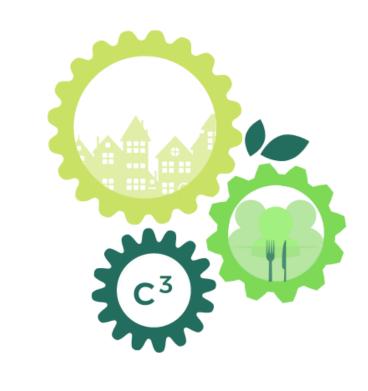


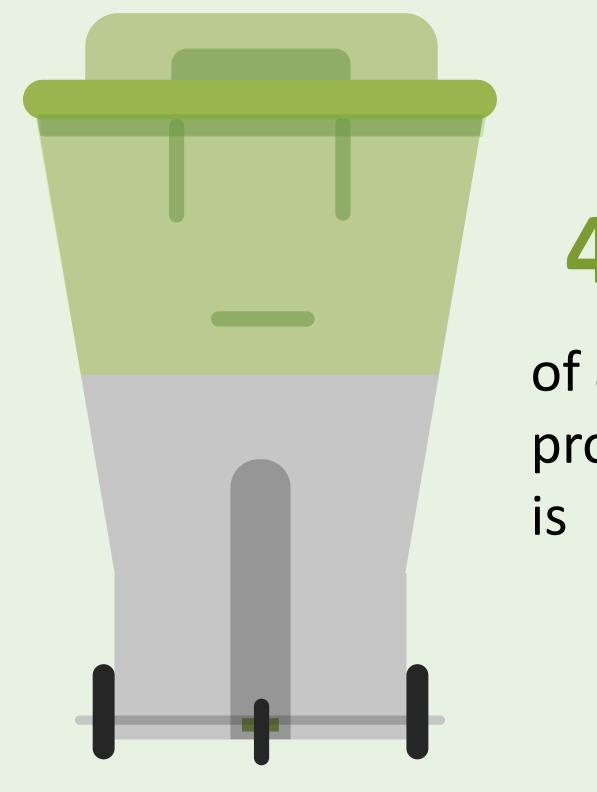
Engineering a Composting Community



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GOAL: DEVELOP A SIMPLE SYSTEM FOR COMPOSTING FOOD WASTE PRODUCED BY
RESIDENCE HALLS ON THE WPI CAMPUS

FOOD WASTE GLOBALLY & NATIONALLY:



44%

of all waste produced globally is FOOD WASTE (1)

2 GASES

AND LEACHATE

are produced by

food in landfills (2)

22M LBS.

of Food Waste are generated by college campuses in the U.S. (3)

AT WPI:

Food waste is sent to Tyde Brook Farm from Morgan Dining Hall, The Goats Head, and Ruben Campus Center.

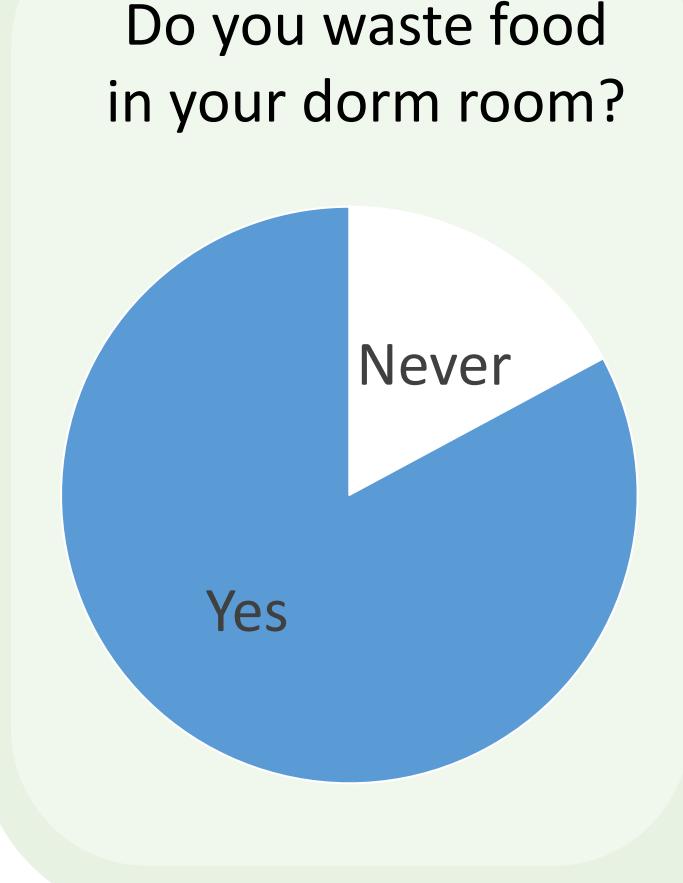
WPI DOES NOT SUSTAINABLY DISPOSE OF FOOD WASTE FROM RESIDENCE HALLS.

First year students at WPI create a total of 84,255 lbs. of green waste. (4)

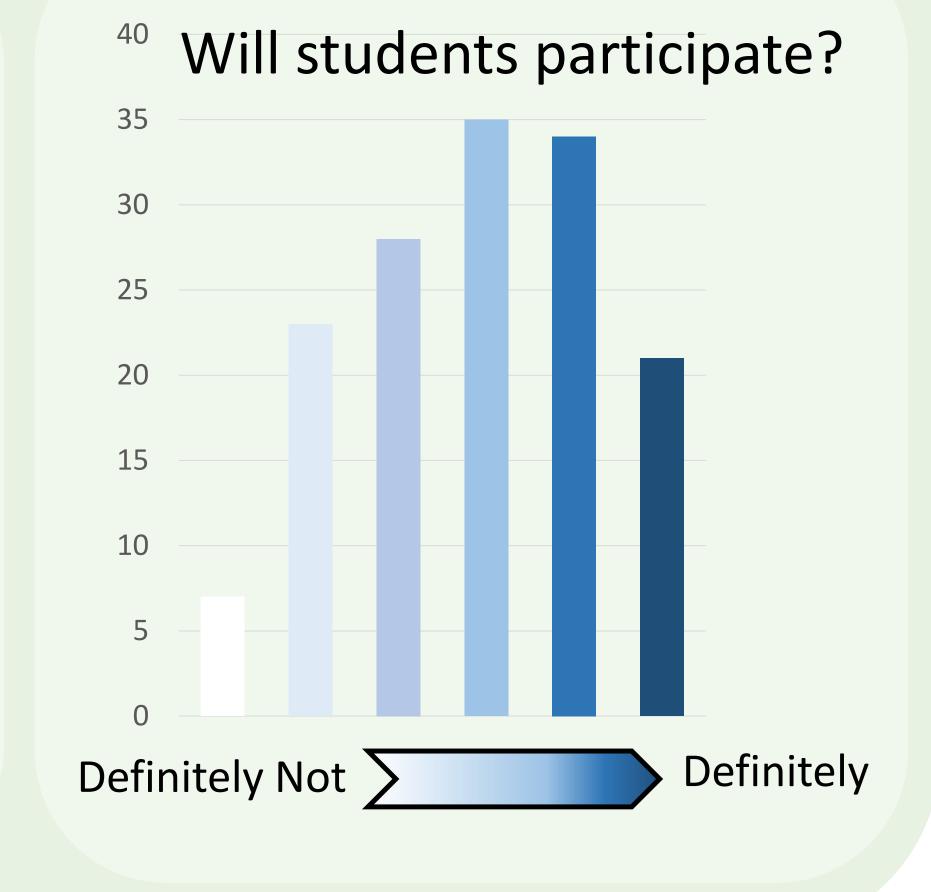
RESEARCH:

- 1. Waste streams at WPI: informed by Gary Antinarella, Liz Tomaszewski, and Joe Kraskouskas
- 2. Sustainable Universities: in Worcester, MA and across the U.S.
- 3. Survey of Freshman Waste Habits

SURVEY RESULTS:



waste/trends_in_solid_waste_management.html



IMPLEMENTATION:







A PILOT PROGRAM IN WPI'S FIRST YEAR HALLS

INFRASTRUCTURE:

1. Compost Bins

\$540

2. Compost Bags

+ \$1200 (per year)

Composting would cost:

\$1740 1st year

MAINTENANCE:

Freshmen Orientation:

Students introduced and informed on the residence hall composting program

Appointed Position:

One elected to composting leadership position per floor

OUTCOMES & EVALUATIONS OF SUCCESS:

- Negligible food waste in trash bins
- Significant food waste collected
- High levels of student participation

Sources:

(1) Cammarata, D., Cevallos, M., Dias, C., Kelty, A., Lepage, S., & Looft, F. (2017). Sustainability at WPI: Food Waste Management. Retrieved from https://web.wpi.edu/Pubs/E-project/Available/E-project-042717-142616/unrestricted/Sustainability_at_WPI_Food_Waste_Management.pdf (2) Hoolohan, C., Berners-Lee, M., McKinstry-West, J., & Hewitt, C. N. (2013). Mitigating the greenhouse gas emissions embodied in food through realistic consumer choices. *Energy Policy, 63*, 1065-1074. doi: 10.1016/j.enpol.2013.09.046

(3) Food Waste Estimation Guide. (n.d.). Retrieved from https://recyclingworksma.com/food-waste-estimation-guide/#Jump01.
 (4) Poon, L. (2015, February 27). When Food Is Too Good To Waste, College Kids Pick Up The Scraps. Retrieved from https://www.npr.org/sections/thesalt/2015/02/27/389284061/when-food-is-too-good-to-waste-college-kids-pick-up-the-scraps.
 (5) Trends in Solid Waste Management. (2016). Retrieved from Worldbank.org website: http://datatopics.worldbank.org/what-a-