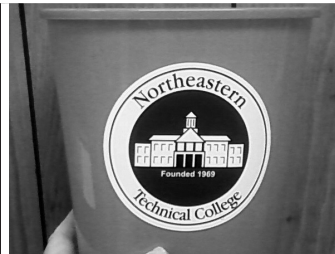




S.C. State Agencies & Colleges/Universities
Recycling & Buying Recycled
 Annual Report

Fiscal Year

20



14

*Prepared for Gov. Nikki R. Haley
 and the General Assembly*



www.scdhec.gov

S.C. Department of Health and Environmental Control
 Catherine B. Templeton, Director

Foreword

To establish a framework for the safe and efficient management of solid waste, the S.C. Solid Waste Policy and Management Act of 1991 (Act) – S.C. Code of Laws §§ 44-96-10 et seq. – provides a comprehensive outline for state and local governments to follow.

The Act, for example, requires county governments to report recycling activities and develop solid waste management plans. The Act sets statewide recycling and waste reduction goals.

The Act also requires state agencies and state-supported colleges/universities to:

- establish recycling programs for the collection of selected material including, but not limited to, aluminum, cardboard, glass, lead-acid batteries, paper, plastic, tires and used motor oil;
- evaluate and make necessary modifications to their programs to ensure material is recycled to the maximum extent possible; and
- establish waste reduction programs for material used in the course of operations to achieve the maximum feasible reduction.

In addition, the Act requires state agencies and state-supported colleges/universities to submit to the S.C. Department of Health and Environmental Control (DHEC) by September 15 of each year the following information:

- reports detailing their recycling programs; and
- lists of products purchased that contain recycled material.

The Act requires DHEC to summarize this data and submit a report to the Governor and General Assembly by November 1 of each year. As part of the report, DHEC is required to determine what percentage of state purchases contains recycled material. Since no statewide system is in place to track buying recycled-content products, this percentage cannot be reported. This issue is addressed in this report's Recommendations section.

DHEC's Office of Solid Waste Reduction and Recycling is responsible for compiling and reviewing the data submitted as well as publishing the "S.C. State Agencies & Colleges/Universities Recycling & Buying Recycled Annual Report."

This report provides information for fiscal year 2014 reflecting activities from July 1, 2013 to June 30, 2014. It was published November 1, 2014.

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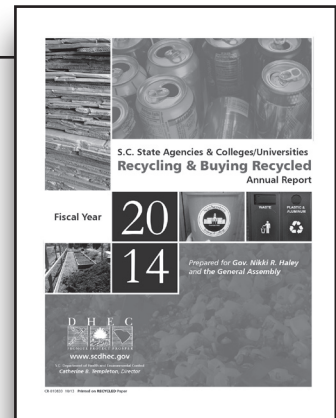
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About this Report ...

The "S.C. State Agencies & Colleges/Universities Annual Report for Fiscal Year 2014" is submitted by the S.C. Department of Health and Environmental Control (DHEC) in compliance with the S.C. Solid Waste Policy and Management Act of 1991 (S.C. Code of Laws, § 44-96-140).

Additionally, Act 119 of 2005 mandates that agencies provide all reports to the General Assembly in an electronic format. Please visit www.scdhec.gov/library/CR-010833_2014.pdf to view this report online.

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Executive Summary

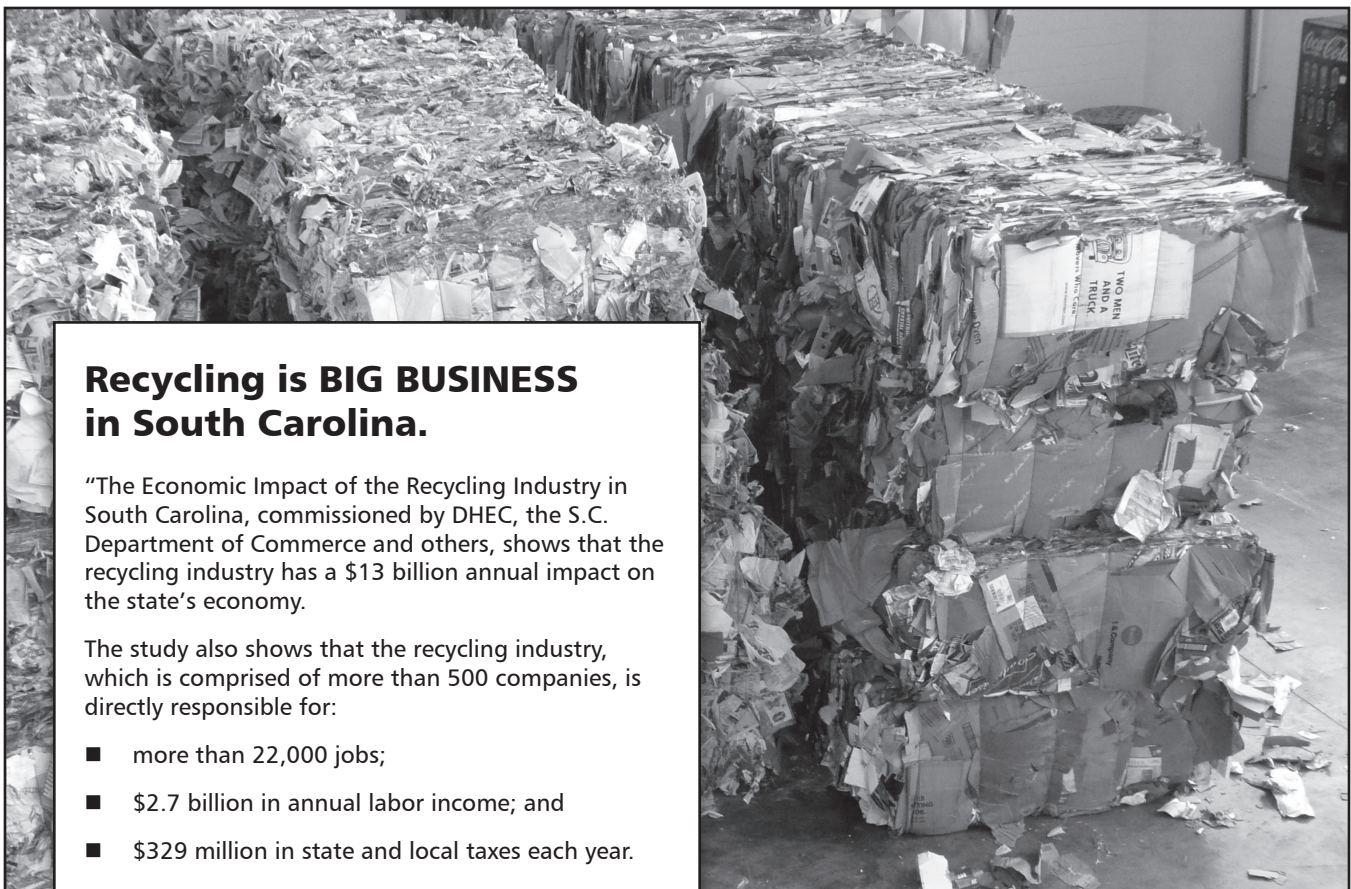
This report provides an overview of the recycling and buying recycled activities of state agencies and colleges/universities for fiscal year (FY) 2014 (July 1, 2013 to June 30, 2014) as required by the S.C. Solid Waste Policy and Management Act of 1991. Data regarding the amount of material recycled was received either directly from the state agency or college/university that completed the survey provided by the S.C. Department of Health and Environmental Control (DHEC) or from vendors providing recycling services. Both public and private colleges/universities are included in this report although only state-supported colleges/universities are required to provide information.

In FY14, more than 19,771 tons of material was recycled by state agencies and colleges/universities – a decrease of about 21 percent from the 25,053 tons recycled in FY13. This data was compiled from the information reported by 72 state agencies and 30 colleges/universities. Overall, state agencies reported recycling 9,790 tons of material in

FY14 – about an 11 percent decrease from the 10,979 tons of material recycled the previous FY. Miscellaneous items – mostly construction and demolition (C&D) debris – were the most recycled commodity followed by paper.

Colleges/universities reported recycling about 9,980 tons of material – a 29 percent decrease from the 14,074 tons of material recycled the previous FY. Paper was the most recycled commodity followed by organics (e.g., food scraps and yard trimmings). A decrease in C&D debris was the largest cause for the decline in the recycling rate; however, this material does not count toward municipal solid waste (MSW).

As mentioned in the Foreword, the percentage of state purchases that contain recycled material cannot be determined because no statewide system to track those purchases exists. The recycled-content products purchased most frequently by state agencies and colleges/universities were office paper and inkjet/ toner cartridges.



Recycling is BIG BUSINESS in South Carolina.

“The Economic Impact of the Recycling Industry in South Carolina, commissioned by DHEC, the S.C. Department of Commerce and others, shows that the recycling industry has a \$13 billion annual impact on the state’s economy.

The study also shows that the recycling industry, which is comprised of more than 500 companies, is directly responsible for:

- more than 22,000 jobs;
- \$2.7 billion in annual labor income; and
- \$329 million in state and local taxes each year.

SOURCE: “The Economic Impact of the Recycling Industry in South Carolina” April 2014

Baled cardboard and paper await recycling at a Horry County materials recovery facility.

Recommendations

South Carolina has made significant progress in its waste reduction and recycling efforts since the passage of the S.C. Solid Waste Policy and Management Act of 1991 (Act) – S.C. Code of Laws §§ 44-96-10 et seq. There is, however, much more that can be done.

Clearly, South Carolina should reduce the amount of waste it generates and disposes of, recycle more material, promote the best end use of recovered material and buy more products made from recycled content. State agencies and colleges/ universities are in a unique position to make a significant difference in helping South Carolina meet the recycling and disposal goals outlined in the Act.

State government and colleges/ universities – as a manner of business – should be committed to lead by example and more efficiently use natural resources, reduce waste, save money and help sustain markets for material collected in recycling programs.

The Act requires the S.C. Department of Health and Environmental Control (DHEC) to make recommendations in the S.C. Solid Waste Management Annual Report on ways solid waste management can be improved.

Consideration should be given to the following three recommendations and accompanying strategies to accomplish these goals.

State government and colleges/universities – as a manner of business – should be committed to lead by example and more efficiently use natural resources, reduce waste, save money and help sustain markets for material collected in recycling programs.

1. Improve waste reduction and recycling programs as well as reporting.

Recycling has many environmental benefits including conserving resources, saving energy, reducing the need to build landfills and helping achieve and support a sustainable lifestyle or business ethic.

Less known is the fact that recycling adds significantly to South Carolina's economy. By turning waste into valuable raw material, recycling creates jobs and tax revenue as well as generates income for businesses and others from the sale of recyclables.

Waste reduction also limits the consumption of natural resources as well as the need to manage and move solid waste or recyclables.

State agencies and/or colleges/universities should:

- commit to reducing the amount of waste generated and recycling material to the maximum extent possible;
- set up efficient, practical and cost-effective programs;
- set up or improve "move-in" and "move-out" reuse and recycling events;
- review waste reduction and recycling programs annually for opportunities to improve;
- review all solid waste disposal costs annually to determine if there are ways to increase efficiencies and reduce costs;

- promote programs to staff, administration, students and others as well as integrate program information into student and/or new-hire orientation programs;
- expect faculty, staff and administration, as a matter of work ethic, to implement waste reduction and recycling practices in their daily activities; and
- commit to track, measure and report their recycling activities by the annual September 15 deadline as required by the Act to ensure an accurate picture of statewide recycling efforts.

Recycling creates jobs and tax revenue as well as generates income for businesses and others from the sale of recyclables.

2. Buy recycled.

Recycling has many significant environmental and economic benefits. Recycling, however, will not work unless the products made from material that is recycled are purchased.

Buying recycled-content products – a significant part of what is known as environmentally preferred purchasing – creates demand (markets) for recycled material and therefore sustains recycling programs.

There are tools in place to encourage the purchase of recycled-content products by state agencies and colleges/universities.

The Act sets a goal that recycled-content products comprise at least 25 percent of the state's purchases and also allows a 7.5 percent price preference for recycled-content products. In addition, the S.C. Environmentally Preferred Purchasing Policy, created in 2009, outlines that state government "is committed to environmentally preferred purchasing in recognition of the need to more efficiently use natural resources, reduce waste, save money, sustain markets for materials collected in recycling programs and protect South Carolina's environment, economy and quality of life for all of its citizens."

The policy applies to all state agencies and publicly funded colleges/universities and others defined as governmental bodies per S.C. Code of Law [11-35-310(18)]. (See www.scstatehouse.gov/code/t11c035.php.)

State agencies along with colleges/universities – by their sheer purchasing power – can promote buying recycled-content products and, given that, should:

- buy products that can be recycled and contain recycled material whenever possible;
- improve or implement recycled-content purchasing practices that reduce waste and result in the purchase of fewer products when practicable and cost effective without reducing the safety or quality of the products;
- implement the standards outlined in the S.C. Environmentally Preferred Purchasing Policy – www.mmo.sc.gov/policy – and go beyond those standards whenever possible;
- promote and use the "S.C. Guide for Recycled Products" and the "Environmentally Preferred Purchasing Policy Checklist" offered by the S.C. Budget and Control Board Procurement Services – procurement.sc.gov/PS/agency/PS-agency-green-purchasing.phtm.
- promote, use and encourage the creation of more state-term contracts that offer recycled-content products;
- adhere to the 7.5 percent price preference for recycled-content products outlined in the Act; and
- develop a system to track the purchase of recycled-content products.

Buying recycled-content products creates demand (markets) for recycled material and therefore sustains recycling programs.

3. Recover more organics.

Organics, which include food scraps, yard trimmings, wood and paper, comprised more than half (60 percent) of the nation's MSW in 2012 – according to the latest figures available from the U.S. Environmental Protection Agency (EPA).

Some organics, such as cardboard and office paper, have a high recovery rate through traditional recycling efforts (not composting) and should continue to be managed in this way because of their significant market value. Other organics – particularly food scraps – do not have a high recovery rate.

More than 36 million tons of food scraps were generated nationwide in 2012 – more than any other category except paper according to the EPA. Of that amount, nearly 35 million tons were thrown away – making food scraps the largest component of MSW disposed of in landfills and incinerators.

It is clear that any significant increase to South Carolina's recycling rate or decrease in per capita disposal must include a concentrated effort to recover more organics. In addition, the recovery of this material has economic and environmental benefits including conserving resources, creating valuable soil amendments, reducing greenhouse gases and creating jobs.

Colleges/universities – in particular – and several state agencies are in a unique position, with thousands of students as well as hundreds of athletic programs and cafeterias, to recover food scraps. More than 790 tons of food scraps were reported recovered (e.g., composted, donated) in FY13 – an increase of 208 percent.

Consideration should be given to the following recommendations and strategies. State agencies and colleges/universities, when possible, should:

- implement or improve on-site composting programs and operations;
- develop efficient, effective and environmentally sound programs to recover food scraps;
- promote opportunities to divert prepared food to community groups and shelters; and
- work with all stakeholders to provide efficient and environmentally responsible recovery, strengthen programs and improve infrastructure to increase the quality and quantity of recovered organics.

More than 790 tons of food scraps were reported recovered (e.g., composted, donated) in FY13 by state agencies and colleges/universities – an increase of 208 percent.

Recycling by State Agencies

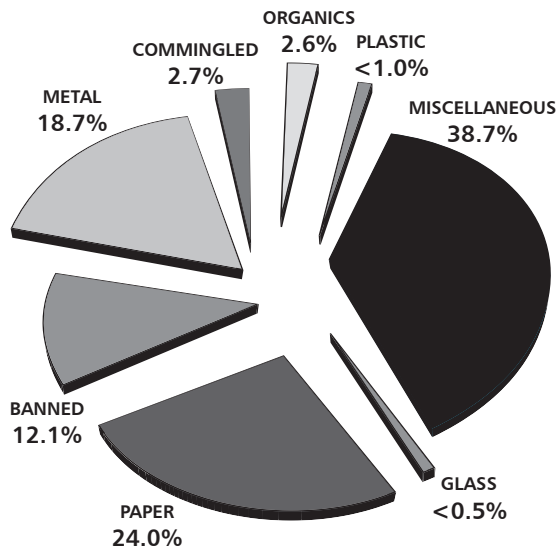
Seventy-two state agencies and other governmental bodies recycled 9,790 tons of material in fiscal year (FY) 2014 (July 1, 2013 to June 30, 2014) – nearly an 11 percent decrease from the 10,979 tons recycled in FY13. The main reason for this decrease was that fewer electronics, ferrous metals and banned items were recycled.

Commingled recycling increased by more than 424 percent followed by paper recycling with an increase of more than 159 percent. The most recycled commodity was paper followed by construction and demolition debris.

When it comes to buying recycled-content products, 40 agencies and governmental bodies reported purchasing recycled-content paper. In addition, 19 reported buying recycled-content toner and/or inkjet cartridges.

For a complete list of state agencies reporting for FY14, see the last page of this report.

Percentage of Recyclable Collected by State Agencies



NOTE: Percentages do not add up to 100.0 percent due to the rounding of numbers.

State Agencies lead the way in buying recycled.

As mentioned in the Foreword, no statewide system exists to track purchases that contain recycled material; however, some state agencies have developed their own system for tracking this information. The S.C. Department of Juvenile Justice (DJJ) has implemented tracking of recycled-content product purchases through the requisitions form sent to their procurement department. In addition, vendors are required to inform the agency of recycle-content products in all bids and quotes. This practice has resulted in 15 percent of all purchases having recycled-content, putting the DJJ on their way towards the state's 25 percent goal.

Commodities Recycled in Tons by State Agencies		
COMMODITIES RECYCLED		AMOUNT (tons)
BANNED ITEMS	Appliances	27.02
	Electronics	60.68
	Lead-acid batteries	32.74
	Tires	108.64
	Used motor oil	956.55
TOTAL BANNED ITEMS		1,185.63
COMMINGLED RECYCLABLES	May include: aluminum cans; cardboard; paper; and/or plastic	266.74
TOTAL COMMINGLED RECYCLABLES		266.74
GLASS (Containers & Packaging)	Brown	1.56
	Clear	1.45
	Green	0.98
	Other/mixed glass	10.92
TOTAL GLASS		14.91
METAL	Aluminium (cans, foil)	117.23
	Ferrous metals	1,310.30
	Steel cans	178.64
	Other/mixed metal	221.40
TOTAL METAL		1,827.57
ORGANICS	Food scraps (composted)	0.32
	Yard trimmings (composted)	2.20
	Yard trimmings (mulched)	253.29
TOTAL ORGANICS		255.81
PAPER	Books	26
	Cardboard	689.42
	Magazines	14.35
	Newspapers and inserts	12.51
	Office paper	1,008.82
	Paperboard	0.85
	Phone books	24.01
	Other/mixed paper	575.05
TOTAL PAPER		2,351.01
PLASTIC	HDPE	17.85
	LDPE	0.02
	PET	1.44
	Vinyl	0.03
	Other/mixed plastic	74.29
TOTAL PLASTIC		93.63
MISCELLANEOUS ITEMS	Antifreeze	20.92
	Clothing/textiles	61.79
	Construction & demolition debris	2,304.81
	Cooking oil	4.36
	Fluorescent bulbs	7.09
	Inkjet/toner cartridges	7.16
	Mattresses & box springs	1.00
	Paint (oil or latex)	1.29
	Rechargeable batteries	3.99
	Used oil filters	30.41
Wood*	844.14	
Other**	506.20	
TOTAL MISCELLANEOUS ITEMS		3,793.16
TOTAL FOR ALL		9,790.20

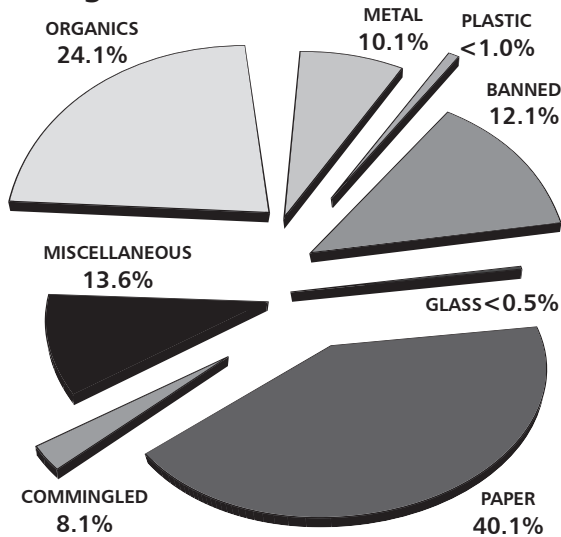
Recycling by Colleges/Universities

Thirty colleges/universities reported recycling 9,980 tons of material in fiscal year (FY) 2014 (July 1, 2013 to June 30, 2014) – about a 29 percent decrease from the 14,074 tons recycled in FY13. The biggest reason for this decrease was that less construction and demolition debris and banned items were recycled. In addition, less cardboard and metal was recycled. Recovery of food scraps increased by more than 208 percent. Paper was the most recycled commodity followed by Organics (e.g. food scraps and yard trimmings).

When it comes to buying recycled-content products, 20 colleges and universities reported purchasing recycled-content copy paper, followed by 13 schools purchasing recycled-content ink/toner cartridges and 12 schools purchasing recycled-content bathroom paper products.

For a complete list of colleges and universities reporting for FY14, see the last page of this report.

Percentage of Recyclable Collected by Colleges/Universities



NOTE: Percentages do not add up to 100.0 percent due to the rounding of numbers.

Schools participate in RecycleMania.

Eight South Carolina colleges/universities participated in RecycleMania, a nationwide competition and benchmarking tool for college/university recycling programs to promote waste reduction activities on campus. During a 10-week period, schools report recycling and disposal data that are then ranked in various categories.

For more information on RecycleMania, visit www.recyclemaniacs.org. These S.C. colleges/universities participated in fiscal year 2014 (July 1, 2013 - June 30, 2014): Claflin University, Clemson University, College of Charleston, Erskine College and Seminary, Medical University of South Carolina, The Citadel, University of South Carolina and Winthrop University.

Commodities Recycled in Tons by Colleges/Universities		
COMMODITIES RECYCLED		AMOUNT (tons)
BANNED ITEMS	Appliances	11.34
	Electronics	206.41
	Lead-acid batteries	16.17
	Tires	8.55
	Used motor oil	25.48
TOTAL BANNED ITEMS		267.95
COMMINGLED RECYCLABLES	May include: aluminum cans; cardboard; paper; and/or plastic	810.67
TOTAL COMMINGLED RECYCLABLES		810.67
GLASS (Containers & Packaging)	Brown	0.03
	Clear	4.84
	Other/mixed glass	23.54
TOTAL GLASS		28.41
METAL	Aluminium (cans, foil)	11.56
	Ferrous metals	193.02
	Steel cans	19.99
	Other/mixed metal	781.49
TOTAL METAL		1,006.06
ORGANICS	Food scraps (composted)	787.86
	Yard trimmings (composted)	209.06
	Yard trimmings (mulched)	1409.26
TOTAL ORGANICS		2,406.18
PAPER	Books	62.81
	Cardboard	1,372.22
	Magazines	6.10
	Newspapers and inserts	3.19
	Office paper	955.41
	Paperboard	0.15
	Phone books	2.33
	Other/mixed paper	1,603.11
TOTAL PAPER		4,005.31
PLASTIC	HDPE	3.03
	LDPE	2.56
	PET	35.77
	Other/mixed plastic	54.69
TOTAL PLASTIC		96.05
MISCELLANEOUS ITEMS	Antifreeze	2.12
	Carpet	53.72
	* Wood includes furniture, cabinets and pallets.	0.01
	Construction & demolition debris	887.77
	** Other includes: aluminum, appliances, batteries, ballasts, bedding, clothes, food, HID lamps, glass, mattresses, medical products, mercury, plastic, radiology film and steel.	93.03
	Cooking oil	22.75
	Fluorescent bulbs	13.96
	Inkjet/toner cartridges	2.14
	Mattresses & box springs	4.97
	Paint (oil or latex)	4.01
	Rechargeable batteries	1.76
	Used oil filters	175.90
	Wood*	97.85
Other**		
TOTAL MISCELLANEOUS ITEMS		1,359.99
TOTAL FOR ALL		9,980.62

Success Stories: Great recycling programs come in all sizes.

- **Northeastern Technical College (NETC)** continues to excel in recycling as they have for nearly 18 years. NETC collects paper – which is shredded and baled for recycling at the Cheraw campus – as well as cardboard and aluminum cans.
- **Clafin University** kicked off its new recycling program this fall in Orangeburg with new strategically placed bins throughout the campus in addition to the Pepsi Dream Machine located outside of its dining hall that rewards users for recycling bottles and cans.
- **Furman University** is excelling in all directions. In addition to a very successful recycling program, Furman also offers an organic garden and composting site outside of their Shi Center for Sustainability – one of their many LEED certified buildings around campus. Furman raises the bar by using all of their sustainable practices on campus as avenues for educating their students.
- **College of Charleston, Medical University of South Carolina, Trident Tech and The Citadel** have all teamed up with Food Waste Disposal LLC and Charleston County to begin composting food scraps from their campus dining halls. Through this

partnership, thousands of tons of organic material have been kept out of landfills.

In addition, many college/university campuses have begun programs to encourage the reuse of unwanted material, especially at the end of the semester when students are moving out of campus housing. These programs give students an opportunity to donate various items including clothing, food, furniture, appliances, books, hangers and electronics. In some cases, the items are held over until the start of the next semester when students can use the items again.

The University of South Carolina holds a yard sale with local residents a few weeks after graduation to sell reusable items donated by students. In FY14, about 1,794 tons were reported as being reused. This is an increase of 3.7 percent from the 1,730 tons reported as being reused in FY13.

Success Story: Recycling and Roadways

The S.C. Department of Transportation continues to recycle not only at the agency's main office headquarters in Columbia, but all across the state at each of their county and district offices as well as roadway projects. In FY14, the agency recycled more than 1,174 tons of material in nearly 32 different categories ranging all the way from asphalt to toner cartridges.

State Agencies & Colleges/Universities Reporting in FY14

State Agencies

- Archives & History
- Budget & Control Board
 - S.C. Energy Office
 - General Services Division
 - Human Resources
 - Internal Operations
 - State Information Technology
 - State Retirement System
- Commission for the Blind
- Commission on Higher Education
- Commission on Indigent Defense
- Commission on Prosecution Coordination
- Comptroller General's Office
- Court Administration
- Criminal Justice Academy
- Department of Agriculture
- Department of Commerce
- Department of Consumer Affairs

- Department of Corrections
- Department of Disabilities And Special Needs
- Department of Education
- Department of Employment & Workforce
- Department of Health & Human Services
- Department of Health & Environmental Control
- Department of Insurance
- Department of Juvenile Justice
- Department of Labor, Licensing & Regulation
- Department of Mental Health
- Department of Motor Vehicles
- Department of Natural Resources
- Department of Parks, Recreation & Tourism
- Department of Probation Parole & Pardon Services

- Department of Public Safety
- Department of Revenue
- Department of Social Services
- Department of Transportation
- Education Lottery
- Emergency Management Division
- First Steps
- Forestry Commission
- Governor's Mansion
- Governor's School for Arts & Humanities
- Governor's School for Science & Math
- Higher Education Tuition Grants Commission
- Human Affairs Commission
- Jobs – Economic Development Authority
- Legislative Audit Council
- Legislative Printing, Information & Technology Systems
- Military Department

- Office of Regulatory Staff
- Office of the State Auditor
- Office of the State Treasurer
- Patriots Point Development Authority
- Public Employee Benefit Authority
- Public Service Commission of South Carolina
- Santee Cooper
- SCETV
- School for the Deaf & Blind
- Sea Grant Consortium
- Secretary of State
- SLED
- State Accident Fund
- State Ethics Commission
- State Fleet
- State Housing Finance & Development Authority
- State Library
- State Museum Commission
- State Ports Authority

- State Surplus
- Technical College System
- Vocational Rehabilitation Department
- Wil Lou Gray Opportunity School
- Worker's Compensation Commission

Colleges/Universities

- Aiken Technical college
- Bob Jones University
- Central Carolina Technical College
- Charleston Southern University
- Clafin University
- Clemson University
- Coastal Carolina University
- College of Charleston
- Erskine College and Seminary
- Florence Darlington Technical College
- Francis Marion University
- Furman University
- Greenville Technical College
- Horry-Georgetown Technical College
- Medical University of South Carolina
- Midlands Technical College
- Northeastern Technical College
- Orangeburg-Calhoun Technical College
- Piedmont Technical College
- Presbyterian College
- Spartanburg Community College
- Technical College of the Lowcountry
- The Citadel
- University of South Carolina (USC)
- USC Upstate
- USC Aiken
- USC Sumter
- Williamsburg Technical College
- Winthrop University
- York Technical College