

# A Waste of Time? Food Waste Reduction in Commons

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## INTRODUCTION

On the Beloit College campus, students dining at Commons often take more food than they can eat - what does not get eaten ends up in the trash. Concern has been raised amongst the students, faculty, and staff regarding the high amount of food thrown away daily. In order to discourage food waste, some studies have focused on instilling feelings of responsibility through the awareness of one's actions in order to cause a change in behavior (De Groot & Steg, 2009; Hill, 2010). Still other research has focused on the salient norms in the environment, highlighting the descriptive norm (what most others do) and the injunctive norm (what one ought to do) in an effort to pro-frugality (Cialdini, Reno, & Kallgren, 1990). With the use of posted signs promoting a reduction in waste by encouraging conscientious dining behavior, we hypothesized less food would be thrown away.

## METHOD

An interrupted times series was used to measure the amount of food waste on weekdays before and after the intervention was implemented. A two-week baseline of food wasted was obtained by weighing trash bags on a scale after dinner. Posters were installed above the buffet line, salad bar, beverage dispensers, and trash can to promote less wasteful dining. Proper food portions and frugal slogans encouraged students to limit the amount of food they took (Zelman, 2008). Trash bags were weighed during this two-week intervention, and the measurements compared to the baseline to gauge the impact of the posters on long-term food waste. Four weights (two each from the before and after groups) were thrown out as outliers due to an inability to measure all trash bags produced on these days. An independent samples t-test was used to determine if a significant difference in food waste was obtained by our intervention.

## RESULTS

An independent (unpaired) samples t-test was conducted to compare measurements of student food waste weights before and after the implementation of an intervention strategy of posters. There was not a significant difference in measurements of weight before ( $M=155.2$ ,  $SD=24.5$ ) and after ( $M=144.6$ ,  $SD=32.1$ );  $t(18)=0.83$ ,  $P=0.417$ . However, the results did exhibit a decrease in food waste by 6.8% after the posters were displayed. This indicates a positive effect of the intervention strategy, supporting the hypothesis that posters promoting conscientiousness would lower food waste.



## DISCUSSION

The primary goal for this intervention project was to decrease student food waste output. Specifically, by displaying posters to instill a sense of responsibility and awareness of the amount of food wasted in Commons. Though observed measurements did not exhibit a statistical significance in the effectiveness of our strategy, the goal of the project was still achieved by decreasing the total amount of food wasted.

Sources of error may have played a role in the observations of this intervention, including variability in weight of different types of food, the amount of food prepared each night, the number of students eating in Commons on the nights measured, contamination of non-student waste (i.e., ice packs) in the measured trash bags, and the availability of all trash bags for total weight measurements on specific nights.

Our results implicate that modifications in our technique, such as measuring over a longer period of time or displaying posters more prominently, may help decrease student waste. Statistically, however, this design may not be best to apply without alterations or to other populations and colleges looking for effective food waste management strategies.

As various factors contribute to the amount of student food wasted, it is a valuable issue to examine for future change.

## REFERENCES

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