

Although bottle bills have proven effective at recovering beverage containers, reducing litter is better left to more comprehensive programs

By Steven R. Stein

Studying litter

Gershman, Brickner & Bratton, Inc. (Fairfax, Virginia) performed a litter study to characterize New Jersey's litter and identify the principal sources to be targeted in a statewide litter-reduction effort. The project surveyed and documented New Jersey's current litter situation including its composition, litter rates, trends, litter quantities, quantities of recyclable materials, and identification of problem areas and compared this data with surveys from New Jersey and other states.

All data was compiled by calculating the number of items littered rather than the weight of items. Since the impact of litter is primarily visual and thus volume-based rather than weight-related, calculating litter by weight would distort the visual impact of litter and yield a higher margin of error.

Cost-effectiveness of litter abatement methods

The five options for controlling litter in order of increasing cost to remove or prevent a single item of litter are shown in Figure 3. To calculate the cost effectiveness of a given litter-abatement method, the annual cost to operate the program was divided by the litter reduction obtained in a year.

Comprehensive litter-control programs

Comprehensive litter control programs (along with paid-advertising litter-control programs) are oriented primarily towards preventing, rather than removing, litter. Most of the comprehensive control programs studied by IAR operate on a statewide level and typically employ a variety of elements simultaneously, such as voluntary cleanups, elementary school education, enhanced litter law enforcement, litter hot lines, beautification projects and media events. The data shows that such programs can be quite effective and have reduced total litter by as much as 74 percent in Hawaii and 76 percent in Washington. Beverage container litter was reduced by 90 percent in both states.

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Source: Resource Recycling, May 2005

Table 1: Percentage of beer and soft drink containers in litter

STATE	YEAR	PERCENTAGE
Washington	1990	9.80%
Mississippi	2000	9.10%
Florida	1989	8.80%
Newfoundland	1992	7.80%
Louisiana	1990	7.50%
North Carolina	2001	7.40%
Hawaii	1993	7.30%
Ontario	1990	7.30%
New Jersey	2004	6.10%
Texas	1990	5.90%
Minnesota	1990	5.60%
Kentucky	1998	5.30%
Pennsylvania	1999	3.50%
California	1993	2.10%
Alberta	1990	2.10%
Average		6.37%

Source: Gershman, Brickner & Bratton, Inc., 2004.

Beverage container deposit programs are an expensive way to reduce litter since they do not appear to have any significant effect in reducing non-container litter.

Table 2: Percentage of other beverage containers in litter

STATE	YEAR	PERCENTAGE
New Jersey	2004	4.10%
Florida	1989	1.80%
North Carolina	2001	1.60%
Kentucky	1998	1.50%
Mississippi	2000	1.40%
Alberta	1990	1.40%
Ontario	1990	1.20%
Pennsylvania	1999	1.20%
Louisiana	1990	1.10%
Hawaii	1993	1.00%
Texas	1990	1.00%
Newfoundland	1992	0.90%
Washington	1990	0.70%
Minnesota	1990	0.70%
California	1993	0.50%
Average		1.34%

Source: Gershman, Brickner & Bratton, Inc., 2004.