Solid Waste Generated in Ohio - 2020

Ohio EPA annually calculates and publishes the quantities of waste generated statewide and by each of Ohio's 52 *solid waste management districts* (SWMDs). Ohio EPA uses those quantities to calculate waste reduction/recycling rates for the state and the SWMDs, to monitor solid waste, and for effective solid waste management planning.

Ohio EPA tracks waste generation according to three categories of solid waste – residential and commercial (R/C) solid waste, industrial solid waste, and excluded waste. R/C solid waste is essentially municipal solid waste, industrial solid waste is generated primarily by manufacturing operations, and excluded waste includes nontoxic foundry sand, nontoxic fly ash and bottom ash, and construction and demolition debris[1].

Solid Waste Generation

Ohio EPA calculates how much waste was generated for each category by adding together the associated quantities both disposed and reduced/recycled. Statewide generation is calculated by adding together the generation figures for all categories.

Ohio EPA receives recycling/reduction data through annual district reports that SWMDs submit to Ohio EPA. SWMDs in turn obtain data for the annual district reports by surveying communities, businesses, industries and other entities that recycle.

Ohio EPA obtains disposal data from the annual facility reports that owners and operators of solid waste facilities are required to submit.

Ohio EPA also adds waste that was disposed in landfills in other states. Ohio EPA adjusts the data reported by those states to correct for waste that was misreported because it went to a transfer facility in Ohio before being delivered to an out-of-state landfill.

In 2020, Ohio generated approximately 28.89 million tons of solid and excluded waste. This equates to a per capita generation rate of 13.53 pounds per person per day (ppd). Analyzed by category, Ohio generated approximately 15.16 million tons of R/C solid waste, or 7.10 ppd; Industrial solid waste totaled approximately 12.65 million tons, or 5.92 ppd; and excluded waste totaled almost 1.09 million tons, or 1.03 ppd. The contribution of each category's waste to total waste generation is depicted in Figure 1.

2020 Fast Facts

Ohio's Population
- 11,699,626

Solid Waste Generated (tons)
- Residential/Commercial – 15,156,745 tons
- Industrial – 12,649,910 tons
- Total – 27,806,655 tons

Solid Waste Generated (ppd)
- Residential/Commercial – 7.10 ppd
- Industrial – 5.92 ppd
- Total – 13.02 ppd

Excluded and C&DD Waste Generated (ppd)
- Excluded and C&DD – 1,086,882 tons
- Excluded and C&DD – 0.51 ppd

Total Waste Generated (tons)
- Total – 28,893,537 tons
- Total – 13.53 ppd

C&DD = construction and demolition debris
ppd = pounds per person per day

For More Information

A variety of information is available on the Solid Waste Management Planning webpage — *epa.ohio.gov/dmwm/Home/SWMgmtPlanning2.aspx*.

Visit our website at *epa.ohio.gov/dmwm/* or contact us directly using the following contact information:
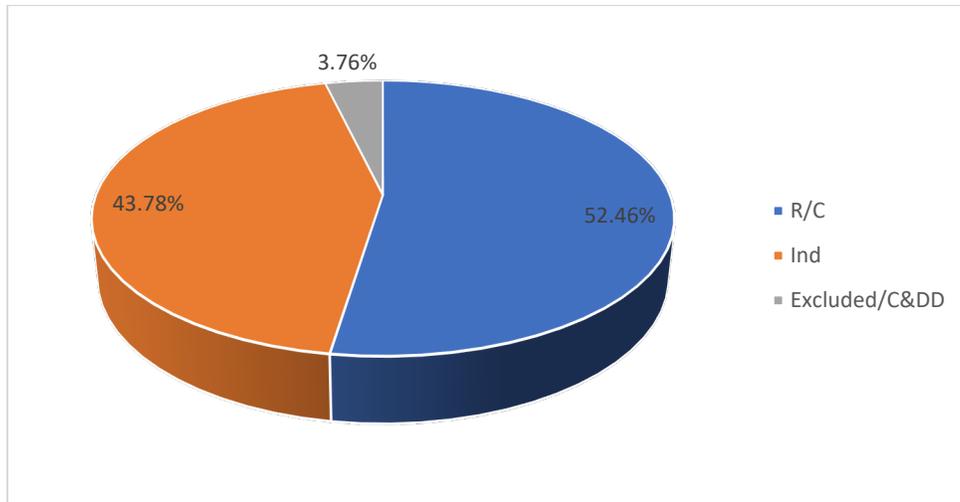Ohio EPA
Division of Materials and Waste Management
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2621 (phone)
(877) 372-2621 (toll free)
(614) 728-5315 (fax)

For information about solid waste management in your area, contact your local SWMD. To find your SWMD, use the *Map of Ohio's Solid Waste Management Districts* that is available on the *Solid Waste Management Planning* page.

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[1] Excluded wastes are those the definition of solid waste in Ohio Revised Code Section 3745-27-01 specifies are not solid waste. Although construction and demolition debris is regulated as a distinct waste stream, it is still an excluded waste.

Solid Waste Generated in Ohio - 2020

Figure 1: Composition of Waste Generated in Ohio in 2020

Ohio Generation Compared to National Generation

According to the United States Environmental Protection Agency, Americans generated an average of 4.90 pounds per person per day of municipal solid waste in 2018[2]. This is much lower than the 7.10 pounds per person per day that was generated by Ohio's R/C sector in 2020.

It isn't surprising that Ohio would have a higher per capita generation rate than the national average. According to the Ohio Development Services Agency, in 2018, Ohio's gross domestic product was the seventh largest of the 50 states. In fact, if Ohio was a separate nation, the state's gross domestic product would have been among of the top 30 largest worldwide. Ohio ranked as the third state in the United States as a source of manufactured goods.

Generation trends

Table 1 and Figure 2 at the end of this fact sheet present historical data regarding waste generated in Ohio. The trend descriptions below were derived from the table and figure.

Total Waste

 Historically waste generated by the industrial sector has been greater and more volatile than the amount generated by the R/C sector. As a result, changes in industrial waste generation tend to have the greatest effect on statewide generation trends. From 2017 to 2018 and again from 2019 to 2020, changes in excluded waste generated had the largest impact on statewide generation. In addition, 2019 marked the first year that R/C waste generated was higher than industrial waste generated.

R/C Waste

R/C waste generated decreased slightly between 2008 and 2011. Since then, Ohio has seen a gradual increase in the amount of R/C waste generated. In fact, the amount generated in 2019 was the historical high for that sector. In 2020, the R/C sector generated a little less than 15.2 million tons of solid waste. That quantity was slightly less than the quantity generated in 2019.

Industrial Waste

In 2009, waste generated by the industrial sector decreased. Since then, industrial generation increased until 2014, and then decreased through 2016. Industrial waste generation remained constant between 2016 and 2018 until decreasing again in 2020 to 12.96 million tons. One of the main reasons for the decrease in 2020 is the Gavin Power Plant disposing of almost 3 million tons less of industrial waste compared to 2019.

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[2] U.S.EPA. *Advancing Sustainable Materials Management*: *2018 Fact Sheet*. December 2020. Accessed December 1, 2021. https://www.epa.gov/sites/default/files/2021-01/documents/2018_ff_fact_sheet_dec_2020_fnl_508.pdf. 2018 is the most recent data available from U. S. EPA.

Solid Waste Generated in Ohio - 2020

Excluded Waste

The quantity of excluded waste Ohio EPA reports as generated equals the quantity disposed in MSW landfills. Ohio EPA does not receive data regarding excluded waste that was recycled. Further, the quantity of excluded waste disposed in MSW landfills is a fraction of total excluded waste disposed. As an example, owners/operators of C&DD disposal facilities, the primary disposal facilities for C&DD, do not report the quantities of waste disposed.

From 2008 to 2017, the amount of excluded waste generated fluctuated inconsistently. From 2017 to 2018, the quantity increased significantly although it was still less than the historical high achieved in 2011. The almost 1.09 million tons generated in 2020 was half of that generated in 2019.

Table 1. Statewide Ohio Total Waste Generation (based upon disposal + recycling)

Year	Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total (tons)	Residential/ Commercial (ppd)	Industrial (ppd)	Excluded (ppd)	Total (ppd)
2008	13,590,207	16,708,489	1,772,890	32,033,871	6.49	7.97	0.85	15.29
2009	12,859,351	15,520,596	1,227,826	29,608,671	6.10	7.36	0.58	14.05
2010	12,777,576	17,312,142	1,936,426	32,025,416	6.05	8.20	0.92	15.17
2011	12,533,605	17,195,728	2,328,032	32,057,459	5.95	8.16	1.11	15.22
2012	12,615,443	17,954,596	1,971,991	32,542,029	5.98	8.52	0.94	15.44
2013	13,010,460	18,537,187	1,575,406	33,119,800	6.15	8.77	0.75	15.66
2014	13,348,512	18,696,591	1,583,704	33,628,808	6.29	8.82	0.75	15.86
2015	13,481,259	17,028,615	1,753,133	32,259,102	6.35	8.02	0.83	15.19
2016	13,427,743	15,869,748	1,618,619	30,916,110	6.32	7.47	0.76	14.56
2017	14,107,163	16,115,541	1,406,377	31,629,081	6.64	7.58	0.66	14.88
2018	14,551,305	16,034,715	2,166,321	32,752,342	6.85	7.55	1.02	15.42
2019	15,159,161	12,957,531	2,202,165	30,318,857	7.11	6.07	1.03	14.21
2020	15,156,745	12,649,910	1,086,882	28,893,537	7.10	5.92	0.51	13.53

Figure 2: Total Waste Generated in Ohio Over Time