

Analysis of MSW Landfill Tipping Fees— April 2018

rev. 10/2019

This version has been revised to reflect an updated national average for 2018

The Environmental Research & Education Foundation (EREF) maintains a database of Municipal Solid Waste (MSW) landfills across the United States (EREF, 2017a). This database was used to draw a sample of active facilities for analysis of MSW landfill (MSWLF) tipping fees. Landfill owners were contacted and asked to provide gate rate information for MSW disposal, supplemented by current website information on fees. For the purpose of this report, the terms gate rate, tip fee, and tipping fee are used interchangeably to refer to the per-ton fee for hauled MSW loads.

In the 2018 study, MSW tip fee information was obtained from 397 landfills categorized as large, medium, or small based on accepted tonnage. Of the landfills providing gate rate information, approximately:

- 11% were large (i.e. accepting more than 390,000 tons/year),
- 48% were medium (i.e. accepting between 390,000 and 65,000 tons/year), and
- 41% were small (i.e. accepting less than 65,000 tons/year).

The small landfills reported an average of 26,746 tons/year, while medium landfills and large landfills accepted 163,932 tons/year and 763,056 tons/year, respectively.

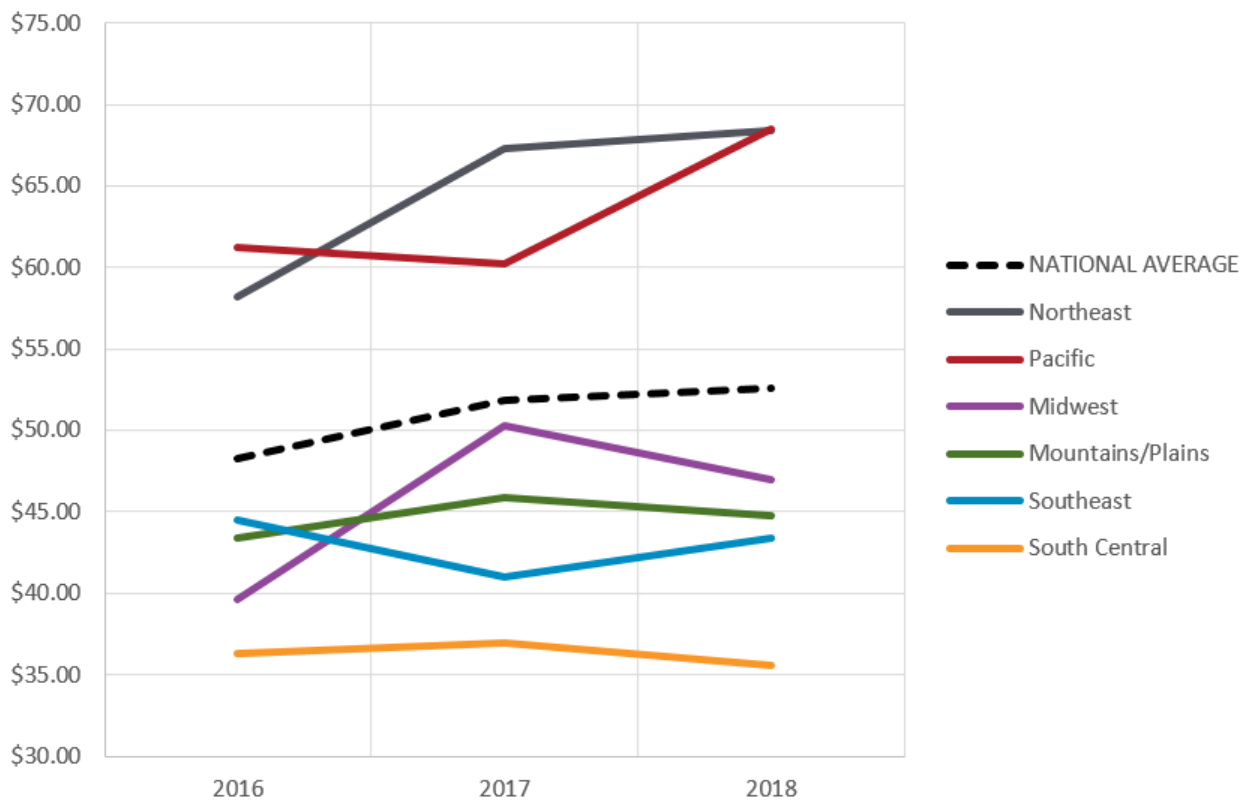
Summary of 2018 MSW Landfill Tip Fees. MSWLF tip fee data were compiled by geographic region and basic statistical data were computed. For 2018, the national MSW landfill tip fee average was \$52.62/ton. Regional MSW tip fees ranged from \$34.80/ton in the South Central region to \$68.46/ton in the Pacific (Table 1). Ninety-two percent of landfills that provided 2017 gate rates also provided data in 2018.

Region	Average Tipping Fee		
	2017	2018	Difference
Pacific (AK, AZ, CA, HI, ID, OR, WA)	\$60.20	\$68.46	+\$8.26
Northeast (CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, VA, WV)	\$67.27	\$67.39	+\$0.12
Midwest (IL, IN, IA, KS, MI, MN, MO, NE, OH, WI)	\$50.27	\$46.89	-\$3.38
Mountains/Plains (CO, MT, ND, SD, UT, WY)	\$45.84	\$43.57	-\$2.27
Southeast (AL, FL, GA, KY, MS, NC, SC, TN)	\$41.01	\$43.32	+\$2.31
South Central (AR, LA, NM, OK, TX)	\$36.94	\$34.80	-\$2.14
National Average	\$51.82	\$52.62	+\$0.80

Based on previous EREF analysis (2017b), the national average tip fee increased 1.5% since 2017, from \$51.82 per ton to \$52.62 per ton (Table 1). Both the magnitude and direction of tip fee change varied on a regional basis. From 2017 to 2018, average tipping fee increased in two of the six regions (i.e. Pacific and Southeast), decreased in three regions (i.e. Midwest, Mountains/Plains, and South Central), and remained relatively flat in one (Northeast). The largest regional increase was in the Pacific region, where average tip fee increased by \$8.26 or +14%.

Three-year trends in average tip fee (Figure 1), show an average year-over-year 4.4% increase nationally from 2016 through 2018. Large tip fee increases are observed in the Midwest (+18.3%), Northeast (+15.8%), and Pacific (+11.9%) regions over this period. A slight decrease in tip fee is seen in the South Central (-4.2%) and Southeast (-2.6%) regions. Tip fees remained relatively flat in the Mountains/Plains (0.4%).

Figure 1. Regional MSWLF Tipping Fees, 2016 through 2018



^aRegions, and the states contained therein, are denoted in Table 1.

On a state-basis, MSWLF tipping fees vary substantially. Average state tipping fees range from \$24.75 (Mississippi, Southeast region) to \$151.19 (Alaska, Pacific region) per ton of MSW (Table 2). A tip fee is not provided for Connecticut, as no landfills actively accepting MSW could be identified.

Table 2. State and Regional Average Tip Fees, from April 2018 survey^{a,b}

Region/State	Average Tipping Fee^c
Pacific	\$68.46
<i>Alaska</i>	<i>\$151.19</i>
<i>Hawaii</i>	<i>\$96.33</i>
<i>Washington</i>	<i>\$83.44</i>
<i>Oregon</i>	<i>\$69.58</i>
<i>California</i>	<i>\$58.42</i>
<i>Nevada</i>	<i>\$46.00</i>
<i>Arizona</i>	<i>\$41.65</i>
<i>Idaho</i>	<i>\$37.65</i>
Northeast	\$67.39
<i>Massachusetts</i>	<i>\$95.00</i>
<i>Rhode Island</i>	<i>\$90.00</i>
<i>Delaware</i>	<i>\$85.00</i>
<i>New Jersey</i>	<i>\$81.96</i>
<i>New Hampshire</i>	<i>\$80.00</i>
<i>Maine</i>	<i>\$78.20</i>
<i>Pennsylvania</i>	<i>\$69.59</i>
<i>Maryland</i>	<i>\$68.28</i>
<i>New York</i>	<i>\$66.17</i>
<i>West Virginia</i>	<i>\$54.66</i>
<i>Virginia</i>	<i>\$53.48</i>
<i>Connecticut</i>	<i>N.A.</i>
<i>Vermont</i>	<i>N.R.</i>
Midwest	\$46.89
<i>Minnesota</i>	<i>\$61.67</i>
<i>Illinois</i>	<i>\$56.03</i>
<i>Missouri</i>	<i>\$54.37</i>
<i>Wisconsin</i>	<i>\$49.09</i>
<i>Iowa</i>	<i>\$48.28</i>
<i>Indiana</i>	<i>\$45.02</i>
<i>Ohio</i>	<i>\$44.49</i>
<i>Nebraska</i>	<i>\$40.22</i>
<i>Kansas</i>	<i>\$39.75</i>
<i>Michigan</i>	<i>\$37.81</i>
Mountains/Plains	\$43.57
<i>Wyoming</i>	<i>\$74.02</i>
<i>South Dakota</i>	<i>\$50.18</i>
<i>North Dakota</i>	<i>\$45.61</i>
<i>Colorado</i>	<i>\$41.36</i>
<i>Montana</i>	<i>\$32.06</i>
<i>Utah</i>	<i>\$30.19</i>
Southeast	\$43.32
<i>Florida</i>	<i>\$54.67</i>
<i>Tennessee</i>	<i>\$45.66</i>
<i>South Carolina</i>	<i>\$44.03</i>
<i>Georgia</i>	<i>\$43.80</i>
<i>North Carolina</i>	<i>\$43.23</i>
<i>Alabama</i>	<i>\$33.49</i>
<i>Kentucky</i>	<i>\$31.72</i>
<i>Mississippi</i>	<i>\$24.75</i>
South Central	\$34.80
<i>Texas</i>	<i>\$37.78</i>
<i>New Mexico</i>	<i>\$34.88</i>
<i>Oklahoma</i>	<i>\$34.81</i>
<i>Arkansas</i>	<i>\$30.41</i>
<i>Louisiana</i>	<i>\$29.21</i>
National Average	\$52.62

^aN.A– not applicable, no landfills actively accepting MSW were identified in the state.

^bN.R. – not reported, response rate did not meet threshold for publication.

^cRegional and national averages computed on a facility-basis, and therefore do not equal the average of the individual state averages reported herein.

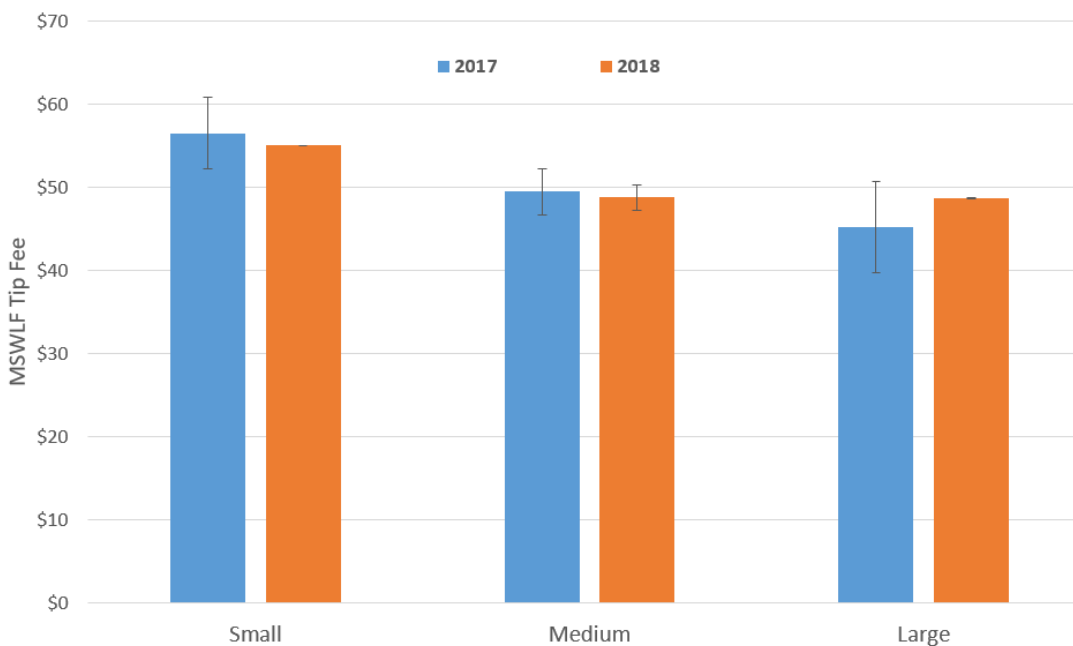
In 2018, MSW was managed via WTE (i.e. incineration with energy recovery) in 21 states, down from 22 states in 2017. States with active MSW WTE facilities had higher tipping fees than those without ($p < 0.05$). The average MSWLF tip fee was \$63.26/ton for states with WTE. In states without WTE, the average MSW tip fee was \$49.28/ton. Nationally, landfilling was 28% more expensive in WTE states, equivalent to \$13.98/ton higher. This relationship was also seen in the 2017 analysis, suggesting that MSW landfill fees continue to indicate, in part, if market conditions are suitable for the use of WTE for MSW management (EREF, 2017b).

Facility size

Average tipping fee was calculated for small, medium, and large landfills, based on annual tonnage accepted. Annual tonnage data was identified for 85% (347) of the landfills that reported tip fee data. Small landfills (i.e. those accepting <65,000 tpy) continue to have a noticeably higher average tipping fee than medium or large facilities (Figure 2). Small landfills had an average MSWLF tip fee of \$55.06 per ton in 2018. Medium landfills (i.e. those accepting between 65,000 and 390,000 tpy) and large (i.e. those accepting >390,000 tpy) had average tip fees of \$48.81 and \$48.73 per ton respectively. One explanation for this trend may be that as small, municipal landfills near capacity their tip fees increase due to scarcity. This was observed in Connecticut. Only 1 active MSWLF, which had limited remaining capacity, was identified in the 2017 tip fee study. That year, Connecticut had the highest tipping fee at \$200/ton (EREF, 2017b).

Figure 2. Average MSWLF Tipping Fee, by Landfill Size^a

^aRange shown is the 95% confidence interval.



References

Environmental Research & Education Foundation [EREF] (2017a) "MSW Management Facilities in the U.S.: 2010 & 2013". Retrieved from www.erefdn.org

Environmental Research & Education Foundation [EREF] (2017b) "Analysis of MSW Tipping Fees, April 2017" Retrieved from www.erefdn.org

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