



# Advancing Sustainable Materials Management: 2015 Tables and Figures

Assessing Trends in Material Generation, Recycling,  
Composting, Combustion with Energy Recovery  
and Landfilling in the United States

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## List of Tables

	Page
Table 1. Materials Generated* in the Municipal Waste Stream, 1960 to 2015.....	1
Table 2. Materials Recycled and Composted* in Municipal Solid Waste, 1960 to 2015 .....	2
Table 3. Materials Combusted with Energy Recovery* in the Municipal Waste Stream, 1960 to 2015 .....	3
Table 4. Materials Landfilled* in the Municipal Waste Stream, 1960 to 2015 .....	4
Table 5. Paper and Paperboard Products In MSW, 2015 .....	5
Table 6. Glass Products in MSW, 2015 .....	6
Table 7. Metal Products in MSW, 2015 .....	7
Table 8. Plastics in Products In MSW, 2015.....	8
Table 9. Rubber and Leather Products In MSW, 2015.....	11
Table 10. Products Generated* in the Municipal Waste Stream, 1960 to 2015.....	12
Table 11. Products Recycled and Composted* in the Municipal Waste Stream, 1960 to 2015 .....	13
Table 12. Products Combusted with Energy Recovery* in the Municipal Waste Stream, 1960 to 2015 .....	14
Table 13. Products Landfilled* in the Municipal Waste Stream, 1960 to 2015 .....	15
Table 14. Products Generated* in the Municipal Waste Stream, 1960 to 2015 (With Detail On Durable Goods) .....	16
Table 15. Products Recycled and Composted* in the Municipal Waste Stream, 1960 to 2015 (With Detail On Durable Goods).....	17
Table 16. Products Combusted with Energy Recovery* in the Municipal Waste Stream, 1960 to 2015 (With Detail On Durable Goods) .....	18
Table 17. Products Landfilled* in the Municipal Waste Stream, 1960 to 2015 (With Detail On Durable Goods).....	20
Table 18. Products Generated* in the Municipal Waste Stream, 1960 to 2015 (With Detail on Nondurable Goods).....	21
Table 19. Products Recycled and Composted* in Municipal Solid Waste, 1960 to 2015 (With Detail on Nondurable Goods) .....	23
Table 20. Products Combusted with Energy Recovery* in Municipal Solid Waste, 1960 to 2015 (With Detail on Nondurable Goods) .....	25
Table 21. Products Landfilled* in Municipal Solid Waste, 1960 to 2015 (With Detail on Nondurable Goods).....	27
Table 22. Products Generated* in the Municipal Waste Stream, 1960 to 2015 (With Detail on Containers and Packaging).....	29
Table 23. Products Generated* in the Municipal Waste Stream, 1960 to 2015 (With Detail on Containers and Packaging).....	30

## List of Tables (Continued)

	<b>Page</b>
Table 24. Products Recycled and Composted* in Municipal Solid Waste, 1960 to 2015 (With Detail on Containers and Packaging) .....	31
Table 25. Products Recycled and Composted* in Municipal Solid Waste, 1960 to 2015 (With Detail on Containers and Packaging) .....	33
Table 26. Products Combusted with Energy Recovery* in Municipal Solid Waste, 1960 to 2015 (With Detail on Containers and Packaging) .....	35
Table 27. Products Combusted with Energy Recovery* in Municipal Solid Waste, 1960 to 2015 (With Detail on Containers and Packaging) (In percent of total combusted) .....	37
Table 28. Products Landfilled* in Municipal Solid Waste, 1960 to 2015 (With Detail on Containers and Packaging) (In thousands of tons) .....	39
Table 29. Products Landfilled* in Municipal Solid Waste, 1960 to 2015 (With Detail on Containers and Packaging).....	40
Table 30. Selected Examples of Source Reduction Practices .....	41
Table 31. Households with Residential Food Collection Programs in the U.S., 2015.....	43
Table 32. Material Recovery Facilities (MRF), 2015* .....	44
Table 33. Municipal Waste-To-Energy Projects, 2015.....	44
Table 34. Landfill Facilities, 2015 .....	45
Table 35. Generation, Recycling, Composting, Combustion with Energy Recovery and Landfilling of Municipal Solid Waste, 1960 to 2015.....	46

## List of Figures

	Page
Figure 1. Municipal Solid Waste in the Universe of Subtitle D Wastes .....	47
Figure 2. Definition of Terms .....	48
Figure 3. Paper and Paperboard Products Generated in MSW, 2015 .....	49
Figure 4. Paper and Paperboard Generation and Recycling, 1960 to 2015 .....	49
Figure 5. Glass Products Generated in MSW, 2015 .....	50
Figure 6. Glass Generation and Recycling, 1960 to 2015 .....	50
Figure 7. Metal Products Generated in MSW, 2015 .....	51
Figure 8. Metals Generation and Recycling, 1960 to 2015 .....	51
Figure 9. Plastics Products Generated in MSW, 2015 .....	52
Figure 10. Plastics Generation and Recycling, 1960 to 2015 .....	52
Figure 11. Generation of Materials in MSW, 1960 to 2015 .....	53
Figure 12. Recycling, Composting, Combustion with Energy Recovery and Landfilling of Materials in MSW, 1960 to 2015 .....	53
Figure 13. Materials Recycling and Composting in MSW,* 2015 .....	54
Figure 14. Materials Generated, Combusted with Energy Recovery and Landfilled in MSW, 2015 .....	55
Figure 15. Generation of Products in MSW, 1960 to 2015 .....	56
Figure 16. Nondurable Goods Generated, Recycled, Combusted with Energy Recovery and Landfilled in Municipal Solid Waste, 2015 .....	57
Figure 17. Containers and Packaging Materials Generated, Recycled, Combusted with Energy Recovery and Landfilled in Municipal Solid Waste, 2015 .....	58
Figure 18. Containers and Packaging Generated, Recycled, Combusted with Energy Recovery and Landfilled in Municipal Solid Waste, 2015 .....	59
Figure 19. Diagram of Solid Waste Management .....	60
Figure 20. States with Bottle Deposit Rules .....	60
Figure 21. Estimated MRF Throughput, 2015 .....	61
Figure 22. Mixed Waste Processing Estimated Throughput, 2015 .....	61
Figure 23. MSW Composting Capacity, 2015 .....	62
Figure 24. Yard Trimmings Composting Facilities, 2015 .....	62
Figure 25. Municipal Waste-To-Energy Capacity, 2015 .....	63
Figure 26. Number of Landfills in the U.S., 2015 .....	63

**Table 1. Materials Generated\* in the Municipal Waste Stream, 1960 to 2015**  
(In thousands of tons and percent of total generation)

Materials	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard	29,990	44,310	55,160	72,730	87,740	84,840	71,310	68,610	68,050
Glass	6,720	12,740	15,130	13,100	12,770	12,540	11,520	11,480	11,470
<b>Metals</b>									
Ferrous	10,300	12,360	12,620	12,640	14,150	15,210	16,920	17,880	18,170
Aluminum	340	800	1,730	2,810	3,190	3,330	3,510	3,530	3,610
Other Nonferrous	180	670	1,160	1,100	1,600	1,860	2,020	2,230	2,220
<b>Total Metals</b>	<b>10,820</b>	<b>13,830</b>	<b>15,510</b>	<b>16,550</b>	<b>18,940</b>	<b>20,400</b>	<b>22,450</b>	<b>23,640</b>	<b>24,000</b>
Plastics	390	2,900	6,830	17,130	25,550	29,380	31,400	33,390	34,500
Rubber and Leather	1,840	2,970	4,200	5,790	6,670	7,290	7,750	8,210	8,480
Textiles	1,760	2,040	2,530	5,810	9,480	11,510	13,220	15,240	16,030
Wood	3,030	3,720	7,010	12,210	13,570	14,790	15,710	16,120	16,300
Other **	70	770	2,520	3,190	4,000	4,290	4,710	5,120	5,160
<b>Total Materials in Products</b>	<b>54,620</b>	<b>83,280</b>	<b>108,890</b>	<b>146,510</b>	<b>178,720</b>	<b>185,040</b>	<b>178,070</b>	<b>181,810</b>	<b>183,990</b>
<b>Other Wastes</b>									
Food	12,200	12,800	13,000	23,860	30,700	32,930	35,740	38,670	39,730
Yard Trimmings	20,000	23,200	27,500	35,000	30,530	32,070	33,400	34,500	34,720
Miscellaneous Inorganic Wastes	1,300	1,780	2,250	2,900	3,500	3,690	3,840	3,970	3,990
<b>Total Other Wastes</b>	<b>33,500</b>	<b>37,780</b>	<b>42,750</b>	<b>61,760</b>	<b>64,730</b>	<b>68,690</b>	<b>72,980</b>	<b>77,140</b>	<b>78,440</b>
<b>Total MSW Generated - Weight</b>	<b>88,120</b>	<b>121,060</b>	<b>151,640</b>	<b>208,270</b>	<b>243,450</b>	<b>253,730</b>	<b>251,050</b>	<b>258,950</b>	<b>262,430</b>
Materials	Percent of Total Generation								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard	34.0%	36.6%	36.4%	34.9%	36.0%	33.4%	28.4%	26.5%	25.9%
Glass	7.6%	10.5%	10.0%	6.3%	5.2%	4.9%	4.6%	4.4%	4.4%
<b>Metals</b>									
Ferrous	11.7%	10.2%	8.3%	6.1%	5.8%	6.0%	6.7%	6.9%	6.9%
Aluminum	0.4%	0.7%	1.1%	1.3%	1.3%	1.3%	1.4%	1.4%	1.4%
Other Nonferrous	0.2%	0.6%	0.8%	0.5%	0.7%	0.7%	0.8%	0.8%	0.8%
<b>Total Metals</b>	<b>12.3%</b>	<b>11.4%</b>	<b>10.2%</b>	<b>7.9%</b>	<b>7.8%</b>	<b>8.0%</b>	<b>8.9%</b>	<b>9.1%</b>	<b>9.1%</b>
Plastics	0.4%	2.4%	4.5%	8.2%	10.5%	11.6%	12.5%	12.9%	13.1%
Rubber and Leather	2.1%	2.5%	2.8%	2.8%	2.7%	2.9%	3.1%	3.2%	3.2%
Textiles	2.0%	1.7%	1.7%	2.8%	3.9%	4.5%	5.3%	5.9%	6.1%
Wood	3.4%	3.1%	4.6%	5.9%	5.6%	5.8%	6.3%	6.2%	6.2%
Other **	0.1%	0.6%	1.7%	1.5%	1.6%	1.7%	1.9%	2.0%	2.1%
<b>Total Materials in Products</b>	<b>62.0%</b>	<b>68.8%</b>	<b>71.8%</b>	<b>70.3%</b>	<b>73.4%</b>	<b>72.9%</b>	<b>70.9%</b>	<b>70.2%</b>	<b>70.1%</b>
<b>Other Wastes</b>									
Food	13.8%	10.6%	8.6%	11.5%	12.6%	13.0%	14.2%	14.9%	15.1%
Yard Trimmings	22.7%	19.2%	18.1%	16.8%	12.5%	12.6%	13.3%	13.3%	13.3%
Miscellaneous Inorganic Wastes	1.5%	1.5%	1.5%	1.4%	1.4%	1.5%	1.5%	1.5%	1.5%
<b>Total Other Wastes</b>	<b>38.0%</b>	<b>31.2%</b>	<b>28.2%</b>	<b>29.7%</b>	<b>26.6%</b>	<b>27.1%</b>	<b>29.1%</b>	<b>29.8%</b>	<b>29.9%</b>
<b>Total MSW Generated - %</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

\* Generation before materials recycling, composting, combustion with energy recovery or landfilling. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Includes electrolytes in batteries and fluff pulp, feces and urine in disposable diapers.

**Table 2. Materials Recycled and Composted\* in Municipal Solid Waste, 1960 to 2015**

(In thousands of tons and percent of generation of each material)

Materials	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard	5,080	6,770	11,740	20,230	37,560	41,960	44,570	44,400	45,320
Glass	100	160	750	2,630	2,880	2,590	3,130	2,990	3,030
<b>Metals</b>									
Ferrous	50	150	370	2,230	4,680	5,020	5,800	5,970	6,060
Aluminum	Neg.	10	310	1,010	860	690	680	710	670
Other Nonferrous	Neg.	320	540	730	1,060	1,280	1,440	1,550	1,500
<i>Total Metals</i>	50	480	1,220	3,970	6,600	6,990	7,920	8,230	8,230
Plastics	Neg.	Neg.	20	370	1,480	1,780	2,500	3,190	3,140
Rubber and Leather	330	250	130	370	820	1,050	1,440	1,440	1,510
Textiles	50	60	160	660	1,320	1,830	2,050	2,260	2,450
Wood	Neg.	Neg.	Neg.	130	1,370	1,830	2,280	2,570	2,660
Other **	Neg.	300	500	680	980	1,210	1,370	1,470	1,430
<b>Total Materials in Products</b>	5,610	8,020	14,520	29,040	53,010	59,240	65,260	66,550	67,770
<b>Other Wastes</b>									
Food^	Neg.	Neg.	Neg.	Neg.	680	690	970	1,940	2,100
Yard Trimmings	Neg.	Neg.	Neg.	4,200	15,770	19,860	19,200	21,080	21,290
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<i>Total Other Wastes</i>	Neg.	Neg.	Neg.	4,200	16,450	20,550	20,170	23,020	23,390
<b>Total MSW Recycled and Composted - Weight</b>	5,610	8,020	14,520	33,240	69,460	79,790	85,430	89,570	91,160

Materials	Percent of Generation of Each Material								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard	16.9%	15.3%	21.3%	27.8%	42.8%	49.5%	62.5%	64.7%	66.6%
Glass	1.5%	1.3%	5.0%	20.1%	22.6%	20.7%	27.2%	26.0%	26.4%
<b>Metals</b>									
Ferrous	0.5%	1.2%	2.9%	17.6%	33.1%	33.0%	34.3%	33.4%	33.4%
Aluminum	Neg.	1.3%	17.9%	35.9%	27.0%	20.7%	19.4%	20.1%	18.6%
Other Nonferrous	Neg.	47.8%	46.6%	66.4%	66.3%	68.8%	71.3%	69.5%	67.6%
<i>Total Metals</i>	0.5%	3.5%	7.9%	24.0%	34.8%	34.3%	35.3%	34.8%	34.3%
Plastics	Neg.	Neg.	0.3%	2.2%	5.8%	6.1%	8.0%	9.6%	9.1%
Rubber and Leather	17.9%	8.4%	3.1%	6.4%	12.3%	14.4%	18.6%	17.5%	17.8%
Textiles	2.8%	2.9%	6.3%	11.4%	13.9%	15.9%	15.5%	14.8%	15.3%
Wood	Neg.	Neg.	Neg.	1.1%	10.1%	12.4%	14.5%	15.9%	16.3%
Other **	Neg.	39.0%	19.8%	21.3%	24.5%	28.2%	29.1%	28.7%	27.7%
<b>Total Materials in Products</b>	10.3%	9.6%	13.3%	19.8%	29.7%	32.0%	36.6%	36.6%	36.8%
<b>Other Wastes</b>									
Food^	Neg.	Neg.	Neg.	Neg.	2.2%	2.1%	2.7%	5.0%	5.3%
Yard Trimmings	Neg.	Neg.	Neg.	12.0%	51.7%	61.9%	57.5%	61.1%	61.3%
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<i>Total Other Wastes</i>	Neg.	Neg.	Neg.	6.8%	25.4%	29.9%	27.6%	29.8%	29.8%
<b>Total MSW Recycled and Composted - %</b>	6.4%	6.6%	9.6%	16.0%	28.5%	31.4%	34.0%	34.6%	34.7%

\* Recycling and composting of postconsumer wastes; does not include converting/fabrication scrap. Details may not add to totals due to rounding.

\*\* Collection of electrolytes in batteries; probably not recycled.

Neg = Less than 5,000 tons or 0.05 percent.

^ Includes collection of other MSW organics for composting.

**Table 3. Materials Combusted with Energy Recovery\* in the Municipal Waste Stream, 1960 to 2015**

(In thousands of tons and percent of total combusted)

Materials	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard		150	860	8,930	9,730	7,800	4,740	4,740	4,450
Glass		60	300	1,810	1,790	1,660	1,360	1,450	1,470
<b>Metals</b>									
Ferrous		60	250	1,690	1,610	1,640	1,810	2,030	2,140
Aluminum		0	30	300	390	410	440	470	500
Other Nonferrous		0	20	60	50	50	60	50	60
<i>Total Metals</i>		60	300	2,050	2,050	2,100	2,310	2,550	2,700
Plastics		0	140	2,980	4,120	4,330	4,530	5,010	5,350
Rubber and Leather		10	70	830	1,970	2,110	1,910	2,620	2,490
Textiles		10	50	880	1,880	2,110	2,270	3,020	3,050
Wood		10	150	2,080	2,290	2,270	2,310	2,540	2,580
Other **		0	30	410	540	510	540	670	690
<b>Total Materials in Products</b>		300	1,900	19,970	24,370	22,890	19,970	22,600	22,780
<b>Other Wastes</b>									
Food		50	260	4,060	5,820	5,870	6,150	7,200	7,380
Yard Trimmings		90	550	5,240	2,860	2,220	2,510	2,630	2,630
Miscellaneous Inorganic Wastes		10	50	490	680	670	680	780	780
<i>Total Other Wastes</i>		150	860	9,790	9,360	8,760	9,340	10,610	10,790
<b>Total MSW Combusted - Weight</b>		450	2,760	29,760	33,730	31,650	29,310	33,210	33,570
Materials	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard		33.3%	31.2%	30.0%	28.8%	24.6%	16.2%	14.3%	13.3%
Glass		13.3%	10.9%	6.1%	5.3%	5.2%	4.6%	4.4%	4.4%
<b>Metals</b>									
Ferrous		13.3%	9.0%	5.7%	4.8%	5.2%	6.2%	6.1%	6.4%
Aluminum		0.0%	1.1%	1.0%	1.2%	1.3%	1.5%	1.4%	1.5%
Other Nonferrous		0.0%	0.7%	0.2%	0.1%	0.1%	0.2%	0.2%	0.2%
<i>Total Metals</i>		13.3%	10.8%	6.9%	6.1%	6.6%	7.9%	7.7%	8.1%
Plastics		Neg.	5.1%	10.0%	12.2%	13.7%	15.5%	15.1%	15.9%
Rubber and Leather		2.2%	2.5%	2.8%	5.9%	6.7%	6.5%	7.9%	7.4%
Textiles		2.2%	1.8%	2.9%	5.6%	6.7%	7.7%	9.1%	9.1%
Wood		2.2%	5.4%	7.0%	6.8%	7.2%	7.9%	7.6%	7.6%
Other **		Neg.	1.1%	1.4%	1.6%	1.6%	1.8%	2.0%	2.1%
<b>Total Materials in Products</b>		66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%
<b>Other Wastes</b>									
Food		11.1%	9.4%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings		20.0%	20.0%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes		2.3%	1.8%	1.7%	1.9%	2.1%	2.3%	2.3%	2.3%
<i>Total Other Wastes</i>		33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Combusted with Energy Recovery- %</b>		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Products and materials combusted with energy recovery estimated at percentage total MSW after recycling and composting. In 2015, 19.6 percent of MSW after recycling and composting was combusted with energy recovery except for major appliances, tires and lead-acid batteries (see Table 16). No combustion with energy recovery in 1960 (see Table 35). Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Includes electrolytes in batteries and fluff pulp, feces and urine in disposable diapers.

**Table 4. Materials Landfilled\* in the Municipal Waste Stream, 1960 to 2015**  
(In thousands of tons and percent of total landfilled)

Materials	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard	24,910	37,390	42,560	43,570	40,450	35,080	22,000	19,470	18,280
Glass	6,620	12,520	14,080	8,660	8,100	8,290	7,030	7,040	6,970
<b>Metals</b>									
Ferrous	10,250	12,150	12,000	8,720	7,860	8,550	9,310	9,880	9,970
Aluminum	340	790	1,390	1,500	1,940	2,230	2,390	2,350	2,440
Other Nonferrous	180	350	600	310	490	530	520	630	660
<i>Total Metals</i>	<i>10,770</i>	<i>13,290</i>	<i>13,990</i>	<i>10,530</i>	<i>10,290</i>	<i>11,310</i>	<i>12,220</i>	<i>12,860</i>	<i>13,070</i>
Plastics	390	2,900	6,670	13,780	19,950	23,270	24,370	25,190	26,010
Rubber and Leather	1,510	2,710	4,000	4,590	3,880	4,130	4,400	4,150	4,480
Textiles	1,710	1,970	2,320	4,270	6,280	7,570	8,900	9,960	10,530
Wood	3,030	3,710	6,860	10,000	9,910	10,690	11,120	11,010	11,060
Other **	70	470	1,990	2,100	2,480	2,570	2,800	2,980	3,040
<b>Total Materials in Products</b>	<b>49,010</b>	<b>74,960</b>	<b>92,470</b>	<b>97,500</b>	<b>101,340</b>	<b>102,910</b>	<b>92,840</b>	<b>92,660</b>	<b>93,440</b>
<b>Other Wastes</b>									
Food	12,200	12,750	12,740	19,800	24,200	26,370	28,620	29,530	30,250
Yard Trimmings	20,000	23,110	26,950	25,560	11,900	9,990	11,690	10,790	10,800
Miscellaneous Inorganic Wastes	1,300	1,770	2,200	2,410	2,820	3,020	3,160	3,190	3,210
<i>Total Other Wastes</i>	<i>33,500</i>	<i>37,630</i>	<i>41,890</i>	<i>47,770</i>	<i>38,920</i>	<i>39,380</i>	<i>43,470</i>	<i>43,510</i>	<i>44,260</i>
<b>Total MSW Landfilled - Weight</b>	<b>82,510</b>	<b>112,590</b>	<b>134,360</b>	<b>145,270</b>	<b>140,260</b>	<b>142,290</b>	<b>136,310</b>	<b>136,170</b>	<b>137,700</b>
Materials	Percent of Total Landfilled								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Paper and Paperboard	30.2%	33.2%	31.7%	30.0%	28.8%	24.7%	16.1%	14.3%	13.3%
Glass	8.0%	11.1%	10.5%	6.0%	5.8%	5.8%	5.1%	5.2%	5.1%
<b>Metals</b>									
Ferrous	12.4%	10.8%	8.9%	6.0%	5.6%	6.0%	6.8%	7.3%	7.2%
Aluminum	0.4%	0.7%	1.0%	1.0%	1.4%	1.6%	1.8%	1.7%	1.8%
Other Nonferrous	0.2%	0.3%	0.4%	0.2%	0.3%	0.3%	0.4%	0.5%	0.5%
<i>Total Metals</i>	<i>13.0%</i>	<i>11.8%</i>	<i>10.3%</i>	<i>7.2%</i>	<i>7.3%</i>	<i>7.9%</i>	<i>9.0%</i>	<i>9.5%</i>	<i>9.5%</i>
Plastics	0.5%	2.6%	5.0%	9.5%	14.2%	16.4%	17.9%	18.5%	18.9%
Rubber and Leather	1.8%	2.4%	3.0%	3.2%	2.8%	2.9%	3.2%	3.0%	3.3%
Textiles	2.1%	1.7%	1.7%	2.9%	4.5%	5.3%	6.5%	7.3%	7.6%
Wood	3.7%	3.3%	5.1%	6.9%	7.1%	7.5%	8.2%	8.1%	8.0%
Other **	0.1%	0.4%	1.5%	1.4%	1.8%	1.8%	2.1%	2.2%	2.2%
<b>Total Materials in Products</b>	<b>59.4%</b>	<b>66.6%</b>	<b>68.8%</b>	<b>67.1%</b>	<b>72.3%</b>	<b>72.3%</b>	<b>68.1%</b>	<b>68.1%</b>	<b>67.9%</b>
<b>Other Wastes</b>									
Food	14.8%	11.3%	9.5%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings	24.2%	20.5%	20.1%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes	1.6%	1.6%	1.6%	1.7%	1.9%	2.2%	2.3%	2.3%	2.3%
<i>Total Other Wastes</i>	<i>40.6%</i>	<i>33.4%</i>	<i>31.2%</i>	<i>32.9%</i>	<i>27.7%</i>	<i>27.7%</i>	<i>31.9%</i>	<i>31.9%</i>	<i>32.1%</i>
<b>Total MSW Landfilled - %</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

\* Landfilling after recycling, composting and combustion with energy recovery. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Includes electrolytes in batteries and fluff pulp, feces and urine in disposable diapers.



**Table 5. Paper and Paperboard Products In MSW, 2015**  
(In thousands of tons and percent of generation)

Product Category	Generation	Recycled		Combusted with Energy Recovery	Landfilled
	(Thousand tons)	(Thousand tons)	(Percent of generation)	(Thousand tons)	(Thousand tons)
<b>Nondurable Goods</b>					
Newspapers/Mechanical Papers†	6,730	4,790	71.2%	380	1,560
Books	800				
Magazines	1,190				
Office-type Papers*	4,530				
Standard Mail**	4,050				
Other Commercial Printing	2,080				
Tissue Paper and Towels	3,680				
Paper Plates and Cups	1,360				
Other Nonpackaging Paper***	3,700				
Subtotal Nondurable Goods excluding Newspaper/Mechanical Papers§	21,390	9,330	43.6%	2,360	9,700
<b>Total Paper and Paperboard Nondurable Goods</b>	<b>28,120</b>	<b>14,120</b>	<b>50.2%</b>	<b>2,740</b>	<b>11,260</b>
<b>Containers and Packaging</b>					
Corrugated Boxes	31,330	28,930	92.3%	470	1,930
Gable Top/Aseptic Cartons‡	590				
Folding Cartons	5,380				
Other Paperboard Packaging	70				
Bags and Sacks	930				
Other Paper Packaging	1,620				
Subtotal Containers and Packaging excluding Corrugated Boxes§	8,590	2,270	26.4%	1,240	5,080
<b>Total Paper and Paperboard Containers and Packaging</b>	<b>39,920</b>	<b>31,200</b>	<b>78.2%</b>	<b>1,710</b>	<b>7,010</b>
<b>Total Paper and Paperboard^</b>	<b>68,040</b>	<b>45,320</b>	<b>66.6%</b>	<b>4,450</b>	<b>18,270</b>

† Starting in 2010, newsprint and groundwood inserts expanded to include directories and other mechanical papers previously counted as Other Commercial Printing.

\* High-grade papers such as copy paper and printer paper; both residential and commercial.

\*\* Formerly called Third Class Mail by the U.S. Postal Service.

\*\*\* Includes paper in games and novelties, cards, etc.

§ Valid default values for separating out paper and paperboard sub-categories for recycling, combustion with energy recovery and landfilling were not available.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

^ Table 5 does not include 10,000 tons of paper used in durable goods (Table 1).

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 6. Glass Products in MSW, 2015**  
(In thousands of tons and percent of generation)

Product Category	Generation	Recycled		Combusted with Energy Recovery	Landfilled
	(Thousand tons)	(Thousand tons)	(Percent of generation)	(Thousand tons)	(Thousand tons)
<b>Durable Goods*</b>	2,350	Neg.	Neg.	270	2,080
<b>Containers and Packaging</b>					
Beer and Soft Drink Bottles**	5,320	2,230	41.9%	610	2,480
Wine and Liquor Bottles	1,810	500	27.6%	260	1,050
Other Bottles and Jars	1,990	300	15.1%	330	1,360
<b>Total Glass Containers</b>	9,120	3,030	33.2%	1,200	4,890
<b>Total Glass</b>	<b>11,470</b>	<b>3,030</b>	<b>26.4%</b>	<b>1,470</b>	<b>6,970</b>

\* Glass as a component of appliances, furniture, consumer electronics, etc.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

Neg. = Less than 5,000 tons or 0.05 percent.

Details may not add to totals due to rounding.

**Table 7. Metal Products in MSW, 2015**  
(In thousands of tons and percent of generation)

Product Category	Generation	Recycled		Combusted with Energy Recovery	Landfilled
	(Thousand tons)	(Thousand tons)	(Percent of generation)	(Thousand tons)	(Thousand tons)
<b>Durable Goods</b>					
Ferrous Metals*	15,950	4,440	27.8%	2,020	9,490
Aluminum**	1,550	NA	NA	220	1,330
Lead†	1,520	1,500	98.7%		20
Other Nonferrous Metals‡	700	Neg.	Neg.	60	640
<b>Total Metals in Durable Goods</b>	<b>19,720</b>	<b>5,940</b>	<b>30.1%</b>	<b>2,300</b>	<b>11,480</b>
<b>Nondurable Goods</b>					
Aluminum	220	NA	NA	40	180
<b>Containers and Packaging</b>					
<b>Steel</b>					
Cans	1,740	1,240	71.3%	100	400
Other Steel Packaging	480	380	79.2%	20	80
<b>Total Steel Packaging</b>	<b>2,220</b>	<b>1,620</b>	<b>73.0%</b>	<b>120</b>	<b>480</b>
<b>Aluminum</b>					
Beer and Soft Drink Cans§	1,220	670	54.9%	110	440
Other Cans	130	NA	NA	30	100
Foil and Closures	490	NA	NA	100	390
<b>Total Aluminum Packaging</b>	<b>1,840</b>	<b>670</b>	<b>36.4%</b>	<b>240</b>	<b>930</b>
<b>Total Metals in Containers and Packaging</b>	<b>4,060</b>	<b>2,290</b>	<b>56.4%</b>	<b>360</b>	<b>1,410</b>
<b>Total Metals</b>	<b>24,000</b>	<b>8,230</b>	<b>34.3%</b>	<b>2,700</b>	<b>13,070</b>
Ferrous	18,170	6,060	33.4%	2,140	9,970
Aluminum	3,610	670	18.6%	500	2,440
Other nonferrous	2,220	1,500	67.6%	60	660

\* Ferrous metals (iron and steel) in appliances, furniture, tires and miscellaneous durables.

\*\* Aluminum in appliances, furniture and miscellaneous durables.

† Lead in lead-acid batteries.

‡ Other nonferrous metals in appliances and miscellaneous durables.

§ Aluminum can recycling does not include used beverage cans imported to produce new beverage cans.

NA = Not Available

Details may not add to totals due to rounding.

**Table 8. Plastics in Products In MSW, 2015**  
(In thousands of tons and percent of generation by resin)

Product Category	Generation	Recycled		Combusted with energy Recovery	Landfilled
	(Thousand tons)	(Thousand tons)	(Percent of generation)	(Thousand tons)	(Thousand tons)
<b>Durable Goods</b>					
PET	500				
HDPE	1,480				
PVC	200				
LDPE/LLDPE	1,940				
PP	4,250				
PS	760				
Other resins	3,370				
<b>Total Plastics in Durable Goods</b>	<b>12,500</b>	<b>830</b>	<b>6.6%</b>	<b>1,490</b>	<b>10,180</b>
<b>Nondurable Goods<sup>†</sup></b>					
Plastic Plates and Cups <sup>§</sup>					
LDPE/LLDPE	20				
PLA	20				
PP	160				
PS	850				
<b>Subtotal Plastic Plates and Cups</b>	<b>1,050</b>	<b>Neg.</b>	<b>Neg.</b>	<b>210</b>	<b>840</b>
Trash Bags					
HDPE	220				
LDPE/LLDPE	910				
<b>Subtotal Trash Bags</b>	<b>1,130</b>			<b>220</b>	<b>910</b>
All other nondurables*					
PET	680				
HDPE	560				
PVC	270				
LDPE/LLDPE	1,290				
PLA	30				
PP	1,490				
PS	200				
Other resins	620				
<b>Subtotal All Other Nondurables</b>	<b>5,140</b>	<b>160</b>	<b>3.1%</b>	<b>970</b>	<b>4,010</b>
<b>Total Plastics in Nondurable Goods, by resin</b>					
PET	680				
HDPE	780				
PVC	270				
LDPE/LLDPE	2,220				
PLA	50				
PP	1,650				
PS	1,050				
Other resins	620				
<b>Total Plastics in Nondurable Goods</b>	<b>7,320</b>	<b>160</b>	<b>2.2%</b>	<b>1,400</b>	<b>5,760</b>

**Table 8. Plastics in Products In MSW, 2015**  
(In thousands of tons and percent of generation by resin)

Product Category	Generation	Recycled		Combusted with energy Recovery	Landfilled
	(Thousand tons)	(Thousand tons)	(Percent of generation)	(Thousand tons)	(Thousand tons)
<b>Plastic Containers &amp; Packaging</b>					
Bottles and Jars**					
PET	2,980	890	29.9%	410	1,680
Natural Bottles†					
HDPE	760	230	30.3%	100	430
Other plastic containers					
HDPE	1,540	340	22.1%		
PVC	20	Neg.			
LDPE/LLDPE	40	Neg.			
PP	250	20	8.0%		
PS	90	Neg.			
<b>Subtotal Other Containers</b>	<b>1,940</b>	<b>360</b>	<b>18.6%</b>	<b>310</b>	<b>1,270</b>
Bags, sacks, & wraps					
HDPE	730	40	5.5%		
PVC	60				
LDPE/LLDPE	2,610	490	18.8%		
PP	590				
PS	140				
<b>Subtotal Bags, Sacks, &amp; Wraps</b>	<b>4,130</b>	<b>530</b>	<b>12.8%</b>	<b>710</b>	<b>2,890</b>
<b>Other Plastics Packaging‡</b>					
PET	940	50	5.3%		
HDPE	750	10	1.3%		
PVC	340	Neg.			
LDPE/LLDPE	1,120	Neg.			
PLA	10	Neg.			
PP	990	50	5.1%		
PS	330	30	9.1%		
Other resins	390	Neg.			
<b>Subtotal Other Packaging</b>	<b>4,870</b>	<b>140</b>	<b>2.9%</b>	<b>930</b>	<b>3,800</b>
<b>Total Plastics in Containers &amp; Packaging, by resin</b>					
PET	3,920	940	24.0%		
HDPE	3,780	620	16.4%		
PVC	420	Neg.			
LDPE/LLDPE	3,770	490	13.0%		
PLA	10	Neg.			
PP	1,830	70	3.8%		
PS	560	30	5.4%		
Other resins	390	Neg.			
<b>Total Plastics in Containers &amp; Packaging</b>	<b>14,680</b>	<b>2,150</b>	<b>14.6%</b>	<b>2,460</b>	<b>10,070</b>

**Table 8. Plastics in Products In MSW, 2015**  
(In thousands of tons and percent of generation by resin)

Product Category	Generation	Recycled		Combusted with energy Recovery	Landfilled
	(Thousand tons)	(Thousand tons)	(Percent of generation)	(Thousand tons)	(Thousand tons)
<b>Total Plastics in MSW, by resin</b>					
PET	5,100	940	18.4%		
HDPE	6,040	620	10.3%		
PVC	890	Neg.			
LDPE/LLDPE	7,930	490	6.2%		
PLA	60	Neg.			
PP	7,730	70	0.9%		
PS	2,370	30	1.3%		
Other resins	4,380	990	22.6%		
<b>Total Plastics in MSW</b>	<b>34,500</b>	<b>3,140</b>	<b>9.1%</b>	<b>5,350</b>	<b>26,010</b>

‡ Nondurable goods other than containers and packaging.

§ Due to source data aggregation, PET cups are included in "Other Plastic Packaging".

\* All other nondurables include plastics in disposable diapers, clothing, footwear, etc.

\*\* Injection stretch blow molded PET containers as identified in *Report on Postconsumer PET Container Recycling Activity in 2014*. National Association for PET Container Resources. Recycling includes caps, lids and other material collected with PET bottles and jars.

† White translucent homopolymer bottles as defined in the *2014 United States National Postconsumer Plastics Bottles Recycling Report*. American Chemistry Council and the Association of Postconsumer Plastic Recyclers.

Neg. = negligible, less than 5,000 tons

HDPE = High density polyethylene

PET = Polyethylene terephthalate

PS = Polystyrene

LDPE = Low density polyethylene

PP = Polypropylene

PVC = Polyvinyl chloride

LLDPE = Linear low density polyethylene

PLA = Polylactide

‡ Other plastic packaging includes coatings, closures, lids, PET cups, caps, clamshells, egg cartons, produce baskets, trays, shapes, loose fill, etc.

PP caps and lids recycled with PET bottles and jars are included in the recycling estimate for PET bottles and jars.

Other resins include commingled/undefined plastic packaging recycling.

Some detail of recycling by resin omitted due to lack of data.

**Table 9. Rubber and Leather Products In MSW, 2015**  
(In thousands of tons and percent of generation)

Product Category	Generation	Recycled		Combusted with energy Recovery	Landfilled
	(Thousand tons)	(Thousand tons)	(Percent of generation)	(Thousand tons)	(Thousand tons)
<b>Durable Goods</b>					
Rubber in Tires*	3,750	1,510	40.3%	1,780	460
Other Durables**	3,600	Neg.	Neg.	490	3,110
<b>Total Rubber &amp; Leather</b>					
<b>Durable Goods</b>	<b>7,350</b>	<b>1,510</b>	<b>20.5%</b>	<b>2,270</b>	<b>3,570</b>
<b>Nondurable Goods</b>					
Clothing and Footwear	860	Neg.	Neg.	170	690
Other Nondurables	270	Neg.	Neg.	50	220
<b>Total Rubber &amp; Leather</b>					
<b>Nondurable Goods</b>	<b>1,130</b>	<b>Neg.</b>	<b>Neg.</b>	<b>220</b>	<b>910</b>
<b>Total Rubber &amp; Leather</b>	<b>8,480</b>	<b>1,510</b>	<b>17.8%</b>	<b>2,490</b>	<b>4,480</b>

\* Automobile and truck tires. Does not include other materials in tires.

\*\* Includes carpets and rugs and other miscellaneous durables.

Neg. = Less than 5,000 tons or 0.05 percent.

Details may not add to totals due to rounding.

**Table 10. Products Generated\* in the Municipal Waste Stream, 1960 to 2015**  
(In thousands of tons and percent of total generation)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	9,920	14,660	21,800	29,810	38,870	45,060	49,350	53,040	54,150
<i>(Detail in Table 14)</i>									
<b>Nondurable Goods</b>	17,330	25,060	34,420	52,170	64,010	63,650	53,250	51,910	51,920
<i>(Detail in Table 18)</i>									
<b>Containers and Packaging</b>	27,370	43,560	52,670	64,530	75,840	76,330	75,470	76,860	77,920
<i>(Detail in Table 22)</i>									
<b>Total Product** Wastes</b>	54,620	83,280	108,890	146,510	178,720	185,040	178,070	181,810	183,990
<b>Other Wastes</b>									
Food	12,200	12,800	13,000	23,860	30,700	32,930	35,740	38,670	39,730
Yard Trimmings	20,000	23,200	27,500	35,000	30,530	32,070	33,400	34,500	34,720
Miscellaneous Inorganic Wastes	1,300	1,780	2,250	2,900	3,500	3,690	3,840	3,970	3,990
<b>Total Other Wastes</b>	33,500	37,780	42,750	61,760	64,730	68,690	72,980	77,140	78,440
<b>Total MSW Generated - Weight</b>	88,120	121,060	151,640	208,270	243,450	253,730	251,050	258,950	262,430
Products	Percent of Total Generation								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	11.3%	12.1%	14.4%	14.3%	16.0%	17.8%	19.7%	20.5%	20.6%
<i>(Detail in Table 14)</i>									
<b>Nondurable Goods</b>	19.7%	20.7%	22.7%	25.0%	26.3%	25.1%	21.2%	20.0%	19.8%
<i>(Detail in Table 18)</i>									
<b>Containers and Packaging</b>	31.1%	36.0%	34.7%	31.0%	31.2%	30.1%	30.1%	29.7%	29.7%
<i>(Detail in Table 23)</i>									
<b>Total Product** Wastes</b>	62.0%	68.8%	71.8%	70.3%	73.4%	72.9%	70.9%	70.2%	70.1%
<b>Other Wastes</b>									
Food	13.8%	10.6%	8.6%	11.5%	12.6%	13.0%	14.2%	14.9%	15.1%
Yard Trimmings	22.7%	19.2%	18.1%	16.8%	12.5%	12.6%	13.3%	13.3%	13.2%
Miscellaneous Inorganic Wastes	1.5%	1.5%	1.5%	1.4%	1.4%	1.5%	1.5%	1.5%	1.5%
<b>Total Other Wastes</b>	38.0%	31.2%	28.2%	29.7%	26.6%	27.1%	29.1%	29.8%	29.9%
<b>Total MSW Generated - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Generation before materials recycling, composting, combustion with energy recovery or landfilling. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Other than food products.



**Table 11. Products Recycled and Composted\* in the Municipal Waste Stream, 1960 to 2015**

(In thousands of tons and percent of generation of each product)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	350	940	1,360	3,460	6,580	7,970	9,390	10,140	10,250
<i>(Detail in Table 15)</i>									
<b>Nondurable Goods</b>	2,390	3,730	4,670	8,800	17,560	19,770	19,190	16,820	16,190
<i>(Detail in Table 19)</i>									
<b>Containers and Packaging</b>	2,870	3,350	8,490	16,780	28,870	31,500	36,680	39,590	41,330
<i>(Detail in Table 24)</i>									
<b>Total Product** Wastes</b>	5,610	8,020	14,520	29,040	53,010	59,240	65,260	66,550	67,770
<b>Other Wastes</b>									
Food <sup>^</sup>	Neg.	Neg.	Neg.	Neg.	680	690	970	1,940	2,100
Yard Trimmings	Neg.	Neg.	Neg.	4,200	15,770	19,860	19,200	21,080	21,290
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Other Wastes</b>	Neg.	Neg.	Neg.	4,200	16,450	20,550	20,170	23,020	23,390
<b>Total MSW Recycled and Composted - Weight</b>	5,610	8,020	14,520	33,240	69,460	79,790	85,430	89,570	91,160
Products	Percent of Total Generation								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	3.5%	6.4%	6.2%	11.6%	16.9%	17.7%	19.0%	19.1%	18.9%
<i>(Detail in Table 15)</i>									
<b>Nondurable Goods</b>	13.8%	14.9%	13.6%	16.9%	27.4%	31.1%	36.0%	32.4%	31.2%
<i>(Detail in Table 19)</i>									
<b>Containers and Packaging</b>	10.5%	7.7%	16.1%	26.0%	38.1%	41.3%	48.6%	51.5%	53.0%
<i>(Detail in Table 25)</i>									
<b>Total Product** Wastes</b>	10.3%	9.6%	13.3%	19.8%	29.7%	32.0%	36.6%	36.6%	36.8%
<b>Other Wastes</b>									
Food <sup>^</sup>	Neg.	Neg.	Neg.	Neg.	2.2%	2.1%	2.7%	5.0%	5.3%
Yard Trimmings	Neg.	Neg.	Neg.	12.0%	51.7%	61.9%	57.5%	61.1%	61.3%
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Other Wastes</b>	Neg.	Neg.	Neg.	6.8%	25.4%	29.9%	27.6%	29.8%	29.8%
<b>Total MSW Recycled and Composted - %</b>	6.4%	6.6%	9.6%	16.0%	28.5%	31.4%	34.0%	34.6%	34.7%

\* Recycling and composting of postconsumer wastes; does not include converting/fabrication scrap. Details may not add to totals due to rounding.

\*\* Other than food products.

<sup>^</sup> Includes collection of other MSW organics for composting.  
Neg. = Less than 5,000 tons or 0.05 percent.

**Table 12. Products Combusted with Energy Recovery\* in the Municipal Waste Stream, 1960 to 2015**

(In thousands of tons and percent of total combusted)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>		60	440	4,480	6,260	6,750	7,070	8,410	8,600
<i>(Detail in Table 16)</i>									
<b>Nondurable Goods</b>		90	580	7,380	9,000	7,980	6,030	6,880	6,990
<i>(Detail in Table 20)</i>									
<b>Containers and Packaging</b>		150	880	8,110	9,110	8,160	6,870	7,310	7,190
<i>(Detail in Table 26)</i>									
<b>Total Product** Wastes</b>		300	1,900	19,970	24,370	22,890	19,970	22,600	22,780
<b>Other Wastes</b>									
Food		50	260	4,060	5,820	5,870	6,150	7,200	7,380
Yard Trimmings		90	550	5,240	2,860	2,220	2,510	2,630	2,630
Miscellaneous Inorganic Wastes		10	50	490	680	670	680	780	780
<b>Total Other Wastes</b>		150	860	9,790	9,360	8,760	9,340	10,610	10,790
<b>Total MSW Combusted with Energy Recovery - Weight</b>		450	2,760	29,760	33,730	31,650	29,310	33,210	33,570
Products	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>		13.3%	15.9%	15.1%	18.6%	21.3%	24.1%	25.4%	25.6%
<i>(Detail in Table 16)</i>									
<b>Nondurable Goods</b>		19.9%	21.0%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<i>(Detail in Table 20)</i>									
<b>Containers and Packaging</b>		33.3%	31.9%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<i>(Detail in Table 27)</i>									
<b>Total Product** Wastes</b>		66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%
<b>Other Wastes</b>									
Food		11.1%	9.4%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings		20.0%	20.0%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes		2.3%	1.8%	1.7%	1.9%	2.1%	2.3%	2.3%	2.3%
<b>Total Other Wastes</b>		33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Combusted with Energy Recovery - %</b>		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Products and materials combusted with energy recovery estimated at percentage total MSW after recycling and composting. In 2015, 19.6 percent of MSW after recycling and composting was combusted with energy recovery. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 13. Products Landfilled\* in the Municipal Waste Stream, 1960 to 2015**  
(In thousands of tons and percent of total landfilled)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	9,570	13,660	20,000	21,870	26,030	30,340	32,890	34,490	35,300
<i>(Detail in Table 17)</i>									
<b>Nondurable Goods</b>	14,940	21,240	29,170	35,990	37,450	35,900	28,030	28,210	28,740
<i>(Detail in Table 21)</i>									
<b>Containers and Packaging</b>	24,500	40,060	43,300	39,640	37,860	36,670	31,920	29,960	29,400
<i>(Detail in Table 28)</i>									
<b>Total Product** Wastes</b>	49,010	74,960	92,470	97,500	101,340	102,910	92,840	92,660	93,440
<b>Other Wastes</b>									
Food	12,200	12,750	12,740	19,800	24,200	26,370	28,620	29,530	30,250
Yard Trimmings	20,000	23,110	26,950	25,560	11,900	9,990	11,690	10,790	10,800
Miscellaneous Inorganic Wastes	1,300	1,770	2,200	2,410	2,820	3,020	3,160	3,190	3,210
<b>Total Other Wastes</b>	33,500	37,630	41,890	47,770	38,920	39,380	43,470	43,510	44,260
<b>Total MSW Landfilled - Weight</b>	82,510	112,590	134,360	145,270	140,260	142,290	136,310	136,170	137,700
Products	Percent of Total Landfilled								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	11.6%	12.1%	14.9%	15.0%	18.6%	21.3%	24.1%	25.4%	25.6%
<i>(Detail in Table 17)</i>									
<b>Nondurable Goods</b>	18.1%	18.9%	21.7%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<i>(Detail in Table 21)</i>									
<b>Containers and Packaging</b>	29.7%	35.6%	32.2%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<i>(Detail in Table 29)</i>									
<b>Total Product** Wastes</b>	59.4%	66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%
<b>Other Wastes</b>									
Food	14.8%	11.3%	9.5%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings	24.2%	20.5%	20.1%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes	1.6%	1.6%	1.6%	1.7%	1.9%	2.2%	2.3%	2.3%	2.3%
<b>Total Other Wastes</b>	40.6%	33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Landfilled - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Landfilling after recycling, composting and combustion with energy recovery. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 14. Products Generated\* in the Municipal Waste Stream, 1960 to 2015  
(With Detail On Durable Goods)  
(In thousands of tons and percent of total generation)**

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances	1,630	2,170	2,950	3,310	3,640	3,610	4,020	4,650	4,860
Small Appliances**				460	1,040	1,180	1,830	1,960	1,960
Furniture and Furnishings	2,150	2,830	4,760	6,790	8,120	9,340	10,820	11,860	12,050
Carpets and Rugs**				1,660	2,460	2,960	3,720	3,730	3,630
Rubber Tires	1,120	1,890	2,720	3,610	4,930	4,910	5,130	5,560	5,840
Batteries, Lead-Acid	Neg.	820	1,490	1,510	2,280	2,750	3,020	3,230	3,130
Miscellaneous Durables									
Selected Consumer Electronics***					1,900	2,630	3,120	3,360	3,090
Other Miscellaneous Durables					14,500	17,680	17,690	18,690	19,590
<i>Total Miscellaneous Durables</i>	5,020	6,950	9,880	12,470	16,400	20,310	20,810	22,050	22,680
<b>Total Durable Goods</b>	9,920	14,660	21,800	29,810	38,870	45,060	49,350	53,040	54,150
<b>Nondurable Goods</b>	17,330	25,060	34,420	52,170	64,010	63,650	53,250	51,910	51,920
<i>(Detail in Table 18)</i>									
<b>Containers and Packaging</b>	27,370	43,560	52,670	64,530	75,840	76,330	75,470	76,860	77,920
<i>(Detail in Table 22)</i>									
<b>Total Product Wastes†</b>	54,620	83,280	108,890	146,510	178,720	185,040	178,070	181,810	183,990
<b>Other Wastes</b>									
Food	12,200	12,800	13,000	23,860	30,700	32,930	35,740	38,670	39,730
Yard Trimmings	20,000	23,200	27,500	35,000	30,530	32,070	33,400	34,500	34,720
Miscellaneous Inorganic Wastes	1,300	1,780	2,250	2,900	3,500	3,690	3,840	3,970	3,990
<b>Total Other Wastes</b>	33,500	37,780	42,750	61,760	64,730	68,690	72,980	77,140	78,440
<b>Total MSW Generated - Weight</b>	88,120	121,060	151,640	208,270	243,450	253,730	251,050	258,950	262,430
Products	Percent of Total Generation								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances	1.8%	1.8%	1.9%	1.6%	1.5%	1.4%	1.6%	1.8%	1.8%
Small Appliances**				0.2%	0.4%	0.5%	0.7%	0.8%	0.7%
Furniture and Furnishings	2.4%	2.3%	3.1%	3.3%	3.3%	3.7%	4.3%	4.6%	4.6%
Carpets and Rugs**				0.8%	1.0%	1.2%	1.5%	1.5%	1.4%
Rubber Tires	1.3%	1.6%	1.8%	1.7%	2.0%	1.9%	2.0%	2.1%	2.2%
Batteries, Lead-Acid	Neg.	0.7%	1.0%	0.7%	0.9%	1.1%	1.2%	1.2%	1.2%
Miscellaneous Durables									
Selected Consumer Electronics***					0.8%	1.0%	1.2%	1.3%	1.2%
Other Miscellaneous Durables					6.0%	7.0%	7.0%	7.2%	7.5%
<i>Total Miscellaneous Durables</i>	5.7%	5.7%	6.5%	6.0%	6.7%	8.0%	8.3%	8.5%	8.7%
<b>Total Durable Goods</b>	11.3%	12.1%	14.4%	14.3%	16.0%	17.8%	19.7%	20.5%	20.6%
<b>Nondurable Goods</b>	19.7%	20.7%	22.7%	25.0%	26.3%	25.1%	21.2%	20.0%	19.8%
<i>(Detail in Table 18)</i>									
<b>Containers and Packaging</b>	31.1%	36.0%	34.7%	31.0%	31.2%	30.1%	30.1%	29.7%	29.7%
<i>(Detail in Table 23)</i>									
<b>Total Product Wastes†</b>	62.0%	68.8%	71.8%	70.3%	73.4%	72.9%	70.9%	70.2%	70.1%
<b>Other Wastes</b>									
Food	13.8%	10.6%	8.6%	11.5%	12.6%	13.0%	14.2%	14.9%	15.1%
Yard Trimmings	22.7%	19.2%	18.1%	16.8%	12.5%	12.6%	13.3%	13.4%	13.2%
Miscellaneous Inorganic Wastes	1.5%	1.5%	1.5%	1.4%	1.4%	1.5%	1.5%	1.5%	1.5%
<b>Total Other Wastes</b>	38.0%	31.2%	28.2%	29.7%	26.6%	27.1%	29.1%	29.8%	29.9%
<b>Total MSW Generated - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Generation before materials recycling, composting, combustion with energy recovery or landfilling. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Not estimated separately prior to 1990.

† Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent.

\*\*\* Not estimated separately prior to 2000.

**Table 15. Products Recycled and Composted\* in the Municipal Waste Stream, 1960 to 2015**  
**(With Detail On Durable Goods)**  
 (In thousands of tons and percent of generation of each product)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances	10	50	130	1,070	2,000	2,420	2,610	2,710	3,000
Small Appliances**				10	20	20	120	120	120
Furniture and Furnishings	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	10	10	10
Carpets and Rugs**				Neg.	190	250	270	210	190
Rubber Tires	330	250	150	440	1,290	1,640	2,270	2,250	2,350
Batteries, Lead-Acid	Neg.	620	1,040	1,470	2,130	2,640	2,980	3,200	3,100
Miscellaneous Durables									
Selected Consumer Electronics***					190	360	650	1,400	1,230
Other Miscellaneous Durables					760	640	480	240	250
<i>Total Miscellaneous Durables</i>	10	20	40	470	950	1,000	1,130	1,640	1,480
<b>Total Durable Goods</b>	350	940	1,360	3,460	6,580	7,970	9,390	10,140	10,250
<b>Nondurable Goods</b>	2,390	3,730	4,670	8,800	17,560	19,770	19,190	16,820	16,190
<i>(Detail in Table 19)</i>									
<b>Containers and Packaging</b>	2,870	3,350	8,490	16,780	28,870	31,500	36,680	39,590	41,330
<i>(Detail in Table 24)</i>									
<b>Total Product Wastes†</b>	5,610	8,020	14,520	29,040	53,010	59,240	65,260	66,550	67,770
<b>Other Wastes</b>									
Food^	Neg.	Neg.	Neg.	Neg.	680	690	970	1,940	2,100
Yard Trimmings	Neg.	Neg.	Neg.	4,200	15,770	19,860	19,200	21,080	21,290
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Other Wastes</b>	Neg.	Neg.	Neg.	4,200	16,450	20,550	20,170	23,020	23,390
<b>Total MSW Recycled and Composted - Weight</b>	5,610	8,020	14,520	33,240	69,460	79,790	85,430	89,570	91,160
Products	Percent of Total Generation								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances	0.6%	2.3%	4.4%	32.3%	54.9%	67.0%	64.9%	58.3%	61.7%
Small Appliances**				2.2%	1.9%	1.7%	6.6%	6.1%	6.1%
Furniture and Furnishings	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	0.1%	0.1%	0.1%
Carpets and Rugs**				Neg.	7.7%	8.4%	7.3%	5.6%	5.2%
Rubber Tires	29.5%	13.2%	5.5%	12.2%	26.2%	33.4%	44.2%	40.5%	40.2%
Batteries, Lead-Acid	Neg.	75.6%	69.8%	97.4%	93.4%	96.0%	98.7%	99.1%	99.0%
Miscellaneous Durables									
Selected Consumer Electronics***					10.0%	13.7%	20.8%	41.7%	39.8%
Other Miscellaneous Durables					5.2%	3.6%	2.7%	1.3%	1.3%
<i>Total Miscellaneous Durables</i>	0.2%	0.3%	0.4%	3.8%	5.8%	4.9%	5.4%	7.4%	6.5%
<b>Total Durable Goods</b>	3.5%	6.4%	6.2%	11.6%	16.9%	17.7%	19.0%	19.1%	18.9%
<b>Nondurable Goods</b>	13.8%	14.9%	13.6%	16.9%	27.4%	31.1%	36.0%	32.4%	31.2%
<i>(Detail in Table 19)</i>									
<b>Containers and Packaging</b>	10.5%	7.7%	16.1%	26.0%	38.1%	41.3%	48.6%	51.5%	53.0%
<i>(Detail in Table 25)</i>									
<b>Total Product Wastes†</b>	10.3%	9.6%	13.3%	19.8%	29.7%	32.0%	36.6%	36.6%	36.8%
<b>Other Wastes</b>									
Food^	Neg.	Neg.	Neg.	Neg.	2.2%	2.1%	2.7%	5.0%	5.3%
Yard Trimmings	Neg.	Neg.	Neg.	12.0%	51.7%	61.9%	57.5%	61.1%	61.3%
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Other Wastes</b>	Neg.	Neg.	Neg.	6.8%	25.4%	29.9%	27.6%	29.8%	29.8%
<b>Total MSW Recycled and Composted - %</b>	6.4%	6.6%	9.6%	16.0%	28.5%	31.4%	34.0%	34.6%	34.7%

\* Recycling and composting of postconsumer wastes; does not include converting/fabrication scrap. Details may not add to totals due to rounding.

\*\* Not estimated separately prior to 1990. † Other than food products.

\*\*\* Not estimated separately prior to 2000.

^ Includes collection of other MSW organics for composting.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 16. Products Combusted with Energy Recovery\* in the Municipal Waste Stream, 1960 to 2015**  
**(With Detail On Durable Goods)**  
 (In thousands of tons and percent of total combusted)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances <sup>±5</sup>		0	0	0	0	0	0	0	0
Small Appliances**				90	200	200	310	370	370
Furniture and Furnishings		Neg.	90	1,150	1,570	1,700	1,910	2,320	2,350
Carpets and Rugs**				290	440	490	610	690	670
Rubber Tires <sup>5</sup>		Neg.	30	400	2,260	2,390	2,000	3,080	2,780
Batteries, Lead-Acid <sup>±</sup>		0	0	0	0	0	0	0	0
Miscellaneous Durables									
Selected Consumer Electronics									
Other Miscellaneous Durables									
<i>Total Miscellaneous Durables<sup>5</sup></i>		60	320	2,550	1,790	1,970	2,240	1,950	2,430
<b>Total Durable Goods</b>		60	440	4,480	6,260	6,750	7,070	8,410	8,600
<b>Nondurable Goods</b>									
<i>(Detail in Table 20)</i>		90	580	7,380	9,000	7,980	6,030	6,880	6,990
<b>Containers and Packaging</b>									
<i>(Detail in Table 26)</i>		150	880	8,110	9,110	8,160	6,870	7,310	7,190
<b>Total Product Wastes†</b>		300	1,900	19,970	24,370	22,890	19,970	22,600	22,780
<b>Other Wastes</b>									
Food		50	260	4,060	5,820	5,870	6,150	7,200	7,380
Yard Trimmings		90	550	5,240	2,860	2,220	2,510	2,630	2,630
Miscellaneous Inorganic Wastes		10	50	490	680	670	680	780	780
<b>Total Other Wastes</b>		150	860	9,790	9,360	8,760	9,340	10,610	10,790
<b>Total MSW Combusted with Energy Recovery - Weight</b>		450	2,760	29,760	33,730	31,650	29,310	33,210	33,570
Products	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances <sup>±5</sup>		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Small Appliances**				0.3%	0.6%	0.6%	1.1%	1.1%	1.1%
Furniture and Furnishings		Neg.	3.3%	3.9%	4.7%	5.4%	6.5%	7.0%	7.0%
Carpets and Rugs**				1.0%	1.3%	1.5%	2.1%	2.1%	2.0%
Rubber Tires <sup>5</sup>		Neg.	1.1%	1.3%	6.7%	7.6%	6.8%	9.3%	8.3%
Batteries, Lead-Acid <sup>±</sup>		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Miscellaneous Durables									
Selected Consumer Electronics									
Other Miscellaneous Durables									
<i>Total Miscellaneous Durables<sup>5</sup></i>		13.3%	11.6%	8.6%	5.3%	6.2%	7.6%	5.9%	7.2%
<b>Total Durable Goods</b>		13.3%	15.9%	15.1%	18.6%	21.3%	24.1%	25.4%	25.6%
<b>Nondurable Goods</b>									
<i>(Detail in Table 20)</i>		19.9%	21.0%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<b>Containers and Packaging</b>									
<i>(Detail in Table 27)</i>		33.3%	31.9%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<b>Total Product Wastes†</b>		66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%

**Table 16. Products Combusted with Energy Recovery\* in the Municipal Waste Stream, 1960 to 2014**  
**(With Detail On Durable Goods)**  
**(In thousands of tons and percent of total combusted)**

Products	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Other Wastes</b>									
Food		11.1%	9.4%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings		20.0%	20.0%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes		2.3%	1.8%	1.7%	1.9%	2.1%	2.3%	2.3%	2.3%
<b>Total Other Wastes</b>		33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Combusted with Energy Recovery - %</b>		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Products and materials combusted with energy recovery estimated at percentage total MSW after recovery for recycling and composting. In 2015, 19.6 percent of MSW after recycling and composting was combusted with energy recovery except for major appliances, tires and lead-acid batteries. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Not estimated separately prior to 1990.

† Other than food products.

§ Tires: tires to fuel based on industry percentage estimates applied to tire generation. *Total Miscellaneous Durables*: calculated as difference between total durable goods going to combustion and individual durable goods shown. The amounts of consumer electronics going to combustion with energy recovery are not available and are included in Total Miscellaneous Durables.

± Energy Recovery Council, 2016. Major appliances and lead-acid batteries are not accepted at waste-to-energy facilities.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 17. Products Landfilled\* in the Municipal Waste Stream, 1960 to 2015  
(With Detail On Durable Goods)**  
(In thousands of tons and percent of total landfilled)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances	1,620	2,120	2,820	2,240	1,640	1,190	1,410	1,940	1,860
Small Appliances**				360	820	960	1,400	1,470	1,470
Furniture and Furnishings	2,150	2,830	4,670	5,640	6,550	7,640	8,900	9,530	9,690
Carpets and Rugs**				1,370	1,830	2,220	2,840	2,830	2,770
Rubber Tires	790	1,640	2,540	2,770	1,380	880	860	230	710
Batteries, Lead-Acid		200	450	40	150	110	40	30	30
Miscellaneous Durables									
Selected Consumer Electronics***									
Other Miscellaneous Durables									
<i>Total Miscellaneous Durables</i>	5,010	6,870	9,520	9,450	13,660	17,340	17,440	18,460	18,770
<b>Total Durable Goods</b>	9,570	13,660	20,000	21,870	26,030	30,340	32,890	34,490	35,300
<b>Nondurable Goods</b>	14,940	21,240	29,170	35,990	37,450	35,900	28,030	28,210	28,740
<i>(Detail in Table 21)</i>									
<b>Containers and Packaging</b>	24,500	40,060	43,300	39,640	37,860	36,670	31,920	29,960	29,400
<i>(Detail in Table 28)</i>									
<b>Total Product Wastes†</b>	49,010	74,960	92,470	97,500	101,340	102,910	92,840	92,660	93,440
<b>Other Wastes</b>									
Food	12,200	12,750	12,740	19,800	24,200	26,370	28,620	29,530	30,250
Yard Trimmings	20,000	23,110	26,950	25,560	11,900	9,990	11,690	10,790	10,800
Miscellaneous Inorganic Wastes	1,300	1,770	2,200	2,410	2,820	3,020	3,160	3,190	3,210
<b>Total Other Wastes</b>	33,500	37,630	41,890	47,770	38,920	39,380	43,470	43,510	44,260
<b>Total MSW Landfilled- Weight</b>	82,510	112,590	134,360	145,270	140,260	142,290	136,310	136,170	137,700
Products	Percent of Total Landfilled								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>									
Major Appliances	2.0%	1.9%	2.1%	1.5%	1.2%	0.8%	1.0%	1.4%	1.4%
Small Appliances**				0.2%	0.6%	0.7%	1.0%	1.1%	1.1%
Furniture and Furnishings	2.6%	2.5%	3.5%	3.9%	4.7%	5.4%	6.5%	7.0%	7.0%
Carpets and Rugs**				0.9%	1.3%	1.5%	2.1%	2.1%	2.0%
Rubber Tires	1.0%	1.5%	1.9%	1.9%	1.0%	0.6%	0.6%	0.2%	0.5%
Batteries, Lead-Acid	Neg.	0.2%	0.3%	0.1%	0.1%	0.1%	0.1%	Neg.	Neg.
Miscellaneous Durables									
Selected Consumer Electronics***									
Other Miscellaneous Durables									
<i>Total Miscellaneous Durables</i>	6.1%	6.1%	7.1%	6.5%	9.7%	12.2%	12.8%	13.6%	13.6%
<b>Total Durable Goods</b>	11.6%	12.1%	14.9%	15.0%	18.6%	21.3%	24.1%	25.4%	25.6%
<b>Nondurable Goods</b>	18.1%	18.9%	21.7%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<i>(Detail in Table 21)</i>									
<b>Containers and Packaging</b>	29.7%	35.6%	32.2%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<i>(Detail in Table 29)</i>									
<b>Total Product Wastes†</b>	59.4%	66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%
<b>Other Wastes</b>									
Food	14.8%	11.3%	9.5%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings	24.2%	20.5%	20.1%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes	1.6%	1.6%	1.6%	1.7%	1.9%	2.2%	2.3%	2.3%	2.3%
<b>Total Other Wastes</b>	40.6%	33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Landfilled - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Landfilling after recycling, composting and combustion with energy recovery. Details may not add to totals due to rounding.

\*\* Not estimated separately prior to 1990.

\*\*\* The amount of consumer electronics going to combustion with energy recovery versus landfilling are not available. These products are included in Total Miscellaneous Durables.

† Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent.



**Table 18. Products Generated\* in the Municipal Waste Stream, 1960 to 2015  
(With Detail on Nondurable Goods)**

(In thousands of tons and percent of generation of each product)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	9,920	14,660	21,800	29,810	38,870	45,060	49,350	53,040	54,150
<i>(Detail in Table 14)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Papers†	7,110	9,510	11,050	13,430	14,790	12,790	9,880	7,620	6,730
Directories†**				610	680	660	-	-	-
Other Paper Nondurable Goods									
Books and Magazines	1,920	2,470	3,390						
Books**				970	1,240	1,100	990	830	800
Magazines**				2,830	2,230	2,580	1,590	1,260	1,190
Office-Type Papers***	1,520	2,650	4,000	6,410	7,420	6,620	5,260	4,530	4,530
Standard Mail§				3,820	5,570	5,830	4,340	4,050	4,050
Other Commercial Printing†	1,260	2,130	3,120	4,460	7,380	6,440	2,480	2,190	2,080
Tissue Paper and Towels	1,090	2,080	2,300	2,960	3,220	3,460	3,490	3,640	3,680
Paper Plates and Cups	270	420	630	650	960	1,160	1,350	1,380	1,360
Other Nonpackaging Paper	2,700	3,630	4,230	3,840	4,250	4,490	4,190	3,970	3,700
<b>Total Other Paper Nondurable Goods</b>							23,690	21,850	21,390
Disposable Diapers	Neg.	350	1,930	2,700	3,230	3,410	3,700	4,180	4,280
Plastic Plates and Cups§			190	650	870	930	890	1,020	1,050
Trash Bags**				780	850	1,060	980	1,000	1,130
Clothing and Footwear	1,360	1,620	2,170	4,010	6,470	7,890	9,100	11,170	11,940
Towels, Sheets and Pillowcases**				710	820	980	1,290	1,270	1,350
Other Miscellaneous Nondurables	100	200	1,410	3,340	4,030	4,250	3,720	3,800	4,050
<b>Total Nondurable Goods</b>	17,330	25,060	34,420	52,170	64,010	63,650	53,250	51,910	51,920
<b>Containers and Packaging</b>	27,370	43,560	52,670	64,530	75,840	76,330	75,470	76,860	77,920
<i>(Detail in Table 22)</i>									
<b>Total Product Wastes‡</b>	54,620	83,280	108,890	146,510	178,720	185,040	178,070	181,810	183,990
<b>Other Wastes</b>	33,500	37,780	42,750	61,760	64,730	68,690	72,980	77,140	78,440
<b>Total MSW Generated - Weight</b>	88,120	121,060	151,640	208,270	243,450	253,730	251,050	258,950	262,430

Products	Percent of Generation of Each Product								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	11.3%	12.1%	14.4%	14.3%	16.0%	17.8%	19.7%	20.5%	20.6%
<i>(Detail in Table 14)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Papers†	8.1%	7.9%	7.3%	6.4%	6.1%	5.0%	3.9%	2.9%	2.6%
Directories†**				0.3%	0.3%	0.3%	-	-	-
Other Paper Nondurable Goods									
Books and Magazines	2.2%	2.0%	2.2%						
Books**				0.5%	0.5%	0.4%	0.4%	0.3%	0.3%
Magazines**				1.4%	0.9%	1.0%	0.6%	0.5%	0.5%
Office-Type Papers***	1.7%	2.2%	2.6%	3.1%	3.0%	2.6%	2.1%	1.8%	1.8%
Standard Mail§				1.8%	2.3%	2.3%	1.7%	1.6%	1.5%
Other Commercial Printing†	1.4%	1.8%	2.1%	2.1%	3.0%	2.5%	1.0%	0.8%	0.8%
Tissue Paper and Towels	1.2%	1.7%	1.5%	1.4%	1.3%	1.4%	1.4%	1.4%	1.4%
Paper Plates and Cups	0.3%	0.3%	0.4%	0.3%	0.4%	0.5%	0.5%	0.5%	0.5%
Other Nonpackaging Paper	3.1%	3.0%	2.8%	1.8%	1.7%	1.8%	1.7%	1.6%	1.5%
<b>Total Other Paper Nondurable Goods</b>							9.4%	8.5%	8.3%
Disposable Diapers	Neg.	0.3%	1.3%	1.3%	1.3%	1.3%	1.5%	1.6%	1.6%
Plastic Plates and Cups§			0.1%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%
Trash Bags**				0.4%	0.3%	0.4%	0.4%	0.4%	0.4%

**Table 18. Products Generated\* in the Municipal Waste Stream, 1960 to 2015  
(With Detail on Nondurable Goods)**

(In thousands of tons and percent of generation of each product)

Products	Percent of Generation of Each Product								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Clothing and Footwear	1.5%	1.3%	1.4%	1.9%	2.7%	3.1%	3.6%	4.3%	4.5%
Towels, Sheets and Pillowcases**				0.3%	0.3%	0.4%	0.5%	0.5%	0.5%
Other Miscellaneous Nondurables	0.1%	0.2%	0.9%	1.6%	1.7%	1.7%	1.5%	1.5%	1.5%
<b>Total Nondurables</b>	19.7%	20.7%	22.7%	25.0%	26.3%	25.1%	21.2%	20.0%	19.8%
<b>Containers and Packaging</b>	31.1%	36.0%	34.7%	31.0%	31.2%	30.1%	30.1%	29.7%	29.7%
<i>(Detail in Table 23)</i>									
<b>Total Product Wastes†</b>	62.0%	68.8%	71.8%	70.3%	73.4%	72.9%	70.9%	70.2%	70.1%
<b>Other Wastes</b>	38.0%	31.2%	28.2%	29.7%	26.6%	27.1%	29.1%	29.8%	29.9%
<b>Total MSW Generated - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Generation before materials recycling, composting, combustion with energy recovery or landfilling. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

† Starting in 2010, newsprint and groundwood inserts expanded to include directories and other mechanical papers previously counted as Other Commercial Printing.

\*\* Not estimated separately prior to 1990.

\*\*\* High-grade paper such as printer paper; generated in both commercial and residential sources.

§ Standard Mail: Not estimated separately prior to 1990. Formerly called Third Class Mail and Standard (A) Mail by the U.S. Postal Service.

§ Plastic Plates and Cups: Not estimated separately prior to 1980.

‡ Other than food products.

- Detailed data not available.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 19. Products Recycled and Composted\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Nondurable Goods)**  
 (In thousands of tons and percent of generation of each product)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	350	940	1,360	3,460	6,580	7,970	9,390	10,140	10,250
<i>(Detail in Table 15)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Paper†	1,820	2,250	3,020	5,110	8,720	9,360	7,070	5,200	4,790
Directories†††				50	120	120	-	-	-
Other Paper Nondurable Goods									
Books and Magazines	100	260	280						
Books**				100	240	270	-	-	-
Magazines**				300	710	960	-	-	-
Office-Type Papers***	250	710	870	1,700	4,090	4,110	-	-	-
Standard Mail§				200	1,830	2,090	-	-	-
Other Commercial Printing†	130	340	350	700	810	1,440	-	-	-
Tissue Paper and Towels	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	-	-	-
Paper Plates and Cups	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	-	-	-
Other Nonpackaging Paper	40	110	Neg.	Neg.	Neg.	Neg.	-	-	-
<b>Total Other Paper Nondurable Goods</b>							10,650	9,710	9,330
Disposable Diapers				Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Plastic Plates and Cups§			Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Trash Bags**				Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Clothing and Footwear	50	60	150	520	900	1,250	1,250	1,540	1,690
Towels, Sheets and Pillowcases**				120	140	170	220	230	220
Other Miscellaneous Nondurables	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	140	160
<b>Total Nondurable Goods</b>	2,390	3,730	4,670	8,800	17,560	19,770	19,190	16,820	16,190
<b>Containers and Packaging</b>	2,870	3,350	8,490	16,780	28,870	31,500	36,680	39,590	41,330
<i>(Detail in Table 24)</i>									
<b>Total Product Wastes‡</b>	5,610	8,020	14,520	29,040	53,010	59,240	65,260	66,550	67,770
<b>Other Wastes</b>	Neg.	Neg.	Neg.	4,200	16,450	20,550	20,170	23,020	23,390
<b>Total MSW Recycled and Composted - Weight</b>	5,610	8,020	14,520	33,240	69,460	79,790	85,430	89,570	91,160
Products	Percent of Generation of Each Product								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	3.5%	6.4%	6.2%	11.6%	16.9%	17.7%	19.0%	19.1%	18.9%
<i>(Detail in Table 15)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Paper†	25.6%	23.7%	27.3%	38.0%	59.0%	73.2%	71.6%	68.2%	71.2%
Directories†††				8.2%	17.6%	18.2%	-	-	-
Other Paper Nondurable Goods									
Books and Magazines	5.2%	10.5%	8.3%						
Books**				10.3%	19.4%	24.5%	-	-	-
Magazines**				10.6%	31.8%	37.2%	-	-	-
Office-Type Papers***	16.4%	26.8%	21.8%	26.5%	55.1%	62.1%	-	-	-
Standard Mail§				5.2%	32.9%	35.8%	-	-	-
Other Commercial Printing†	10.3%	16.0%	11.2%	15.7%	11.0%	22.4%	-	-	-
Tissue Paper and Towels	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	-	-	-
Paper Plates and Cups	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	-	-	-
Other Nonpackaging Paper	1.5%	3.0%	Neg.	Neg.	Neg.	Neg.	-	-	-
<b>Total Other Paper Nondurable Goods</b>							45.0%	44.4%	43.6%

**Table 19. Products Recycled and Composted\* in Municipal Solid Waste,  
1960 to 2015  
(With Detail on Nondurable Goods)  
(In thousands of tons and percent of generation of each product)**

Products	Percent of Generation of Each Product								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Disposable Diapers				Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Plastic Plates and Cups§			Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Trash Bags**				Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Clothing and Footwear	Neg.	Neg.	Neg.	13.0%	13.9%	15.8%	13.7%	13.8%	14.2%
Towels, Sheets and Pillowcases**				16.9%	17.1%	17.3%	17.1%	18.1%	16.3%
Other Miscellaneous Nondurables	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	3.7%	4.0%
<b>Total Nondurables</b>	13.8%	14.9%	13.6%	16.9%	27.4%	31.1%	36.0%	32.4%	31.2%
<b>Containers and Packaging</b>	10.5%	7.7%	16.1%	26.0%	38.1%	41.3%	48.6%	51.5%	53.0%
<i>(Detail in Table 25)</i>									
<b>Total Product Wastes†</b>	10.3%	9.6%	13.3%	19.8%	29.7%	32.0%	36.6%	36.6%	36.8%
<b>Other Wastes</b>	Neg.	Neg.	Neg.	6.8%	25.4%	29.9%	27.6%	29.8%	29.8%
<b>Total MSW Recycled and Composted - %</b>	6.4%	6.6%	9.6%	16.0%	28.5%	31.4%	34.0%	34.6%	34.7%

\* Recycling and composting of postconsumer wastes; does not include converting/fabrication scrap. Details may not add to totals due to rounding.

† Starting in 2010, newsprint and groundwood inserts expanded to include directories and other mechanical papers previously counted as Other Commercial Printing.

\*\* Not estimated separately prior to 1990.

\*\*\* High-grade paper such as printer paper; generated in both commercial and residential sources.

§ Standard Mail: Not estimated separately prior to 1990. Formerly called Third Class Mail and Standard (A) Mail by the U.S. Postal Service.

§ Plastic Plates and Cups: Not estimated separately prior to 1980.

‡ Other than food products.

- Detailed data not available.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 20. Products Combusted with Energy Recovery\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Nondurable Goods)**  
 (In thousands of tons and percent of total combusted)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	0	60	440	4,480	6,260	6,750	7,070	8,410	8,600
<i>(Detail in Table 16)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Papers†	0	30	160	1,420	1,180	620	500	470	380
Directories†**				100	110	100	-	-	-
Other Paper Nondurable Goods									
Books and Magazines	0	10	60						
Books**				150	190	150	-	-	-
Magazines**				430	290	290	-	-	-
Office-Type Papers***	0	10	60	800	650	460	-	-	-
Standard Mail§				620	730	680	-	-	-
Other Commercial Printing†	0	10	60	640	1,270	910	-	-	-
Tissue Paper and Towels	0	10	50	500	620	630	-	-	-
Paper Plates and Cups	0	Neg.	10	110	190	210	-	-	-
Other Nonpackaging Paper	0	10	80	650	820	820	-	-	-
<b>Total Other Paper Nondurable Goods</b>							2,310	2,380	2,360
Disposable Diapers		Neg.	30	460	630	620	650	820	840
Plastic Plates and Cups§			Neg.	110	170	170	160	200	210
Trash Bags**				130	160	190	170	200	220
Clothing and Footwear	0	10	50	590	1,080	1,210	1,390	1,890	2,010
Towels, Sheets and Pillowcases**				100	130	150	190	200	220
Other Miscellaneous Nondurables	0	Neg.	20	570	780	770	660	720	750
<b>Total Nondurables</b>	0	90	580	7,380	9,000	7,980	6,030	6,880	6,990
<b>Containers and Packaging</b>	0	150	880	8,110	9,110	8,160	6,870	7,310	7,190
<i>(Detail in Table 26)</i>									
<b>Total Product Wastes†</b>	0	300	1,900	19,970	24,370	22,890	19,970	22,600	22,780
<b>Other Wastes</b>	0	150	860	9,790	9,360	8,760	9,340	10,610	10,790
<b>Total MSW Combusted with Energy Recovery - Weight</b>	0	450	2,760	29,760	33,730	31,650	29,310	33,210	33,570
Products	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>		13.3%	15.9%	15.1%	18.6%	21.3%	24.1%	25.4%	25.6%
<i>(Detail in Table 16)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Papers†		6.7%	5.8%	4.8%	3.5%	2.0%	1.7%	1.4%	1.1%
Directories†**				0.3%	0.3%	0.3%	-	-	-
Other Paper Nondurable Goods									
Books and Magazines		2.2%	2.2%						
Books**				0.5%	0.6%	0.5%	-	-	-
Magazines**				1.4%	0.9%	0.9%	-	-	-
Office-Type Papers***		2.2%	2.2%	2.7%	1.8%	1.4%	-	-	-
Standard Mail§				2.1%	2.2%	2.1%	-	-	-
Other Commercial Printing†		2.2%	2.2%	2.2%	3.8%	2.9%	-	-	-

**Table 20. Products Combusted with Energy Recovery\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Nondurable Goods)**  
 (In thousands of tons and percent of total combusted)

Products	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Tissue Paper and Towels		2.2%	1.8%	1.7%	1.8%	2.0%	-	-	-
Paper Plates and Cups		Neg.	0.4%	0.4%	0.6%	0.7%	-	-	-
Other Nonpackaging Paper		2.2%	2.8%	2.2%	2.4%	2.6%	-	-	-
<b>Total Other Paper Nondurable Goods</b>							7.9%	7.2%	7.0%
Disposable Diapers		Neg.	1.1%	1.5%	1.9%	2.0%	2.2%	2.5%	2.5%
Plastic Plates and Cups§			Neg.	0.4%	0.5%	0.5%	0.5%	0.6%	0.6%
Trash Bags**				0.4%	0.5%	0.6%	0.6%	0.6%	0.7%
Clothing and Footwear		2.2%	1.8%	2.0%	3.2%	3.8%	4.7%	5.7%	6.0%
Towels, Sheets and Pillowcases**				0.3%	0.4%	0.5%	0.7%	0.6%	0.7%
Other Miscellaneous Nondurables		Neg.	0.7%	1.9%	2.3%	2.4%	2.3%	2.1%	2.3%
<b>Total Nondurables</b>		19.9%	21.0%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<b>Containers and Packaging</b>		33.3%	31.9%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<i>(Detail in Table 27)</i>									
<b>Total Product Wastes†</b>		66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%
<b>Other Wastes</b>		33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Combusted with Energy Recovery - %</b>		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Products and materials combusted with energy recovery estimated at percentage total MSW after recovery for recycling and composting. In 2015, 19.6 percent of MSW after recycling and composting was combusted with energy recovery. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

† Starting in 2010, newsprint and groundwood inserts expanded to include directories and other mechanical papers previously counted as Other Commercial Printing.

\*\* Not estimated separately prior to 1990.

\*\*\* High-grade paper such as printer paper; generated in both commercial and residential sources.

§ Standard Mail: Not estimated separately prior to 1990. Formerly called Third Class Mail and Standard (A) Mail by the U.S. Postal Service.

§ Plastic Plates and Cups: Not estimated separately prior to 1980.

‡ Other than food products.

- Detailed data not available.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 21. Products Landfilled\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Nondurable Goods)**  
 (In thousands of tons and percent of total landfilled)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	9,570	13,660	20,000	21,870	26,030	30,340	32,890	34,490	35,300
<i>(Detail in Table 17)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Papers†	5,290	7,230	7,870	6,900	4,890	2,810	2,310	1,950	1,560
Directories†**				460	450	440	-	-	-
Other Paper Nondurable Goods									
Books and Magazines	1,820	2,200	3,050						
Books**				720	810	680	-	-	-
Magazines**				2,100	1,230	1,330	-	-	-
Office-Type Papers***	1,270	1,930	3,070	3,910	2,680	2,050	-	-	-
Standard Mail§				3,000	3,010	3,060	-	-	-
Other Commercial Printing†	1,130	1,780	2,710	3,120	5,300	4,090	-	-	-
Tissue Paper and Towels	1,090	2,070	2,250	2,460	2,600	2,830	-	-	-
Paper Plates and Cups	270	420	620	540	770	950	-	-	-
Other Nonpackaging Paper	2,660	3,510	4,150	3,190	3,430	3,670	-	-	-
<b>Total Other Paper Nondurable Goods</b>							10,730	9,760	9,700
Disposable Diapers		350	1,900	2,240	2,600	2,790	3,050	3,360	3,440
Plastic Plates and Cups§			190	540	700	760	730	820	840
Trash Bags**				650	690	870	810	800	910
Clothing and Footwear	1,310	1,550	1,970	2,900	4,490	5,430	6,460	7,740	8,240
Towels, Sheets and Pillowcases**				490	550	660	880	840	910
Other Miscellaneous Nondurables	100	200	1,390	2,770	3,250	3,480	3,060	2,940	3,140
<b>Total Nondurables</b>	14,940	21,240	29,170	35,990	37,450	35,900	28,030	28,210	28,740
<b>Containers and Packaging</b>	24,500	40,060	43,300	39,640	37,860	36,670	31,920	29,960	29,400
<i>(Detail in Table 28)</i>									
<b>Total Product Wastes†</b>	49,010	74,960	92,470	97,500	101,340	102,910	92,840	92,660	93,440
<b>Other Wastes</b>	33,500	37,630	41,890	47,770	38,920	39,380	43,470	43,510	44,260
<b>Total MSW Landfilled - Weight</b>	82,510	112,590	134,360	145,270	140,260	142,290	136,310	136,170	137,700
Products	Percent of Total Landfilled								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	11.6%	12.1%	14.9%	15.1%	18.6%	21.3%	24.1%	25.4%	25.6%
<i>(Detail in Table 17)</i>									
<b>Nondurable Goods</b>									
Newspapers/Mechanical Papers†	6.4%	6.4%	5.9%	4.7%	3.5%	2.0%	1.7%	1.4%	1.1%
Directories†**				0.3%	0.3%	0.3%	-	-	-
Other Paper Nondurable Goods									
Books and Magazines	2.2%	2.0%	2.3%						
Books**				0.5%	0.6%	0.5%	-	-	-
Magazines**				1.4%	0.9%	0.9%	-	-	-
Office-Type Papers***	1.5%	1.7%	2.3%	2.7%	1.9%	1.4%	-	-	-
Standard Mail§				2.1%	2.1%	2.1%	-	-	-

**Table 21. Products Landfilled\* in Municipal Solid Waste, 1960 to 2015  
(With Detail on Nondurable Goods)  
(In thousands of tons and percent of total landfilled)**

Products	Percent of Total Landfilled								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Other Commercial Printing†	1.4%	1.6%	2.0%	2.1%	3.8%	2.9%	-	-	-
Tissue Paper and Towels	1.3%	1.8%	1.7%	1.7%	1.9%	2.0%	-	-	-
Paper Plates and Cups	0.3%	0.4%	0.5%	0.4%	0.5%	0.7%	-	-	-
Other Nonpackaging Paper	3.2%	3.1%	3.1%	2.2%	2.4%	2.6%	-	-	-
<b>Total Other Paper Nondurable Goods</b>							7.9%	7.2%	7.0%
Disposable Diapers	Neg.	0.3%	1.4%	1.5%	1.9%	2.0%	2.2%	2.5%	2.5%
Plastic Plates and Cups§			0.1%	0.4%	0.5%	0.5%	0.5%	0.6%	0.6%
Trash Bags**				0.4%	0.5%	0.6%	0.6%	0.6%	0.7%
Clothing and Footwear	1.6%	1.4%	1.5%	2.0%	3.2%	3.8%	4.7%	5.7%	6.0%
Towels, Sheets and Pillowcases**				0.3%	0.4%	0.5%	0.6%	0.6%	0.7%
Other Miscellaneous Nondurables	0.1%	0.2%	1.0%	1.9%	2.3%	2.4%	2.3%	2.1%	2.3%
<b>Total Nondurables</b>	18.1%	18.9%	21.7%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<b>Containers and Packaging</b>	29.7%	35.6%	32.2%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<i>(Detail in Table 29)</i>									
<b>Total Product Wastes‡</b>	59.4%	66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%
<b>Other Wastes</b>	40.6%	33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Landfilled - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Landfilling after recycling, composting and combustion with energy recovery. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

† Starting in 2010, newsprint and groundwood inserts expanded to include directories and other mechanical papers previously counted as Other Commercial Printing.

\*\* Not estimated separately prior to 1990.

\*\*\* High-grade paper such as printer paper; generated in both commercial and residential sources.

§ Standard Mail: Not estimated separately prior to 1990. Formerly called Third Class Mail and Standard (A) Mail by the U.S. Postal Service.

§ Plastic Plates and Cups: Not estimated separately prior to 1980.

‡ Other than food products.

- Detailed data not available.

Neg. = Less than 5,000 tons or 0.05 percent.



**Table 22. Products Generated\* in the Municipal Waste Stream, 1960 to 2015  
(With Detail on Containers and Packaging)  
(In thousands of tons)**

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	9,920	14,660	21,800	29,810	38,870	45,060	49,350	53,040	54,150
<i>(Detail in Table 14)</i>									
<b>Nondurable Goods</b>	17,330	25,060	34,420	52,170	64,010	63,650	53,250	51,910	51,920
<i>(Detail in Table 18)</i>									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**	1,400	5,580	6,740	5,640	5,710	6,540	5,670	5,370	5,320
Wine and Liquor Bottles	1,080	1,900	2,450	2,030	1,910	1,630	1,700	1,790	1,810
Other Bottles & Jars	3,710	4,440	4,780	4,160	3,420	2,290	1,990	2,040	1,990
<b>Total Glass Packaging</b>	6,190	11,920	13,970	11,830	11,040	10,460	9,360	9,200	9,120
<b>Steel Packaging</b>									
Beer and Soft Drink Cans	640	1,570	520	150	Neg.	Neg.	Neg.	Neg.	Neg.
Cans	3,760	3,540	2,850	2,540	2,630	2,130	2,300	1,850	1,740
Other Steel Packaging	260	270	240	200	240	240	440	510	480
<b>Total Steel Packaging</b>	4,660	5,380	3,610	2,890	2,870	2,370	2,740	2,360	2,220
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans	Neg.	100	850	1,550	1,520	1,450	1,370	1,250	1,220
Other Cans	Neg.	60	40	20	50	80	70	130	130
Foil and Closures	170	410	380	330	380	400	460	430	490
<b>Total Aluminum Packaging</b>	170	570	1,270	1,900	1,950	1,930	1,900	1,810	1,840
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes	7,330	12,760	17,080	24,010	30,210	30,930	29,050	30,490	31,330
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons‡			790	510	550	500	540	590	590
Folding Cartons			3,820	4,300	5,820	5,530	5,470	5,410	5,380
Other Paperboard Packaging	3,840	4,830	230	290	200	160	90	70	70
Bags and Sacks			3,380	2,440	1,490	1,120	1,040	880	930
Wrapping Papers			200	110	Neg.	Neg.	Neg.	Neg.	Neg.
Other Paper Packaging	2,940	3,810	850	1,020	1,670	1,400	1,490	1,690	1,620
<b>Subtotal Other Paper &amp; Paperboard Pkg</b>	6,780	8,640	9,270	8,670	9,730	8,710	8,630	8,640	8,590
<b>Total Paper &amp; Board Pkg</b>	14,110	21,400	26,350	32,680	39,940	39,640	37,680	39,130	39,920
<b>Plastics Packaging</b>									
PET Bottles and Jars			260	430	1,720	2,540	2,670	2,920	2,980
HDPE Natural Bottles			230	530	690	800	800	780	760
Other Containers	60	910	890	1,430	1,740	1,420	1,830	1,850	1,940
Bags and Sacks			390	940	1,650	1,640	770	-	-
Wraps			840	1,530	2,550	2,810	3,160	-	-
<b>Subtotal Bags, Sacks, and Wraps</b>			1,230	2,470	4,200	4,450	3,930	4,050	4,130
Other Plastics Packaging	60	1,180	790	2,040	2,840	3,210	4,450	4,720	4,870
<b>Total Plastics Packaging</b>	120	2,090	3,400	6,900	11,190	12,420	13,680	14,320	14,680
<b>Other Packaging</b>									
Wood Packaging	2,000	2,070	3,940	8,180	8,610	9,230	9,770	9,680	9,770
Other Misc. Packaging	120	130	130	150	240	280	340	360	370
<b>Total Containers &amp; Pkg</b>	27,370	43,560	52,670	64,530	75,840	76,330	75,470	76,860	77,920
<b>Total Product Wastes†</b>	54,620	83,280	108,890	146,510	178,720	185,040	178,070	181,810	183,990
<b>Other Wastes</b>									
Food	12,200	12,800	13,000	23,860	30,700	32,930	35,740	38,670	39,730
Yard Trimmings	20,000	23,200	27,500	35,000	30,530	32,070	33,400	34,500	34,720
Miscellaneous Inorganic Wastes	1,300	1,780	2,250	2,900	3,500	3,690	3,840	3,970	3,990
<b>Total Other Wastes</b>	33,500	37,780	42,750	61,760	64,730	68,690	72,980	77,140	78,440
<b>Total MSW Generated - Weight</b>	88,120	121,060	151,640	208,270	243,450	253,730	251,050	258,950	262,430

\* Generation before materials recycling, composting, combustion with energy recovery or landfilling. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products. Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available - Detailed data not available.

**Table 23. Products Generated\* in the Municipal Waste Stream, 1960 to 2015  
(With Detail on Containers and Packaging)  
(In percent of total generation)**

Products	Percent of Total Generation								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	11.3%	12.1%	14.4%	14.3%	16.0%	17.8%	19.7%	20.5%	20.6%
<i>(Detail in Table 14)</i>									
<b>Nondurable Goods</b>	19.7%	20.7%	22.7%	25.0%	26.3%	25.1%	21.2%	20.0%	19.8%
<i>(Detail in Table 18)</i>									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**	1.6%	4.6%	4.4%	2.7%	2.3%	2.6%	2.3%	2.1%	2.0%
Wine and Liquor Bottles	1.2%	1.6%	1.6%	1.0%	0.8%	0.6%	0.7%	0.7%	0.7%
Other Bottles & Jars	4.2%	3.7%	3.2%	2.0%	1.4%	0.9%	0.8%	0.8%	0.8%
<b>Total Glass Packaging</b>	7.0%	9.8%	9.2%	5.7%	4.5%	4.1%	3.7%	3.6%	3.5%
<b>Steel Packaging</b>									
Beer and Soft Drink Cans	0.7%	1.3%	0.3%	0.1%	Neg.	Neg.	Neg.	Neg.	Neg.
Cans	4.3%	2.9%	1.9%	1.2%	1.1%	0.8%	0.9%	0.7%	0.7%
Other Steel Packaging	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%
<b>Total Steel Packaging</b>	5.3%	4.4%	2.4%	1.4%	1.2%	0.9%	1.1%	0.9%	0.9%
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans	Neg.	0.1%	0.6%	0.7%	0.6%	0.6%	0.5%	0.5%	0.5%
Other Cans	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	0.03%	0.05%	0.05%
Foil and Closures	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
<b>Total Aluminum Packaging</b>	0.2%	0.5%	0.8%	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes	8.3%	10.5%	11.3%	11.5%	12.4%	12.2%	11.6%	11.8%	11.9%
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons‡			0.5%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Folding Cartons			2.5%	2.1%	2.4%	2.2%	2.2%	2.1%	2.1%
Other Paperboard Packaging	4.4%	4.0%	0.2%	0.1%	0.1%	0.1%	0.0%	Neg.	Neg.
Bags and Sacks			2.2%	1.2%	0.6%	0.4%	0.4%	0.3%	0.4%
Wrapping Papers			0.1%	0.1%	Neg.	Neg.	Neg.	Neg.	Neg.
Other Paper Packaging	3.3%	3.1%	0.6%	0.5%	0.7%	0.6%	0.6%	0.7%	0.6%
<i>Subtotal Other Paper &amp; Paperboard Pkg</i>							3.4%	3.3%	3.2%
<b>Total Paper &amp; Board Pkg</b>	16.0%	17.7%	17.4%	15.7%	16.4%	15.6%	15.0%	15.0%	15.1%
<b>Plastics Packaging</b>									
PET Bottles and Jars			0.2%	0.2%	0.7%	1.0%	1.1%	1.1%	1.1%
HDPE Natural Bottles			0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Other Containers	0.1%	0.8%	0.6%	0.7%	0.7%	0.6%	0.7%	0.7%	0.7%
Bags and Sacks			0.3%	0.5%	0.7%	0.6%	0.3%	-	-
Wraps			0.6%	0.7%	1.0%	1.1%	1.3%	-	-
<i>Subtotal Bags, Sacks, and Wraps</i>			0.8%	1.2%	1.7%	1.8%	1.6%	1.56%	1.6%
Other Plastics Packaging	0.1%	1.0%	0.5%	1.0%	1.2%	1.3%	1.8%	1.8%	1.8%
<b>Total Plastics Packaging</b>	0.1%	1.7%	2.2%	3.3%	4.6%	4.9%	5.4%	5.5%	5.5%
<b>Other Packaging</b>									
Wood Packaging	2.3%	1.7%	2.6%	3.9%	3.5%	3.6%	3.9%	3.7%	3.7%
Other Misc. Packaging	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
<b>Total Containers &amp; Pkg</b>	31.1%	36.0%	34.7%	31.0%	31.2%	30.1%	30.1%	29.7%	29.7%
<b>Total Product Wastes†</b>	62.0%	68.8%	71.8%	70.3%	73.4%	72.9%	70.9%	70.2%	70.1%
<b>Other Wastes</b>									
Food	13.8%	10.6%	8.6%	11.5%	12.6%	13.0%	14.2%	14.9%	15.1%
Yard Trimmings	22.7%	19.2%	18.1%	16.8%	12.5%	12.6%	13.3%	13.3%	13.3%
Miscellaneous Inorganic Wastes	1.5%	1.5%	1.5%	1.4%	1.4%	1.5%	1.5%	1.5%	1.5%
<b>Total Other Wastes</b>	38.0%	31.2%	28.2%	29.7%	26.6%	27.1%	29.1%	29.8%	29.9%
<b>Total MSW Recycled and Composted - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Generation before materials recycling, composting, combustion with energy recovery or landfilling. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice, and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent.

**Table 24. Products Recycled and Composted\* in Municipal Solid Waste,  
1960 to 2015  
(With Detail on Containers and Packaging)  
(In thousands of tons)**

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	350	940	1,360	3,460	6,580	7,970	9,390	10,140	10,250
(Detail in Table 15)									
<b>Nondurable Goods</b>	2,390	3,730	4,670	8,800	17,560	19,770	19,190	16,820	16,190
(Detail in Table 19)									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**	90	140	730	1,890	1,530	2,000	2,350	2,120	2,230
Wine and Liquor Bottles	10	10	20	210	430	250	540	570	500
Other Bottles & Jars	Neg.	Neg.	Neg.	520	920	340	240	300	300
<b>Total Glass Packaging</b>	100	150	750	2,620	2,880	2,590	3,130	2,990	3,030
<b>Steel Packaging</b>									
Beer and Soft Drink Cans	10	20	50	40	Neg.	Neg.			
Cans	20	60	150	590	1,530	1,340	1,540	1,300	1,240
Other Steel Packaging	Neg.	Neg.	Neg.	60	160	160	350	410	380
<b>Total Steel Packaging</b>	30	80	200	690	1,690	1,500	1,890	1,710	1,620
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans	Neg.	10	320	990	830	650	680	710	670
Other Cans	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	NA	NA	NA
Foil and Closures	Neg.	Neg.	Neg.	20	30	40	NA	NA	NA
<b>Total Aluminum Pkg</b>	Neg.	10	320	1,010	860	690	680	710	670
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes	2,520	2,760	6,390	11,530	20,330	22,100	24,690	27,280	28,930
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons‡			Neg.	Neg.	Neg.	Neg.	-	-	-
Folding Cartons			520	340	410	1,190	-	-	-
Other Paperboard Packaging			Neg.	Neg.	Neg.	Neg.	-	-	-
Bags and Sacks			Neg.	200	300	320	-	-	-
Wrapping Papers			Neg.	Neg.	Neg.	Neg.	-	-	-
Other Paper Packaging	220	350	300	Neg.	Neg.	Neg.	-	-	-
Subtotal Other Paper & Paperboard Pkg							2,160	2,210	2,270
<b>Total Paper &amp; Board Pkg</b>	2,740	3,110	7,210	12,070	21,040	23,610	26,850	29,490	31,200
<b>Plastics Packaging</b>									
PET Bottles and Jars			10	140	380	590	780	910	890
HDPE Natural Bottles			Neg.	20	210	230	220	230	230
Other Containers	Neg.	Neg.	Neg.	20	170	140	300	360	360
Bags and Sacks								-	-
Wraps								-	-
Subtotal Bags, Sacks, and Wraps			Neg.	60	180	230	450	500	530
Other Plastics Packaging	Neg.	Neg.	Neg.	20	90	90	100	120	140
<b>Total Plastics Packaging</b>	Neg.	Neg.	10	260	1,030	1,280	1,850	2,120	2,150
<b>Other Packaging</b>									
Wood Packaging	Neg.	Neg.	Neg.	130	1,370	1,830	2,280	2,570	2,660
Other Misc. Packaging	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Containers &amp; Pkg</b>	2,870	3,350	8,490	16,780	28,870	31,500	36,680	39,590	41,330
<b>Total Product Wastes†</b>	5,610	8,020	14,520	29,040	53,010	59,240	65,260	66,550	67,770

**Table 24. Products Recycled and Composted\* in Municipal Solid Waste, 1960 to 2015  
(With Detail on Containers and Packaging)  
(In thousands of tons)**

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Other Wastes</b>									
Food <sup>^</sup>	Neg.	Neg.	Neg.	Neg.	680	690	970	1,940	2,100
Yard Trimmings	Neg.	Neg.	Neg.	4,200	15,770	19,860	19,200	21,080	21,290
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Other Wastes</b>	Neg.	Neg.	Neg.	4,200	16,450	20,550	20,170	23,020	23,390
<b>Total MSW Recycled and Composted - Weight</b>	5,610	8,020	14,520	33,240	69,460	79,790	85,430	89,570	91,160

\* Recycling and composting of postconsumer wastes; does not include converting/fabrication scrap. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products.

<sup>^</sup> Includes collection of other MSW organics for composting.

Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available - Detailed data not available.

**Table 25. Products Recycled and Composted\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Containers and Packaging)**  
**(In percent of generation of each product)**

Products	Percent of Generation of Each Product								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	3.5%	6.4%	6.2%	11.6%	16.9%	17.7%	19.0%	19.1%	18.9%
<i>(Detail in Table 15)</i>									
<b>Nondurable Goods</b>	13.8%	14.9%	13.6%	16.9%	27.4%	31.1%	36.0%	32.4%	31.2%
<i>(Detail in Table 19)</i>									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**	6.4%	2.5%	10.8%	33.5%	26.8%	30.6%	41.4%	39.5%	41.9%
Wine and Liquor Bottles	Neg.	Neg.	Neg.	10.3%	22.5%	15.3%	31.8%	31.8%	27.6%
Other Bottles & Jars	Neg.	Neg.	Neg.	12.5%	26.9%	14.8%	12.1%	14.7%	15.1%
<b>Total Glass Packaging</b>	1.6%	1.3%	5.4%	22.1%	26.1%	24.8%	33.4%	32.5%	33.2%
<b>Steel Packaging</b>									
Beer and Soft Drink Cans	1.6%	1.3%	9.6%	26.7%	Neg.	Neg.			
Cans	Neg.	1.7%	5.3%	23.2%	58.2%	62.9%	67.0%	70.3%	71.3%
Other Steel Packaging	Neg.	Neg.	Neg.	30.0%	66.7%	66.7%	79.5%	80.4%	79.2%
<b>Total Steel Packaging</b>	Neg.	1.5%	5.5%	23.9%	58.9%	63.3%	69.0%	72.5%	73.0%
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans	Neg.	10.0%	37.6%	63.9%	54.6%	44.8%	49.6%	56.8%	54.9%
Other Cans	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	NA	NA	NA
Foil and Closures	Neg.	Neg.	Neg.	6.1%	7.9%	10.0%	NA	NA	NA
<b>Total Aluminum Pkg</b>	Neg.	1.8%	25.2%	53.2%	44.1%	35.8%	35.8%	39.2%	36.4%
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes	34.4%	21.6%	37.4%	48.0%	67.3%	71.5%	85.0%	89.5%	92.3%
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons‡			Neg.	Neg.	Neg.	Neg.	-	-	-
Folding Cartons			Neg.	Neg.	7.0%	21.5%	-	-	-
Other Paperboard Packaging			Neg.	Neg.	Neg.	Neg.	-	-	-
Bags and Sacks			Neg.	Neg.	20.1%	28.6%	-	-	-
Wrapping Papers			Neg.	Neg.	Neg.	Neg.	-	-	-
Other Paper Packaging	7.5%	9.2%	35.3%	Neg.	Neg.	Neg.	-	-	-
<i>Subtotal Other Paper &amp; Paperboard Pkg</i>							25.0%	25.6%	26.4%
<b>Total Paper &amp; Board Pkg</b>	19.4%	14.5%	27.4%	36.9%	52.7%	59.6%	71.3%	75.4%	78.2%
<b>Plastics Packaging</b>									
PET Bottles and Jars			3.8%	32.6%	22.1%	23.2%	29.2%	31.2%	29.9%
HDPE Natural Bottles			Neg.	3.8%	30.4%	28.8%	27.5%	29.5%	30.3%
Other Containers	Neg.	Neg.	Neg.	1.4%	9.8%	9.9%	16.4%	19.5%	18.6%
Bags and Sacks									
Wraps									
<i>Subtotal Bags, Sacks, and Wraps</i>			Neg.	2.4%	4.3%	5.2%	11.5%	12.3%	12.8%
Other Plastics Packaging	Neg.	Neg.	Neg.	1.0%	3.2%	2.8%	2.2%	2.5%	2.9%
<b>Total Plastics Packaging</b>	Neg.	Neg.	Neg.	3.8%	9.2%	10.3%	13.5%	14.8%	14.6%
<b>Other Packaging</b>									
Wood Packaging	Neg.	Neg.	Neg.	1.6%	15.9%	19.8%	23.3%	26.5%	27.2%
Other Misc. Packaging	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Containers &amp; Pkg</b>	10.5%	7.7%	16.1%	26.0%	38.1%	41.3%	48.6%	51.5%	53.0%
<b>Total Product Wastes†</b>	10.3%	9.6%	13.3%	19.8%	29.7%	32.0%	36.6%	36.6%	36.8%

**Table 25. Products Recycled and Composted\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Containers and Packaging)**  
**(In percent of generation of each product)**

Products	Percent of Generation of Each Product								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Other Wastes</b>									
Food <sup>^</sup>	Neg.	Neg.	Neg.	Neg.	2.2%	2.1%	2.7%	5.0%	5.3%
Yard Trimmings	Neg.	Neg.	Neg.	12.0%	51.7%	61.9%	57.5%	61.1%	61.3%
Miscellaneous Inorganic Wastes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
<b>Total Other Wastes</b>	Neg.	Neg.	Neg.	6.8%	25.4%	29.9%	27.6%	29.8%	29.8%
<b>Total MSW Recycled and Composted - %</b>	6.4%	6.6%	9.6%	16.0%	28.5%	31.4%	34.0%	34.6%	34.7%

\* Recycling and composting of postconsumer wastes; does not include converting/fabrication scrap. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products.

<sup>^</sup> Includes collection of other MSW organics for composting.

Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available - Detailed data not available.

**Table 26. Products Combusted with Energy Recovery\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Containers and Packaging)**  
 (In thousands of tons)

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	0	60	440	4,480	6,260	6,750	7,070	8,410	8,600
<i>(Detail in Table 16)</i>									
<b>Nondurable Goods</b>	0	90	580	7,380	9,000	7,980	6,030	6,880	6,990
<i>(Detail in Table 20)</i>									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**	0	20	120	640	810	830	590	640	610
Wine and Liquor Bottles	0	10	50	310	290	250	210	240	260
Other Bottles & Jars	0	20	100	620	490	350	310	340	330
<b>Total Glass Packaging</b>	0	50	270	1,570	1,590	1,430	1,110	1,220	1,200
<b>Steel Packaging</b>									
Beer and Soft Drink Cans	0	10	10	20	Neg.	Neg.	Neg.	Neg.	Neg.
Cans	0	10	50	330	210	140	130	110	100
Other Steel Packaging	0	Neg.	Neg.	20	20	10	20	20	20
<b>Total Steel Packaging</b>	0	20	60	370	230	150	150	130	120
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans	0	Neg.	10	100	130	150	120	110	110
Other Cans	0	Neg.	Neg.	Neg.	10	10	10	30	30
Foil and Closures	0	Neg.	10	50	70	70	80	80	100
<b>Total Aluminum Pkg</b>	0	Neg.	20	150	210	230	210	220	240
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes	0	40	210	2,120	1,920	1,610	770	630	470
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons†			20	90	110	90	-	-	-
Folding Cartons			70	670	1,050	790	-	-	-
Other Paperboard Packaging	0	20	Neg.	50	40	30	-	-	-
Bags and Sacks			70	380	230	150	-	-	-
Wrapping Papers			Neg.	20	Neg.	Neg.	-	-	-
Other Paper Packaging	0	10	10	170	320	250	-	-	-
<i>Subtotal Other Paper &amp; Paperboard Pkg</i>							1,150	1,260	1,240
<b>Total Paper &amp; Board Pkg</b>	0	70	380	3,500	3,670	2,920	1,920	1,890	1,710
<b>Plastics Packaging</b>									
PET Bottles and Jars			Neg.	50	260	350	330	390	410
HDPE Natural Bottles			Neg.	90	90	100	100	110	100
Other Containers	0	Neg.	20	240	300	230	270	290	310
Bags and Sacks									
Wraps									
<i>Subtotal Bags, Sacks, and Wraps</i>			30	410	780	770	620	700	710
Other Plastics Packaging	0	Neg.	20	340	530	570	770	900	930
<b>Total Plastics Packaging</b>	0	Neg.	70	1,130	1,960	2,020	2,090	2,390	2,460

**Table 26. Products Combusted with Energy Recovery\* in Municipal Solid Waste, 1960 to 2015**  
**(With Detail on Containers and Packaging)**  
**(In thousands of tons)**

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Other Packaging</b>									
Wood Packaging	0	10	80	1,370	1,400	1,350	1,330	1,390	1,390
Other Misc. Packaging	0	Neg.	Neg.	20	50	60	60	70	70
<b>Total Containers &amp; Pkg</b>	0	150	880	8,110	9,110	8,160	6,870	7,310	7,190
<b>Total Product Wastes†</b>	0	300	1,900	19,970	24,370	22,890	19,970	22,600	22,780
<b>Other Wastes</b>									
Food	0	50	260	4,060	5,820	5,870	6,150	7,200	7,380
Yard Trimmings	0	90	550	5,240	2,860	2,220	2,510	2,630	2,630
Miscellaneous Inorganic Wastes	0	10	50	490	680	670	680	780	780
<b>Total Other Wastes</b>	0	150	860	9,790	9,360	8,760	9,340	10,610	10,790
<b>Total MSW Combusted with Energy Recovery - Weight</b>	0	450	2,760	29,760	33,730	31,650	29,310	33,210	33,570

\* Products and materials combusted with energy recovery estimated at percentage total MSW after recovery for recycling and composting. In 2015, 19.6 percent of MSW after recycling and composting was combusted with energy recovery. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available - Detailed data not available.



**Table 27. Products Combusted with Energy Recovery\* in Municipal Solid Waste, 1960 to 2015**  
 (With Detail on Containers and Packaging)  
 (In percent of total combusted)

Products	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>		13.3%	15.9%	15.1%	18.6%	21.3%	24.1%	25.4%	25.6%
<i>(Detail in Table 16)</i>									
<b>Nondurable Goods</b>		19.9%	21.0%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<i>(Detail in Table 20)</i>									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**		4.5%	4.3%	2.2%	2.4%	2.6%	2.0%	1.9%	1.8%
Wine and Liquor Bottles		2.2%	1.8%	1.0%	0.8%	0.8%	0.7%	0.7%	0.8%
Other Bottles & Jars		4.4%	3.6%	2.1%	1.5%	1.1%	1.1%	1.0%	1.0%
<b>Total Glass Packaging</b>		11.1%	9.8%	5.3%	4.7%	4.5%	3.8%	3.6%	3.6%
<b>Steel Packaging</b>									
Beer and Soft Drink Cans		2.2%	0.4%	0.1%	Neg.	Neg.	Neg.	Neg.	Neg.
Cans		2.2%	1.8%	1.1%	0.6%	0.5%	0.4%	0.3%	0.3%
Other Steel Packaging		Neg.	Neg.	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%
<b>Total Steel Packaging</b>		4.4%	2.2%	1.2%	0.7%	0.5%	0.5%	0.4%	0.4%
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans		Neg.	0.4%	0.3%	0.4%	0.5%	0.4%	0.3%	0.3%
Other Cans		Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	0.1%	0.1%
Foil and Closures		Neg.	0.4%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%
<b>Total Aluminum Pkg</b>		Neg.	0.7%	0.5%	0.6%	0.7%	0.7%	0.7%	0.7%
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes		8.9%	7.6%	7.1%	5.7%	5.1%	2.6%	1.9%	1.4%
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons†			0.7%	0.3%	0.3%	0.3%	-	-	-
Folding Cartons			2.5%	2.3%	3.1%	2.5%	-	-	-
Other Paperboard Packaging		4.5%	Neg.	0.2%	0.1%	0.1%	-	-	-
Bags and Sacks			2.5%	1.3%	0.7%	0.4%	-	-	-
Wrapping Papers			Neg.	0.1%	Neg.	Neg.	-	-	-
Other Paper Packaging		2.2%	0.4%	0.6%	1.0%	0.8%	-	-	-
<i>Subtotal Other Paper &amp; Paperboard Pkg</i>							3.9%	3.8%	3.7%
<b>Total Paper &amp; Board Pkg</b>		15.6%	13.8%	11.8%	10.9%	9.2%	6.6%	5.7%	5.1%
<b>Plastics Packaging</b>									
PET Bottles and Jars			Neg.	0.2%	0.8%	1.1%	1.1%	1.2%	1.2%
HDPE Natural Bottles			Neg.	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%
Other Containers		Neg.	0.7%	0.8%	0.9%	0.7%	0.9%	0.9%	0.9%
Bags and Sacks									
Wraps									
<i>Subtotal Bags, Sacks, and Wraps</i>			1.1%	1.4%	2.3%	2.4%	2.1%	2.1%	2.1%
Other Plastics Packaging		Neg.	0.7%	1.1%	1.5%	1.8%	2.6%	2.7%	2.8%
<b>Total Plastics Packaging</b>		Neg.	2.5%	3.8%	5.8%	6.4%	7.1%	7.2%	7.3%
<b>Other Packaging</b>									
Wood Packaging		2.2%	2.9%	4.6%	4.2%	4.3%	4.5%	4.2%	4.1%
Other Misc. Packaging		Neg.	Neg.	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%
<b>Total Containers &amp; Pkg</b>		33.3%	31.9%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<b>Total Product Wastes†</b>		66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%

**Table 27. Products Combusted with Energy Recovery\* in Municipal Solid Waste, 1960 to 2015  
(With Detail on Containers and Packaging)  
(In percent of total combusted)**

Products	Percent of Total Combusted								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Other Wastes</b>									
Food		11.1%	9.4%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings		20.0%	20.0%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes		2.3%	1.8%	1.7%	1.9%	2.1%	2.3%	2.3%	2.3%
<b>Total Other Wastes</b>		33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Combusted with Energy Recovery - %</b>		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Products and materials combusted with energy recovery estimated at percentage total MSW after recovery for recycling and composting. In 2015, 19.6 percent of MSW after recycling and composting was combusted with energy recovery. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available - Detailed data not available.

**Table 28. Products Landfilled\* in Municipal Solid Waste, 1960 to 2015  
(With Detail on Containers and Packaging)  
(In thousands of tons)**

Products	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	9,570	13,660	20,000	21,870	26,030	30,340	32,890	34,490	35,300
<i>(Detail in Table 17)</i>									
<b>Nondurable Goods</b>	14,940	21,240	29,170	35,990	37,450	35,900	28,030	28,210	28,740
<i>(Detail in Table 21)</i>									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**	1,310	5,420	5,890	3,110	3,370	3,710	2,730	2,610	2,480
Wine and Liquor Bottles	1,070	1,880	2,380	1,510	1,190	1,130	950	980	1,050
Other Bottles & Jars	3,710	4,420	4,680	3,020	2,010	1,600	1,440	1,400	1,360
<b>Total Glass Packaging</b>	6,090	11,720	12,950	7,640	6,570	6,440	5,120	4,990	4,890
<b>Steel Packaging</b>									
Beer and Soft Drink Cans	630	1,540	460	90	Neg.	Neg.	Neg.	Neg.	Neg.
Cans	3,740	3,470	2,650	1,620	890	650	630	440	400
Other Steel Packaging	260	270	240	120	60	70	70	80	80
<b>Total Steel Packaging</b>	4,630	5,280	3,350	1,830	950	720	700	520	480
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans	Neg.	90	520	460	560	650	570	430	440
Other Cans	Neg.	60	40	20	40	70	60	100	100
Foil and Closures	170	410	370	260	280	290	380	350	390
<b>Total Aluminum Pkg</b>	170	560	930	740	880	1,010	1,010	880	930
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes	4,810	9,960	10,480	10,360	7,960	7,220	3,590	2,580	1,930
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons‡			770	420	440	410	-	-	-
Folding Cartons			3,230	3,290	4,360	3,550	-	-	-
Other Paperboard Packaging	3,840	4,810	230	240	160	130	-	-	-
Bags and Sacks			3,310	1,860	960	650	-	-	-
Wrapping Papers			200	90	Neg.	Neg.	-	-	-
Other Paper Packaging	2,720	3,450	540	850	1,350	1,150	-	-	-
<i>Subtotal Other Paper &amp; Paperboard Pkg</i>							5,320	5,170	5,080
<b>Total Paper &amp; Board Pkg</b>	11,370	18,220	18,760	17,110	15,230	13,110	8,910	7,750	7,010
<b>Plastics Packaging</b>									
PET Bottles and Jars			250	240	1,080	1,600	1,560	1,620	1,680
HDPE Natural Bottles			230	420	390	470	480	440	430
Other Containers	60	910	870	1,170	1,270	1,050	1,260	1,200	1,270
Bags and Sacks									
Wraps									
<i>Subtotal Bags, Sacks, and Wraps</i>			1,200	2,000	3,240	3,450	2,860	2,850	2,890
Other Plastics Packaging	60	1,180	770	1,680	2,220	2,550	3,580	3,700	3,800
<b>Total Plastics Packaging</b>	120	2,090	3,320	5,510	8,200	9,120	9,740	9,810	10,070
<b>Other Packaging</b>									
Wood Packaging	2,000	2,060	3,860	6,680	5,840	6,050	6,160	5,720	5,720
Other Misc. Packaging	120	130	130	130	190	220	280	290	300
<b>Total Containers &amp; Pkg</b>	24,500	40,060	43,300	39,640	37,860	36,670	31,920	29,960	29,400
<b>Total Product Wastes†</b>	49,010	74,960	92,470	97,500	101,340	102,910	92,840	92,660	93,440
<b>Other Wastes</b>									
Food	12,200	12,750	12,740	19,800	24,200	26,370	28,620	29,530	30,250
Yard Trimmings	20,000	23,110	26,950	25,560	11,900	9,990	11,690	10,790	10,800
Miscellaneous Inorganic Wastes	1,300	1,770	2,200	2,410	2,820	3,020	3,160	3,190	3,210
<b>Total Other Wastes</b>	33,500	37,630	41,890	47,770	38,920	39,380	43,470	43,510	44,260
<b>Total MSW Landfilled - Weight</b>	82,510	112,590	134,360	145,270	140,260	142,290	136,310	136,170	137,700

\* Landfilling after recycling, composting and combustion with energy recovery. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available - Detailed data not available.

**Table 29. Products Landfilled\* in Municipal Solid Waste, 1960 to 2015  
(With Detail on Containers and Packaging)  
(In percent of total landfilled)**

Products	Percent of Total Landfilled								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
<b>Durable Goods</b>	11.6%	12.1%	14.9%	15.0%	18.6%	21.3%	24.1%	25.4%	25.6%
<i>(Detail in Table 17)</i>									
<b>Nondurable Goods</b>	18.1%	18.9%	21.7%	24.8%	26.7%	25.2%	20.6%	20.7%	20.9%
<i>(Detail in Table 21)</i>									
<b>Containers and Packaging</b>									
<b>Glass Packaging</b>									
Beer and Soft Drink Bottles**	1.6%	4.8%	4.4%	2.1%	2.4%	2.6%	2.0%	1.9%	1.8%
Wine and Liquor Bottles	1.3%	1.7%	1.8%	1.0%	0.8%	0.8%	0.7%	0.7%	0.8%
Other Bottles & Jars	4.5%	3.9%	3.5%	2.1%	1.5%	1.1%	1.1%	1.0%	1.0%
<b>Total Glass Packaging</b>	7.4%	10.4%	9.6%	5.3%	4.7%	4.5%	3.8%	3.6%	3.6%
<b>Steel Packaging</b>									
Beer and Soft Drink Cans	0.8%	1.4%	0.3%	0.1%	Neg.	Neg.	Neg.	Neg.	Neg.
Cans	4.5%	3.1%	2.0%	1.1%	0.6%	0.5%	0.5%	0.3%	0.3%
Other Steel Packaging	0.3%	0.2%	0.2%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%
<b>Total Steel Packaging</b>	5.6%	4.7%	2.5%	1.3%	0.7%	0.5%	0.6%	0.4%	0.4%
<b>Aluminum Packaging</b>									
Beer and Soft Drink Cans	Neg.	0.1%	0.4%	0.3%	0.4%	0.5%	0.4%	0.3%	0.3%
Other Cans	Neg.	0.1%	0.0%	0.0%	Neg.	Neg.	Neg.	0.1%	0.1%
Foil and Closures	0.2%	0.4%	0.3%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%
<b>Total Aluminum Pkg</b>	0.2%	0.5%	0.7%	0.5%	0.6%	0.7%	0.7%	0.7%	0.7%
<b>Paper &amp; Paperboard Pkg</b>									
Corrugated Boxes	5.8%	8.8%	7.8%	7.1%	5.7%	5.1%	2.6%	1.9%	1.4%
Other Paper & Paperboard Pkg									
Gable Top/Aseptic Cartons‡			0.6%	0.3%	0.3%	0.3%	-	-	-
Folding Cartons			2.4%	2.3%	3.1%	2.5%	-	-	-
Other Paperboard Packaging	4.7%	4.3%	0.2%	0.2%	0.1%	0.1%	-	-	-
Bags and Sacks			2.5%	1.3%	0.7%	0.4%	-	-	-
Wrapping Papers			0.1%	0.1%	Neg.	Neg.	-	-	-
Other Paper Packaging	3.3%	3.1%	0.4%	0.6%	1.0%	0.8%	-	-	-
<i>Subtotal Other Paper &amp; Paperboard Pkg</i>							3.9%	3.8%	3.7%
<b>Total Paper &amp; Board Pkg</b>	13.8%	16.2%	14.0%	11.8%	10.9%	9.2%	6.5%	5.7%	5.1%
<b>Plastics Packaging</b>									
PET Bottles and Jars			0.2%	0.2%	0.8%	1.1%	1.1%	1.2%	1.2%
HDPE Natural Bottles			0.2%	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%
Other Containers	0.1%	0.8%	0.6%	0.8%	0.9%	0.7%	0.9%	0.9%	0.9%
Bags and Sacks									
Wraps									
<i>Subtotal Bags, Sacks, and Wraps</i>			0.9%	1.4%	2.3%	2.4%	2.1%	2.1%	2.1%
Other Plastics Packaging	0.1%	1.0%	0.6%	1.2%	1.5%	1.8%	2.6%	2.7%	2.8%
<b>Total Plastics Packaging</b>	0.1%	1.9%	2.5%	3.8%	5.8%	6.4%	7.1%	7.2%	7.3%
<b>Other Packaging</b>									
Wood Packaging	2.4%	1.8%	2.9%	4.6%	4.2%	4.3%	4.5%	4.2%	4.1%
Other Misc. Packaging	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%
<b>Total Containers &amp; Pkg</b>	29.7%	35.6%	32.2%	27.3%	27.0%	25.8%	23.4%	22.0%	21.4%
<b>Total Product Wastes†</b>	59.4%	66.6%	68.8%	67.1%	72.3%	72.3%	68.1%	68.1%	67.9%
<b>Other Wastes</b>									
Food	14.8%	11.3%	9.5%	13.6%	17.3%	18.5%	21.0%	21.7%	22.0%
Yard Trimmings	24.2%	20.5%	20.1%	17.6%	8.5%	7.0%	8.6%	7.9%	7.8%
Miscellaneous Inorganic Wastes	1.6%	1.6%	1.6%	1.7%	1.9%	2.2%	2.3%	2.3%	2.3%
<b>Total Other Wastes</b>	40.6%	33.4%	31.2%	32.9%	27.7%	27.7%	31.9%	31.9%	32.1%
<b>Total MSW Landfilled - %</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\* Landfilling after recycling, composting and combustion with energy recovery. Does not include construction & demolition debris, industrial process wastes or certain other wastes. Details may not add to totals due to rounding.

\*\* Includes carbonated drinks and non-carbonated water, teas, flavored drinks and ready-to-drink alcoholic coolers and cocktails.

‡ Includes milk, juice and other products packaged in gable top cartons and liquid food aseptic cartons.

† Other than food products.

Neg. = Less than 5,000 tons or 0.05 percent. NA = Not Available - Detailed data not available.

**Table 30. Selected Examples of Source Reduction Practices**

Source Reduction Practice	MSW Product Categories			
	Durable Goods	Nondurable Goods	Containers & Packaging	Organics (Wood, Yard Waste, Food, etc.)
<b>Product or Packaging Redesign</b>				
Materials reduction	<ul style="list-style-type: none"> <li>▪ Downgauge metals in appliances</li> <li>▪ Use fewer materials in electronics</li> </ul>	<ul style="list-style-type: none"> <li>▪ Use paperless purchase orders</li> <li>▪ Use concentrated products</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implement container lightweighting</li> <li>▪ Use right size packaging</li> <li>▪ Eliminate unnecessary layers of packaging</li> <li>▪ Use refillable/reusable containers, including use of flexible pouches for refills for rigid containers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implement xeriscaping</li> <li>▪ Use just in time ordering / inventory control</li> <li>▪ Adjust menus to reduce frequently uneaten or wasted items</li> </ul>
Materials substitution	<ul style="list-style-type: none"> <li>▪ Use of composites in appliances and electronic circuitry</li> </ul>		<ul style="list-style-type: none"> <li>▪ Replace rigid or heavy packaging with lighter or more compact options, e.g., cereal in bags. coffee in brick packs</li> <li>▪ Use life cycle data to choose material with lower lifecycle impact</li> </ul>	
Lengthen product lifespan	<ul style="list-style-type: none"> <li>▪ Use high mileage tires</li> <li>▪ Design for upgrades (e.g., add computer memory or processing capacity, battery upgrades)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Perform regular servicing</li> <li>▪ Consider purchasing warranties to make repair more affordable</li> <li>▪ Extend warranties</li> </ul>	<ul style="list-style-type: none"> <li>▪ Design for secondary use</li> <li>▪ Use Reusable packaging</li> </ul>	<ul style="list-style-type: none"> <li>▪ Clearer label information on food expiration date</li> <li>▪ Avoid spoilage by changing:                             <ul style="list-style-type: none"> <li>– Packaging</li> <li>– Storage and transportation</li> <li>– Supply chain management</li> </ul> </li> </ul>
<b>Consumer Practices</b>				
	<ul style="list-style-type: none"> <li>▪ Purchase long-lived products</li> <li>▪ Perform regular servicing</li> <li>▪ Perform repair</li> <li>▪ Buy fewer items</li> </ul>	<ul style="list-style-type: none"> <li>▪ Perform repair</li> <li>▪ Use duplex printing</li> <li>▪ Share products</li> <li>▪ Reduce unwanted mail</li> <li>▪ Purchase concentrated products</li> <li>▪ Buy fewer items</li> </ul>	<ul style="list-style-type: none"> <li>▪ Purchase products in bulk (less packaging)</li> <li>▪ Use reusable bags and containers</li> <li>▪ Buy fewer items</li> </ul>	<ul style="list-style-type: none"> <li>▪ Donate food</li> <li>▪ Avoid spoilage by monitoring and tracking food and purchases and use</li> <li>▪ Reduce over-purchasing</li> <li>▪ Perform proper food storage and preparation</li> <li>▪ Repurpose (e.g., older bread can be made into croutons)</li> <li>▪ Do backyard composting</li> <li>▪ Do vermi-composting</li> <li>▪ Do grasscycling</li> </ul>
<b>Reuse</b>				
By Design	<ul style="list-style-type: none"> <li>▪ Document materials and methods for disassembly/repair/reuse</li> <li>▪ Use materials and systems that exhibit modularity, and standardization to facilitate reuse and repair                             <ul style="list-style-type: none"> <li>– Minimize connections between parts and/or make connections more accessible for ease of repair and replacement of parts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Use reusable shipping or mailing envelopes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Use reusable pallets</li> <li>▪ Use returnable secondary packaging</li> <li>▪ Use reusable/refillable dispensers for cleaning products</li> <li>▪ Use reusable service ware in food service</li> <li>▪ Use durable reusable water bottles instead of disposable bottles</li> </ul>	

**Table 30. Selected Examples of Source Reduction Practices**

Source Reduction Practice	MSW Product Categories			
	Durable Goods	Nondurable Goods	Containers & Packaging	Organics (Wood, Yard Waste, Food, etc.)
	<ul style="list-style-type: none"> <li>– Use mechanical connections with bolts and screws instead of glues, to facilitate repair</li> <li>– Minimize connections to increase ease of repair or part replacement</li> <li>– Provide adequate tolerances to allow for removal and replacement or repair of parts without affecting adjacent components</li> </ul>			
Secondary	<ul style="list-style-type: none"> <li>▪ Borrow or rent for temporary use</li> <li>▪ Give to charity</li> <li>▪ Buy or sell at garage sales</li> </ul>	<ul style="list-style-type: none"> <li>▪ Donate clothing, books</li> <li>▪ Waste paper scratch pads</li> </ul>	<ul style="list-style-type: none"> <li>▪ Use reusable grocery sacks</li> <li>▪ Reuse glass and plastic bottles and jars</li> </ul>	

**Table 31. Households with Residential Food Collection Programs in the U.S., 2015**

State	Curbside Households with Access	Drop-off Households with Access
Alaska		500
California	1,389,719	
Colorado	150,279	35,500
Connecticut		19,634
Illinois	16,355	
Iowa	44,430	
Maine		7,641
Maryland	18,225	
Massachusetts	35,769	348,448
Michigan	47,416	
Minnesota	141,517	1,030,371
New Jersey	9,158	
New York	790,090	3,153,535
North Carolina		452,000
Ohio	443	
Oregon	157,000	
Pennsylvania	3,600	
Texas	52,000	
Vermont	19,767	67,000
Virginia		20,000
Washington	957,688	253,622
Wisconsin	3,000	
<b>Households with Access to Collection</b>	<b>3,836,456</b>	<b>5,388,251</b>
<b>Total U.S. Households</b>	<b>116,926,305</b>	<b>116,926,305</b>
	<b>3.3%</b>	<b>4.6%</b>

Source: Streeeter, V.; Platt B. 2017. Residential Food Waste Collection Access in the U.S. *BioCycle* December. Programs included in Table 31 are programs with startup dates in 2015 or earlier. Programs started in 2016 and 2017 are excluded. Programs with no startup date provided in the source document or identified through internet searches are also excluded.

U.S. Census Bureau. Selected Housing Characteristics 2011-2015 American Community Survey 5-Year Estimates DP04.

**Table 32. Material Recovery Facilities (MRF), 2015\***

Region	Number	Estimated Throughput (tons per day)
<b>NORTHEAST</b>	139	23,546
<b>SOUTH</b>	168	25,402
<b>MIDWEST</b>	166	20,765
<b>WEST</b>	115	24,846
<b>U.S. Total</b>	<b>588</b>	<b>94,559</b>

\*Number of facilities and throughput include bale and ship operations receiving fiber, mainly old corrugated cardboard (OCC), that bale and ship with no additional processing.

Source: Governmental Advisory Associates, Inc. Data provided May 2016.

**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

**Table 33. Municipal Waste-To-Energy Projects, 2015**

Region	Number Operational	Design Capacity (tons per day)
<b>NORTHEAST</b>	37	43,995
<b>SOUTH</b>	19	32,194
<b>MIDWEST</b>	14	11,524
<b>WEST</b>	7	7,310
<b>U.S. Total*</b>	<b>77</b>	<b>95,023</b>

\*WTE includes mass burn, modular and refuse-derived fuel combustion facilities.

Source: "The 2016 ERC Directory of Waste-to-Energy Facilities." Energy Recovery Council (ERC). 2016.

**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming



**Table 34. Landfill Facilities, 2015**

Region	Number of Landfills
<b>NORTHEAST</b>	120
<b>SOUTH</b>	624
<b>MIDWEST</b>	364
<b>WEST</b>	630
<b><i>U.S. Total</i></b>	<b>1,738</b>

Source: State environmental websites.

**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

**Table 35. Generation, Recycling, Composting, Combustion with Energy Recovery and Landfilling of Municipal Solid Waste, 1960 to 2015**  
(In thousands of tons and percent of total generation)

	Thousands of Tons								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Generation	88,120	121,060	151,640	208,270	243,450	253,730	251,050	258,950	262,430
Recycling	5,610	8,020	14,520	29,040	53,010	59,240	65,260	66,550	67,770
Composting*	Neg.	Neg.	Neg.	4,200	16,450	20,550	20,170	23,020	23,390
Combustion with energy recovery**	0	450	2,760	29,760	33,730	31,650	29,310	33,210	33,570
Discards to landfill, other disposal†	82,510	112,590	134,360	145,270	140,260	142,290	136,310	136,170	137,700
	Pounds per Person per Day								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Generation	2.68	3.25	3.66	4.57	4.74	4.69	4.45	4.45	4.48
Recycling	0.17	0.22	0.35	0.64	1.03	1.10	1.16	1.14	1.16
Composting*	Neg.	Neg.	Neg.	0.09	0.32	0.38	0.36	0.40	0.40
Combustion with energy recovery**	0.00	0.01	0.07	0.65	0.66	0.59	0.52	0.57	0.57
Discards to landfill, other disposal†	2.51	3.02	3.24	3.19	2.73	2.62	2.41	2.34	2.35
Population (thousands)	179,979	203,984	227,255	249,907	281,422	296,410	309,051	318,857	320,897
	Percent of Total Generation								
	1960	1970	1980	1990	2000	2005	2010	2014	2015
Generation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Recycling	6.4%	6.6%	9.6%	14.0%	21.8%	23.3%	26.0%	25.7%	25.8%
Composting*	Neg.	Neg.	Neg.	2.0%	6.7%	8.1%	8.0%	8.9%	8.9%
Combustion with energy recovery**	0.0%	0.3%	1.8%	14.2%	13.9%	12.5%	11.7%	12.8%	12.8%
Landfilling and other disposal†	93.6%	93.1%	88.6%	69.8%	57.6%	56.1%	54.3%	52.6%	52.5%

\* Composting of yard trimmings, food and other MSW organic material. Does not include backyard composting.

\*\* Includes combustion with energy recovery of MSW in mass burn or refuse-derived fuel form and combustion with energy recovery of source separated materials in MSW (e.g., wood pallets and tire-derived fuel). 2015 includes 30,270 MSW, 520 wood, and 2,780 tires (1,000 tons).

† Landfilling after recycling and composting minus combustion with energy recovery. Includes combustion without energy recovery.

Details may not add to totals due to rounding.

Source population: U.S. Census Bureau Population Division (NST-EST2016-01) December 2016.

## Figure 1. Municipal Solid Waste in the Universe of Subtitle D Wastes

### Subtitle D Wastes

The Subtitle D Waste included in this report as Municipal Solid Waste (MSW), which includes:

- Containers and packaging such as soft drink bottles and corrugated boxes
- Durable goods such as furniture and appliances
- Nondurable goods such as newspapers, trash bags and clothing
- Other wastes such as food and yard trimmings.

Subtitle D Wastes not included as MSW in this report are:

- |  |                         |
|--|-------------------------|
| ■ Municipal sludges                      | ■ Agricultural wastes   |
| ■ Industrial nonhazardous process wastes | ■ Oil and gas wastes    |
| ■ Construction and demolition debris*    | ■ Mining wastes         |
| ■ Land clearing debris                   | ■ Auto bodies           |
| ■ Transportation parts and equipment     | ■ Fats, grease and oils |

\*Construction and demolition debris is included in this report, but is outside of the scope of MSW.

## Figure 2. Definition of Terms

The materials flow methodology produces an estimate of total municipal solid waste (MSW) generation in the United States, by material categories and by product categories.

**Generation** refers to the weight of materials and products as they enter the waste management system from residential, commercial and institutional sources and before recycling, composting, combustion or landfilling take place. Preconsumer (industrial) scrap is not included in the generation estimate. Source reduction activities, such as backyard composting of yard trimmings, take place ahead of generation.

**Source reduction** as used in this report refers to activities that reduce the amount of wastes before they enter the municipal solid waste management system. Reuse is a source reduction activity involving the recovery or reapplication of a package, used product or material in a manner that retains its original form or identity. Reuse of products such as refillable glass bottles and reusable plastic food storage containers is considered to be source reduction, not recycling.

**Recycling** is defined as the recovery of useful materials, such as paper, glass, plastic and metals, from the MSW stream, along with the transformation of the materials, to make new products to reduce the amount of virgin raw materials needed to meet consumer demands.

**Composting** is the decomposition of organic materials by aerobic microorganisms. Composting facilities manage the amount of moisture and oxygen and mixture of organic materials for optimal composting conditions. The composting process emits heat, water vapor and biogenic carbon dioxide, reducing the raw organic materials in mass and volume to create compost.<sup>1</sup>

**Combustion with energy recovery** is often called “waste-to-energy,” and as used in this report refers to confined and controlled burning with energy recovery, which not only decreases the volume of solid waste destined for landfills, but can also recover energy from the waste burning process.

**Landfilling** refers to the MSW remaining after recycling, composting and combustion with energy recovery. These materials presumably would be landfilled in a discrete area of land or excavation that receives household waste. Some MSW, however, is littered, stored or disposed onsite; or burned onsite, particularly in rural areas. There are no good estimates for these other disposal practices available, but the total amounts of MSW involved are assumed to be small.

For the analysis of municipal solid waste in this report, products are divided into three basic categories: durable goods, nondurable goods and containers and packaging. The durable goods and nondurable goods categories generally follow the definitions of the U.S. Department of Commerce.

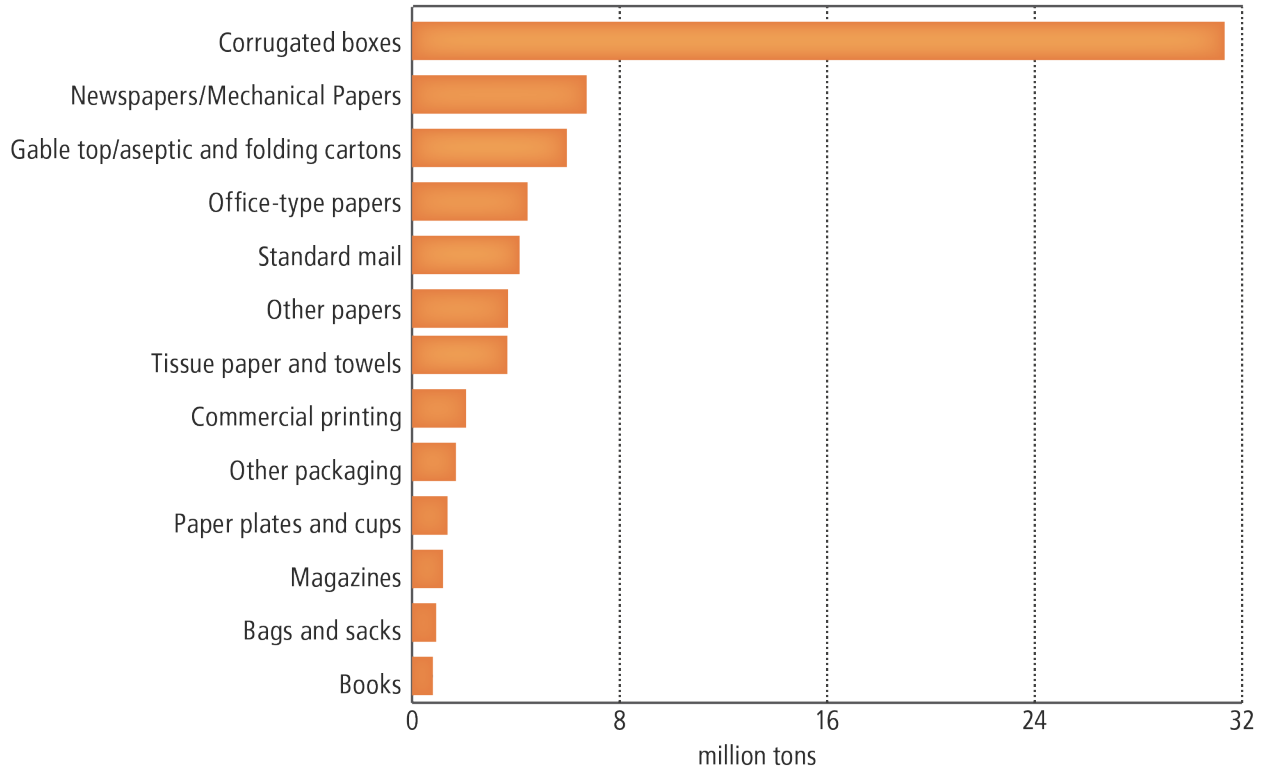
**Durable goods** are those products that last three years or more. Products in this category include major and small appliances, furniture and furnishings, carpets and rugs, tires, lead-acid batteries, consumer electronics and other miscellaneous durables.

**Nondurable goods** are those products that last less than three years. Products in this category include newspapers, books, magazines, office papers, directories, mail, other commercial printing, tissue paper and towels, paper and plastic plates and cups, trash bags, disposable diapers, clothing and footwear, towels, sheets and pillowcases, other nonpackaging paper and other miscellaneous nondurables.

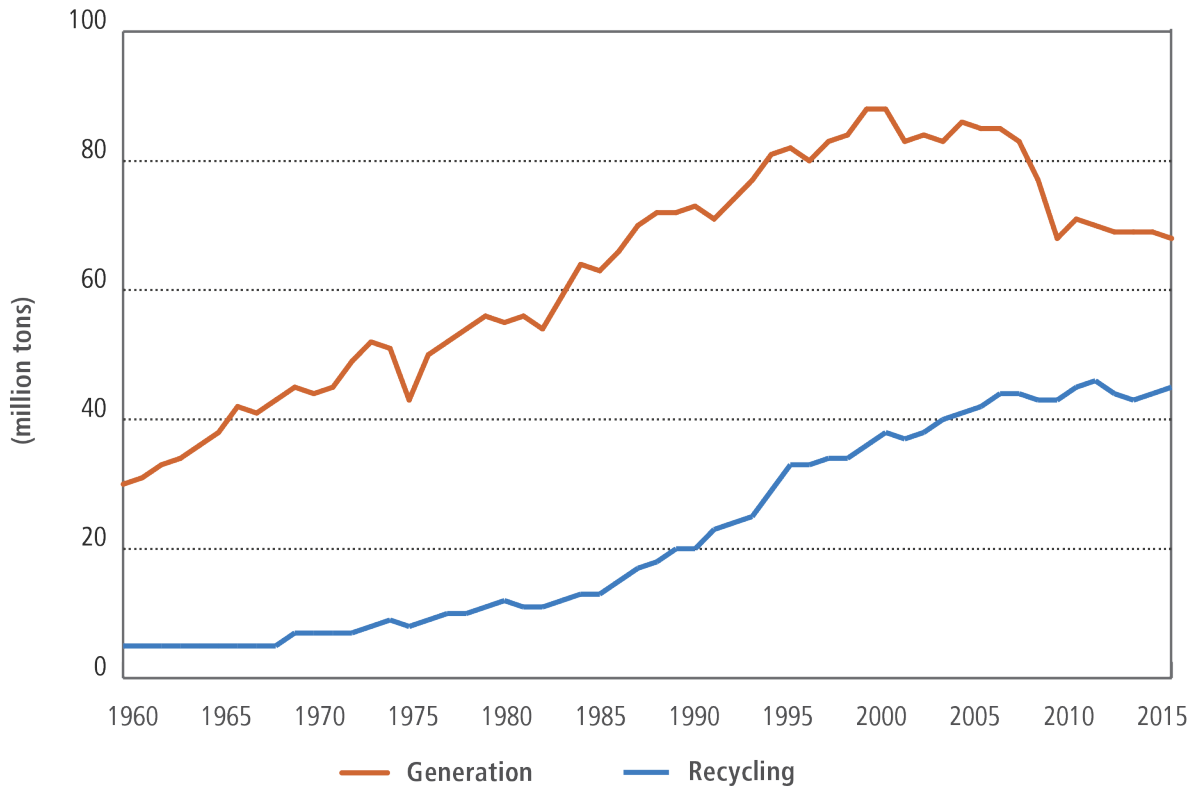
**Containers and packaging** are assumed to be discarded the same year the products they contain are purchased. Products in this category include bottles, containers, corrugated boxes, milk cartons, folding cartons, bags, sacks, and wraps, wood packaging and other miscellaneous packaging.

<sup>1</sup> Platt, B., Goldstein, N. 2014. State of Composting in the U.S. *BioCycle* 55(6): 19. <http://www.biocycle.net/2014/07/16/state-of-composting-in-the-us/>.

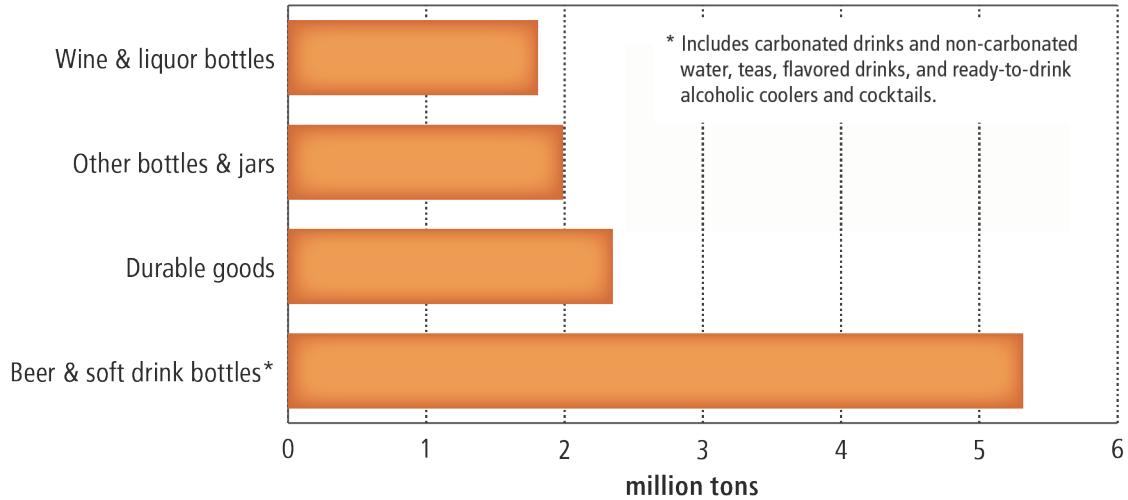
**Figure 3. Paper and Paperboard Products Generated in MSW, 2015**



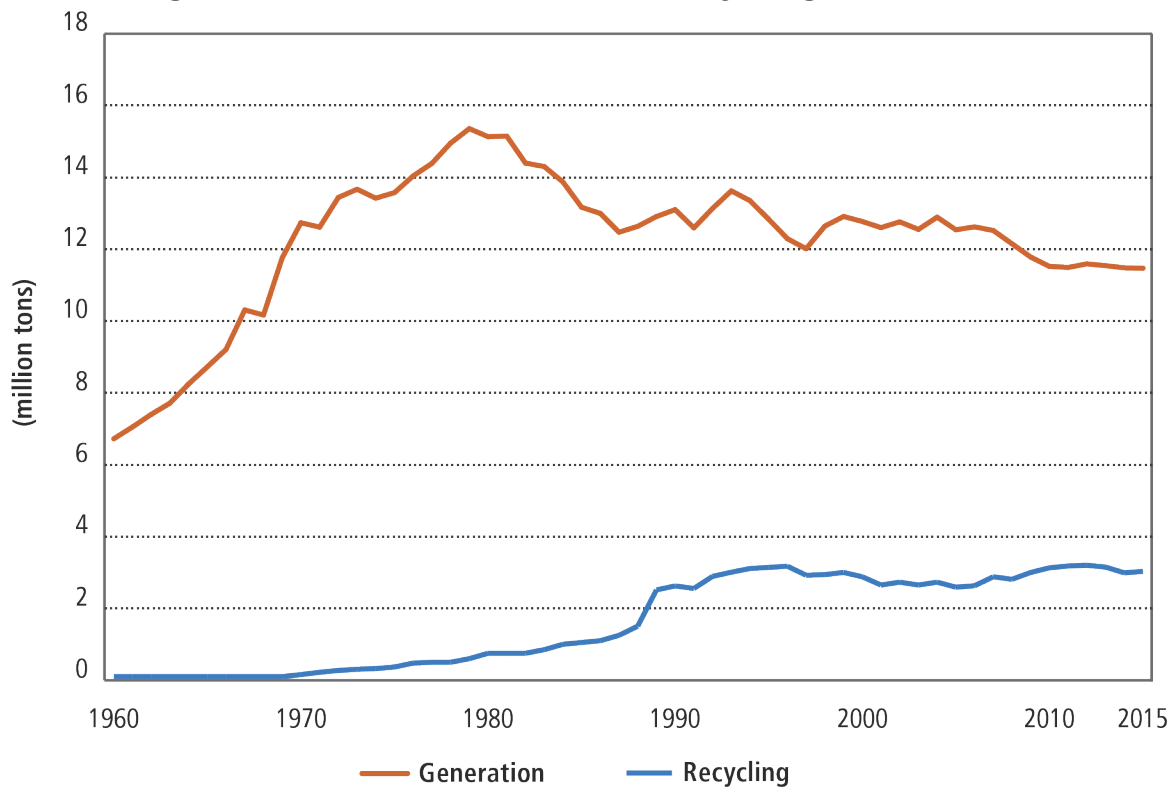
**Figure 4. Paper and Paperboard Generation and Recycling, 1960 to 2015**



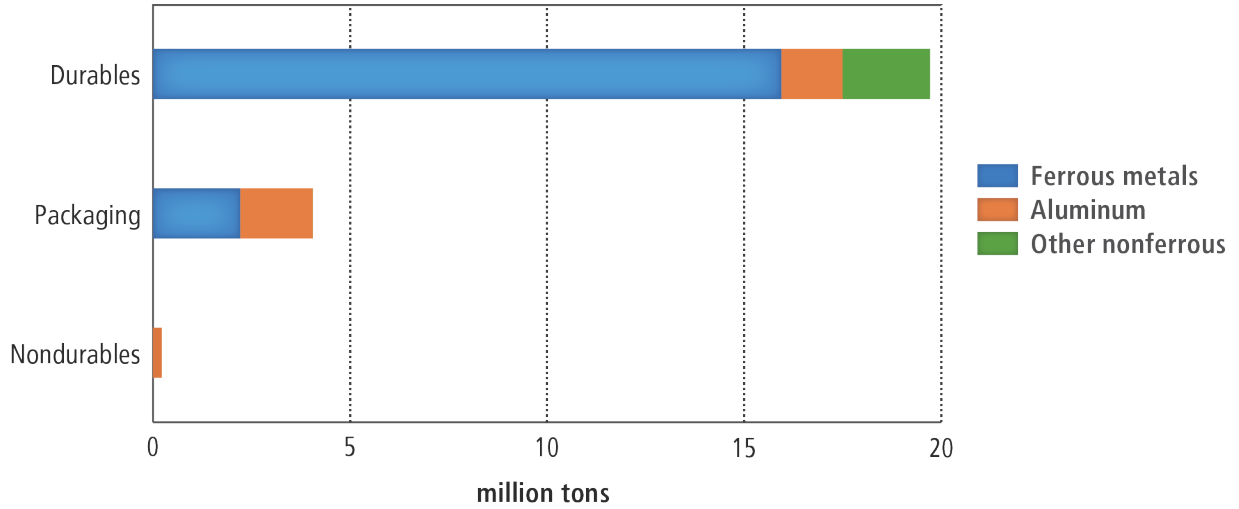
**Figure 5. Glass Products Generated in MSW, 2015**



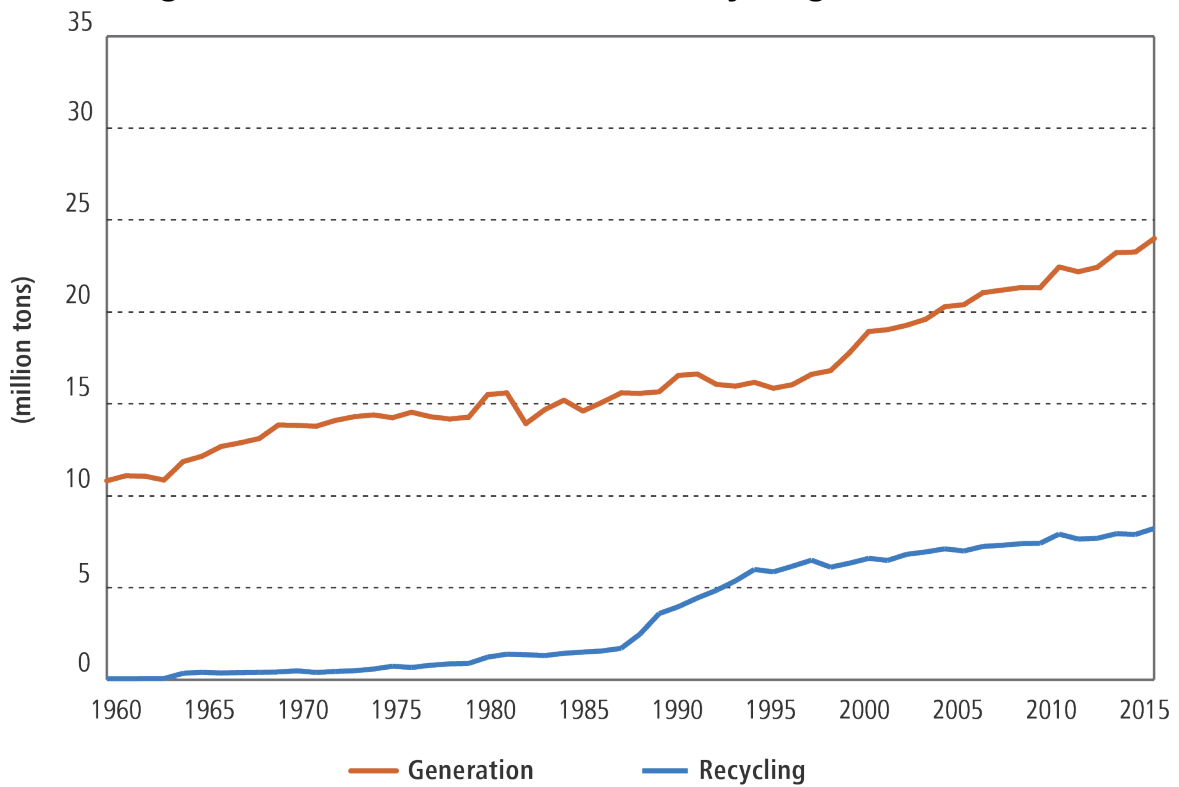
**Figure 6. Glass Generation and Recycling, 1960 to 2015**



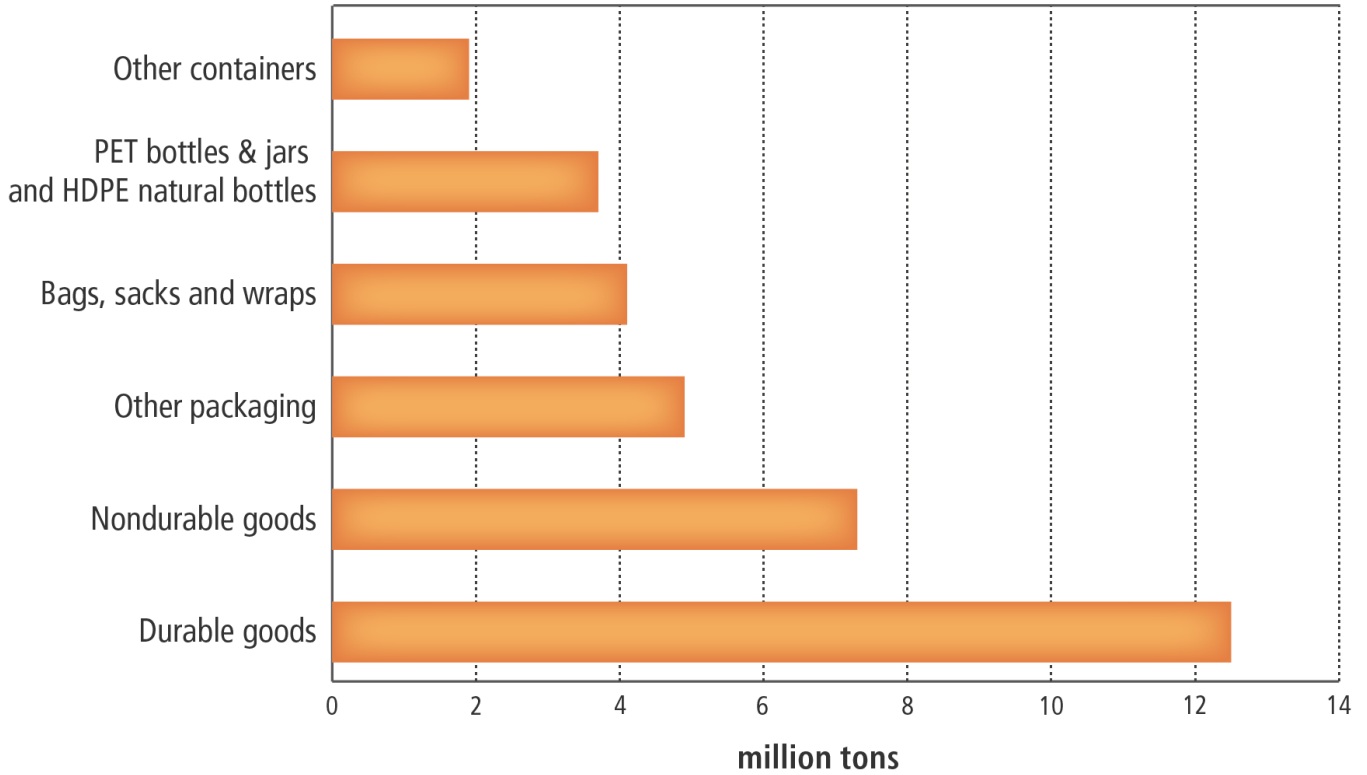
**Figure 7. Metal Products Generated in MSW, 2015**



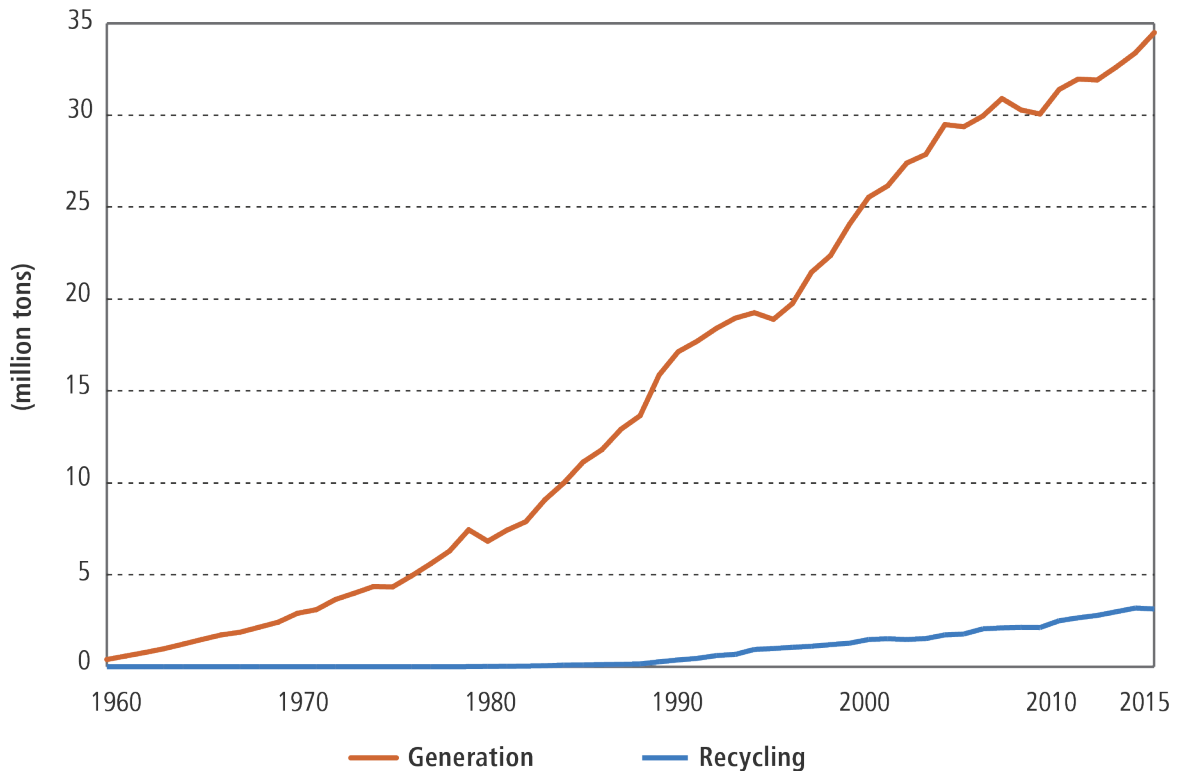
**Figure 8. Metals Generation and Recycling, 1960 to 2015**



**Figure 9. Plastics Products Generated in MSW, 2015**

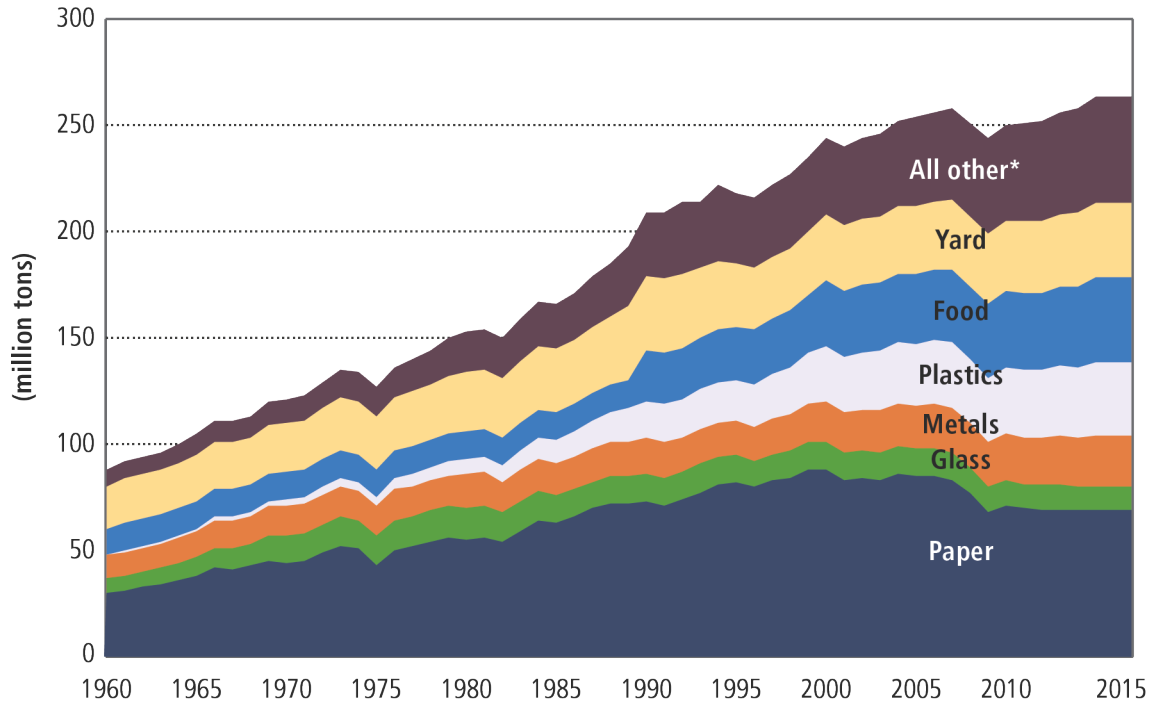


**Figure 10. Plastics Generation and Recycling, 1960 to 2015**



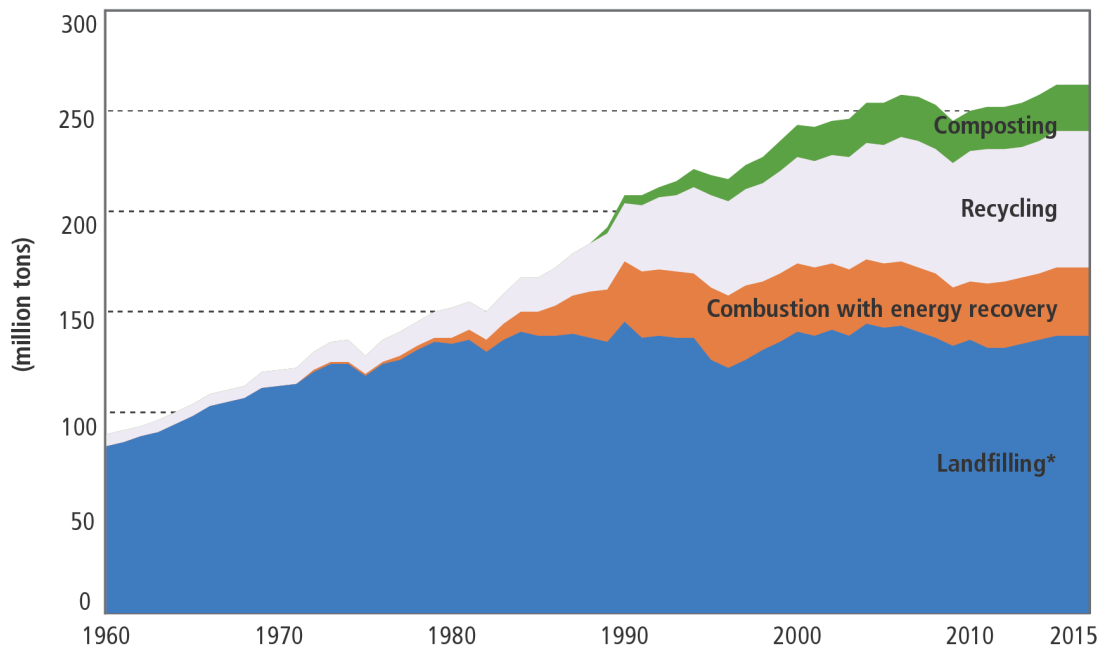


**Figure 11. Generation of Materials in MSW, 1960 to 2015**



\* "All other" includes primarily wood, rubber and leather, and textiles.

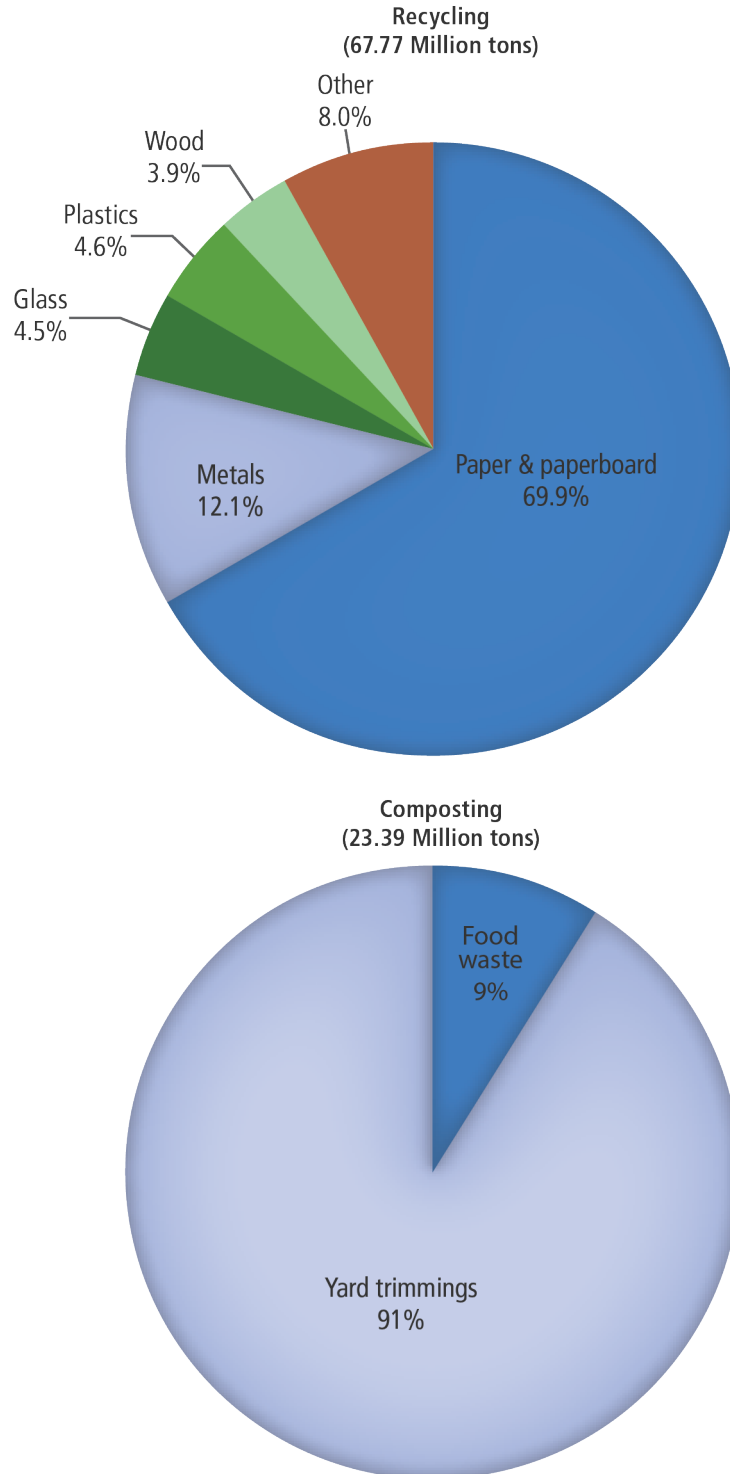
**Figure 12. Recycling, Composting, Combustion with Energy Recovery and Landfilling of Materials in MSW, 1960 to 2015**



\*Landfilling after composting, recycling and combustion with energy recovery. Includes combustion without energy recovery.

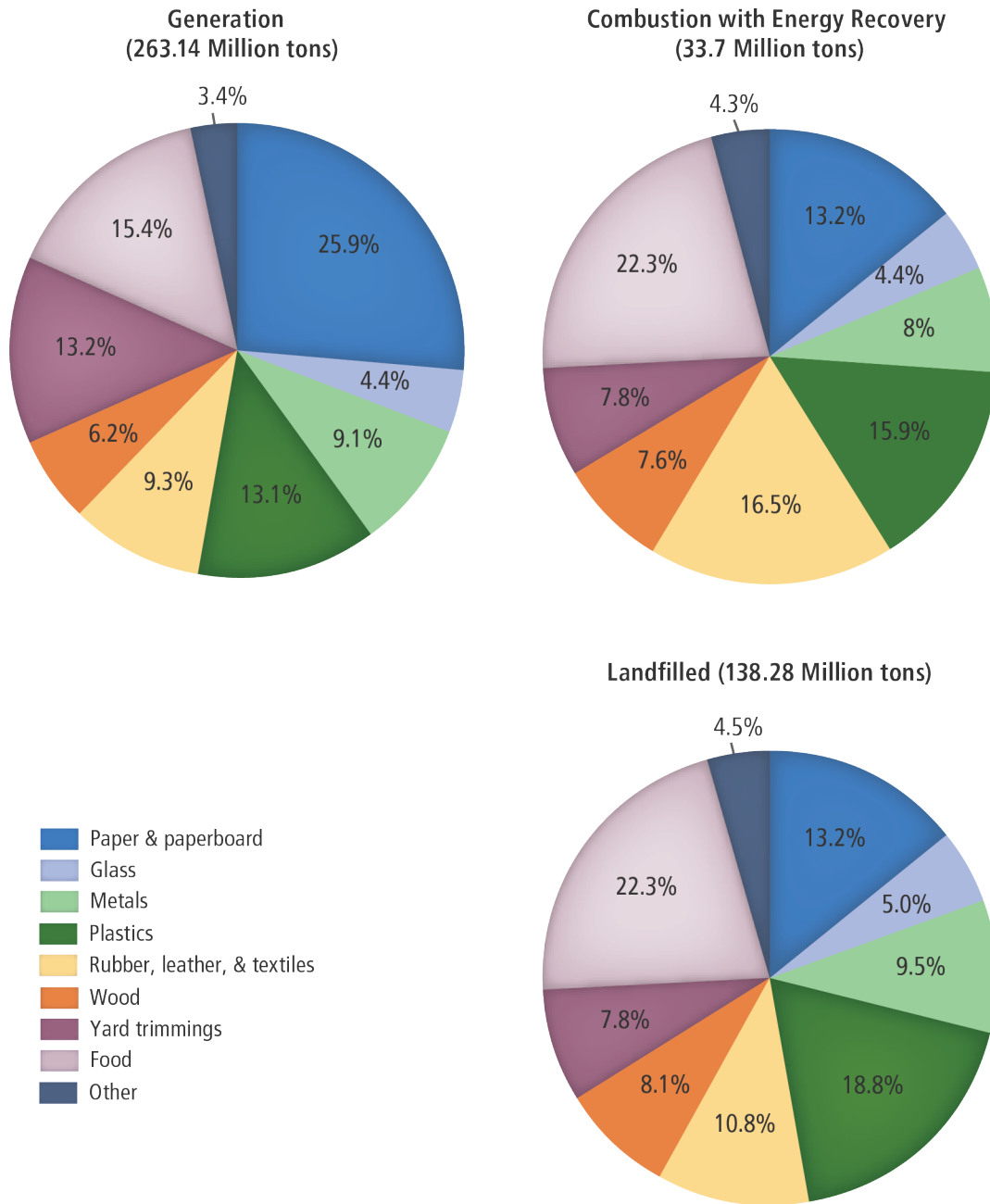
The top line measures generation, because generation = recycling + composting + combustion with energy recovery + landfilling.

Figure 13. Materials Recycling and Composting in MSW,\* 2015

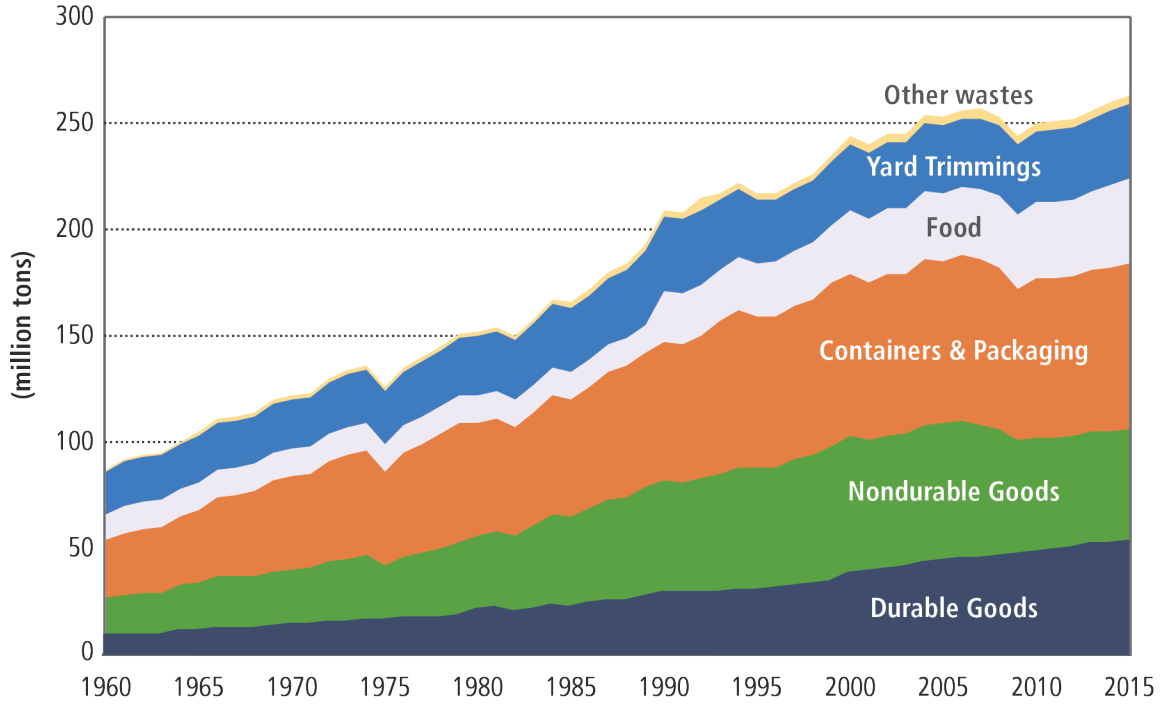


\* In percent by weight of total recycling and composting

**Figure 14. Materials Generated, Combusted with Energy Recovery and Landfilled in MSW, 2015**

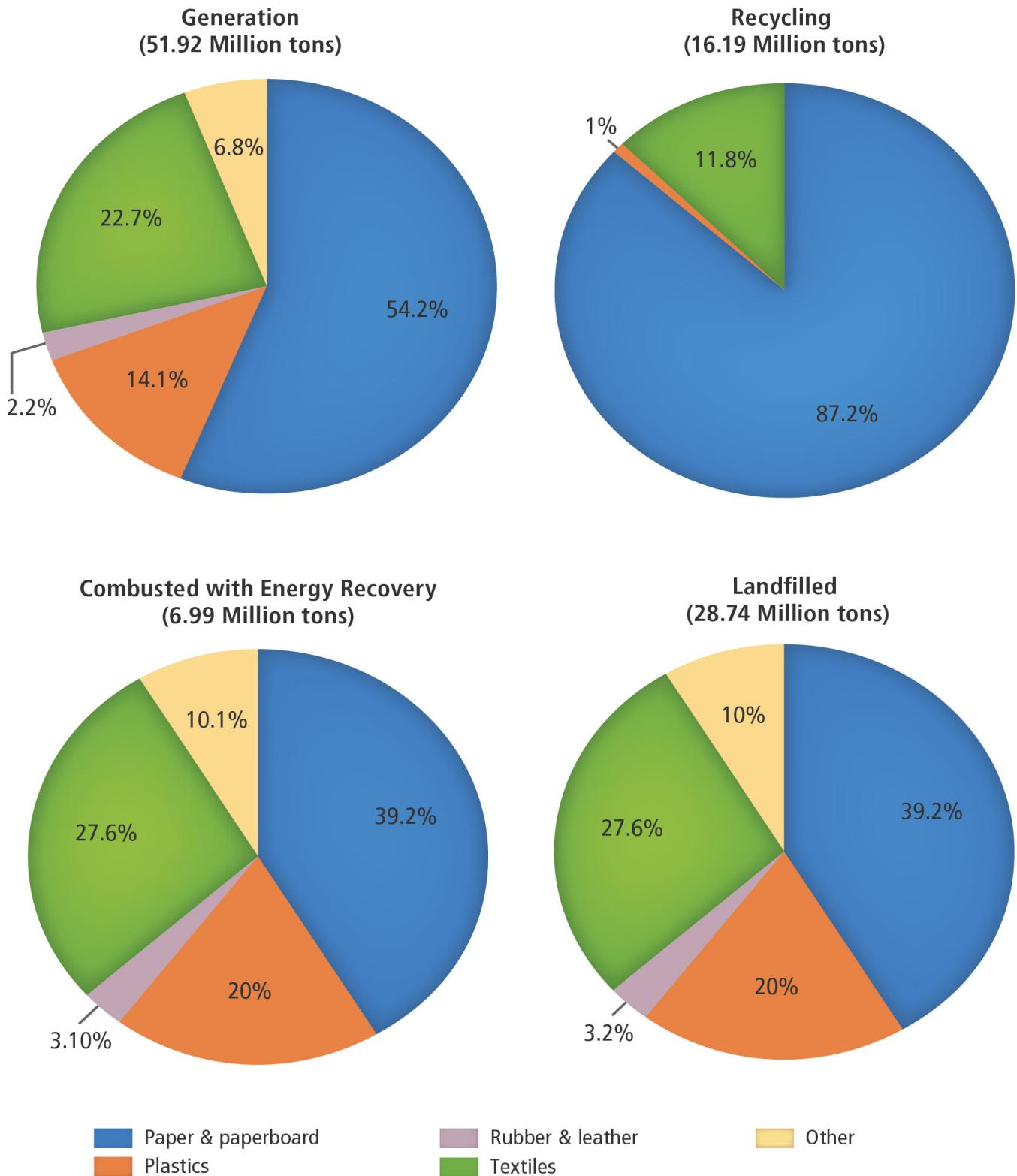


**Figure 15. Generation of Products in MSW, 1960 to 2015**

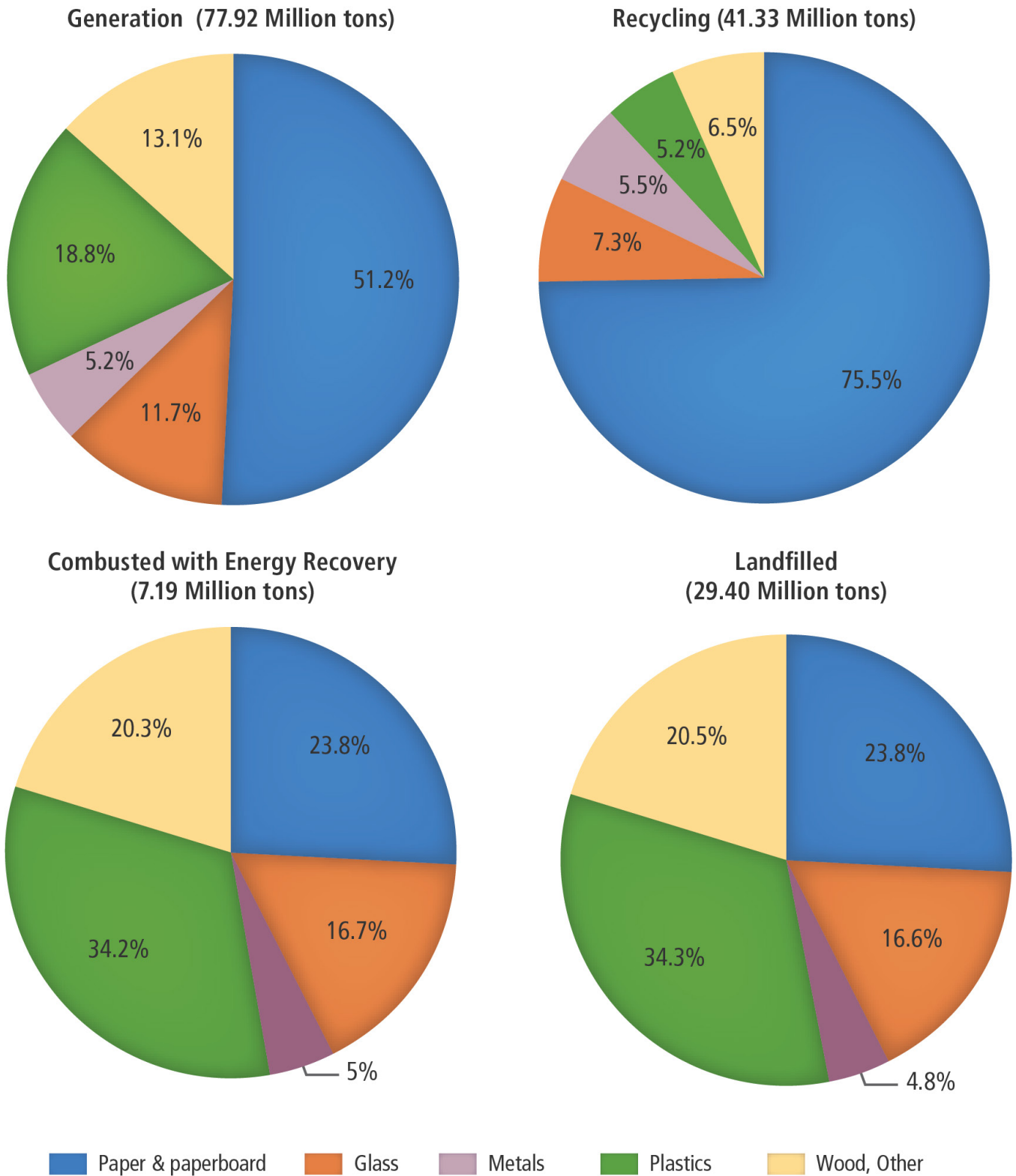


\* "All other" includes primarily wood, rubber and leather, and textiles.

**Figure 16. Nondurable Goods Generated, Recycled, Combusted with Energy Recovery and Landfilled in Municipal Solid Waste, 2015**



**Figure 17. Containers and Packaging Materials Generated, Recycled, Combusted with Energy Recovery and Landfilled in Municipal Solid Waste, 2015**



**Figure 18. Containers and Packaging Generated, Recycled, Combusted with Energy Recovery and Landfilled in Municipal Solid Waste, 2015**

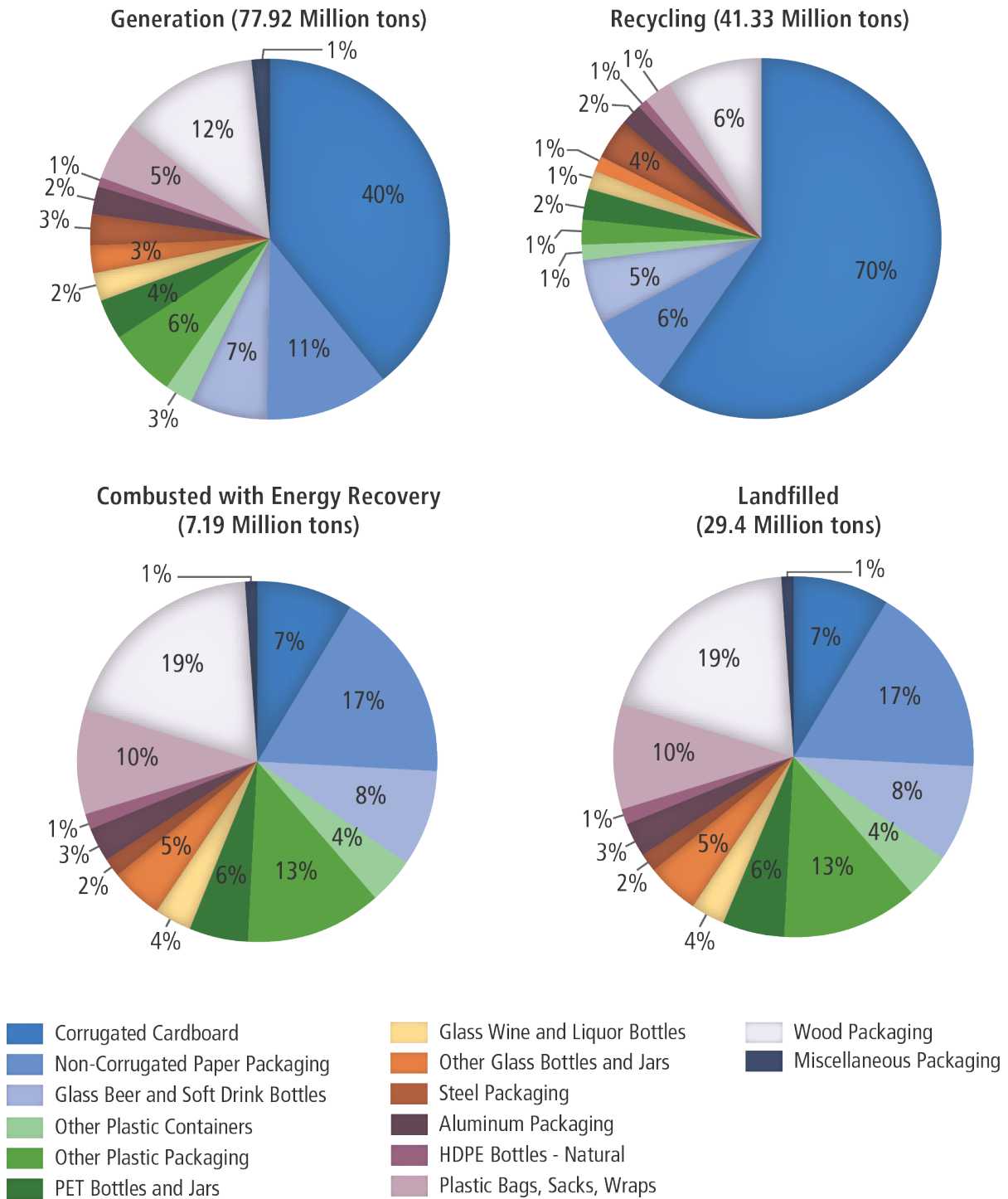


Figure 19. Diagram of Solid Waste Management

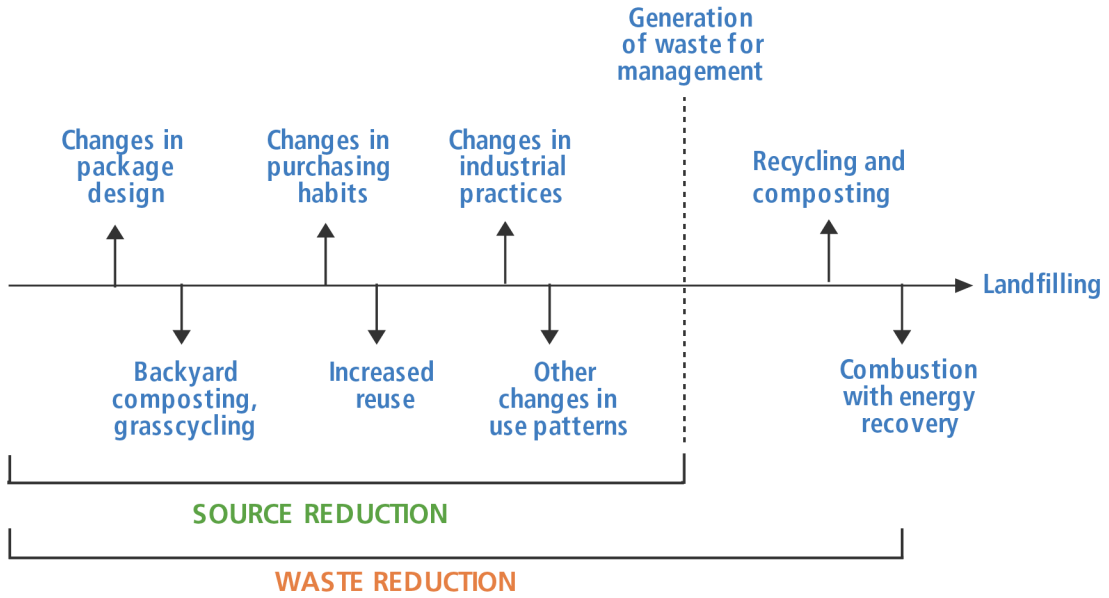
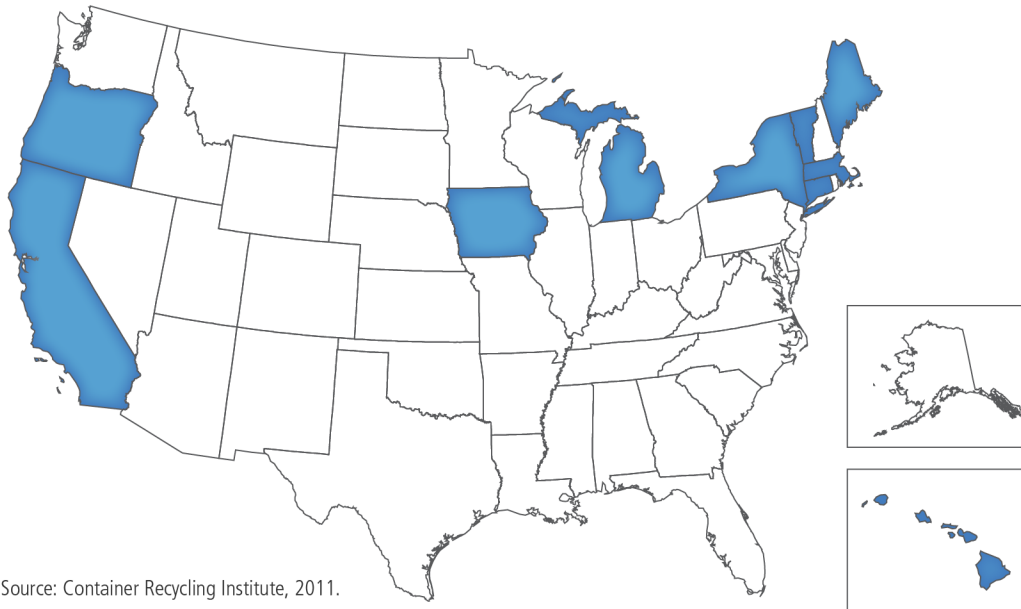


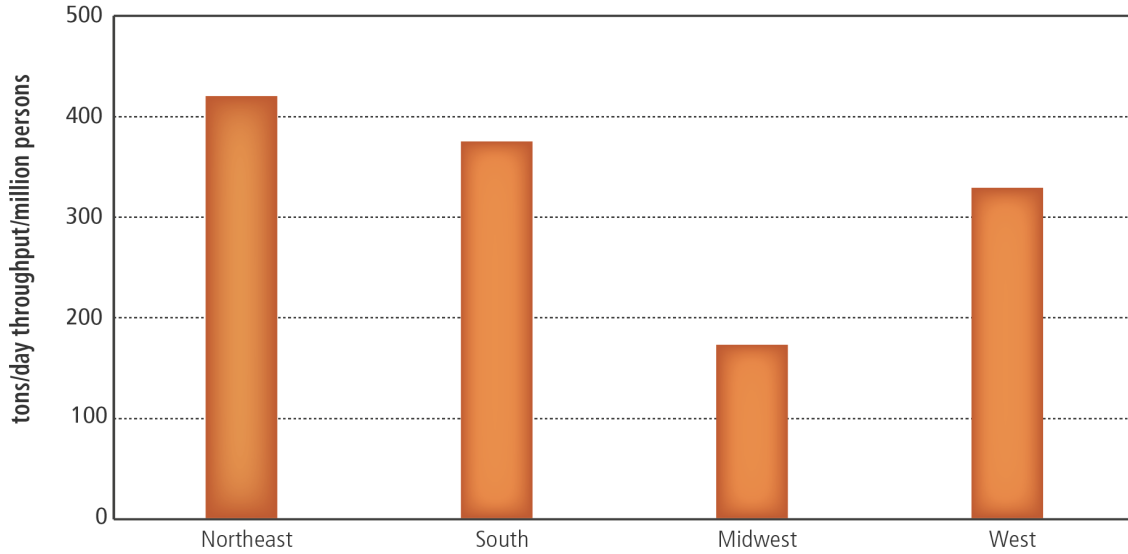
Figure 20. States with Bottle Deposit Rules



Source: Container Recycling Institute, 2011.



**Figure 21. Estimated MRF Throughput, 2015**  
(Tons per day per million persons)



**Source:** U.S. Census Bureau population estimates; Governmental Advisory Associates, Inc. Data provided May 2016.

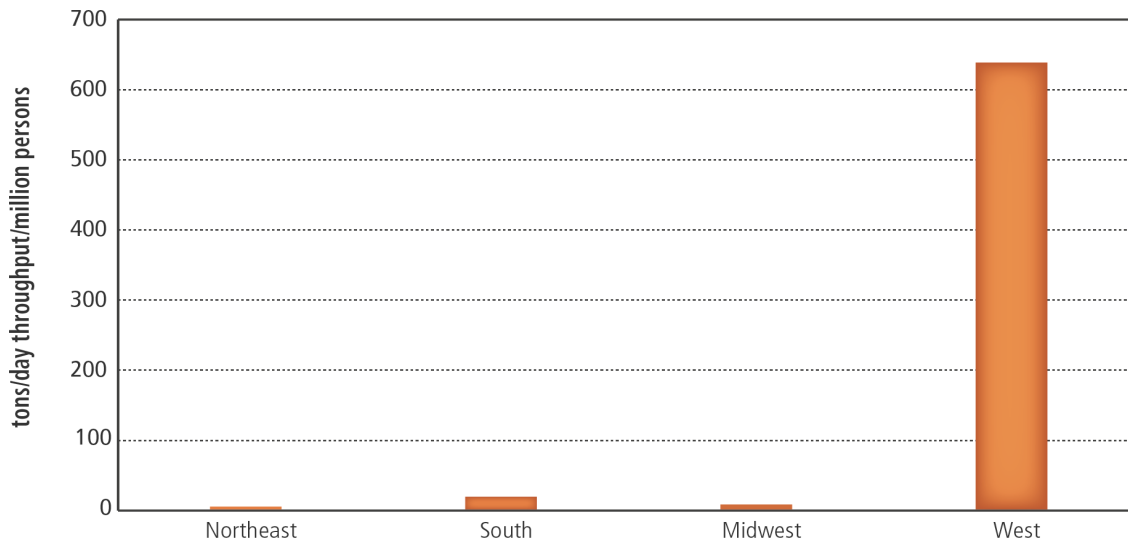
**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

**Figure 22. Mixed Waste Processing Estimated Throughput, 2015**  
(Tons per day per million persons)



**Source:** U.S. Census Bureau population estimates; Governmental Advisory Associates, Inc. Data provided May 2016.

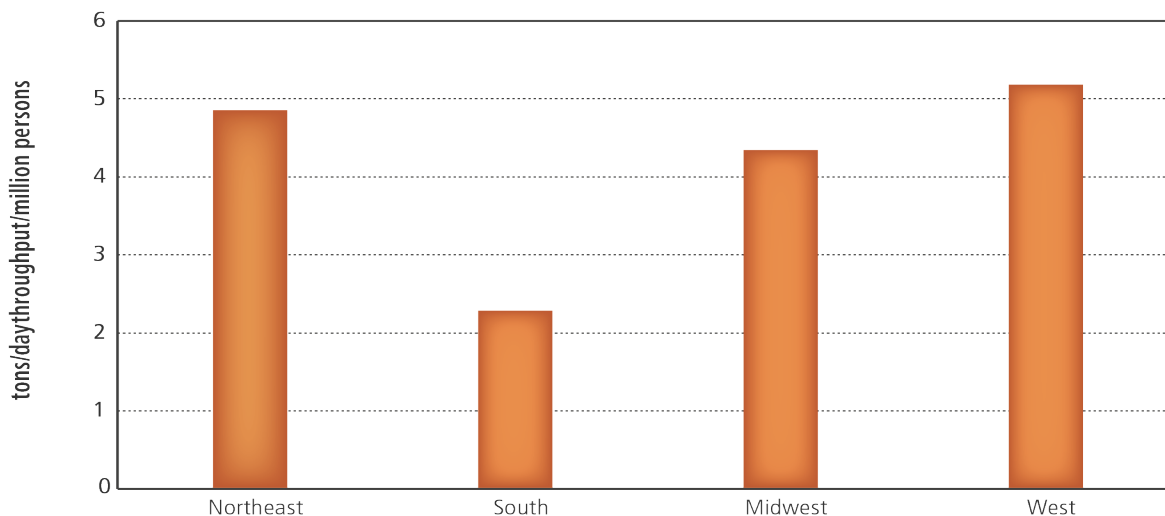
**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

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**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

**Figure 23. MSW Composting Capacity, 2015**  
(Capacity in tons per day per million persons)



**Source:** U.S. Census Bureau; *BioCycle*, November 2011, *BioCycle* October 2017, Mariposa County, California and Medina County, Ohio websites.

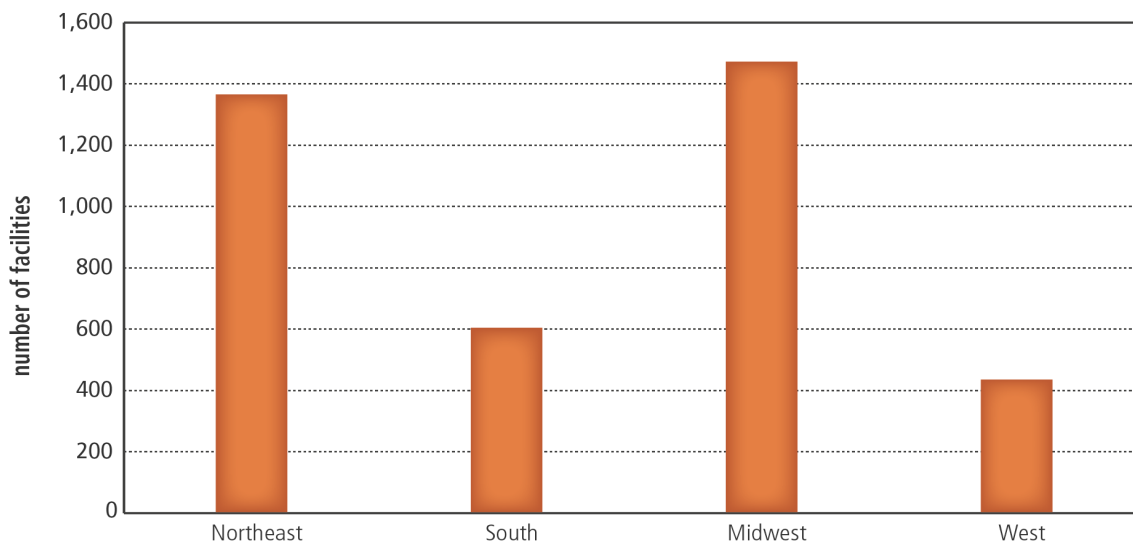
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**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

**Figure 24. Yard Trimmings Composting Facilities, 2015**  
(In number of facilities)



**Source:** Goldstein, N. "The State of Organics" *BioCycle*, October 2017.

Facilities composting yard trimmings, yard trimmings and food waste, and mixed organics. Excludes 740 facilities composting manure, biosolids, mixed MSW, or not defined.

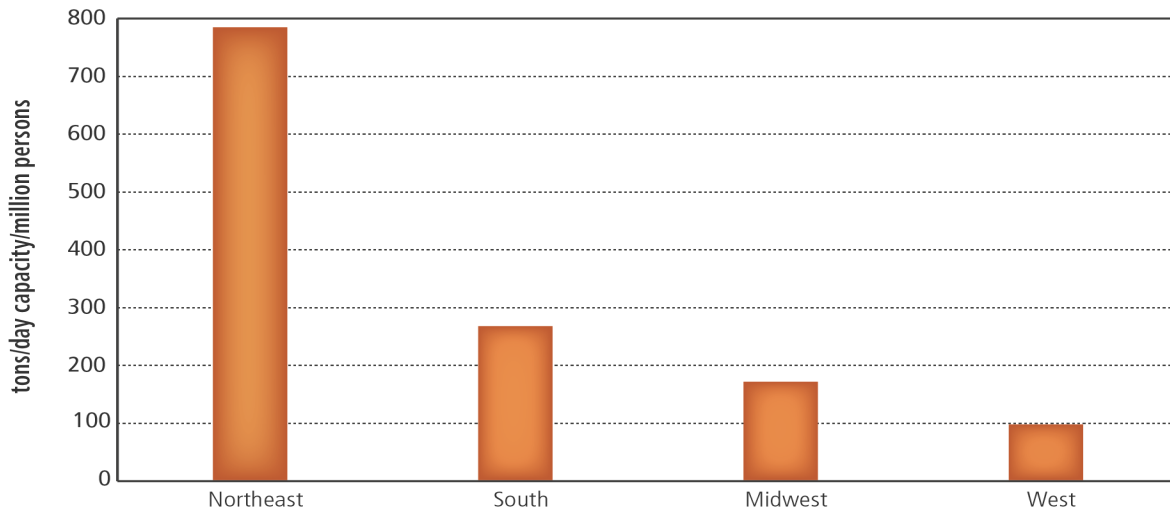
**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

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**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

**Figure 25. Municipal Waste-To-Energy Capacity, 2015**  
(Capacity in tons per million persons)



**Source:** U.S. Census Bureau population estimates; Energy Recovery Council (ERC). "The 2016 ERC Directory of Waste-to-Energy Facilities" 2016.

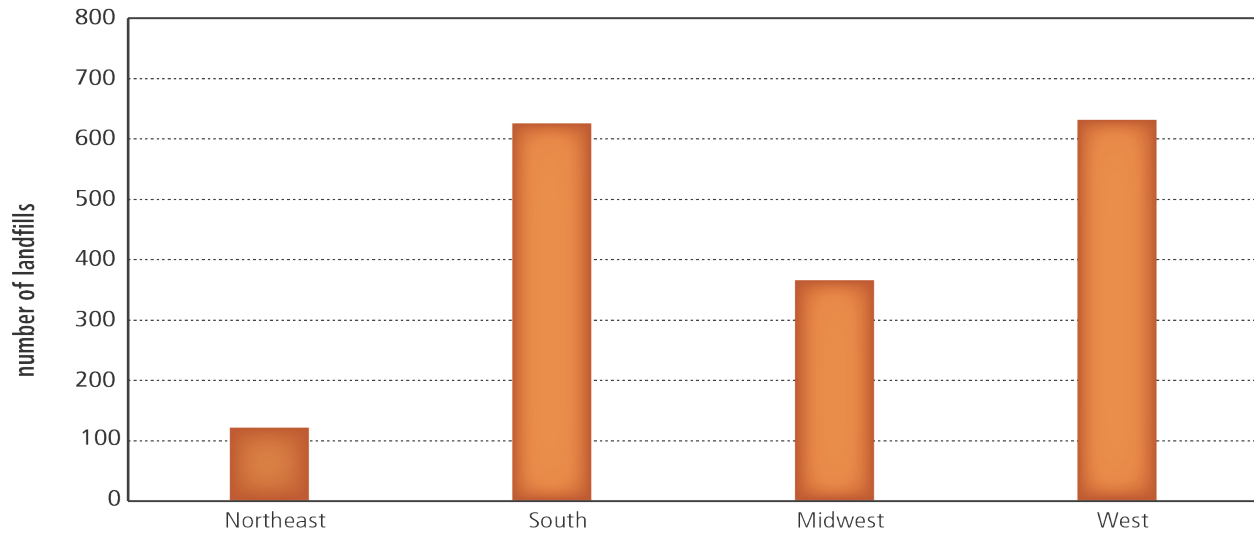
**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

**Figure 26. Number of Landfills in the U.S., 2015**



**Source:** State environmental websites.

**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

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