



## 2018 Reduction and Recycling Statistics

To measure Ohio's progress toward achieving the solid waste reduction/recycling goals, Ohio EPA annually calculates and publishes statewide solid waste reduction and recycling rates as well as individual rates for Ohio's 52 **solid waste management districts** (SWMDs).

Ohio EPA tracks solid waste reduction/recycling according to two sectors of solid waste generators – the residential and commercial sector (R/C sector) and the industrial sector. The solid waste generated by the R/C sector essentially is municipal solid waste. Industrial solid waste is generated primarily by manufacturing operations.

### Ohio's Recycling Goals

Ohio's state solid waste management plan establishes the state's recycling goals. The current state plan is the **2009 State Solid Waste Management Plan**. The overriding goal in the plan is for Ohio to reduce/recycle at least 50 percent of the solid waste generated statewide.

The 2009 State Plan established nine goals for the SWMDs<sup>1</sup>. One of the goals, Goal 2, challenges SWMDs to achieve waste reduction and recycling rates for the R/C and industrial sectors. Those rates are as follows:

- at least 25 percent of solid waste generated by the SWMD's R/C sector; and
- at least 66 percent of solid waste generated by the SWMD's industrial sector.

Ohio measures diversion from landfills as well as recycling. Thus, composted yard waste contributes to achieving the goal as does volume reduction achieved through incinerating solid waste.

### Reporting and Surveying

Each SWMD must submit an annual district report to Ohio EPA that details the quantities of materials reduced/recycled. SWMDs obtain data for the annual report by surveying communities, businesses, industries and other entities that recycle. Completing and returning these surveys is strictly voluntary. Consequently, obtaining accurate, complete data is often a challenge for the SWMDs<sup>2</sup>.

### 2018 Fast Facts

#### Ohio's Reduction/Recycling Goals

- Residential/Commercial – 25 percent
- Industrial – 66 percent
- Total – 50 percent

#### R/C Waste Reduction and Recycling

- Weight – 4.32 million tons
- Percent of Generation – 29.70 percent

#### Industrial Waste Reduction and Recycling Rate

- Weight – 8.06 million tons
- Percent of Generation – 50.24 percent

#### Statewide Waste Reduction and Recycling Rate

- Weight – 12.38 million tons
- Percent of Generation – 40.47 percent

### For More Information

A variety of information is available on the Solid Waste Management Planning webpage — [epa.ohio.gov/dmwm/Home/SWMMgmtPlanning2.aspx](http://epa.ohio.gov/dmwm/Home/SWMMgmtPlanning2.aspx).

Visit our website at [epa.ohio.gov/dmwm/](http://epa.ohio.gov/dmwm/) or contact us directly using the following contact information:

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Division of Materials and Waste Management  
P.O. Box 1049  
Columbus, Ohio 43216-1049  
(614) 644-2621 (phone)  
(877) 372-2621 (toll free)  
(614) 728-5315 (fax)

For information about solid waste management in your area, contact your local SWMD. To determine which SWMD you live in, use the [Map of Ohio's Solid Waste Management Districts](#). To contact your SWMD, call or email the person listed on the [Ohio SWMD Coordinator/Director Report](#).

<sup>1</sup> While all nine goals of the 2009 State Plan are important, the primary goals are Goal 1 and Goal 2. Goal 1 establishes standards for recycling infrastructure. Goal 2 establishes a solid waste reduction and recycling rate (WRR). SWMDs may select which of these two goals to achieve. SWMDs that opt to achieve Goal 1 are not required to also achieve Goal 2 and vice versa.

<sup>2</sup> In addition to the typical factors affecting the accuracy of data, the completeness of statewide data is affected by Ohio's dual reduction/recycling goals. Some SWMDs that opt to pursue Goal 1 may dedicate limited time and resources to gathering and analyzing data. This is an anticipated result of having two goals.

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## Statewide Reduction and Recycling

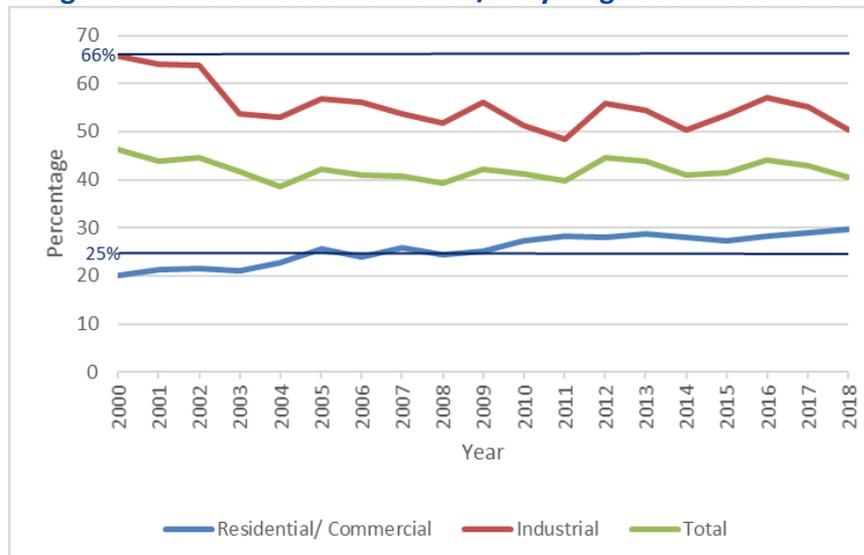
As illustrated in Table 1 and Figure 1 below, Ohio achieved the statewide goal of reducing/recycling 25 percent of residential/commercial waste in 2005. Following variability from 2006 to 2009, Ohio’s residential/commercial rate has exceeded 27 percent beginning in 2010 and continuing through 2018.

Ohio’s industrial reduction/recycling percentage fluctuated inconsistently from 2000 to 2018. That variability likely reflects the influence of surveying rather than actual recovery. Whether large industrial generators consistently report their recovery amounts can significantly affect the calculated rate.

**Table 1: Ohio’s Waste Reduction/Recycling Rate by Sector – 2000-2018 (in percent)**

Year	Residential/ Commercial	Industrial	Total
2000	20	65.6	46.3
2001	21.3	64	43.8
2002	21.6	63.7	44.6
2003	21.1	53.8	41.8
2004	22.7	52.9	38.6
2005	25.7	56.9	42.3
2006	23.9	56.1	41.1
2007	25.9	53.6	40.7
2008	24.3	51.8	39.2
2009	25.2	56	42.1
2010	27.4	51.4	41.3
2011	28.3	48.5	39.9
2012	28.1	55.9	44.5
2013	28.7	54.5	43.8
2014	27.9	50.3	41.1
2015	27.3	53.5	41.4
2016	28.35	57.01	44.07
2017	29.06	55.19	42.99
2018	29.7	50.24	40.47

**Figure 1: Ohio’s Waste Reduction/Recycling Rate - 2000-2018**



## 2018 Reduction and Recycling Statistics

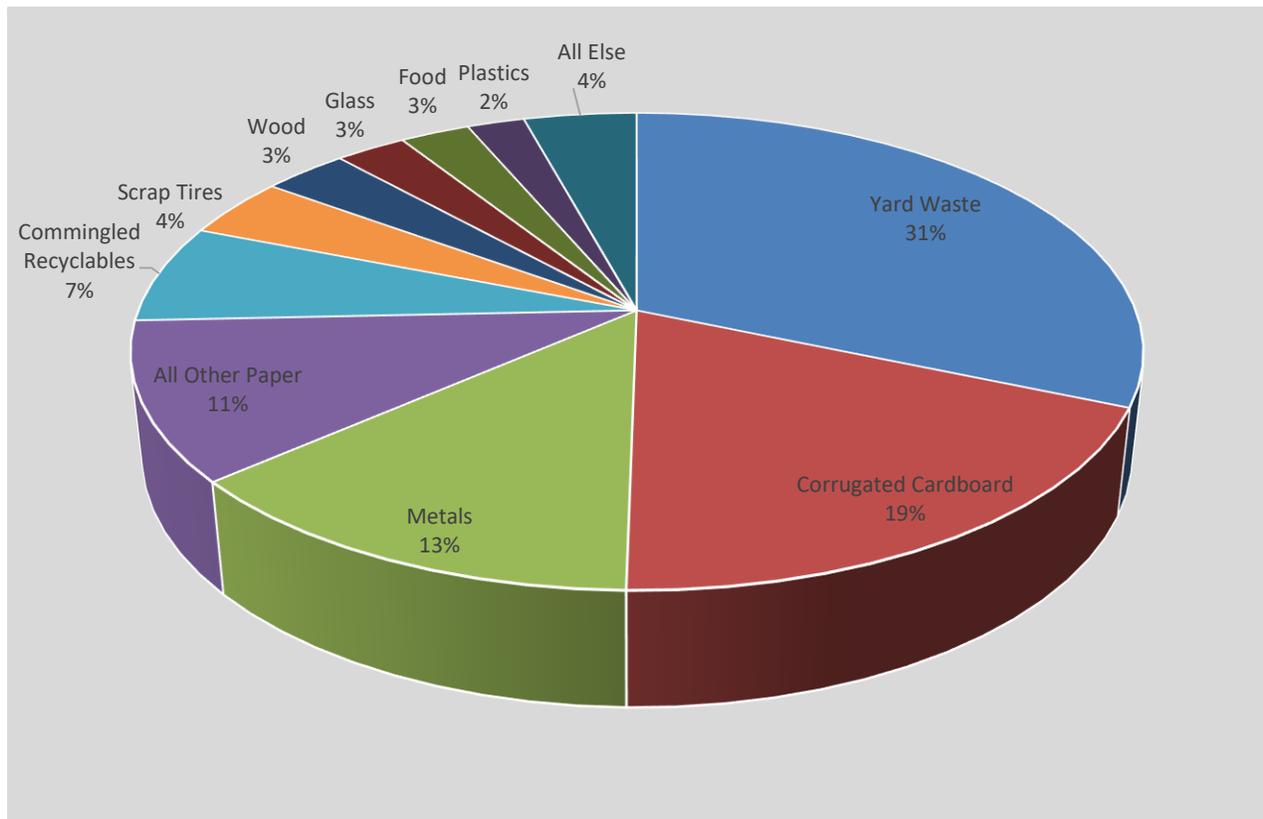
### Residential/Commercial Sector

Statewide, SWMDs reported that 29.7 percent (4,321,847 tons) of R/C solid waste was reduced/recycled in 2018. As shown in Figure 2, a small number of materials comprised the majority of R/C material reduced/recycled. The top five recovered materials by weight and percent of total (excluding “all else”) in 2018 were:

- yard waste – 1,357,574.40 tons (31 percent);
- corrugated cardboard – 815,299.80 tons (19 percent);
- metals – 574,935.80 tons (13 percent);
- all other paper – 464,069.90 tons (11 percent); and
- commingled recyclables – 287,979.30 tons (7 percent).

Collectively, those five materials made up approximately 81 percent of all R/C solid waste reduced/recycled in 2018.

**Figure 2: Residential/Commercial Materials Reduced and Recycled in 2018 (in tons)**



“All Else” consists of appliances/white goods, textiles, used oil, lead-acid batteries, electronics, household hazardous waste, household batteries, rubber, and other misc. materials.

### Industrial Sector

Statewide, SWMDs reported that 50.24 percent (8,056,035 tons) of industrial solid waste was reduced/recycled in 2018. Figure 3 shows the types and amounts of materials reduced/recycled. As with the R/C sector, most of the industrial material recycled/reduced consisted of a small number of materials.

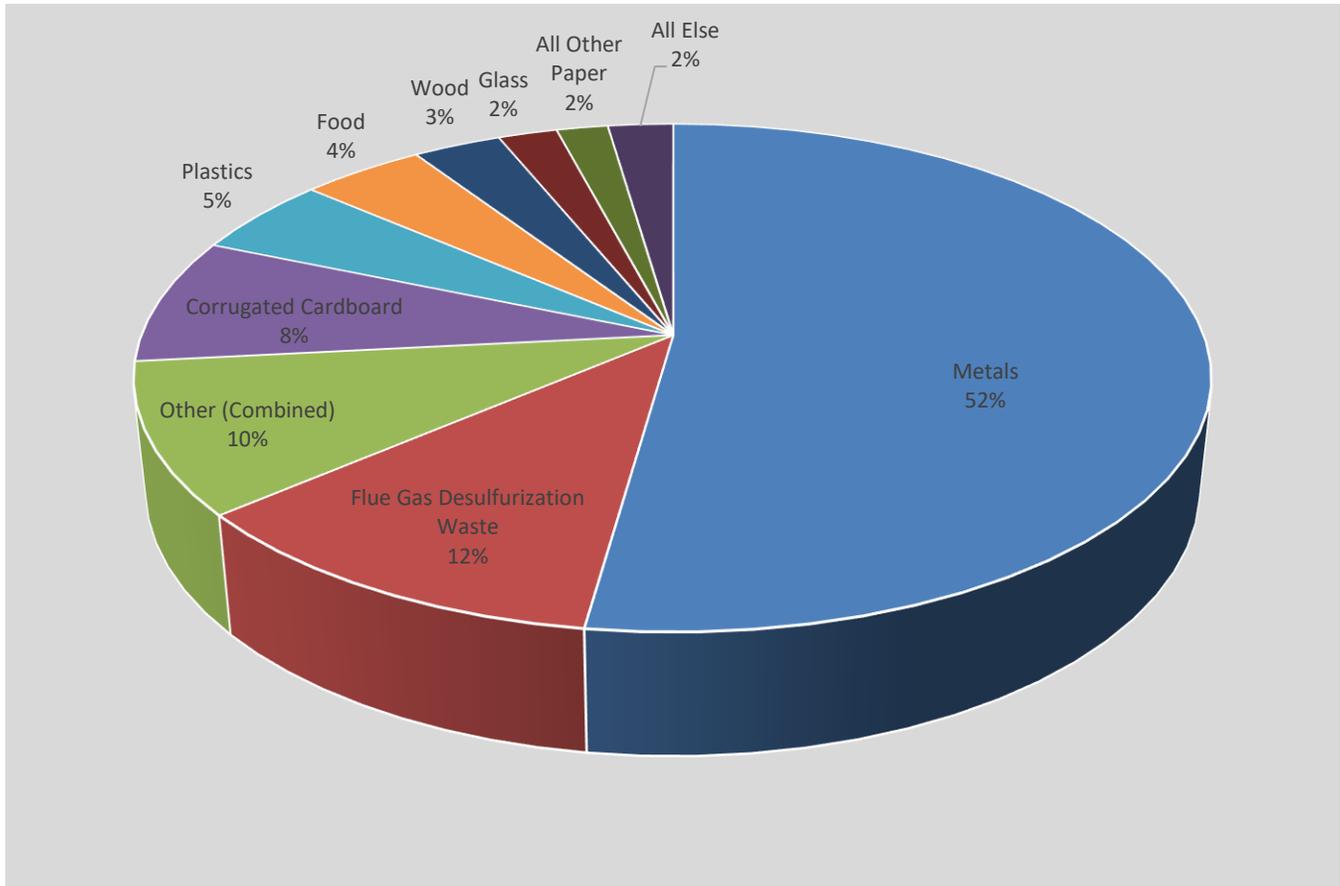
The top five materials by weight and percent of total (excluding “all else”) in 2018 were:

- metals – 4,207,264.70 tons (52 percent);
- FGD – 926,392.20 tons (12 percent);
- other (combined) – 775,275.00 tons (10 percent);
- corrugated cardboard – 644,560.00 tons (8 percent); and
- plastics – 403,173.60 tons (5 percent).

Collectively, those five materials made up approximately 87 percent of all Industrial solid waste reduced/recycled in 2018.

## 2018 Reduction and Recycling Statistics

Figure 3: Industrial Materials Reduced and Recycled in 2018 (in tons)



"All Else" consists of recycled ash, non-excluded foundry sand, rubber, commingled recyclables, textiles, and volume reduction due to incineration.

### Solid Waste Reduction/Recycling Rates for the 52 SWMDs

As shown in Figure 4 on the next page, R/C sector recycling rates in 2018 varied widely among SWMDs, from a low of 4.89 percent to a high of 56.17 percent. Twenty-nine SWMDs reported having recycled enough material to achieve Ohio's R/C sector WRR goal of 25 percent.

Industrial recycling/reduction rates also varied significantly in 2018. As shown in Figure 5 on the next page, the rates achieved by the SWMDs ranged from a low of 0.59 percent to a high of 98.78 percent. Thirty-four SWMDs reported having recycled enough industrial material to achieve Ohio's WRR goal of 66 percent.

### Influence of Coal Burning Power Plants on Recycling Rates

Ohio's coal burning power plants significantly influence local recycling rates. These plants produce considerable quantities of flue gas desulfurization waste (a pollution control waste) This FGD is industrial solid waste. Of the 4.95 million tons of FGD generated in Ohio in 2018, 81.28 percent was disposed in landfills. Consequently, a power plant can have a significant negative effect on the host SWMD's ability to meet the industrial percentage goal.

While FGD is difficult to recycle, it is recyclable. In 2018, SWMDs reported that a combined 926,392.15 tons of FGD, 18.72 percent of all FGD generated, were recycled. The main obstacle to recycling more FGD is the sheer volume of FGD generated which is far greater than the demand for it.

# 2018 Reduction and Recycling Statistics

Figure 4: 2018 Residential/Commercial Solid Waste Reduction and Recycling Rates by SWMD

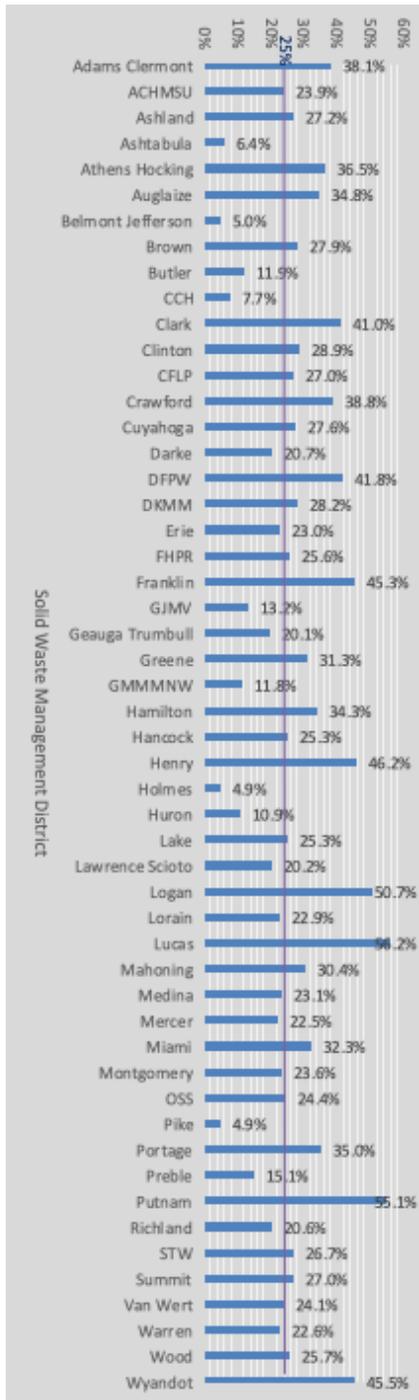
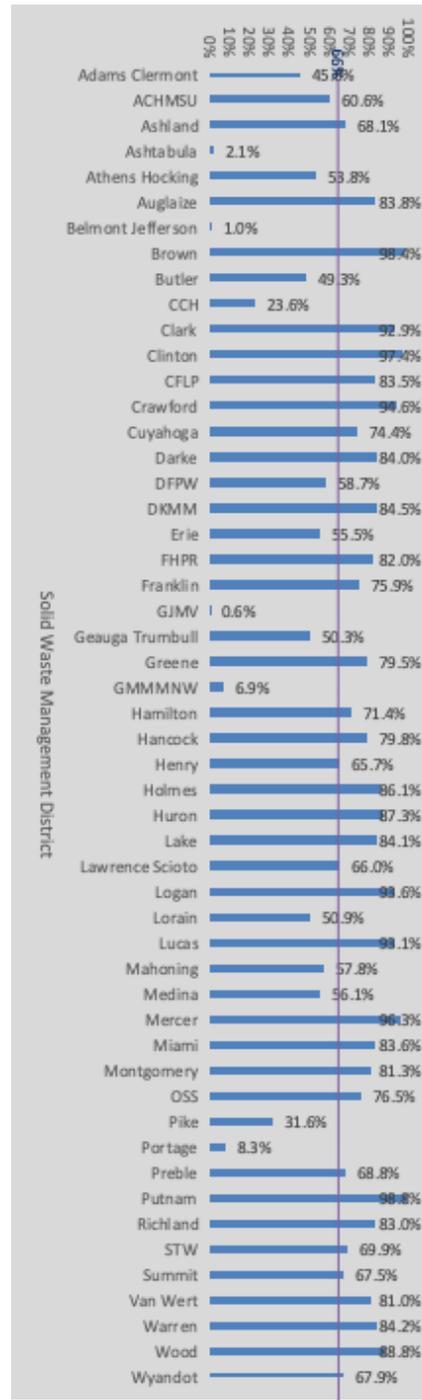


Figure 5: 2018 Industrial Solid Waste Reduction and Recycling Rates by SWMD



## Key

ACHMSU = Allen-Champaign-Hardin-Madison-Shelby-Union  
 CCH = Carroll-Columbiana-Harrison  
 CFLP = Coshocton-Fairfield-Licking-Perry  
 DFPW = Defiance-Fulton-Paulding-Williams  
 DKMM = Delaware-Knox-Marion-Morrow

FHPR = Fayette-Highland-Pickaway-Ross  
 GJMV = Gallia-Jackson-Meigs-Vinton  
 GMMMMNW = Guernsey-Monroe-Morgan-Muskingum-Noble-Washington  
 OSS = Ottawa, Sandusky-Seneca  
 STW = Stark-Tuscarawas-Wayne