



UNIVERSITY OF MARYLAND  
HONORS COLLEGE

# Team RECYCLOTH: Challenging the Fast Fashion Industry: A Zero Fabric Waste Campus

Margot Bloch, Mia Chang, Alexis Esume, Kira Fallen, Kayleigh Gallagher, Mina Senthil, & Stephanie Zheng  
Team Mentor: Dr. Mary Beth Furst Team Librarian: Suzy Wilson



GEMSTONE  
Honors College  
University of Maryland

## Background

**Fast Fashion:** Quick response production, frequent assortment changes, and fashionable designs at affordable prices.<sup>[1]</sup>



- Toxic dyes and chemicals
- Sweatshops
- Planned obsolescence
- Throw away culture
- Attitude behavior gap

**Sustainability:** Making best use of the resources available and practicing mindful consumption of goods and services so that all basic needs and quality of life are met without jeopardizing the needs of future generations.<sup>[2]</sup>



## Survey of Attitudes and Behaviors



Figure 1: On a scale of 1-5, how familiar are you with the following brands/stores?

## Clothing Collection

- Partnered with ResLife
- Collected from 16 on-campus residence halls, UMD Commons and Courtyards, costumes from the Clarice
- Collection period: 1 month
- Checked on bins after 2 weeks - only 2 bins were half full
- After another 2 weeks:
  - 80% of collection bins in the residence halls were full
  - UMD Commons - 2.5 full bins
  - UMD Courtyards - 1 full bin

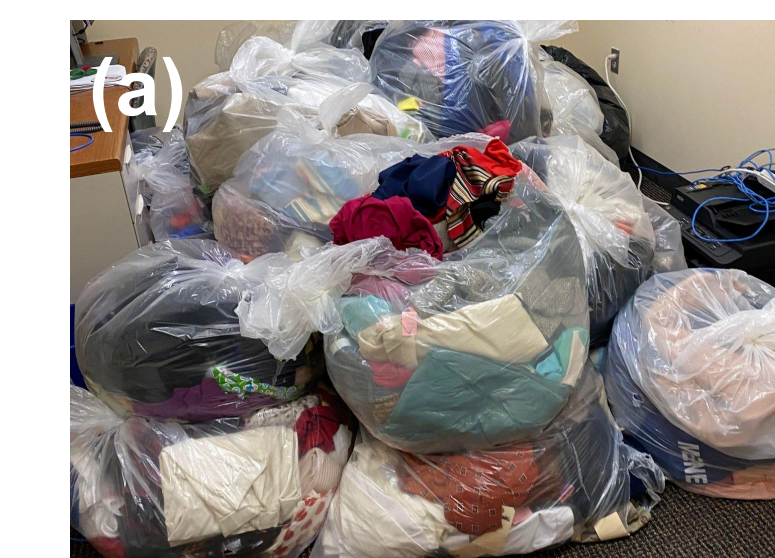


Figure 4(a-b): (a) Clothes collected and (b) clothing collection bin

## Research Problem

Fast fashion has created a number of environmental, humanitarian, and economic problems. The industry focuses on selling large amounts of low quality products at low prices, causing water and air pollution both during and after manufacturing as well as the accumulation of non-biodegradable materials in landfills.

## Research Question and Hypothesis

- How have the attitudes towards fast fashion/collection of clothes changed? Do attitudes change/can we change these attitudes?
  - We will collect behavioral data, collect textiles from collection bins on campus, and sort textiles for redistribution in 3 fashions: upcycling, donating, and recycling.
- Can a system of collecting, recycling, donating, and reselling textiles be developed to create a zero fabric waste campus? Can this be replicated for application on other college campuses?
  - After analyzing survey data and collection data, we will develop a zero fabric waste campus blueprint that can be used by other university campuses and communities.

50%+ of respondents associated the following terms with Fast or Sustainable Fashion

### Fast Fashion

Affordable  
Bad for environment  
Bad quality  
Cheap  
Fashionable  
Trendy  
Unethical



### Sustainable Fashion

Ethical  
Expensive  
Good for environment  
Good quality  
Long lasting

## What about Goodwill?

Donating clothes may seem like a sustainable choice, but not all clothes get a second home.

10% are resold or reused  
90% are landfilled, recycled, or incinerated, including unsold donations<sup>[3]</sup>

- EPA reported 13 million tons of clothing waste in 2018<sup>[4]</sup>

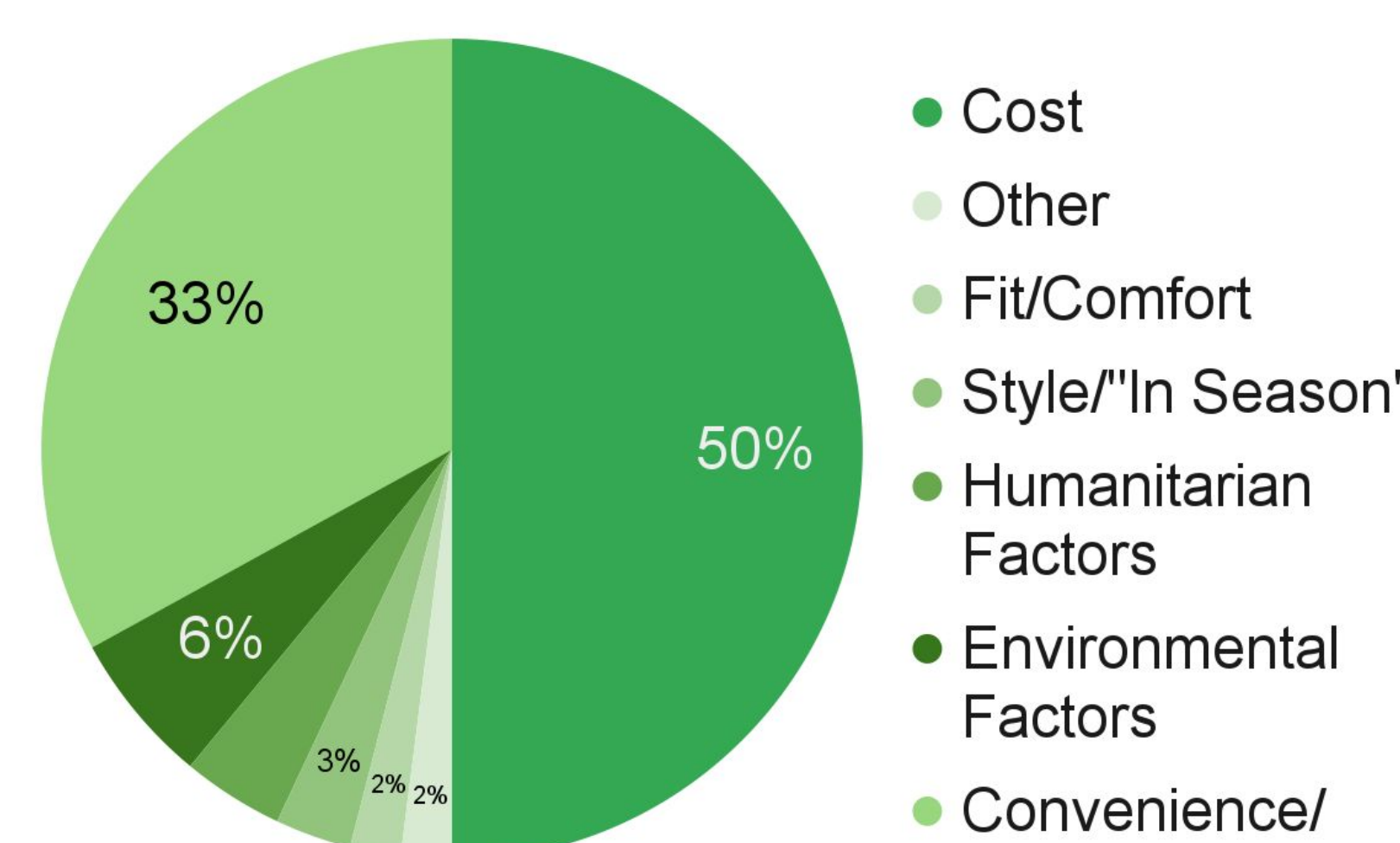


Figure 2: Rank the following factors in order of importance when you decide on a clothing purchase.

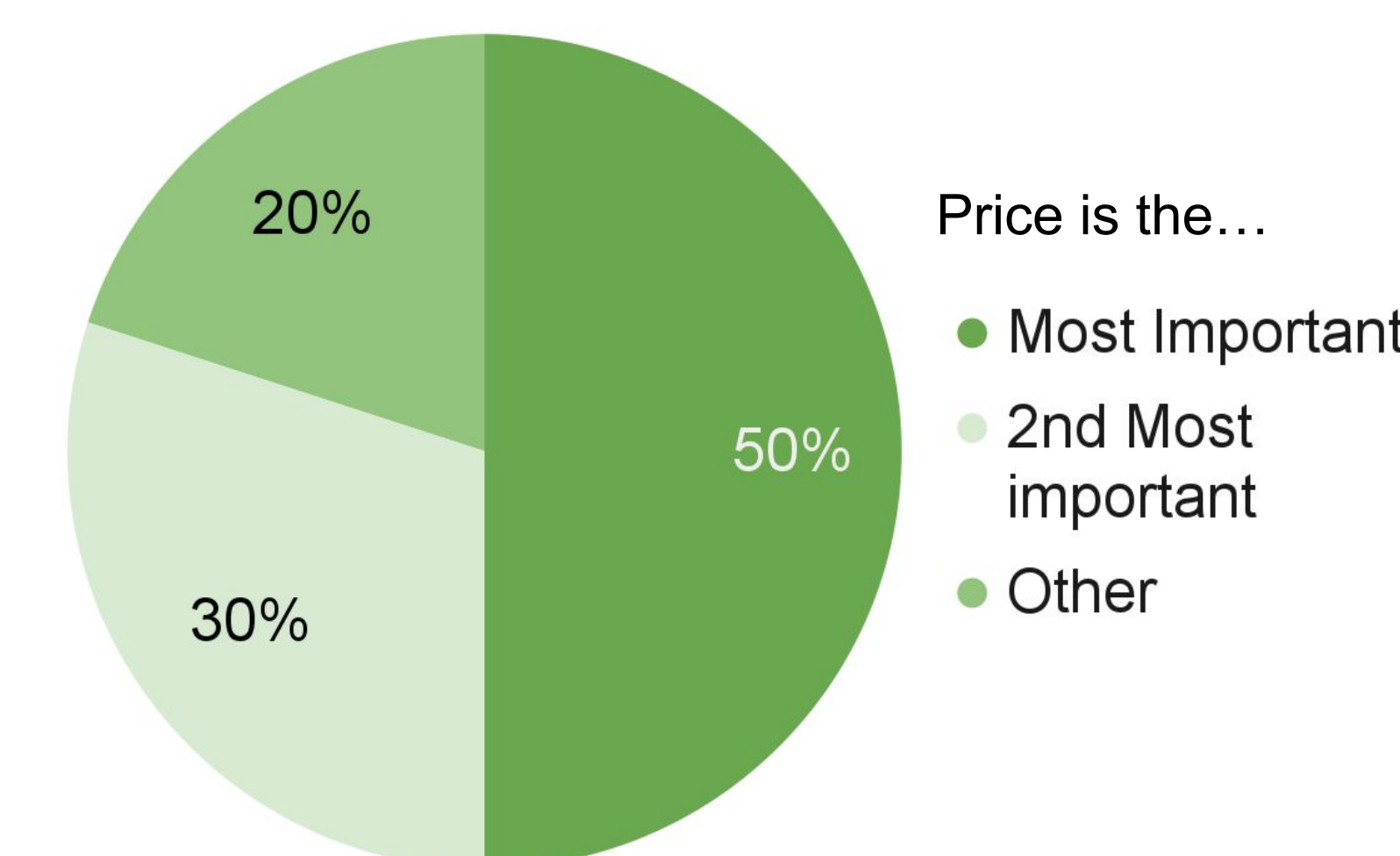


Figure 3: The Importance of cost in clothing purchasing decisions.

## Blueprint and Future Research Goals

- Develop a blueprint from our data and distribute it to other colleges and universities so they can create their own Zero-Fabric Waste Campus
- Clothing Distribution
- Sustainability Event at Earthfest
  - Distribute collected clothes
  - Upcycling demonstrations
  - Interviews
- Thesis Defense

## Acknowledgements

- Dr. Mary Beth Furst, our mentor
- Suzy Wilson, our librarian
- Gemstone Staff
- Maryland Sea Grant
- Sustainability Mini Grant
- Lisa Alexander and the entire Department of ResLife

## References



"This (report/video) was prepared by Gemstone Team RECYCLOTH under awards NA14OAR4170090 and NA18OAR4170070 from Maryland Sea Grant, National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The statements, findings, conclusions and recommendations are those of the author's and do not necessarily reflect the views of Maryland Sea Grant, the National Oceanic and Atmospheric Administration or U.S. Department of Commerce."