INTRODUCTION

What is “food waste”? 
• According to the USDA, “when an edible item goes unconsumed, such as food discarded by retailers due to undesirable color or blisters or plate waste discarded by consumers”

Food waste is a global environmental issue
• In the United States, 40% of food is wasted, and globally, about 1/3 of all of the food that is produced is wasted.
• About 90% of food waste goes to a landfill or incinerator rather than an ecologically friendly place (Baldwin).

INTRODUCTION

OBJECTIVES
• Gain a better understanding of which form of messaging — positive or negative — is most effective in reducing food waste in the Boston College dining halls.
• Determine what type and length of messaging is best in reaching students
• Aim to quantify the amount and specific type of food that is being wasted in Lower Dining Hall
• Aim to assist Boston College & the MCURC to implement the most effective waste reduction messaging
• Provide BC Dining with additional information on how they might, in the future, reduce food waste

METHODS & MESSAGING

3 rounds of data collection, Student surveys to 50 people each week
• Photographs taken of each plate of food corresponding to their survey
• Survey questions were standard across all three rounds
  o Survey for rounds 2 and 3 had additional questions focus on student’s interpretation and attention to the positive/negative messaging
  • First round: prior to distributing any messaging in Lower Dining Hall
  • Second round: Positive Messaging distributed throughout Lower Dining Hall
  • Third round: Negative Messaging distributed throughout Lower Dining Hall

Data Analysis
• Compared the impact of positive versus negative messaging, as well as determined the overall change from first round of data collection.
• 3 researchers independently analyzed photos of plates immediately prior to being composted to determine the average percent of food waste
  o Determined the category of food that was wasted (fruit & vegetable, grain, protein, other)
• Determine which factors considered contribute to waste, based on student surveys

RESULTS

3. Food Waste: Male, Female
• The findings suggest that women are more likely to waste food than men (p<.004)

Correlation between the amount of food waste and the amount of times that students saw the messaging posters
• The findings suggest a weak positive correlation between the number of times you see the posters and the amount of food you waste.

Not Statistically Significant Results

Food Waste: Full Meal plan, Flex meal plan — Cannot say with 90% confidence that the type of meal plan you have impacts your food waste

Food Waste: Messaging campaign — Cannot say with 90% confidence that messaging had an impact on food waste
• With 87% confidence, the messaging % had an impact on food waste
• With 86% confidence, caring about food waste had an impact on amount of food wasted

Food waste: Caring about climate change — Cannot say with 90% confidence that messaging had an impact on food waste

CONCLUSIONS

Male/Female
The findings suggest that women are more likely to waste food than men. This is reflected in the average percentage of food wasted.

Number of times students see the messaging posters
There is a weak positive correlation between the amount of food waste and the amount of times that students saw the messaging posters. This suggests that food waste may be reduced by posting the messaging at different places throughout the dining hall to gain more visibility.

Messaging campaign
Although we cannot say with 90% confidence that messaging had an impact on food waste, we can say with 87% confidence that the messaging campaigns had an impact on food waste. This suggests that with better messaging (more visible placement of signs, longer campaigns, usage of technology in the dining halls) food waste could be reduced.

SOURCES OF ERROR
Messaging posters were taken down during positive messaging round

SUGGESTIONS
In order to reduce food waste...
• Post signs telling students their food is being composted by Lower Dining Hall staff — conversations suggest that not everyone knows about this initiative

Future projects about Food Waste or the MCURC...
• Improved communication between BC dining staff and researchers
• Allow for longer messaging campaigns that keep signs posted in the dining halls
• Try to utilize televisions to offer messaging
• Spread awareness to students about any possible changes to sizes or meal plan options

REFERENCES


MARISA MARSHALKA, JACQUELINE BATRUS, JULZ VACARRO
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