

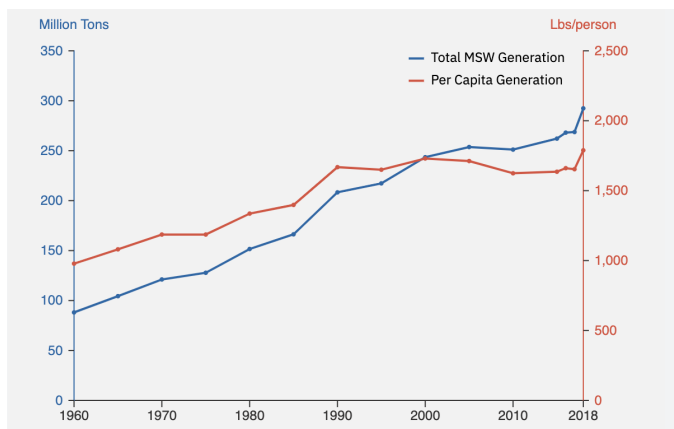
U.S. Municipal Solid Waste

Municipal Solid Waste (MSW), commonly called “trash” or “garbage,” includes durable goods (tires, furniture), nondurable goods (newspapers, plastic plates/cups), containers and packaging (milk cartons, plastic wrap), and other wastes (yard waste, food). MSW generally refers to common household waste plus office and retail wastes, excluding industrial, hazardous, and construction wastes. Handling and disposal of MSW is a growing concern as the volume of waste generated in the U.S. continues to increase.¹

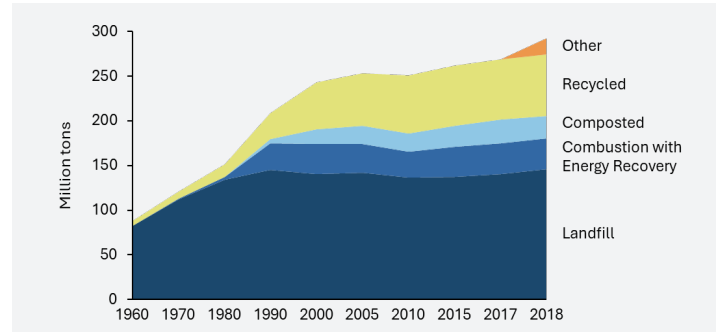
Generation Statistics

- MSW generation in the U.S. has increased 93% since 1980, to 292M tons per year in 2018.¹ Per capita MSW generation increased 34% over the same period, from 3.7 to 4.9 lbs per person per day, compared to 2.6 in Sweden, 3.7 in Germany, and 2.8 in the U.K.^{1,2} At the 2018 rate, an American weighing 180 lbs generates their own weight in MSW every 37 days.
- In 2018, Americans generated 28 lbs of MSW per \$1,000 of GDP compared to 22 in Germany, 19 in the U.K., and 16 in Sweden.²
- 32% of U.S. MSW is recycled or composted, 12% is sent for combustion with energy recovery, and 50% is landfilled.¹
- Packaging, containers, and durable goods made up 48% of MSW in 2018.¹ The remainder was split between nondurable goods, food waste, and yard waste.¹
- Plastics contribute over 14.5M tons of MSW per year, of which just 8.7% was recycled.⁴
- About 1/3 of all food in the U.S. is wasted.⁶ This amounts to 66M tons yearly; the energy used to grow, harvest, and transport this food could have been used to power 50M houses per year.¹⁶ Food waste globally accounts for 8-10% of GHG emissions.⁷ See [Food Systems Factsheet](#).

U.S. Annual MSW Generation¹



MSW Management in the U.S.¹

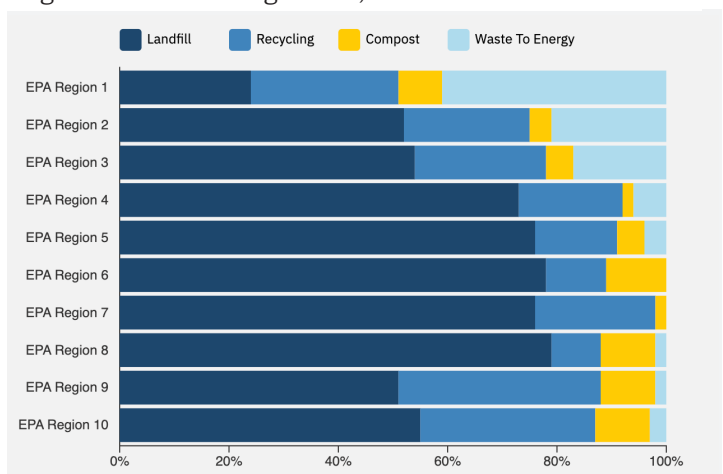


Management Methods

Landfill

- In 2018, 50% of U.S. MSW was disposed of in landfills.¹ 316 Mt of waste are landfilled annually, in 1266 landfills, generating 270 Mt CO₂e, equal to 5% of U.S. energy-related CO₂ emissions.^{8,9}
- Landfill disposal (“tipping”) fees averaged \$62.28 per ton in 2024, a 10% increase from 2023.¹⁰ These fees fund landfill operation and maintenance, but funding for waste diversion research and technologies is lacking.^{5,12}
- Landfill disposal causes loss of land area, methane (CH₄) emissions, and potential hazardous material leaching to groundwater, though proper design reduces this risk.^{13,14}
- Landfills were the third-largest source of U.S. anthropogenic CH₄ emissions in 2022, accounting for over 17% of total CH₄ emissions and about 1.9% of total GHG emissions.¹⁵
- In 2019, 38% of food waste was landfilled, resulting in 18% of total landfill CH₄ emissions.^{6,16}

Regional MSW Management, 2010¹



Combustion

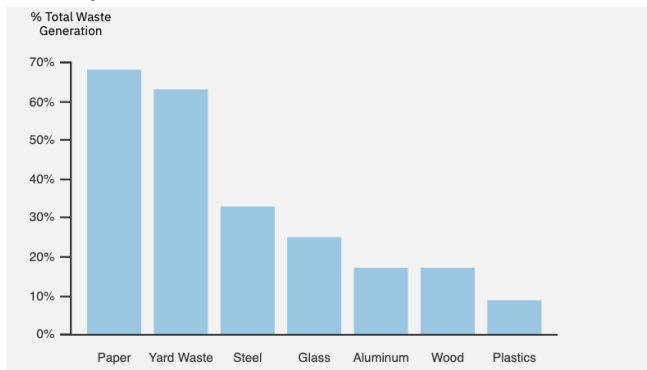
- In 2018, 11.8% of U.S. MSW was disposed of through combustion with energy recovery.¹ Combustion reduces waste 75-85% by weight and 85-95% by volume, creating ash residue that is mostly landfilled, though recent attempts have been made to reuse it.¹⁷

- In 2022, 63 power plants burned 26.6M tons of MSW and generated about 12.8B kWh of electricity.¹⁸
- Biogenic MSW (paper, food, and yard waste) accounted for 45% (5.76B kWh) of the electricity produced, about 0.14% of total U.S. electricity generation.^{18,19}
- In 2019, 14.57% of food waste was combusted.³⁸
- MSW incineration generates pollutants (CO₂, NO_x,⁴⁰ heavy metals, dioxins, and PM2.5) that contribute to climate change, smog, acidification, and human health impacts including asthma and heart and nervous system damage.²⁰

Recycling and Composting

- In 2018, 32% of U.S. MSW (by weight) was recovered for recycling or composting, diverting 93.9M tons of material from landfills and incinerators— about 2.8 times the amount diverted in 1990.¹ Of recovered MSW, 27% was composted.¹

Recovery of Materials in MSW, 2018²¹



- 53% of people in the U.S. live in communities with automatic curbside recycling services. 82% of cities with curbside recycling collect single-stream, meaning materials are separated at the recycling plant.^{22,23}
- Between 1988 and 2011 the number of curbside programs in the U.S. increased more than ninefold.^{24,25}
- Households with a recycling pickup services generate 42% less waste than those without access to recycling.²⁶
- In 2018, 97% of corrugated boxes were recovered for recycling; other highly recycled products include lead-acid batteries (99%), newspapers (65%), major appliances (60%), and aluminum beverage cans (50%).¹
- Common products with poor recycling rates include: carpet (9%), small appliances (6%), and furniture (0.3%).²⁷

Solutions and Sustainable Actions

Source Reduction

- Source reduction prevents materials from entering the MSW stream and is the most effective waste reduction method.²⁸
- Identify opportunities to reuse materials at home or in your community. Purchase furniture and appliances from reuse centers and consignment shops.

- Packaging and containers made up 28% of MSW in 2018. Reduce packaging by selecting efficiently packaged products or buying in bulk.¹
- Purchase products with post-consumer recycled content and encourage companies to implement source reduction.
- In 2018, 2.5M tons of paper and plastic plates and cups were disposed of.²⁷ Choose reusable plates, cups, and silverware over disposable goods and reuse them to offset their greater production burdens.³⁰
- Food waste makes up 24% of U.S. MSW, more than any other material. Reduce food waste through meal planning and composting scraps.¹⁶
- In 2018, 600M tons of construction and demolition (C&D) waste was generated.³¹ Significant amounts of waste and GHG emissions can be prevented through energy-efficient city planning and building construction.³² See [Commercial Buildings Factsheet](#).

Encourage Supportive Public Policy

- According to an NRDC survey, 87% of Americans want the U.S. to be a global leader in tackling plastic pollution and waste.³³
- In 2025, USDA, EPA, FDA, and USAID renewed the Federal Interagency Food Loss and Waste (FIFLAW) Collaboration to reduce food loss and waste.³⁴
- In 2021, 25 states introduced food waste-related legislation to reduce the amount of food waste sent to landfills.¹⁶
- In 2024, EPA, USDA, and USFDA released the National Strategy for Reducing Food Loss and Waste and Recycling Organics, to halve food loss and waste and achieve a 50% recycling rate by 2030.³⁵
- Pay-As-You-Throw programs charge residents for waste collection based on volume, limiting household MSW generation.³⁶ When properly implemented, pay-as-you-throw offers the greatest impact, reducing waste by 44%, followed by curbside collection (18% reduction).³⁹
- Curbside recycling and composting programs help reduce the burden of waste disposal.
- Households that use drop-off recycling centers generate 26% less waste.²⁶
- Ten states (CA, CT, HI, IA, ME, MA, MI, NY, OR, and VT) have deposit laws to encourage the return of beverage containers.³⁷