

Recycling Program at The University of Alabama

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ABSTRACT

Our campus-wide Recycling Program is based on collecting the largest amount of recyclable materials possible and thereby diverting them from the local land-fill. The University of Alabama's Recycling initiative replaced a program that was not taking full advantage of all possible recyclable items. The new initiative is having a major impact on The University of Alabama community. The most recent recycling data shows a 125% increase in the tonnage of recycled items. From August of 2008 to July 2009 the University has recycled 799 tons as compared to 354 tons the prior year. Not only did the tonnage increase, but the types of items recycled also increased. Historically, the recycling department operated with one employee, one truck, and minimal recycling bins across campus. The program has grown to 4 full time employees, 3 vehicles, and hundreds of recycling bins across campus.

The expansion process included phases for research, implementation, and a procedural review. An initiative developed by the Director of Logistics & Support Services included gathering data about the current recycling program and meeting with vendors to identify areas in which the recycling program could grow. The research indicated significant change was needed. The initiative was presented to Nancy Whittaker, Associate Vice President for Administration with Financial Affairs. With her support, RFPs were drafted and contracts were awarded to four different vendors.

Additional savings continue to accrue as the University receives market price for the items being recycled. Also, the tonnage being sent to the local landfill is reduced. During the past 12 months. The University has diverted 799 tons. As a result, from August 2008 to July 2009, the University has saved approximately \$22,390.

Better service to the University community, enhanced capabilities, preserving campus life for our students, and being a good neighbor in our community of Tuscaloosa, Alabama are key results of this 'best practice' for the Recycling Program at The University of Alabama.

Introduction of the Organization

The University of Alabama is a major, comprehensive, student-centered research university founded in 1831 as Alabama's first public college. Dedicated to excellence in teaching, research and service, we provide a creative, nurturing campus environment where our students can become the best individuals possible, learn from the best and brightest faculty, and make a positive difference in the community, the state, and the world. The University of Alabama is a senior comprehensive doctoral-level institution. Its mission is to advance the intellectual and social condition of the people of the state through quality programs of teaching, research, and service.

The University currently serves 28,807 students supported by more than 4,400 faculty and staff on an 840-acre campus located within the city limits of Tuscaloosa, Alabama. It is part of the UA system with other major campuses in Birmingham and Huntsville and outreach locations throughout Alabama. The UA System is governed by the Board of Trustees. Dr. Robert E. Witt, President of The University of Alabama since 2003, has led a renaissance of spirit, excellence, and growth in all phases of University life. Vice presidents lead each university division. The recycling department is within the Division of Financial Affairs.

Statement of the Problem/Initiative

Prior to implementing the new Recycling Program initiative, the campus-wide collecting and processing of recycling items was limited. The program consisted of one employee picking up recycling from 15 locations each week. The amount of recycling materials collected was just over 100 tons a year. This program did not encourage or educate students/faculty/staff about the

need to recycle or the importance of decreasing the amount of tonnage sent to the local land-fill.

The decision was made to research several benefits of a more extensive recycling program.

As part of a new recycling program we sought to:

- decrease the amount of material going to the local land-fill
- reduce land-fill cost
- reduce the carbon foot-print of recycling items
- increase the amount of tonnage of recycled items
- increase the revenue from recyclable items
- educate students, faculty and staff about recycling items
- make recycling a way of life and easy for everyone to participate
- save operational budget dollars by increasing the revenue received for recycling materials
- provide departments and students opportunity to recycle

The overall challenge was to:

- find items to recycle that the University was sending to the local land-fills
- find responsible vendors
- educate and change recycling habits
- meet individual departmental requirements for their recycling needs
- find ways to establish a presence at sporting events around campus

Design

The first step was defining the concept that would address all of the challenges associated with recycling around campus and opportunities associated with recycling on the UA campus.

UA would craft RFPs for vendor(s) to receive and purchase our recycling materials. With the

help of Purchasing, the RFPs outlined the types of materials we selected for recycling. The initial recycling items were cardboard, paper (all types), plastic (all types), scrap metal, aluminum cans, and electronics. Contracts were awarded to four different vendors that specialized recycling the items mentioned above.

Changes included designing routes across campus, having one staff member process the recycling materials on a daily basis, having supervisor work with departments across campus and making recycling available to students. These changes drastically enhanced recycling across campus. Research determined it was beneficial to bale paper instead of sending it in loose form to the vendor. The increase in revenue was dramatic. The previous program received proceeds of \$20 a ton for loose paper and the new program received \$195 a ton for baled paper. Additionally, since we could send up to 44,000 pounds on a tractor trailer rather than send only 12,000 pounds, we were able to reduce our carbon foot print. The recycling market has been hit hard by the economic downturn, as have all markets, but the price for baled paper in July 2009 traded at \$120 a ton.

Our research revealed the University could recycle more cardboard. Three primary sources of cardboard were targeted: tons of cardboard were not being recycled from campus dining halls, residence halls during student move-in days each semester, and concession stands from The University of Alabama home sporting events. A plan was implemented for each of these areas. From August 2007 to July 2008, the previous recycling program collected 83,120 pounds of cardboard. From August 2008 to July 2009 the new program collected 234,273 pounds. This represented a 181% increase, and a savings of \$2,116 in disposal fees to the local land-fill for cardboard. Listed below are the current types of items The University of Alabama recycles:

- Aluminum Cans
- Scrap Metal (all types)
- Scrap Wood (all types)
- Plastics (all types)
- Mattresses (from resident halls)
- Motor Oil & Car Batteries – UA Garage
- Light Bulbs –Health & Safety
- Batteries (AA, AAA, D, etc) – Health & Safety
- Grease (from Dining Halls)
- Composting (from Dining Halls)
- Toner Cartridges – picked up from departments by Campus Mail
- Computers, Monitors, Printers, Scanners, Keyboards & Mice
- Paper (Types of Office Paper that **can** be recycled)
 - Colored paper
 - Newspaper
 - Copier paper
 - Cardboard
 - Computer paper
 - Envelopes
 - Index cards
 - NCR Paper
 - Notebook paper
 - Magazines
 - Books/Directories
 - Shredded Paper

Implementation

One of the most challenging tasks associated with implementing this program was coordinating and educating the students, staff, faculty, and fans. The entire department set out to make a difference with recycling. Once we started communicating with departments and student organizations across campus, the program was well received. At some of The University of Alabama football games, we had as many as 70 students volunteer to help with recycling.

Following are the initial steps to implementing our recycling plan:

1. Identified the need for more recycling containers around campus and strategically placed them in desired locations.
2. Communicated with the staff and student groups around campus about the new initiative.
3. Completed the RFPs process for vendors to purchase the recycling materials.
4. Hired additional staff to meet the increase in recycling materials. We determined that dividing the campus into two parts was beneficial. Our Recycling Specialist has two routes that are worked daily. Departments are well informed about their pick up times. Recycling items are separated in the warehouse. Our separation time is very limited, since items are already separated at the time of disposal and categorized according to vendor acceptance.
5. Recognized departments across campus for their continued support.
6. Made changes as needed, while staying open-minded for solutions. Continuing to look for other items to recycle and continuing to find ways to do more with less has been the key to our recycling success.

Benefits

The University of Alabama has experienced unprecedented growth since this program was implemented two years ago. Student enrollment has increased from 22,000 in the fall of 2006 to more than 28,807 in the fall of 2009. In this time, more than 200 new faculty members have been added.

The impact the new recycling initiative has had around the University community is shown in the following chart:

Recycling Items	August 2007 to July 2008	August 2008 to July 2009	Percentage Increase
Cardboard	83,120 pounds	234,273 pounds	181%
Sorted Office Paper	422,594 pounds	645,780 pounds	53%
Plastic	17,120 pounds	64,720 pounds	278%
Cans	3,171 pounds	6,669 pounds	110%
Scrap Metal	183,666 pounds	379,600 pounds	107%
Scrap Wood	0	130,640 pounds	N/A
Mattresses	0	650 each	N/A
E-Recycling	0	82,764 pounds	N/A
Grease	0	54,825 pounds	N/A
Total	709,671 pounds or 354.83 tons	1,599,271 pounds or 799.63 tons	125.35%

Cost-saving benefits are taking root much faster than we anticipated. Over the past year we have generated \$55,939.71 in revenue from the sale of recycling materials. We have also reduced the land-field disposal fees of \$28 a ton for a savings of \$22,390.

It became clear early in the implementation of the new recycling initiative that students, faculty, staff and fans were taking notice of the impact recycling was having across campus. More people were calling and finding out how they could get involved. More presentations about our recycling program were requested, and this helped boost the education process. Our vendor (Waste Pro) began mirroring our program with other colleges across the state.

Retrospect

As with any new project, we learned through experience and made process improvements as required. We continue to add new recycling pickup locations each month and

work closely with the departments and events. It is vital that we communicate clearly and completely with departments and students and teach and educate them about the positives of recycling and the effect it will have on our environment for generations to come.

In my opinion, we handled each new recycling phase according to plan. Each quarter we continue to enhance the current program or add more recycling items to our growing list of items that we recycle. In order to have a successful program, you must be able to change your program in mid-stream, listen to your customers, and meet their needs. This will be an ongoing task for us as we continue to strengthen our recycling program. It is the right thing to do for our environment. The key to any Best Practice is identifying the need for a change and then taking steps to implement that change.

As with any program, to be successful, there must be employees who believe in what you are doing, who have a drive to achieve the mission, and who understand that every piece of recycling material makes a difference. Our four employees are physically picking up and handling an average of 66 tons of recycling materials a month. A university's or an organization's greatest asset is its employees.