WISCONSIN POLICY FORUM

TALKING TRASH

In 2007, nearly 11 million tons of trash were deposited in Wisconsin landfills, with nearly 2 million tons coming from other states. By 2021, that number had dropped to 8.2 million tons, with only 315,000 tons of out-of-state trash. Changes in the state's fees on landfill deposits, the impact of recessions, and a heightened focus on reducing waste by industry, governments, and individuals have led to decreases in landfill use. Here we draw on state data to dig deeper into these trends and better understand what happened to all of that trash.

Between 2007 and 2021, the amount of trash deposited in Wisconsin landfills each year fell by 24.9%, a decrease of more than 3 million tons that was driven by a large state fee increase as well as shifts by consumers and industry (see Figure 1). The impact was staggering – that missing trash could fill Lambeau Field roughly halfway to the top.

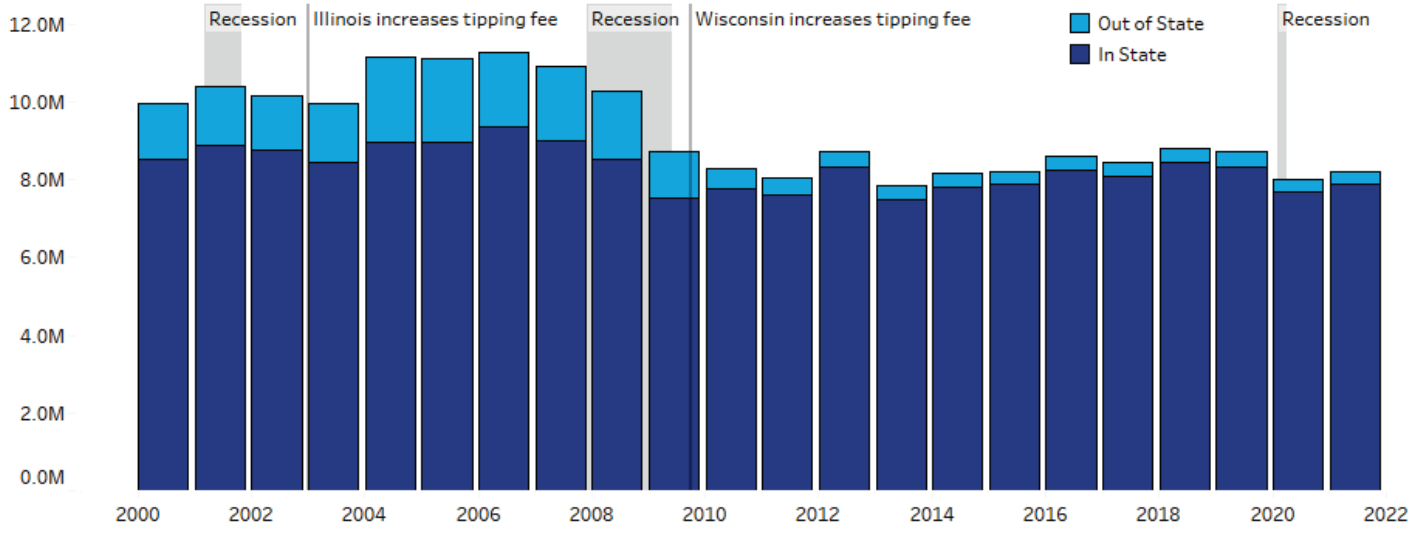
Though deposits have remained relatively stable in recent years, the per capita volume of garbage sent to Wisconsin landfills fell in 2020 to 1.37 tons, the lowest amount in at least two decades, state data show. Despite a modest uptick in 2021 to 1.39 tons, the per capita amount was still the third-lowest since 2000 and was more than half a ton per person less than its 2004 peak. Fee changes in Wisconsin and Illinois plus the economic impact of the Great Recession and to a lesser extent the initial COVID-19 pandemic provide striking examples of how changes in state policy and the economy can produce big effects.

To be sure, the volume of trash in Wisconsin remains massive. In 2021, nearly 8.2 million tons of trash was placed in Wisconsin landfills, a 2.1% increase from the prior year. Taking care of this trash – and recycling some of it – cost cities, villages, towns, and counties nearly a half billion dollars in 2021. State fees on this waste generated an average of $75.5 million per year in revenue used to fund environmental cleanup and recycling programs across Wisconsin.

Landfills play an important role in managing the environmental impact of our consumption habits, by concentrating and limiting the harm done by our solid waste. However, they have impacts on local air and water quality, although efforts to reduce these impacts

Figure 1: Deposits to Landfills Have Fallen From Their Mid-2000s Peak

Million tons of trash deposited in Wisconsin landfills by state of origin, 2000-2021



Source: Wisconsin Department of Natural Resources

have been successful over time. Landfills also affect property values and development potential. Their distribution tends to mirror that of the state's population and industrial centers (see Figure 2). As a result, finding space for new landfills can be difficult.

This report uses data from the Wisconsin Department of Natural Resources (DNR) to detail the sources of trash, its final destination, and explore the reasons for a dramatic drop in landfill deposits since 2007.

CHANGES IN STATE FEES

The main form of trash is municipal waste, which includes both curbside pickup and construction and demolition waste. The volume of municipal waste in Wisconsin has followed a largely similar pattern to overall waste, peaking in the years before the Great Recession, reaching a low in 2013, and then climbing somewhat since then.

When trash is collected from homes and businesses in Wisconsin, waste haulers take it to disposal sites. Waste haulers include local governments and private businesses under contract with local governments. Like waste haulers, landfills are operated by both private businesses and local governments.

State law imposes charges known as tipping fees on nearly every ton of trash delivered to landfills. These fees are paid directly by landfill operators and are typically passed on to waste haulers through gate charges at trash drop-off. The haulers in turn pass a portion of the fees on to consumers through municipal solid waste collection fees or private contracts.

Tipping fee revenues go to the state's environmental fund and pay for a variety of priorities. Those include grants to local governments for recycling programs, grants to farmers for practices that protect the environment, the cleanup of contaminated sites, and grants for the replacement of wells affected by groundwater pollution.

As part of the 2007-09 budget, the Legislature sought to shift some debt payments from the state's general fund to the environmental fund, with revenue to support the payments generated by more than doubling the fee on most non-industrial trash from $5.90 to $13 per ton. This fee increase, which took effect in October 2009, was followed by a dramatic drop in landfill deposits, especially for out-of-state trash.

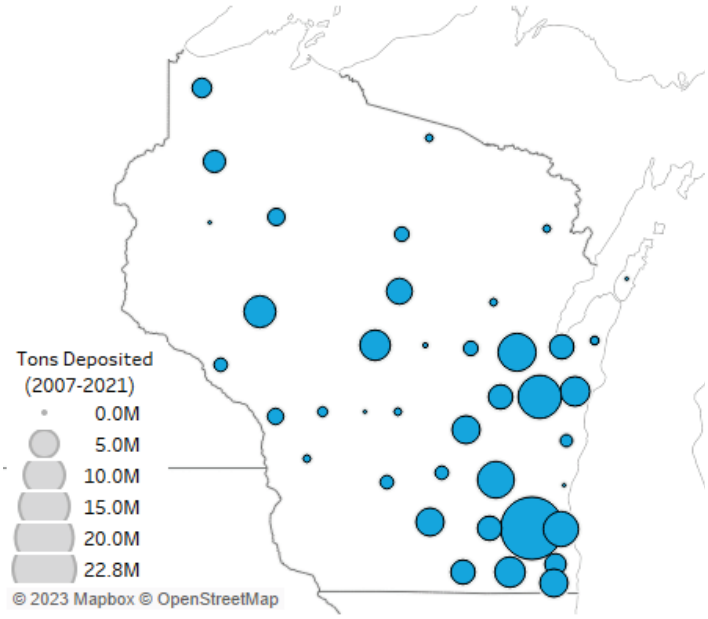
Between 2000 and 2008, an average of 1.7 million tons of out-of-state trash was dropped off at Wisconsin landfills each year, making up 19% of the state's total trash at its peak in 2004. Since 2009, when the fees were increased, these deliveries have averaged less than 441,000 tons per year, making them an important part of why overall landfill deposits have declined here.

The overall decline also cannot be explained by increased trash exports to other states. The annual average for Wisconsin trash shipped to other states has remained around 160,000 tons since 2007. Total recycling also declined over this period, averaging 722,000 tons per year between 2000 and 2009, and 686,000 tons in the years since, eliminating increased recycling as a cause of the decline in trash deposits.

Changes in Illinois policy and that state's solid waste industry also have played a role in Wisconsin's landfill deposit trends. In 2003, Illinois increased its state solid waste fee from 95 cents per ton to $2.22 per ton, and multiple landfills in northern Illinois closed. Those factors resulted in an increase in out-of-state waste being trucked north to Wisconsin, as well as a reduction in the amount of waste that was shipped south to Illinois. The large fee increases in this state more than reversed this trend, however, leaving landfill deposits in Wisconsin lower than they were in 2002.

Figure 2: Most Waste is Concentrated in SE Wisconsin

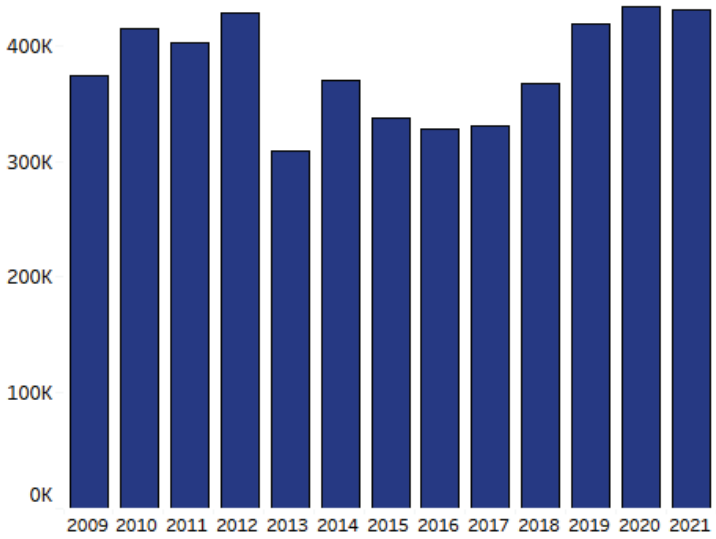
Total landfill deposits by county in tons, 2007-2021



Source: Wisconsin Department of Natural Resources

Figure 3: Construction Waste Has Rebounded to More than Decade High in Recent Years

Tons of construction waste* deposited in landfills by year, 2009-2021



Source: Wisconsin Department of Natural Resources; *prior to 2009, construction waste was not reported separately.

SHIFTS IN INDUSTRY

Wisconsin's decreased landfill volumes since 2008 also were driven by reduced consumption and industrial output because of the Great Recession. Construction and demolition waste declined between 2008 and 2009, as housing construction fell dramatically in response to the housing market crash at the time. The exact size of the drop is unclear, because prior to 2009 construction waste was included in municipal waste collections. Construction waste bottomed out in 2013, and has risen in recent years as the housing market has rebounded (see Figure 3).

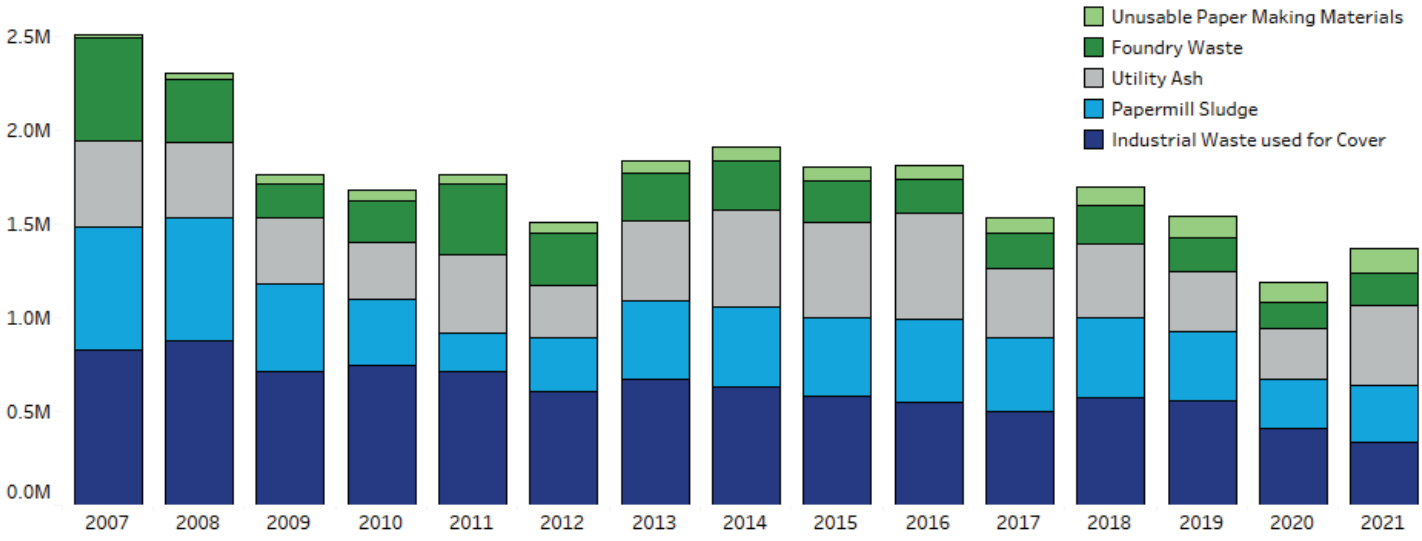
Total industrial waste also decreased substantially (see Figure 4) in the wake of the Great Recession, likely in part because of decreases in certain types of production. This decline cannot be attributed to the 2009 change in tipping fees, as industrial waste generally is not subject to the increased rate, with most of that waste instead subject to a fee of 50 cents per ton. While the value of Wisconsin's manufacturing output has grown beyond pre-Great Recession totals, employment in the manufacturing sector dropped by nearly 80,000 jobs in 2009 and has not returned to prior levels, thus providing some potential evidence of a drop in manufacturing activity in the state.

Industries have also worked to reduce the amount of waste they generate, as consumers search for sustainable products. The paper industry is a leader in this field, with efforts to reduce waste that include re-using papermaking by-products and materials and an increased focus on making products recyclable.

While municipal, out-of-state, and industrial waste make up 79% of landfill deposits, there are a few remaining forms of garbage that also end up in landfills. For example, between 2009 and 2021, 4 million tons of sediment contaminated with PCBs, dredged from the bottom of the Fox River, was deposited in landfills, largely in the Fox Valley area. Those deposits peaked in

Figure 4: Industrial Waste has Declined to Near 15-Year Lows

Total tons of major industrial waste by category in millions, 2007-2021



Source: Wisconsin Department of Natural Resources

2012 at 833,000 tons, and by 2021 fell to just 18 tons as the cleanup was completed.

IMPACT ON STATE AND LOCAL FINANCES

Local governments spend approximately $450 million annually on trash and recycling, accounting for 7% of total spending, according to data from the state Department of Revenue. Most trash and recycling collection is funded through user fees, with some additional revenues from property taxes and state aid for recycling.

When landfills are filled, difficulties can be created for multiple communities, as landfill sites in a particular municipality often are used by other cities, villages, and towns. Finding space for new landfills can be controversial and there are substantial costs associated with their construction. Landfill operators must also demonstrate the financial capacity to cover costs associated with landfill closure.

Statewide, the amount of landfill capacity being used up each year has declined, a shift which largely reflects the reduced total volume in trash. This slower pace means less revenues for private and public landfills, but it also lowers long-term costs and provides more time and flexibility for landfill operators to plan for finding and funding new sites.

At the state level, the volume of trash has diminished over time due to factors including a reduction in out-of-state trash due to increased fees, changes in consumer and industry practices to reduce waste, and the loss of some industry. Overall, Wisconsinites are generating and receiving less trash, and that has significant benefits.

However, this trend may result in diminishing or at least relatively stagnant revenues for the state environmental fund over time. Policymakers could seek to address that with increased fees, but such a step could lead to further reductions in landfill deposits, as the data in this brief show. While that outcome might be beneficial in many ways, it would blunt any potential revenue increase from the bump in fees.

CONCLUSION

Changes in tipping fees, both in Wisconsin and Illinois, have contributed to a substantial reduction in the amount of trash that ends up in the state's landfills. Industries also have become more conscious for environmental and financial reasons of limiting waste products, especially the paper industry, a major generator of industrial waste in the state. These changes happened without the imposition of higher tipping fees. However, some of the reductions can be attributed to the loss of some heavy industry in the state.

State and local governments will have to be conscious of fiscal impacts related to declining waste streams, as these fees can fund priorities like contaminated land cleanup, groundwater protection, and recycling. Yet this reduction may also allow for reduced costs and better planning for new landfill sites, especially in southeast Wisconsin, where landfill capacity is shrinking more rapidly than the rest of the state.