



Seattle, Washington

44% Municipal Solid Waste Reduction

(49% Residential Solid Waste Reduction; 48% Institutional/Commercial Solid Waste Reduction, 18% Self-haul Waste Reduction)



Overview

Seattle faced a trash disposal crisis in the late 1980's after two city-operated landfills closed. Because of citizen opposition to incineration, the city opted to pursue an aggressive waste reduction program. In 1988, the city set a goal to recycle 60% of its residential and commercial waste by 1998. Curbside recycling service for single-family homes began in 1988, and an apartment recycling program and curbside collection of source-separated yard debris began 1989. The city has charged pay-as-you-throw (PAYT) rates for trash disposal since 1981. In 1996, Seattle diverted 49% of its residential waste stream, 48% of its commercial waste stream, and 18% of the materials delivered to its drop-off sites. Overall, Seattle diverted 44% of its waste stream (34% through recycling and 11% through composting). Private companies provide residential waste management services under city contracts and compete on the open market for commercial customers. City waste management staff functions include operating two transfer stations, providing education and publicity, and overseeing contractors.

DEMOGRAPHICS

POPULATION: 534,700
(1996)

HOUSEHOLDS: 248,970 total
units: 149,500 SFDs (4 or
fewer units in building),
99,470 MFDs

BUSINESSES: 45,000

Keys to High Waste Reduction

Comprehensive curbside recycling and yard debris programs, PAYT trash rates, strong private sector recycling, and multi-family recycling service contribute to the effectiveness of Seattle's waste reduction program. Seattle's single-family curbside recycling program accepts 16 categories of materials; its apartment program accepts 13. In 1996, Seattle residents diverted 14% of their waste through the city's curbside yard debris collection program. The city's PAYT trash rates have been so successful, the city added two small-volume subscription

PROGRAM SUMMARY

	1987	1996
Tons Per Year MSW	NA	767,144
Tons Per Year RSW	233,230	288,106
Tons Per Year ICW	NA	379,166
Tons Per Year Self-Haul	NA	99,843
Percent MSW Diverted	NA	44%
Percent RSW Diverted	19%	49%
Percent ICW Diverted	NA	48%
Percent Self-Haul Diverted	NA	18%
Average lbs./HH/day¹	5.61	6.34
Net Program Costs/HH¹	\$155.33	\$154.93
Disposal Services	\$155.33	\$101.14
Diversion Services	\$0.00 ²	\$53.79

Key: MSW = municipal solid waste RSW = residential solid waste
ICW = institutional and commercial waste
NA = not available

Notes: 1987 dollars adjusted to 1996 dollars using the GDP deflator. Numbers may not add due to rounding.

¹Figures above reflect residential sector collection only. 227,890 households served in 1987, 248,970 in 1996.

²Reported recycling in private sector. The city incurred no costs for this recycling.

Source: Institute for Local Self-Reliance, 1999.

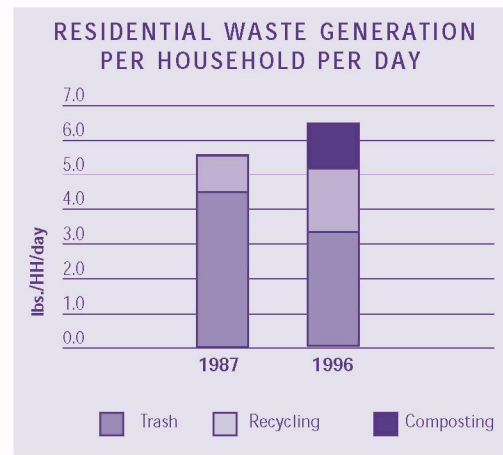


levels (the 12-gallon “micro-can” and the 19-gallon “mini-can”) in response to public requests. Strong local markets for recyclable materials and a city tax incentive provide support for recycling in the private sector. Since more than 40% of Seattle households are located in multi-family units, providing recycling to these households is a critical element in the success of Seattle’s waste reduction program.

Seattle involves its citizens in its comprehensive education programs. The city’s Master Composter and Friends of Recycling programs provide free training to residents who then perform outreach.

Cost-Effectiveness

Cost-effectiveness of Seattle’s waste reduction efforts is due to the city’s PAYT trash fees and lower per ton costs for recycling



Source: Institute for Local Self-Reliance, 1999.

and composting as compared to trash disposal. On a per-ton basis, total waste management cost \$154 per ton; trash cost \$173 per ton; recycling; \$121 per ton; and composting; \$142 per ton. The city’s PAYT trash fee structure encourages residents to recover rather than dispose of materials. Doing so also saves the city money as fees paid to its contractors are based on per ton fees. In 1996, per household waste management costs averaged \$155, the same as in 1987.

Tips for Replication

Recover mixed paper for recycling.

Distribute bins to all participants.

Institute PAYT rates for trash service.

Invest in education programs, support the programs with market research, and target messages to people of all ethnicities.

Accept some or all the risk of secondary materials prices.

Pay trash haulers partly based on tons collected so as recycling increases, savings result.

MATERIALS RECOVERED

CURBSIDE (SFDs):

newspaper, magazines and catalogs, corrugated cardboard
mixed paper (mail, colored and white paper, bags, paperboard, and phone books)
glass containers
cans
juice and milk cartons
#1 and #2 bottles
ferrous metals and white goods
leaves, grass clippings, brush, holiday trees, and other yard debris

CURBSIDE (MFDs):

aluminum and tin cans, glass bottles and jars, newspaper, mixed paper, white goods (two of the four private haulers that service apartment buildings also collect plastics)

DROP-OFF:

all items collected
curbside plus:
lead-acid batteries
used motor oil
oil filters
clean wood scrap
and lumber



Seattle’s micro-can and 32-gallon trash can sizes

Contact

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