



## Recycling and the Economy: Grow Jobs and Increase Economic Development

Recycling is a diverse industry. Securing these raw materials for manufacturing through recycling is an integrated system that starts with collection of materials from the curb, at drop-off centers or from businesses. The U. S. Recycling Economic Information Study (REI)<sup>1</sup> identified 26 different types of recycling businesses from collection to manufacturing, including processing, equipment manufacturing, foundries, education, training, and many more.

Potentially recyclable materials encompass not only newspapers, bottles and cans, but glass, steel, textiles, organics, industrial materials such as asphalt, concrete, fly ash, construction and demolition debris, and electronics. The list of potentially recyclable materials is lengthy and could be more so with governmental support.

Recycling is cost competitive with other extractive industries. As a driver of economic activity, the recycling industry compares favorably to heavy industries, such as automobile manufacturing and mining. It outpaces the solid waste disposal industry for job creation (see chart below) and recycling adds value to materials and contributes to growing the labor force. Recycling supports U.S. manufacturing jobs and increases U.S. competitiveness through cost savings.

### Recycling Creates Jobs: Reuse, Recycling, Composting vs. Disposal

Types of Operation	Jobs per 10,000 TPY*
<b>Computer Reuse</b>	<b>296</b>
<b>Textile Reclamation</b>	<b>85</b>
<b>Misc. Durables Reuse</b>	<b>62</b>
<b>Wooden Pallet Repair</b>	<b>28</b>
<b>Recycling-based Manufacturers</b>	<b>25</b>
<b>Paper Mills</b>	<b>18</b>
<b>Glass Product Manufacturers</b>	<b>26</b>
<b>Plastic Product Manufacturers</b>	<b>93</b>
<b>Conventional Materials Recovery Facilities</b>	<b>10</b>
<b>Composting</b>	<b>4</b>
<b>Landfill &amp; Incineration</b>	<b>1</b>
<small>*TPY = tons per year Source: Institute for Local Self-Reliance, Washington, DC, 1997</small>	

Studies have been undertaken over the past years that look at recycling and waste diversion activities (also called materials management) with an eye to determining what impact recycling and waste diversion have on the economy, both in individual states as well as on the United States as a whole.

According to the REI, the recycling and reuse industry sector of the United States economy employed 1.25 million people while the solid waste disposal sector employed only 250,000. This translates into 56,061 establishments, more than 1.12 million workers, \$37 million in annual payroll and more than \$236 million in estimated receipts. On average, the recycling sector pays higher than the waste processing industry.<sup>2</sup>

<sup>1</sup> U.S. Recycling Economic Information Study Prepared for The National Recycling Coalition by R. W. Beck, Inc, July 2001.

<sup>2</sup> Ibid.

In Colorado, the greatest number of jobs in the Energy Efficiency (EE) industry is in recycling and reuse. In 2007, the American Solar Energy Society and Management Information Services, Inc. undertook the first comprehensive study of the depth and the breadth of the Renewable Energy (RE) and Energy Efficiency (which includes recycling) industries. This report estimates and forecasts jobs and economic impacts of the RE & EE industries for the U.S. and Colorado. It states that in Colorado, for Energy Efficiency industries, the gross revenues totaled over \$9 billion, and the total number of jobs created was more than 81,000. The largest number of jobs was generated by the recycling, reuse, & remanufacturing sector.<sup>3</sup> Another unrelated report<sup>4</sup> in 2008 notes that there would be a net increase in jobs in the recycling sector of more than 38%, and net economic output would increase by more than \$222 million merely by increasing recycling in the State of Colorado to 25%.

There is no consistent data on recycling economics available for every state; some examples of state impacts follow.

Iowa - In August, 2001, Iowa reported that in their recycling sector, 1,000 jobs were created for every 1 million pounds processed. These jobs were high wage jobs, averaging \$48,000 per year. The study showed that in this one state recycling-related business operations account for over \$2.4 billion total industrial output per year and a total of over 23,000 jobs in that year.<sup>5</sup>

Utah - In Utah, the state established Recycling Market Development Zones. Begun in 1997, by 2005 they had over 30 participating businesses, created over 200 new jobs, had over \$26 M invested in 2003 alone, and during the 1999 – 2003 economic downturn, investment in the recycling industry continued to grow.

North Carolina - In a 2010 study, the state Department of Natural Resources showed private sector recycling jobs grew 4.8% last year to 15,200 jobs. Total payroll for the industry reached \$395 million, and half of the recycling businesses anticipated adding more jobs in the next two. This is despite the current downward trend in jobs due to the recession.<sup>6</sup>

**Investment in recycling and proper materials management will reap large economic benefits for the US and Colorado, therefore, government policies should support the fledgling recycling industry.**

If we were to create policies that encourage American manufacturers to use more recycled materials as feedstock, we would be less likely to lose these strategic materials overseas. It would result in an increase in jobs in America, increased demand for products made with recycled content and increased competitiveness with foreign-made products.

Providing incentives locally would put recycled content products on a level playing field with their virgin input competitors. Currently, industries such as oil extraction, mining, and logging receive government support in the form of subsidies, falsely depressed leases on land, roads built at taxpayer expense, depletion credits and more. These monetary inputs have helped the virgin industries grow but now continue to bolster them long past necessity. By using similar tactics for the relatively young recycling industry, it would greatly enhance their ability to compete and possibly outpace their virgin feedstock counterparts.

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<sup>3</sup> *Defining, Estimating, and Forecasting the Renewable Energy and Energy Efficiency Industries in the U.S and in Colorado, Management Information Services, Inc. and American Solar Energy Society, 2008*

<sup>4</sup> *Skumatz, Lisa A., Ph.D. and D. Juri Freeman, "Colorado Roadmap for Moving Recycling and Diversion Forward: Strategies and Implications" Prepared for Colorado CDPHE, February 14, 2008*

<sup>5</sup> *Economic Impacts of Recycling in Iowa, R.W. Beck, August 2001*

<sup>6</sup> *Employment Trends in North Carolina's Recycling Industry – 2010, North Carolina Department of Environment and Natural Resources, Division of Environmental Assistance and Outreach, Recycling Business Assistance Center*