

Student Attitudes on Food Waste at a Higher Education Institution: Insights for Institutional Policy and Strategy

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Food waste is a multifaceted issue, with EU policies focusing on targeting the behavior of consumers to halve food waste by 2030 (Marouli, 2023). Yet, amongst the more practical barriers in effective policy design and implementation, there is a lack of universal behavior and attitudes towards food waste, as each population's relationship with food, and ultimately the management of it, is influenced by local geography, culture, and demographics (Knezevic et al., 2019). Greece specifically has been one of the biggest contributors to food waste in Europe, with an annual per capita food waste output of 142 kg (Papamonioudis & Zabaniotou, 2022). Within this context, a student-led survey was conducted at the American College of Greece (ACG) to focus on the cultural aspect of food waste generated by the student body. Using the unique position of ACG being a higher educational institute with both local and foreign students attending it in large numbers, the aim of the survey was to utilize these unique characteristics to identify the main contributing factors to student food waste generation and relate them to the demographic information of the student body.

The survey was done in fall 2024 as a practical class assignment for learning integrated methods in environmental analysis. Preliminary research into the topic of student food waste generation was done through a series of interviews with the campus restaurant management, the campus sustainability center, and a professor that conducted a campus waste audit in 2022. Preparation for the formation of the structured questionnaire was undertaken by the class of environmental studies students, and it was informed by a survey of university student attitudes towards food waste in Germany (Gabriel et al., 2021). The questionnaire focused on identifying factors that influenced students' contribution to food waste on ACG campus. Utilizing Google forms, an online questionnaire was developed integrating questions focused on measuring student knowledge, attitudes, behaviors, and suggestions regarding food waste management on campus, centering on the campus restaurant as the sampling frame and main source of student food waste generation. Attitudes and behaviors were given more questions, as they were believed to hold more significance in the detection of meaningful factors that contribute to food waste. Following potential patterns mentioned in the reviewed study, basic demographic questions were also included to determine any patterns in responses based on gender, age, major, ethnicity, campus visitation rates, and years spent on campus. Mixed sampling methods were employed to get a substantial number of responses from students, with the administration of the questionnaire taking place in an online campus community forum (random sampling) and through in-person dissemination of the questionnaire in different parts of the campus. The latter method focused on areas in which students were abundant and in groups to maximize efficiency in response gathering.

A hundred sixty-one (161) responses in total were gathered. A cursory application of statistical analyses indicated that most students had more empathetic views towards food waste as opposed to apathy, with most students suggesting on the one hand, infrastructural changes for the college to implement regarding restaurant management practices and on the other, campus actions to promote awareness and mindfulness in eating. Further meaningful statistical analysis was inhibited by time constraints and the limited expected scope of the initial survey. However, proper statistical analysis will follow from this study, utilizing pseudo-weights to better limit biases from the mixed sampling methods (Elliott, 2009).

Additionally, a prior survey was done on campus in 2020 with a similar scope and goals, namely it focused on students' food-waste-related attitudes and behaviors when they dine out and at the campus restaurant, and how these relate with food waste generation. This survey gathered one hundred sixteen (116) responses with a random sampling method of disseminating physical questionnaires in randomly chosen classrooms. Due to its

similar aims and to strengthen the results of both surveys, a cross-survey statistical analysis focusing on the overlapping questions will be implemented to make the most of the gathered data and provide deeper insights on student attitudes in relation to food waste generation. The paper submitted and to be presented at the conference will be on the results of this comparison and cross-survey statistical analysis. What is hoped to be achieved is a useful analysis of student attitudes, contextualized with the relevant demographic information as a significant influence on the perceptions and actions towards food waste. This information can yield a robust insight into student food waste generation and inform more dynamic approaches for institutional policies and strategies to reduce food waste.

While the EU is committed to reducing food waste, further studies are needed to understand what informs the behaviors of different populations and demographics to more effectively use policy as a food waste prevention tool. The comparison of different student backgrounds within a higher education context can help provide an insight as to the mechanisms behind wasteful actions by viewing them through the lens of student attitudes toward the act of wasting food and toward the possible actions that can be done in reducing food waste. With more effective treatment of statistical analyses on two surveys of the same campus in two different years, the data gathered within each of them can complement their own respective weaknesses and reveal commonalities and differences between them. The implications of such similarities or differences in the context of solid waste management can then be extrapolated to better inform institutions on how to implement changes for food waste reduction.

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