ZTH ANNUAL WASTE AUDIT



What is the Waste Audit?

On November 15, 2017, the Green Team, accompanied by students, faculty, and community volunteers, got to work separating recyclables from trash to better understand what was being thrown away at WPI. Three buildings were chosen to use as subjects for the audit. These three buildings were the Campus Center, Founder's Hall, and the Library. All participants underwent safety training the week before at the weekly Green Team meeting. Those who couldn't attend the meeting were given a synopsis of the training at the event. Tyvek suits, two layers of gloves, and safety glasses were all mandatory while going through the bags in order to make sure no one would be injured in the process. The process itself consisted of weighing the garbage/recycling bags on the way in and then sorted into bins labeled: Trash, bottles and cans, cardboard, paper, liquids, food waste, and for the first time this year, containers. The Green Team was curious about how many clamshells (plastic to-go containers) were thrown away so an additional bin for those was added this year. After these bags were sorted, their new weights were recorded, and the process was continued until the bags from the Library and Campus Center were finished. Unfortunately, there wasn't enough time to get to the bags from Founder's Hall so the information in the report below consists of only the Campus Center and the Library.



RECYCLING RATES

We calculated two recycling rates for the waste audit this year. The first was the recycling rate through the weight of the recycling bins. This will let us compare the recycling rate to previous and future years of the waste audit. This equation is represented by Formula A below. The second rate we found was the potential recycling rate. This is how much recycling could have occurred if the recyclables had been placed in the correct bins and not the waste bins. This equation can be represented by Formula B below. All rates calculated only represent one day and may not be accurate as to how recycling rates work over the entire year.

Formula A

 $\frac{\textit{Total Weight of items Initially in the Recycling Bins}}{\textit{Total Weigh of all Waste (Trash + Recycling)}}*100\% = \text{Recycling Rate by Weight of Bins}$

Formula B

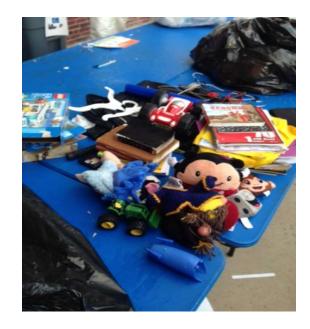
 $\frac{\textit{The Total Weight of All Recyclable Items}}{\textit{Total Weigh of All Waste (Trash + Recycling)}}* 100\% = Potential Recycling Rate$

INTERESTING ITEMS:

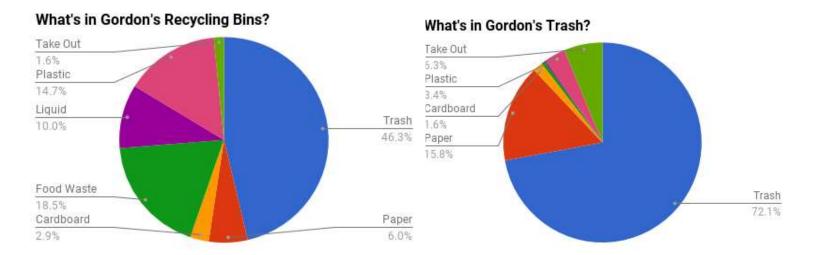
Every year at the Waste Audit, some interesting items are always found. Here are

some interesting items that were found in one particular trash bag.





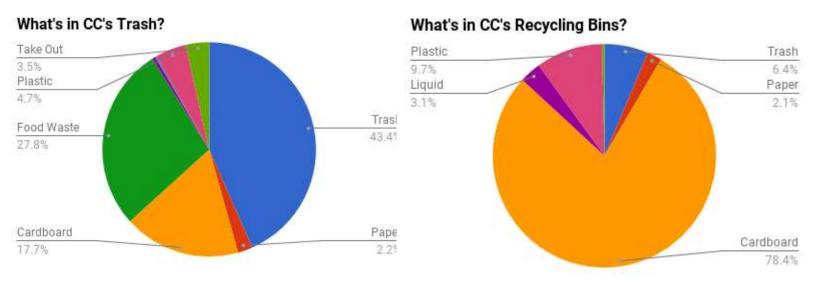
RESULTS: GORDON LIBRARY



What does this mean?

The Library is usually the biggest culprit when it comes to waste which is why it was chosen again this year. This year the recycling rate was 8.5%. This was a decent decrease in recycling from last year's audit. The amount of trash that made it into the recycling bins here is astounding and really shows that not everyone understands what is and isn't recyclable. There is also a good amount of food waste which is a trend from the 2016 Waste Audit, however it has gone down from last year which is an improvement. The potential recycling rate calculated was 26% which shows that there is still a lot of room for improvement.

RESULTS: CAMPUS CENTER



What does this mean?

The CC had a recycling rate of 19%. This is an improvement of about 3% from last year, but with a good amount of recyclables thrown in the trash, it is still a bit off of the recycling rate that is possible. Most of the recycling that occurred in the CC was cardboard, as most of the drinks they sell come in large cardboard boxes. There was also a large portion of food waste in the trash that could be diverted in the future. The Potential Recycling Rate was 29%. This is also an improvement over the potential rate from previous years, however, it will not change unless students learn which waste goes into which bin. Overall, the CC was an improvement on last year, but not by much.

SPECIAL THANKS!

- Facilities who brought all the trash/recycling bags from the buildings and distributed them.
- Everyone who volunteered to participate in this year's Waste Audit, no matter how much time you put in.

• Liz Tomaszewski coordinating this event with the Green
Team

