Advancing Sustainable Materials Management 2015 Facts and Figures

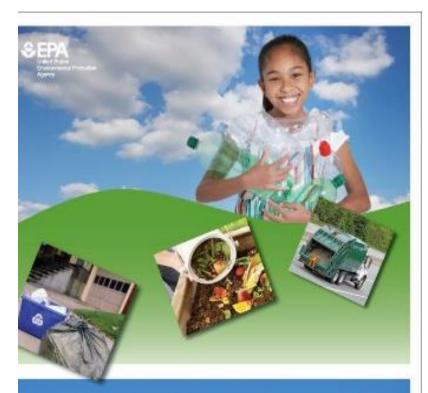
Presentation for the Sustainable Materials Management Web Academy

Office of Resource Conservation and Recovery U.S. Environmental Protection Agency



Outline

- Advancing Sustainable Materials
 Management: 2015 Facts and Figures
 - Web demonstration
 - Overview and trends
 - Key municipal solid waste (MSW) data
 - Environmental benefits
 - Economics data
 - Construction and demolition (C&D) debris generation data



Advancing Sustainable Materials Management: 2015 Fact Sheet

Assessing Trends in Material Generation, Recycling, Composting, Combustion with Energy Recovery and Landfilling in the United States

July 2018

EPA Facts & Figures

Data on generation, recycling, composting, combustion with energy recovery and landfilling

- For municipal solid waste (MSW)
- Construction and demolition debris data provided starting with 2013 data year

Report issued every year for over two decades

Data tables go back to 1960

New for 2015 report

- Transition to a web-based approach
- Graph of recycled commodity values by year



Overview of the Methodology

Scope

- Municipal solid waste (MSW), or trash
- For example, packaging, food, yard trimmings, furniture, electronics, tires and appliances
- Also includes C&D debris generation

Sources of MSW

- Residential waste
- Institutions such as schools, hospitals and prisons
- Commercial sources such as restaurants, office buildings and retail establishments



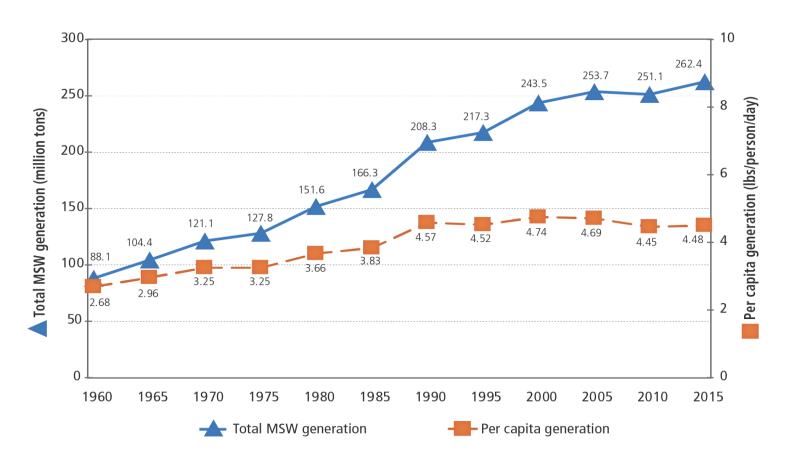


Key MSW Data

MSW Generation and Management	2014	2015
Million tons MSW generated	259.0	262.4
Per capita generation rate in pounds per person per day	4.45	4.48
Million tons recycled plus composted	89.6	91.2
Recycling plus composting rate	34.6%	34.7%
Million tons combusted with energy recovery	33.2	33.6
Million tons landfilled	136.2	137.7

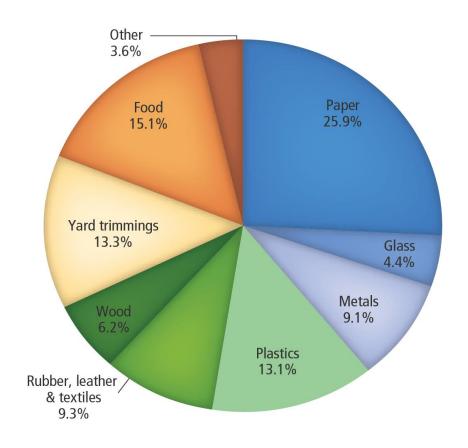


MSW Generation Rates 1960 to 2015



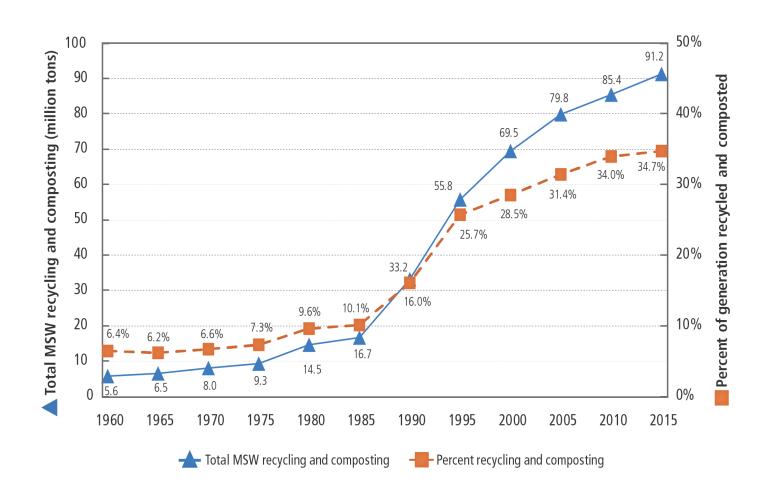


MSW Generation in 2015 262.4 Million Tons



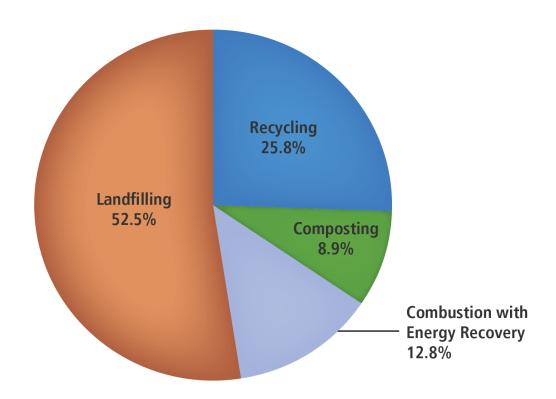


MSW Recycling and Composting Rates 1960 to 2015





MSW Management in the United States in 2015 (262 million tons)

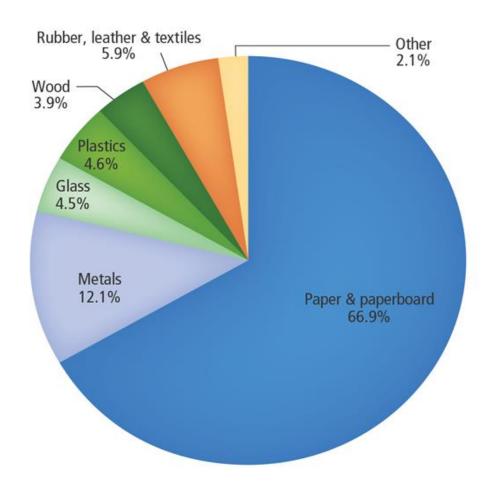






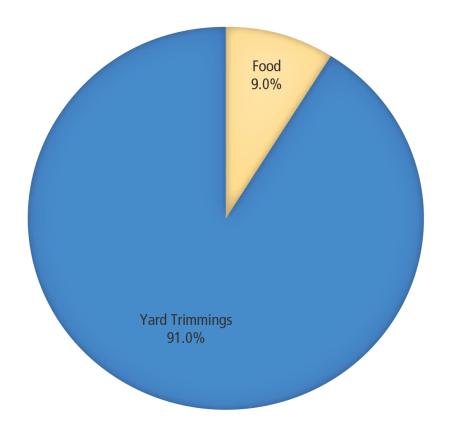


MSW Recycling in 2015 68 million tons





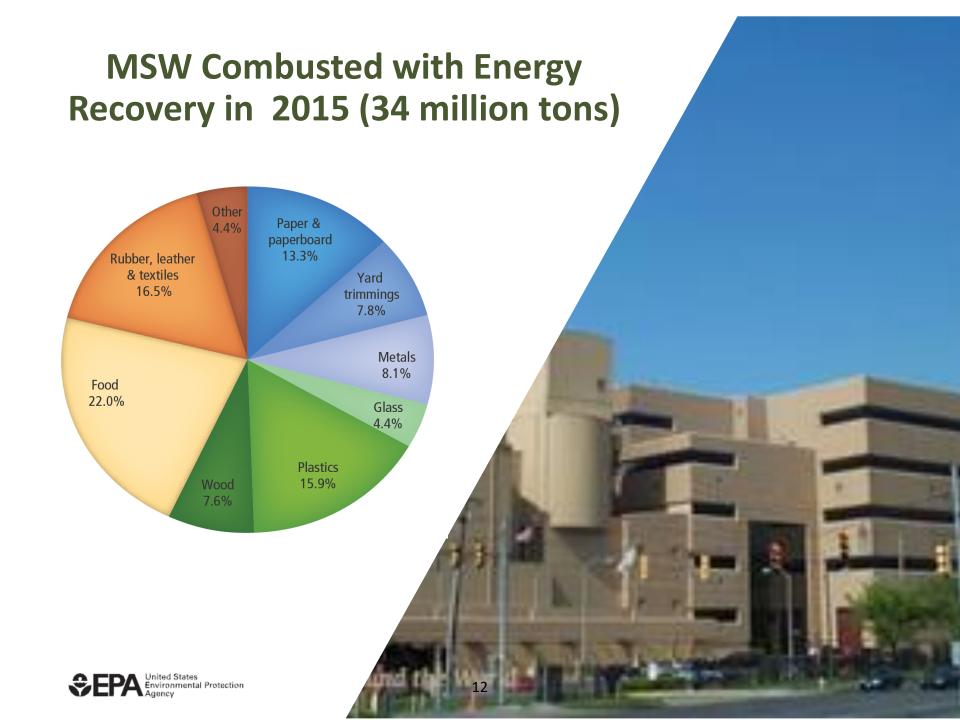
MSW Composting in 2015 23 million tons



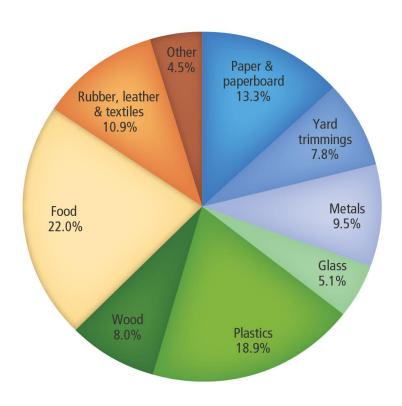








MSW Landfilled in 2015 138 million tons







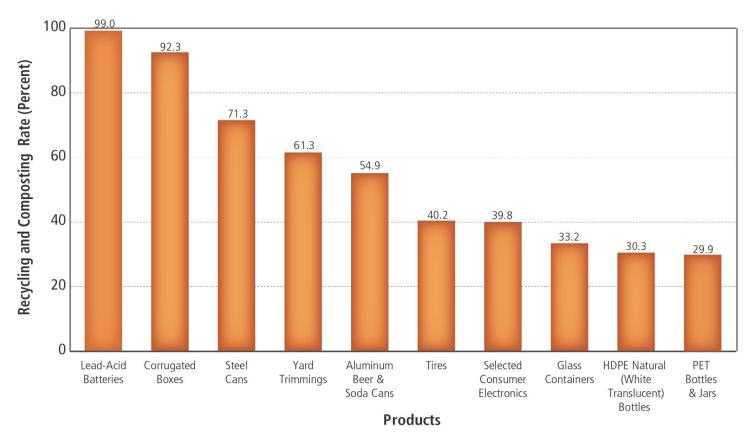


Key Commodities

Recycling Rates

- Paper and paperboard recycling was 66.6%
- Metals recycling was 34.3%
- Glass recycling was 26.4%
- Plastics recycling was 9.1%
 - PET bottles and jars recycling was 29.9%
 - HDPE Natural (white translucent) bottle recycling was 30.3%

Selected Products with High Recycling and Composting Rates, 2015*



^{*}Does not include combustion with energy recovery.



Food



Generation

39.7 million tons in 2015, up from 38.7 million tons in 2014

Composting

- 2.1 million tons, up from 1.9 million tons of food and other organic materials composted in 2014
- Composting rate of 5.3%, up from 5.0% in 2014

Landfilling

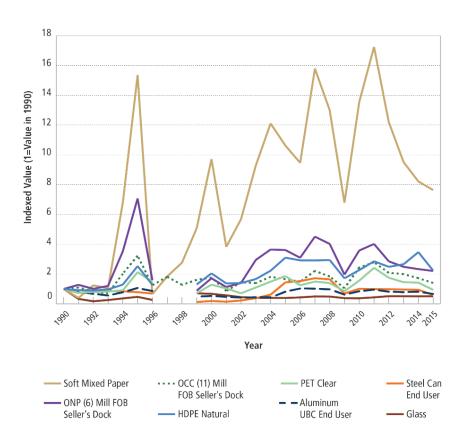
 22.0% of MSW landfilled was food

Environmental Benefits

Greenhouse Gas (GHG) Emissions

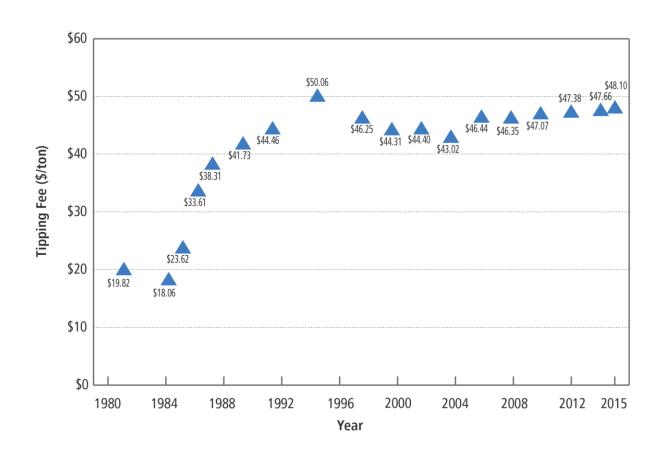
- In 2015, management of MSW prevented over 181.5 million metric tons of carbon dioxide equivalent of GHG emissions.
- These reductions are comparable to the annual emissions from over 38.8 million passenger vehicles.
- These estimates are calculated using EPA's WARM (Waste Reduction Model) methodology.

Recycled Commodity Values 1990 - 2015



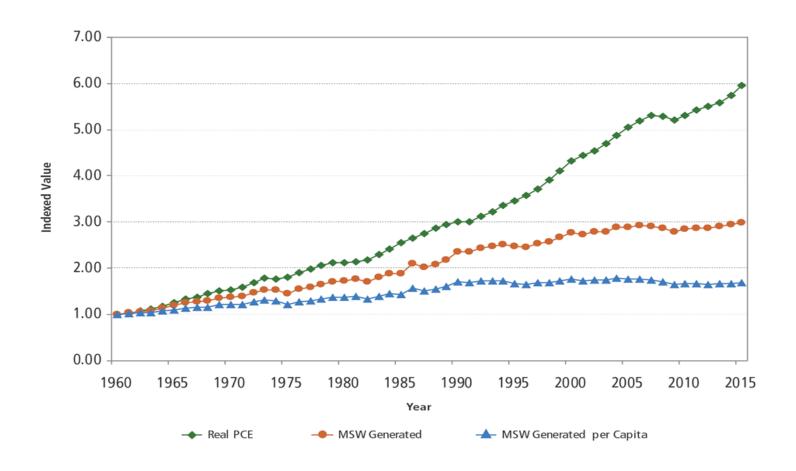


National Landfill Tipping Fees 1982-2015



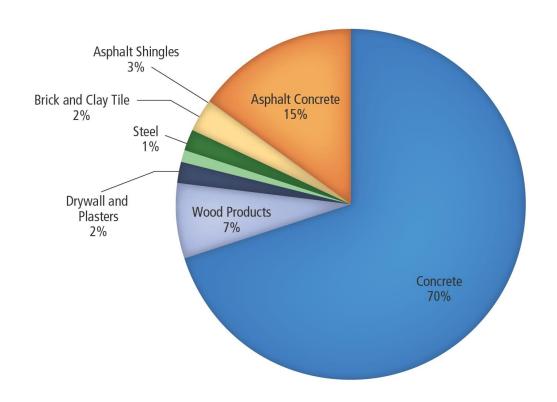


Personal Consumer Expenditures 1960-2015





C&D Generation in 2015 548 Million Tons





C&D Debris Generation in 2015548 Million Tons

	Waste During Construction	Demolition Debris	Total C&D Debris
Concrete	23.1	358.7	381.8
Wood Products ¹	2.9	36.1	38.9
Drywall and Plasters	2.5	10.5	13.0
Steel ²	0.0	4.5	4.5
Brick and Clay Tile	0.3	11.9	12.1
Asphalt Shingles	0.9	12.7	13.5
Asphalt Concrete	0.0	83.9	83.9
Total	29.7	518.3	547.7



Thank you

For further information visit us at:

https://www.epa.gov/facts-and-figures-aboutmaterials-waste-and-recycling

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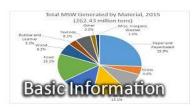




NOTE:

Current statistics reflect data from 2015. Data is only representative of the United States.

The Facts and Figures data looks at generation, recycling, composting, combustion with energy recovery, and landfilling for a variety of materials and products. Check out our <u>A to Z Directory</u> for terms and keywords for which our web visitors frequently search.







- What's Included and Key Definitions
- Frequent Questions about This Data
- Report and Data Tables
- State and Local Data
- Recycling Economic Information Report
- The Current National Picture
- Generation
- Recycling/Composting
- Combustion with Energy
- Landfilling

- Containers and Packaging
- Electronics
- Food
- Construction and Demolition Debris
- All Materials and Products



Facts and Figures about Materials, Waste and Recycling

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Facts and Figures Home

Learn about the Facts and

Material-Specific Data **Product-Specific Data**

National Overview

A to Z Directory

Frequent Questions about the Data

Full Report and Data Tables

Guide to the Facts and Figures Report about Materials, Waste and Recycling

EPA began analyzing data on waste and materials recycling more than two decades ago, and the Agency has data tables that go back to the 1960s. The Facts and Figures Report looks at generation, recycling, composting, combustion with energy recovery, and landfilling for a variety of materials and products. The most recent data is from 2015.

On this page:

- Sections of this Report and Our Terminology
 - National Overview
 - Materials and Products
- Materials
- Products

Related Links

- Read the report methodology
- Advancing SMM Facts and Figures
- Looking for data on HW? Check out our RCRAInfo page
- · Check out the Toxics Release Inventory (TRI) National Analysis web area

Sections of this Report and our Terminology

Looking for something specific? The A to Z guide is a great place to begin your search.



Facts and Figures about Materials, Waste and Recycling

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Facts and Figures Home

Learn about the Facts and Figures

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Frequent Questions about the Data

Full Report and Data Tables

Paper and Paperboard: Material-Specific Data

In 2015, paper and paperboard (cardboard) materials comprised the largest component of municipal solid waste (MSW). For this analysis, EPA included products such as office papers, newspapers, corrugated boxes, milk cartons, tissue paper, and paper plates and cups. EPA classified products made of paper and paperboard materials as either nondurable goods or as containers and packaging, with nondurable goods being the larger category.

This web page is a brief summary of paper and paperboard material-specific data. For more comprehensive information, see the 2015 Data Tables on the <u>Advancing Sustainable Materials</u>
Management: Facts and Figures Report page.

Note:

This web page contains material-specific information and data on paper and paperboard.

Looking for other information? Take a look at the <u>products</u> and at the other <u>materials</u> we studied.

On this page:

- Overview
- Summary Table and Graph

Overview

EPA measures the generation, recycling, composting, combustion with energy recovery and landfilling of paper and paperboard products.

