



### SUMMARY

Busch Systems partnered with IUPUI (Indiana University – Purdue University Indianapolis) to study the effectiveness of a new deskside recycling and waste collection system. Previously, staff and faculty were provided a regular-size waste bin for their desks that was emptied by custodians three times a week. With this system, staff only received a recycling bin if they requested it, which they had to empty into a centralized station. With the new arrangement, staff automatically received a regular size 14-quart recycling basket, along with a small 2-quart hanging waste basket (Figure 1). Educational signage was included on the bins & posters to inform employees about the new system (Figure 2). Custodial service was reversed, so that recycling bins are now serviced three times a week and staff are required to empty their waste basket to a centralized waste station. The new system also eliminated the use of plastic bags in individual waste containers and custodians only clean soiled bins when necessary.

An initial pilot was conducted in the school's then brand new University Hall administration building in the fall of 2015. Analysis of the waste stream at this building with the new system showed a clear improvement over other buildings with the old system. While other buildings averaged between 15% and 30% diversion rates, the pilot location achieved a 58% diversion rate. Based on these results, the decision was made to convert the entire campus to the new system. As of fall 2019, 95% of the campus has moved to the new system.

### TESTIMONIAL

"The desk-side recycling program has provided the infrastructure needed to collect more recyclables and maintain a cleaner recycling stream. Ultimately, this program has allowed us to align IUPUI sustainable material management operations with our institutional values."

- Jessica Davis, Director, IUPUI Sustainability

### QUICK FACTS

-  University
-  Indianapolis, IN
-  Student Population: 29,530
-  Waste & Mixed Recycling

Eliminating plastic bag liners through the deskside program saves IUPUI **\$30,000** annually.



Figure 1: Deskside Recycling at IUPUI.



### KEY FINDINGS

The campus-wide implementation of the small waste, large recycling system has resulted in cost savings, improved recycling rates and positive employee acceptance. The recycling rate has increased by an average of 10% across all building types, with office buildings experiencing as much as a 130% improvement (Figure 3). As a whole, the new system has eliminated the need for roughly 500,000 plastic bag liners at a cost savings of \$30,000 annually. Employee surveys conducted before and after the change have shown a 15% improvement in the perceived importance of recycling, 10% improvement in self-reported recycling participation, and a drop from 20% to 5% in the perceived difficulty of recycling at workstations.

Recycling programs are often simply built around existing trash collection arrangements. The problem is these arrangements are designed to make throwing items in the trash convenient. Getting people to recycle correctly requires rethinking how waste bins are designed, arranged and serviced. The key is to design a system that makes recycling intuitive and convenient. IUPUI has found success with office deskside recycling by:

1. Right-sizing the bins. 75% or more of office waste streams are recoverable, eliminates the need for large waste bins.
2. Changing custodial service to include deskside recycling pickup to make recycling more convenient.
3. Designing bin set up to intuitively encourage recycling. Employees could casually toss sheets into the recycling but had to consciously crumple them to fit into the small trash.



Figure 2: IUPUI Signage.

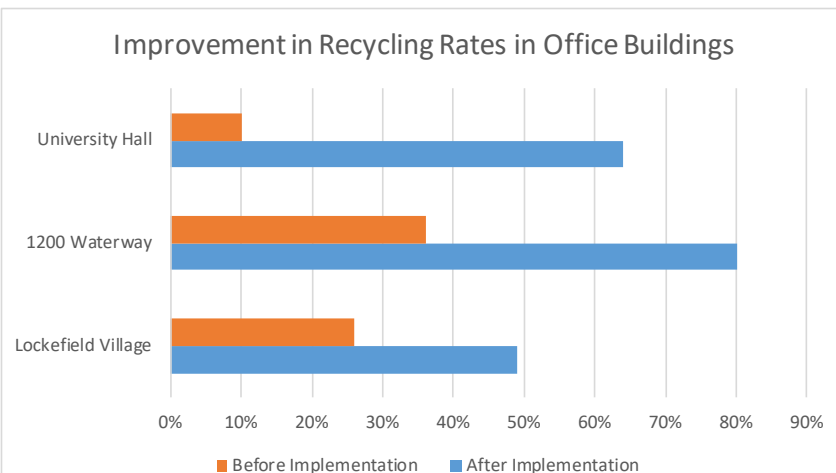


Figure 3: The average percentage of the waste stream recycled during the three month period immediately before and after the new deskside arrangement in three campus office buildings.

