



UNIVERSITY OF GEORGIA

Sustainable UGA

The University of Georgia's Office of Sustainability (OoS) spearheaded a study to test the effectiveness of special signage to influence people's waste sorting practices. In partnership with the university's Facilities Management Department and Busch Systems, the OoS retrofitted existing bins in three academic buildings with special signage displaying different recycling-related messages:

- 1) Informational, listing recyclable and non-recyclable items;
- 2) Social normative, associating recycling with school mascot;
- 3) Product transformation, telling people what recyclables are turned into.

KEY FINDINGS

1) Adding signage above bins made a difference!*

18%

DROP IN RECYCLABLE ITEMS PLACED IN TRASH BINS

14%

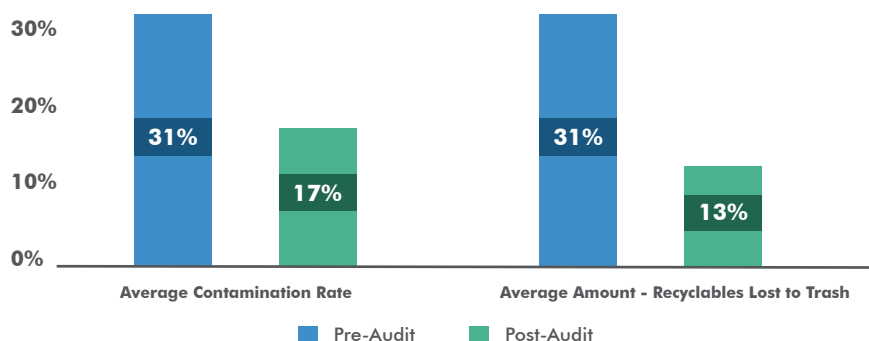
LESS CONTAMINATION OF THE RECYCLING STREAM

2) Informational & Normative message most impactful**

Signs displaying lists of acceptable items and messaging reinforcing recycling as a campus norm had the greatest impact, reducing the amount of recyclables in the trash between 20% and 22%, while reducing recycling contamination by 18% (normative) and 25% (informational).

*Average for all messages. | **Results were not statistically significant.

UGA Study Results - Bin Content



Waste Watcher bins used in University of Georgia study.

ABOUT THE RESEARCH

Prior to the study, The University of Georgia had over 300 buildings outfitted with a standardized system of 1,500 Busch Systems Waste Watcher recycling and trash bins, with only a basic label on the lid.

The OoS selected three buildings for the pilot study, with a combined 47 two-stream stations placed primarily in hallways and other public areas. No changes were made during the initial baseline measurement phase. For the intervention phase that followed, the OoS attached 8 1/2" x 11" sign frames donated by Busch Systems that rose up from the backside of all 94 bins. Each building was assigned to display one of the three messages in all locations.

Two rounds of waste audits were done in Spring 2019 to capture composition data before and after the addition of the signs. Each audit covered the amount of waste generated over a 24 hour period from all bin locations. A planned 3rd audit was canceled due to the COVID-19 pandemic.

ADDITIONAL RESEARCH

The University of Georgia study results echo previous research about the value of prominent signage placed above bins.

Austin, Hatfield, Grindle & Bailey (1993)

Focus: This Florida State University study measured how much recycling was collected from two department offices when signs were placed on the wall above the trash and recycling bins identifying collection streams, as well as when the bins were placed together or separately.

Results: *The quantity of recyclables recovered increased 54% after new signs installed.*

Werner, Rhodes & Partain (1998)

Focus: University of Utah research included two separate studies on using signage to increase the recovery of polystyrene plates, cups and other packaging from a dining facility. The study introduced large signs placed above the recycling bins and tested both instructional and persuasive messages.

Results: *Among other factors, placing signage at eye level above the bin increased the average volume of polystyrene recovered from ¼ of a bin each day to 3 ½ bins.*

Wiersma, Noack & Binder (2012)

Focus: A team at Western Michigan University tested the impact of new signage on bins in a high-traffic, multi-use student union building. Color-coded signs listing acceptable items were placed on the wall directly above recycling and trash bins.

Results: *Contamination was moderately lower after signs were introduced. Though with limitations, further analysis of study details judged the impact of using prominent signage to be significant.*

“The bins signs provide a simple and effective opportunity to educate and engage the campus community in values-based and correct recycling behavior”

**– Kevin Kirsche, Director of Sustainability,
University of Georgia**



Using above-bin signage has the potential to increase UGA's annual recycling by **130 TONS!**

VALUE OF VISUAL PROMPTS

Recycling behavior is complicated! Research has shown that a number of factors influence whether people recycle correctly, including convenience and pre-existing knowledge about recycling. These signage studies reveal another issue: people just aren't paying attention sometimes! Without noticing the smaller labels on the lids, they'll reach for the nearest bin without realizing what it's for. Similar to different bin colors and restrictive openings, prominent eye-level signage provides a strong, visual prompt to help people recognize the distinction and aim for the correct bin opening.