The U.S. Recycling Economic Information (REI) Study is a groundbreaking national study that demonstrates the importance of recycling and reuse to the U.S. economy. The study, commissioned by the U.S. Environmental Protection Agency (EPA) and numerous states through a cooperative agreement with the National Recycling Coalition (NRC), clearly shows what many have known for a long time—that “Recycling is Working.”

By converting waste into valuable raw materials, recycling creates jobs, builds more competitive manufacturing industries, and adds significantly to the U.S. economy. Comprehensive national data on the economic impact of recycling and reuse is critical to the continued growth and success of the industry by:

- Demonstrating to the investment community that recycling is a viable, established industry with a proven track record.
- Assisting government agencies with strategic planning and policy decisions to ensure the continued growth of recycling.
- Providing recycling and reuse advocates with an important tool to help promote awareness and build support.

Key Findings of the Study
Recycling and Reuse Add Value to the U.S. Economy

The recycling and reuse industry is a significant force in the U.S. economy that makes a vital contribution to job creation and economic development. According to the study, the industry consists of approximately 56,000 establishments that employ nearly 170,000 workers in more than 26,000 establishments nationwide. It supports an annual payroll of $2.7 billion and generates approximately $14.1 billion in revenues.

A large number of jobs are also supported by the reuse industry. These range from more traditional thrift shops and antique dealers, to modern businesses such as computer disassembly and pallet rebuilders. As a whole, the reuse industry employs nearly 170,000 workers in more than 26,000 establishments nationwide. It supports an annual payroll of $2.7 billion and generates approximately $14.1 billion in revenues.

For More Information
For additional information on the REI study, see the following:
- EPA's Jobs Through Recycling Program—www.epa.gov/jtr
- National Recycling Coalition—www.nrc-recycle.org

Summary of Estimates of Direct Economic Activity

Annual Payroll and Estimated Receipts are in $1,000. Throughput is in thousands of tons.

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Recycling Collection</th>
<th>Recycling Processing</th>
<th>Recycling Manufacturing</th>
<th>Recycling Reuse and Remanufacturing</th>
<th>Industry Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishments</td>
<td>9,247</td>
<td>12,051</td>
<td>8,047</td>
<td>26,716</td>
<td>56,061</td>
</tr>
<tr>
<td>Employment</td>
<td>32,010</td>
<td>160,865</td>
<td>759,746</td>
<td>169,183</td>
<td>1,121,804</td>
</tr>
<tr>
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<td>3,826,360</td>
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<td>2,747,498</td>
<td>36,712,482</td>
</tr>
<tr>
<td>Estimated Receipts</td>
<td>1,974,516</td>
<td>41,753,902</td>
<td>178,390,423</td>
<td>14,182,531</td>
<td>236,301,371</td>
</tr>
<tr>
<td>Estimated Throughput</td>
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<td>178,390,423</td>
<td>N/A</td>
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1. Throughput is amount of recovered material recycled and includes manufacturing scrap sent for recycling. It excludes materials prepared for fuel use and in-house process scrap returned to the manufacturing process. Throughput estimates are summed to avoid triple counting at collection, processing, and manufacturing stages.

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January 2002

Printed on paper that contains at least 50 percent postconsumer fiber.
over 1.1 million people generate an annual payroll of nearly $37 billion, and gross over $236 billion in annual revenues. Within the industry, the economic impact of the recycling manufacturing sector far exceeds the recycling collection, processing, and reuse sectors. Local Recycling and Reuse Spur “Downstream” Economic Impacts Recycling businesses collect, process, and broker recovered materials as well as manufacture and distribute products made with recovered materials. Investment in local recycling collection and processing, as well as strong government policies, spurs significant private sector investment in recycling manufacturing and promotes economic growth. The study also tallied the impact of recycling on other support industries such as accounting firms and office supply companies for a grand total of 1.4 million jobs “indirectly” supported by the recycling and reuse industry. These jobs have a payroll of $52 billion and produce $173 billion in receipts. Spending by employees of the recycling and reuse industry leads to another 1.5 million jobs with a payroll of $41 billion and produces receipts of $146 billion. The recycling and reuse industry also generated roughly $129.9 billion in federal, state, and local tax revenues, with 80 percent going to federal and state government.

### Contribution of Recycling and Reuse to Government Revenues (in $ millions)

<table>
<thead>
<tr>
<th>Industry/Sector</th>
<th>Federal</th>
<th>Direct Effects Revenues</th>
<th>Total</th>
<th>Federal</th>
<th>Direct Effects Revenues</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycling Collection</td>
<td>200</td>
<td>100</td>
<td>100</td>
<td>400</td>
<td>300</td>
<td>200</td>
</tr>
<tr>
<td>Recycling Processing</td>
<td>700</td>
<td>400</td>
<td>300</td>
<td>1,400</td>
<td>1,700</td>
<td>800</td>
</tr>
<tr>
<td>Recycling Manufacturing</td>
<td>5,400</td>
<td>2,600</td>
<td>2,100</td>
<td>10,000</td>
<td>20,500</td>
<td>9,900</td>
</tr>
<tr>
<td>Reuse/Remanufacturing</td>
<td>600</td>
<td>300</td>
<td>200</td>
<td>1,200</td>
<td>1,200</td>
<td>1,000</td>
</tr>
<tr>
<td>Total</td>
<td>6,900</td>
<td>3,400</td>
<td>2,600</td>
<td>12,900</td>
<td>24,600</td>
<td>11,900</td>
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### Types of Recycling and Reuse Organizations
- Private and government-staffed collection centers
- Compost and miscellaneous organisms producers
- Material recovery facilities
- Recyclable material wholesalers
- Glass container manufacturing plants
- Other glass product producers
- Nonferrous secondary smelting and refining mills
- Nonferrous foundries and product producers
- Paper and paperboard mill/derived market pulp producers
- Paper-based product manufacturers
- Pavement mix producers (asphalt and aggregate)
- Plastics reclaimers and converters
- Rubber product manufacturers
- Steel mills
- Iron and steel foundries
- Computer and electronic appliance dismantlers
- Used motor vehicle parts remanufacturers
- Retail used merchandise sales
- Tire reclaimers
- Wood reuse organizations
- Materials exchange services
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roll of nearly $37 billion, and gross over $236 bil-
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Recycling is a Diverse Industry
The recycling and reuse indus-
ty is an elaborate network of
public sector institutions and
private companies. In fact, the
study identified 26 different
types of recycling organiza-
tions (see below). Recycling is
an integrated system that starts
with collection of materials by
individuals, businesses, and
municipalities, involves pro-
cessing of recycled materials,
and leads to manufacturing of
new products with recycled
content.

Four major manufacturing
industries account for over
half of the economic activity
of the industry: paper mills, steel mills, plastics
converters, and iron and steel foundries. But the
recycling industry also includes companies that are
quickly finding a market niche, including comput-
er manufacturers, materials composters, and plas-
tic lumber manufacturers.

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About The Study
The multi-year REI project utilizes the best
available data from 1997–1999. The national
study was accomplished through a comprehen-
sive analysis of both existing economic data
and reasonable estimates based on targeted sur-
veys of recycling businesses and sophisticated
economic modeling. For the first time, the
national study allows for sound economic
comparisons across different regions and states
in the country.

The study establishes an important bench-
mark of the economic impact of recycling and
reuse. It lays the groundwork for future stud-
ies that could be conducted on a regular basis to
track industry growth and trends.

Other Benefits of Recycling
Recycling is good for the economy and the
environment. Recycling’s benefits are found at
every stage of the life cycle of a consumer prod-
uct—from the mining of raw materials through
use and final disposal. By redirecting waste to
serve as raw materials for industry, recycling
provides a number of important benefits:
- Reducing pollution and conserving natural
  resources
- Saving energy by reducing the need to
  extract and process “virgin” raw materials to
  manufacture new products
- Reducing greenhouse gases such as carbon
dioxide, methane, and nitrous oxide
- Stimulating the development of greener tech-
nologies
- Avoiding the cost of waste disposal in land-
fills and incinerators
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- Assisting government agencies with strategic planning and policy decisions to ensure the continued growth of recycling.
- Identifying business opportunities for entrepreneurs based on emerging commodity areas and industry sectors.
- Providing recycling and reuse advocates with an important tool to help promote awareness and build support.

Key Findings of the Study

Recycling and Reuse Add Value to the U.S. Economy

The recycling and reuse industry is a significant force in the U.S. economy that makes a vital contribution to job creation and economic development. According to the study, the industry consists of approximately 56,000 establishments that employ more than 1.1 million people in the United States.

Recycling and Reuse are Competitive with Other Major Industries

The materials collected for recycling should not be considered waste or garbage—they are valuable commodities that contribute significantly to our growing economy. The increasing supply of recyclables fuels manufacturing industries and makes them more competitive and sustainable.

As a driver of economic activity, the recycling industry companies favorably to other key industries, such as automobile manufacturing and mining. Of particular significance is that recycling far outpaces the waste management industry because recycling adds value to materials, contributing to a growing labor force. Many of these jobs are in inner-city urban areas where job creation is vital to the economy. In these and other areas, recycling provides a larger number of jobs that generally pay above the average national wage.

A large number of jobs are also supported by the reuse industry. These range from more traditional thrift shops and antique dealers, to modern businesses such as computer de-manufacturers and pallet rebuilders. As a whole, the reuse industry employs nearly 170,000 workers in more than 26,000 establishments nationwide. It supports an annual payroll of $2.7 billion and generates approximately $14.1 billion in revenues.

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