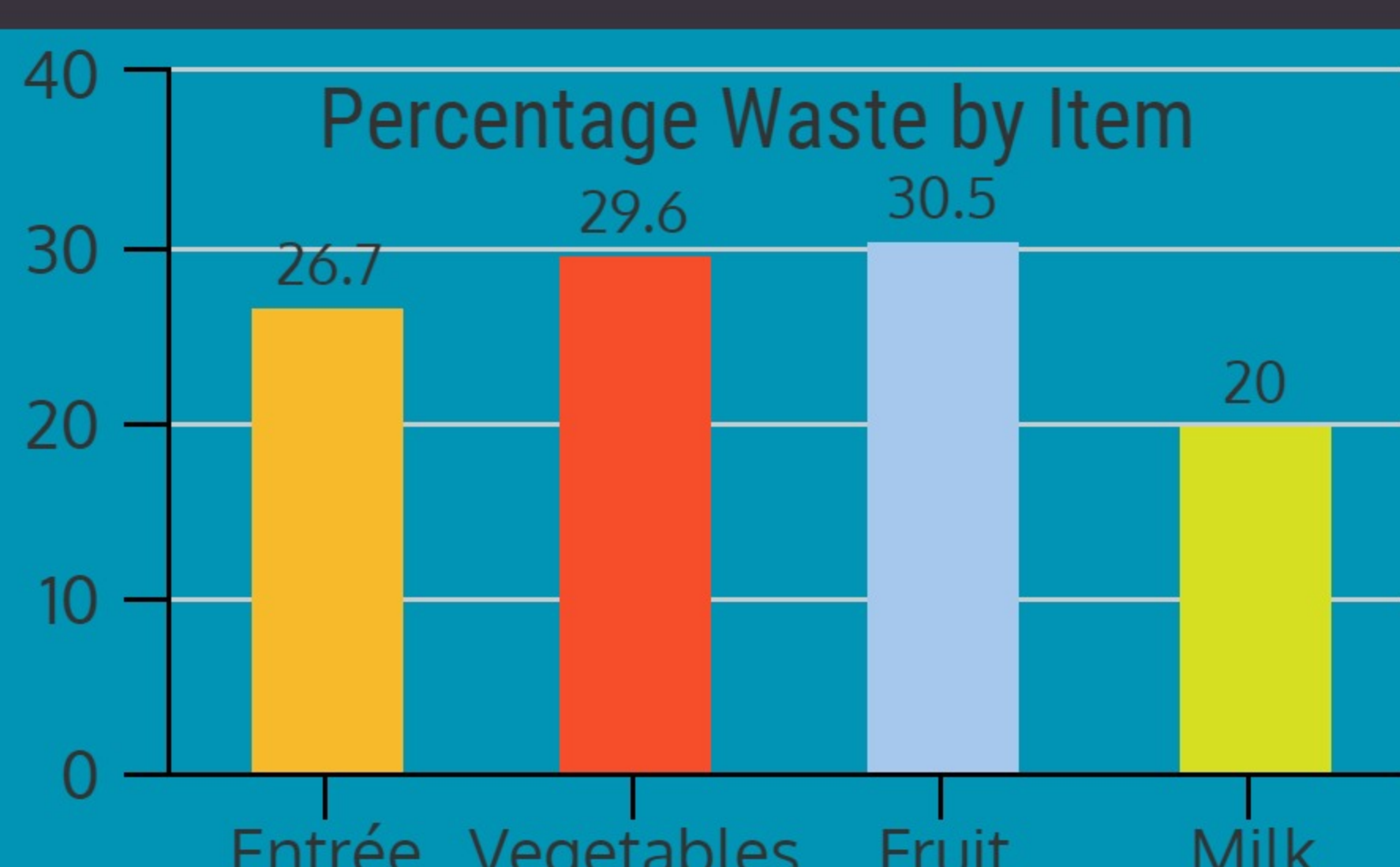
0 = all eaten 1 = ¼ wasted 2 = ½ wasted 3 = ¾ wasted 4 = all wasted

1,291 trays were coded over 4 days; 2 pre-intervention and 2 post-intervention days. Kindergarten and pre-K trays were excluded from this study.

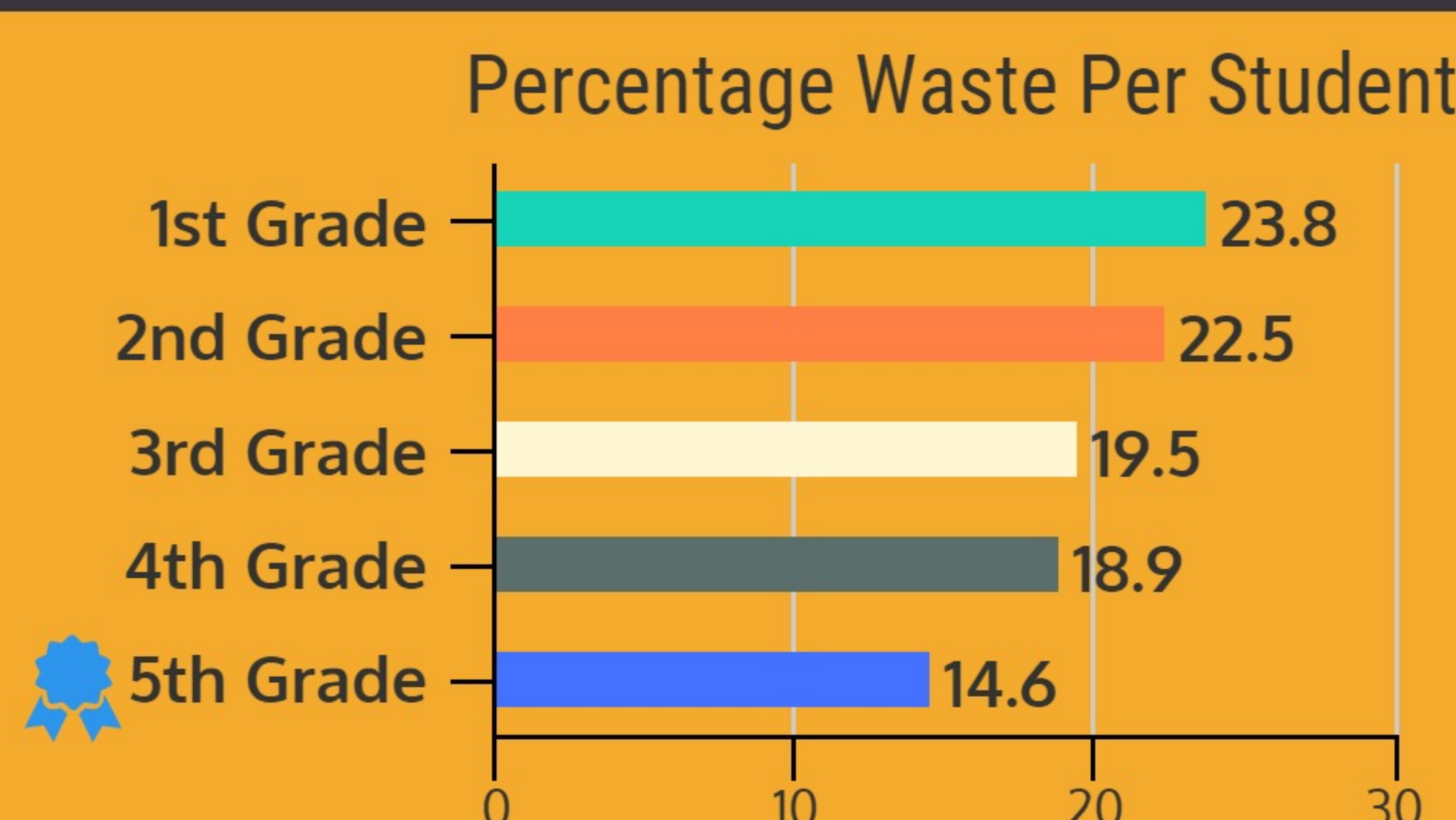
Categories

Fruit was the most wasted food item during the study. Vegetables were the least selected item and followed closely behind fruit with a waste measurement of 29.6%. The turkey and cheese sandwich was the most wasted entrée and the turkey crisp tacos were the least wasted. Chocolate milk was the least wasted beverage

Waste Definition = 75% or more of item was thrown away



Students



On average, fifth graders had the least food and beverage waste of all grades. There was a direct correlation between grade level and overall waste. There was no significant difference in waste per student pre to post intervention.

Milk

Fat free white milk and low fat white milk had similar waste measures of 30.9% and 30.8% respectively. Fat free chocolate milk had the lowest waste measure of 10.7%; it was also the most selected beverage.



Fruit



Whole apples were the most wasted salad bar item and significantly factored into the overall high fruit waste measures. Sliced oranges were highly selected and had the least waste of any other salad bar item.

Vegetables

Baby-cut carrots and legumes were the most wasted vegetables on the salad bar with waste measures of 58% and 53.8% respectively. The category of legumes included chickpeas, black beans, and sugar snap peas.



Serving Style & Waste



During pre-intervention days, kiwis were served in halves and had a high waste measure of 55.6%. When kiwis were served in quarters during post observation, the waste measure dropped to 7.7%. On average, sliced fruit had less than half the waste of whole fruit; 20.8% waste vs. 45.1% of whole fruit wasted.

Recommendations

- Student involvement in the taste testing and marketing of targeted entrées, giving fun names to salad bar produce, and peer-to-peer advocacy for food waste reduction
- Parent involvement in the dialogue around food waste and conservation at home and school
- Increase verbal prompts by staff to remind students to take what they will eat and utilize share basket
- Serve fruit cut instead of whole to prevent waste



Partners



The Elementary School plate waste study was conducted by UC San Diego Center for Community Health - School Wellness Programs. The study was done in line with Smarter Lunchrooms Movement strategies rooted in behavioral economics to nudge students toward making healthier food choices. The study could not have been done without the support of the School District's Nutrition Services Director in addition to the PTA President, Principal, kitchen, and janitorial staff.