

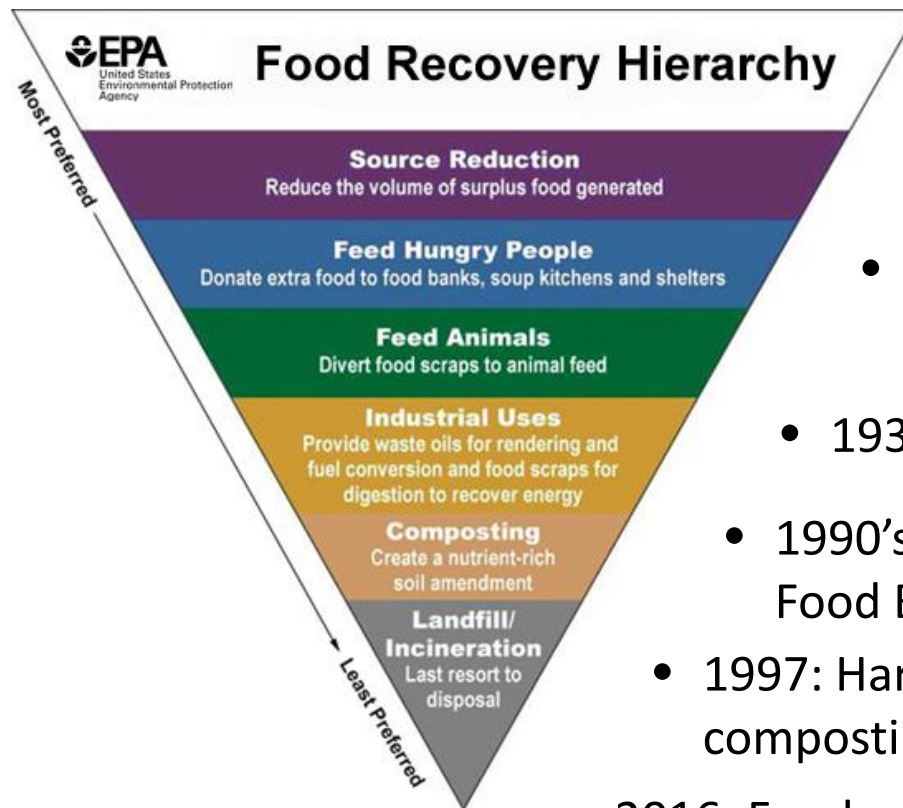
# Food Donation, Waste Reduction & Organic Waste Recovery



**HARVARD**  
Campus Services  
ENERGY & FACILITIES

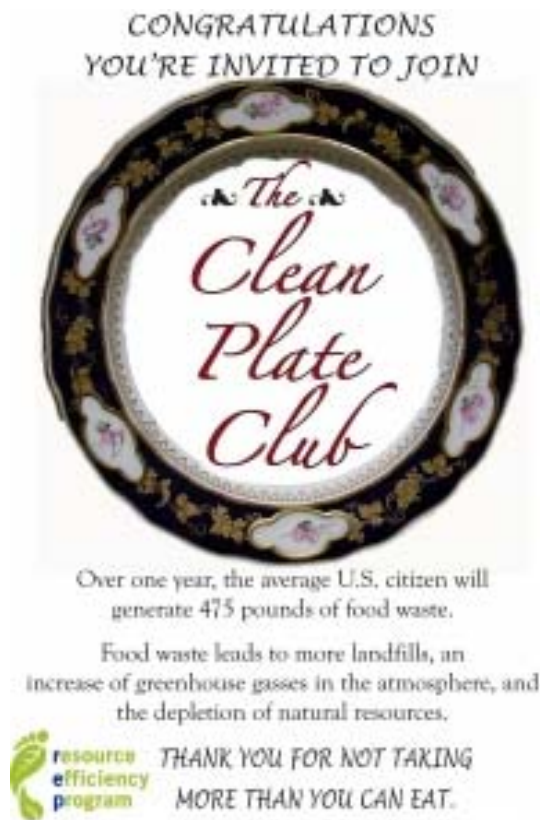
College & University Forum, 03/18, Boston College  
RecyclingWorks / CET  
Rob Gogan, Manager, Harvard Recycling Services  
156 Western Avenue  
Allston MA 02134





- 1636: Harvard feeds food scraps to free-roaming pigs
- 1700's: Composting in privies and door-yards; food scraps sent to farms
- 1930's: Food scraps flushed into sewage
- 1990's: Harvard teams with Greater Boston Food Bank to feed surplus food to the hungry
- 1997: Harvard begins recovery of food scraps for composting
- 2016: Food scraps sent for digestion into BioGas

# Waste Prevention: Front of the House



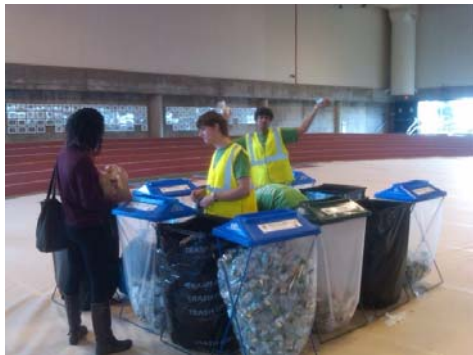
- Self-service at Board Plan dining halls allows individual portion control
- Eco-Reps ask diners to take only what they will eat and enjoy at entrance
- Dining Service offers tasting cups for new entrées
- Collective shaming: accumulate 30 minutes of plate scrapings and display—"Yuck" factor is powerful.
- Go trayless or make trays harder to get. *Caution: Athletes may not get enough calories; people with eating disorders may hear the wrong message*
- Average per-meal waste, 2002: > 5 ounces
- Average per-meal waste, 2014: < 2 ounces

# Food for Free Partnership



- Inherent waste of Board Plan meals: Need to offer full menu to students arriving early and late
- Be careful with publicity: “Why are you over-buying food?” Zero Waste goal
- 2,000 meals per week packaged as balanced meals delivered to community suppers, shelters
- Student volunteers partner with Harvard University Dining Service to consolidate, package and set out goods for Food for Free pickup
- Special events: Parents Weekend, Commencement

# Food and Organics Recovery at Special Events



- Uniformed “Goalies” need to staff stations
- Reusable bag promotes saving food for later
- Prior arrangements with charities to pick up uneaten meals can yield big harvest
- Good Samaritan laws protect donors (see “Rock and Wrap it Up” website for more guidance) <https://www.rockandwrapitup.org/>
- Staging refrigeration truck (e.g. ice storage truck) allows multiple vendors to donate food at their own pace at the end of a festival



# Choosing to Reuse



- Reps ask for public pledges to refuse all single use take-out ware
- Office for Sustainability gives students option to decorate and make mugs their own—easy to ID—more ownership
- Dean funds free mugs
- Discounted or free drinks in reusable ware
- Dining Service sets clean mugs on Mug Tree next day



# Mug reuse: 1640 - 2013

MARKED RED EARTHENWARE excavated and identified by Professor Christina Hodge; Harvard's first Dining Commons as it might have looked in 1640.



Bevis, A. M. Diets and Riots: An Interpretation of History at Harvard University. Boston, MA: Marshall Jones Company, 1936.



Devon Newhouse '13 shows the reusable mug she got as a Freshman in 2009.

# Reusable Take-out Ware: Failed Experiment



- Diners got token from ID checker
- Token was redeemed for reusable container
- Container was returned for washing and diner given token for next use

- **Fatal flaw in this café: students took out but did not return containers often enough**
- Reusable ware success: Harvard Law School puts out coffee urns 7-9 AM before café opens, with condiments but no cups. This enables caterer to cover sales staff late in the day when students want it. Only mug toters can benefit from early set-out.



# Recovering Food Scraps for Composting



Somat food pulper receives piped food/water slurry from multiple locations in the building to spin 50% dry (like cooked rice).



Front-of-house collections please students, but often get contaminated



Somat food pulp falls into rear-load 2-yarder.



Organics are delivered to Rocky Hill Farm, Saugus. Farmer's aerobic windrows were intolerant of contaminants (gloves, Sterno, recyclables) and could not process compostable ware quickly enough.

*Harvard recovered 1,388 tons of food waste for composting into topsoil in FY2016.*

# Recovering Food Scraps for Digestion

- Charlestown drop site enables more efficient transportation than to farm
- Digestion at Greater Lawrence Sanitary District generates bio-gas, displacing fossil fuel + fertilizer residue
- GLSD running well below capacity, so bio-digestion makes better use of existing urban infrastructure
- Cambridge curbside “composting” April 2018 to all <13 unit buildings



When they had all had enough to eat, he said to his disciples, "Gather the pieces that are left over. Let nothing be wasted."

Jesus, John 6:12, New International Version



The Lord giveth our water and daily bread;  
Waste not leftovers; share them instead.

--John Harvard