

The Economics of Managing Solid Waste in South Carolina

SECTION

4

The collection, proper disposal and recycling of solid waste are essential services that have long been recognized as a critical segment of a community's infrastructure.

These services are no simple task. They are multiple and varied and include disposal, recycling, staffing, outreach/education, trucks, fuel, equipment, buildings, land, insurance and managing facilities (e.g., landfills, transfer stations). They must be done in a way to protect human health and the environment. They must be safe and efficient.

These services are also expensive. Local governments spent more than \$323 million to manage solid waste in fiscal year (FY) 2015 (July 1, 2104 to June 30, 2015) and more than \$1.6 billion since FY11 according to the full-cost disclosure information reported to the S.C. Department of Health and Environmental Control.

When looking at the overall cost of solid waste management, the first question frequently asked is "What is the cost of disposal compared to recycling?" Local government recycling programs compete with the consistently low cost of disposal in South Carolina – tipping fees average \$40 per ton. What is often forgotten is that recycling, at a minimum, avoids disposal costs and may offer the chance to earn revenue from the sale of the material.

Unfortunately, the revenue from the sale of recyclables is at best an inconsistent benefit. Recyclables, it must be remembered, are commodities that are subject to the same changes in value as other commodities. Recycling markets are historically very inconsistent and throughout this reporting period trending downwards.

In summary, local governments face a difficult economics balancing act of cost and services. No matter the choice – disposal or recycling – there is a cost. (See the recommendation on ending the myth that recycling is free on page 7.)

The Economic Impact of Recycling

While local government program choices and costs are discussed and debated, it is accepted that recycling plays a significant role in the nation's and South Carolina's economy. The reason is simple. Material that is disposed of adds no further value. Material that is recycled and reintroduced as a

feedstock into a manufacturing process continues to generate economic activity.

Recycling creates significant economic activity in South Carolina. The state's recycling industry is comprised of more than 520 companies that haul, collect, process and broker material, sell equipment and manufacture recycled-content products. This industry provides more than 22,000 direct jobs, \$2.7 billion in annual labor income and nearly \$330 million in state and local taxes every year according to a 2014 study. Overall, the industry has a \$13 billion annual impact on the state's economy.

Recycling Investment

The recycling industry continued to grow in 2015 with new companies coming to South Carolina and existing companies expanding their operations. Twelve new or existing companies made \$260 million in capital investments and created more than 550 jobs according to the S.C. Department of Commerce Recycling Market Development Advisory Council.

Since 2011, the industry has invested more than \$1.3 billion and created more than 3,500 jobs. See Table 4.1 for more information.

Estimated Lost Revenue

It is estimated that 525,543 tons of easily recyclable material – aluminum cans, cardboard, glass bottles and jars, office paper, plastic bottles and steel cans – was disposed of in FY15.* Using the state's average tipping fee of \$40 per ton, it is projected that local governments spent more than \$21 million to dispose of this material.

It is also estimated that more than \$157 million in potential revenue from the sale of this material was lost based on the average revenue received per ton as reported by local governments of each of these types of material.

* The estimated amount of material disposed of that could have been recycled is calculated by using the U.S. Environmental Protection Agency's most recent municipal solid waste (MSW) generation rates to South Carolina's FY15 generation.

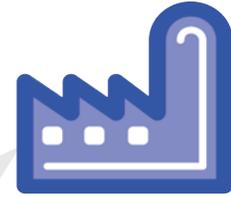
The Economic Impact of Recycling in South Carolina*



The recycling sector provides
22,403 jobs
to South Carolina's economy.



The recycling sector provides
\$329 million
in state and local taxes each year.



In South Carolina, there are
more than 520
recycling-related companies.



The annual average wage of the recycling sector is
\$40,203
(vs. the national annual average wage of \$38,700).

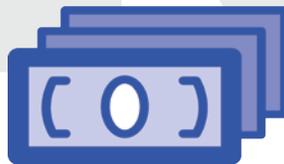


In 2014, the state's recycling industry doubled its annual total economic impact to
\$13 billion
(from \$6.5 billion in 2006).



South Carolina saw a
44% increase
in recycling employment from 2006 to 2014 (a 4.7 percent annual growth rate).

* SOURCE: "The Economic Impact of the Recycling Industry in South Carolina," Dr. Frank Hefner, College of Charleston Department of Economics and Finance. The study, which was released in April 2014, is a follow-up to the 2006 study. The annual figures reflect 2013 data.



The state's recycling industry provides a total of
\$2.7 billion
in labor income generated annually.

TABLE 4.1: Recycling Investments in South Carolina

YEAR	CAPITAL	NEW JOBS	BUSINESSES
2011	\$333,000,000	837	15
2012	\$463,000,000	771	19
2013	\$104,000,000	765	10
2014	\$156,000,000	586	9
2015	\$260,000,000	565	12
TOTAL	\$1,315,000,000	3,524	65