

Recycling's Economic Impact

While the environmental benefits of recycling are well recognized, what is less well known is that recycling adds significantly to South Carolina's economy. By turning waste into valuable raw material, recycling stimulates economic development, creates jobs and generates income for businesses and local governments from the sale of recyclables.

Recycling continued to attract investments, create jobs and grow in 2012 according to the S.C. Recycling Market Development Program. Last year, 19 new or existing companies made \$463 million in capital investments and created about 770 jobs. These investments are nearly a 40 percent increase from the previous year. Since 2006, the state's recycling industry has announced nearly \$4.5 billion in investments and the creation of more than 6,900 jobs. In addition, the industry provides considerable indirect benefits by purchasing goods and services that support other businesses.

Overall, the state's recycling industry is comprised of about 450 companies that provide about 20,000 jobs. The industry is a diverse network of public

sector entities and private companies. It is made up of haulers, collectors, processors, brokers, recycling equipment distributors and manufacturers as well as end users that take recycled material and make recycled-content products.

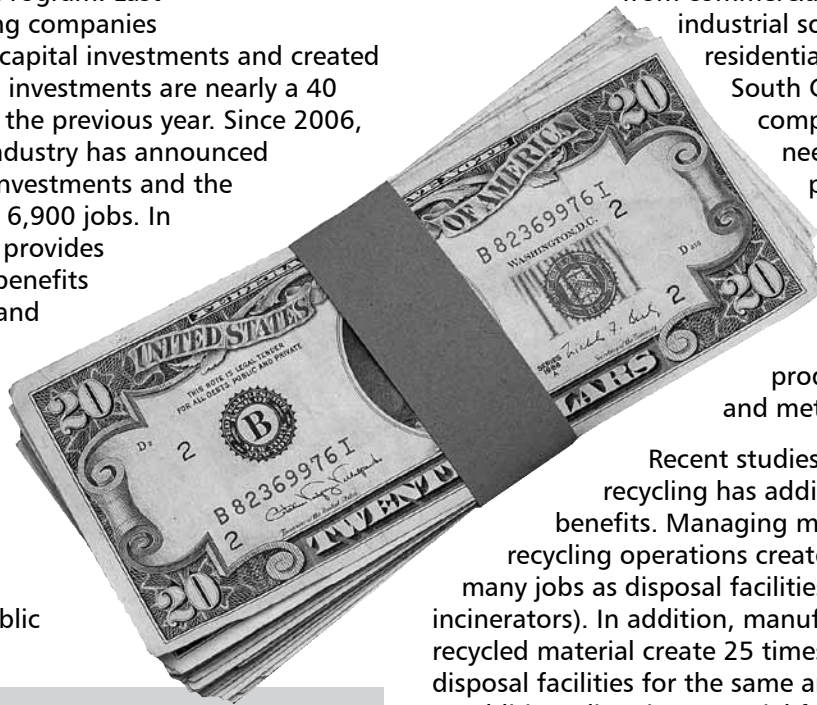
Recycling programs in South Carolina produce secondary raw material that can be used in place of virgin material. Manufacturers of recycled-content products rely on a steady stream of recycled material from commercial/institutional and industrial sources as well as residential recycling programs.

South Carolina's recycling companies meet this need by recycling plastic, paper, textiles, glass, rubber, carpet, construction and demolition debris, petroleum and chemical products, mattresses and metals.

Recent studies have shown that recycling has additional economic benefits. Managing material through recycling operations creates 10 times as many jobs as disposal facilities (e.g., landfills, incinerators). In addition, manufacturers who use recycled material create 25 times more jobs than disposal facilities for the same amount of material. In addition, diverting material from disposal through recycling and composting can save significant disposal costs.

Consider, the disposal of 2,935,876 tons of municipal solid waste (MSW) in fiscal year (FY) 2012 (July 1, 2011 to June 30, 2012) cost more than \$111 million. This amount is calculated by multiplying the tons of MSW disposed of by the average Class 3 landfill tipping fee of \$38 per ton, but does not reflect other costs associated with disposal (e.g., collection, staff, trucks, equipment). Since FY07, local governments

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S.C. Recycling Market Development Program

The Recycling Market Development Program assists businesses with information on recycling and recovered materials markets, provides access to business development resources and promotes the recycling industry's economic impact and growth. The program is housed at the S.C. Department of Commerce.

and businesses have spent more than \$713 million in tipping fees to dispose of material.

Conversely, the recycling of 1,229,100 tons of MSW in FY12 saved nearly \$47 million in avoided disposal costs. Since FY07, more than \$263 million has been saved in avoided disposal costs. This amount was calculated using annual average tipping fees and MSW recycling rates.

Local governments reported earning about \$13 million from the sale of recyclables in FY12 and more than \$59 million since FY07. It is important to note that this figure may be higher due to the fact that not all local governments reported their revenue.

Recycling and composting have collection and processing costs. But the combination of avoided

disposal costs and potential revenue from the sale of recyclables and composted material can make recycling a cost-effective solid waste management strategy.

In recognition of the impact recycling can have on South Carolina's economy, there are tax incentives offered to recycling businesses to encourage growth and development. S.C. Code of Laws § 12-6-3460 offers anyone building or operating a qualified recycling facility a 30 percent credit each year for an investment in recycling property. The credit may be used to reduce certain taxes such as corporate income taxes or sales and use taxes.

In addition, S.C. Code of Laws § 12-36-2120(50), provides an exemption from sales taxes on certain recycling equipment and materials used by qualified recycling facilities.

BEYOND THE ECONOMIC IMPACT

Environmental equivalencies provide a different look at recycling's benefits.

Recycling and composting programs provide more environmental benefits than those commonly known (e.g., conserve natural resources, save energy, reduce the need to build landfills).

These benefits can be measured by using the U.S. Environmental Protection Agency's Waste Reduction Model (WARM). This tool helps solid waste planners and organizations calculate the benefits of alternative solid waste management decisions and the impact of recycling and composting as compared to landfill disposal.

Using WARM and an environmental equivalency calculator, greenhouse gas (GHG) savings can be presented in a manner that is easy to understand.



Examples of the GHG savings achieved statewide through recycling and composting reported for FY12 are the equivalent of:

- eliminating emissions from 604,300 passenger cars for one year; or
- conserving 325,183,632 gallons of gasoline; or
- conserving 12,463 railcars of coal; or
- eliminating emissions from the electricity use of 434,227 homes for one year; or
- eliminating emissions from the use of 6,745,670 barrels of oil.

GHG savings since FY08 are the equivalent of:

- eliminating emissions from 3,175,117 passenger cars for one year; or
- conserving 1,708,583,184 gallons of gasoline; or
- conserving 65,483 railcars of coal; or
- eliminating emissions from the electricity use of 2,281,521 homes for one year; or
- eliminating emissions from the use of 35,443,167 barrels of oil.