



Centralized Waste Station Research



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INTRODUCTION

A new approach to handling waste

Leon County Office of Sustainability partnered with Sustainable Campus to explore a more environmentally conscious waste collection system.

- Starting Point: county facilities use individual trash and recycling bins at each desk
- Shared Spaces: the trash bins are scattered about the hallways and common spaces with no set criteria for where they are to be placed

Changing the waste system of facilities could potentially promote Leon County's sustainability efforts.

- Environmentally: improve diversion rates (i.e., the amount of waste being transitioned away from landfills) and reduce the number of liners used
- Economically: reduce labor and liner costs
- Socially: utilize time saved on labor for other meaningful projects, achieving certificates, or continuing education

METHODOLOGY

A search for information



Articles: conducted a review of thirty-five articles in the current literature related to the four outlined research questions

Interviews: gathered testimony from Elizabeth Swiman of FSU and Sofia Ratcovich of UCLA

Conversation: alongside Cyndel Brunell, asked John Leeds and Shawnya Hernandez important questions on current facility practices

Field Observations: observed the locationality of centralized waste stations on FSU's campus, noted signage and style of bins used



CONCLUSION

A successful feasibility study

The performed feasibility study provided evidence for the implementation of centralized waste systems in county offices. There are clear environmental, financial, and social incentives to such a program.

Following the completion of the feasibility study, the Leon County Office of Sustainability decided to begin considering a potential 'first site' for implementation. The Sustainability Fellow was asked to map preliminary locations of centralized waste stations on a blueprint of the building.

To prepare for implementation, the Fellow was then asked to create an implementation guide for use across all facilities, which can be found by scanning the QR code.



RESEARCH QUESTIONS

Various unknowns

There were a handful of important research questions associated with the project.

- 1 What institutions currently use a centralized waste system? What can be learned from them?
- 2 How is waste currently managed in the county?
- 3 What are some barriers that may be experienced while implementing a centralized waste system?
- 4 What are the expected outcomes for waste diversion and costs?

Goal: conduct a feasibility study for centralized waste systems at county facilities

Indicator of Program Success: a completed feasibility study that is tailored to Leon County staff and municipalities more generally

RESULTS

Answering the questions

- 1 EXAMPLE IMPLEMENTERS
Companies: Google, Etsy, Cushing Terrell, financial service firms, and more
Universities: Harvard, UCLA, FSU, Ontario Tech
Municipality: City of Ontario
*many having various implementation models to follow

- 3 REASONS FOR EMPLOYEE RESISTANCE
 - believing it is wasted time or disruption of work
 - concern about tissue usage during cold/flu season
 - may burden individuals with disabilities

RESPONSES TO EMPLOYEE RESISTANCE

- employees should throw out trash on frequent routes (e.g., to the bathroom, break room, etc.)
- productivity and attentiveness increases when employees stand up and move around
- system will maintain ADA compliance

A feasibility study was properly conducted, making the project a relative success. However, there were some unique limitations

- 2 WASTE MANAGEMENT
 - Currently contracted out
 - Contracts reflect the need for evidence proving that changing the procedures of workers will result in cost and time savings
 - A waste audit should take place prior to implementation to provide a baseline

- 4 WASTE DIVERSION IMPACTS
 - Google: recycling rates increased by 50%
 - Etsy: recycling up 20%, composting up 300%
 - Financial Service Firm: 23% decrease in the amount of recyclables found in trash (to 7%)

COST IMPACTS

- Etsy: costs decreased by 18%
- Harvard: \$21,000 in first-year savings
- Cushing Terrell: saved 10,400 liners/year
- Ontario: saved custodial workers 1/3 of their time, cutting an estimated \$50/employee/year in custodial costs

- Lack of municipality examples (one)
- Complexity of contracts
- Privacy concerns of the facilities

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Thank you to all who were involved in the project

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