Reprinted from
RESOURCE RECYCLING
North America's Recycling and Composting Journal

Are bottle bills still relevant?

The two faces of beverage container recycling in America.

by Jenny Gitlitz

In all of recycling, nothing is more consistently controversial than bottle bills. Are these laws, which place a small deposit on beverage containers, cost-effective? Are they efficient? Do they duplicate curbside recycling collection programs or rob them of valuable materials? Do they control litter? Has their time come and gone?

Over the last 20 years, legislatures in almost every state have entertained proposals for new beverage container deposit laws, yet none – save California and Hawaii – have passed, and very few have even reached the floor for a vote. During that same time, no state bottle bill has ever been repealed, although the nation's one local bottle bill, in Columbia, Missouri, was overturned in a voter referendum heavily financed by retailers and bottlers.

A line in the sand

The battle lines have been drawn for decades. From local to national levels, bottle-bill supporters include environmental and public interest organizations, redemption center owners and processors, state government recycling officials, citizen activists and, as evidenced by public opinion polls, the public at large. Opposed are trade organizations for the glass, plastic and aluminum packaging industries; soft drink, beer and bottled water brand owners and distributors; and food and beverage retailers.

Conspicuously silent on the issue are the container manufacturers: Alcan (Montreal) and Alcoa (Pittsburgh), Owens-Illinois (Toledo, Ohio), Anchor Glass (Tampa Bay, Florida), Saint-Gobain Containers (Muncie, Indiana), and many of the processors and end-users in the plastics industry. These companies all benefit from the supply of clean, sorted material generated by deposit states, which for the most part is cheaper than feedstocks made from virgin materials, but their relationships

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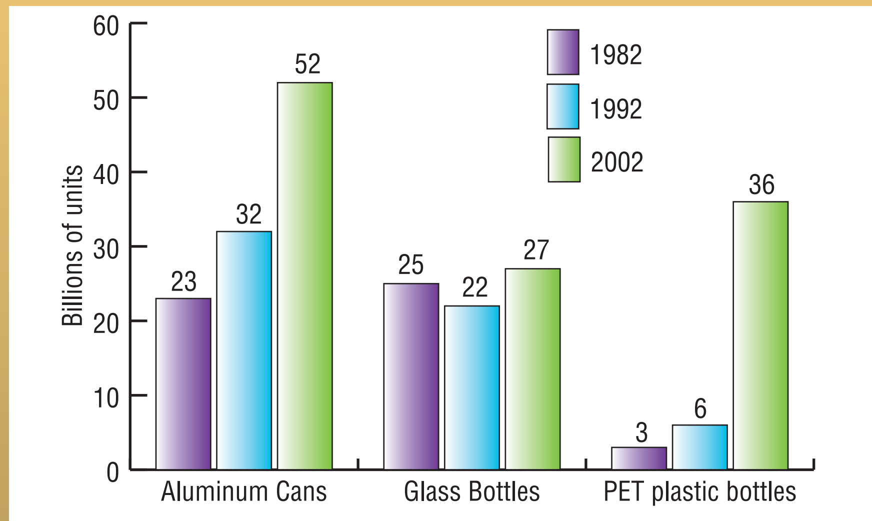
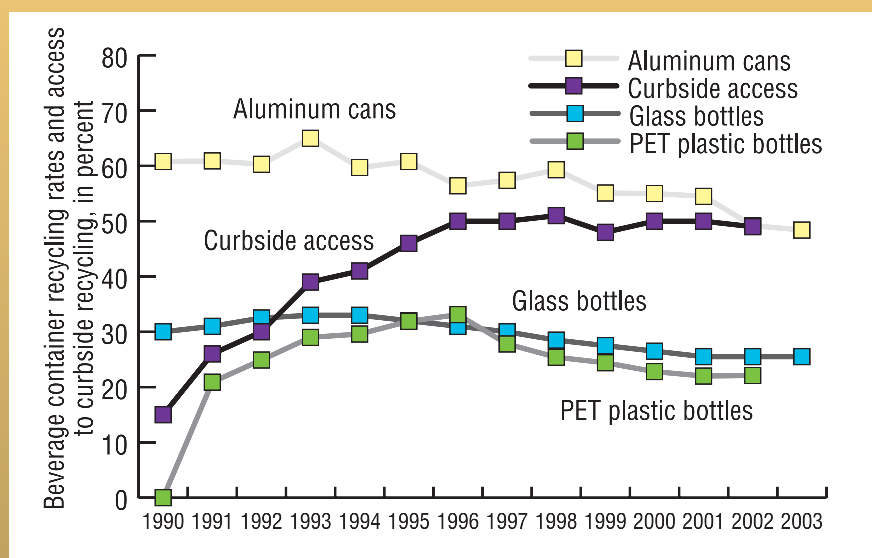
Figure 1 U.S. Beverage Containers Wasted, 1982-2002



Source: Container Recycling Institute, 2003.

Figure 2 U.S. Access to Curbside Recycling vs. Container Recycling Rates, 1990-2003



Source: Container Recycling Institute, 2004.

with their clients – the beverage companies and their distributors – prevent them from publicly supporting bottle bills.

Don't look now, but we're in trouble

So why all the fuss about bottle bills? Many argue that bottle bills are irrelevant because so many communities have curbside collection programs. Additionally, the national attention paid to bottles and cans has waned as the recycling community has turned its attention to other concerns, such as electronics recycling. But what many in the recycling arena do not realize is that beverage container recycling in the U.S., despite a huge boost in the early 1990s, is in serious trouble.

Aluminum can recycling has plummeted from a high of 65 percent in 1995 to 44 percent in 2003, a 25-year low. The PET bottle recycling rate dropped below 20 percent in 2002, down from 33 percent in 1995. The Glass Packaging Institute (Alexandria, Virginia) hasn't even published a recycling rate since hitting 31 percent in 1998, and the U.S. EPA's 2000 estimate for beverage glass recycling was about 25 percent. Anecdotal evidence suggests that increasing quantities of glass are being trashed – though the term "daily landfill cover" sounds much more dainty. Add it all up, and the combined national recycling rate for these three major beverage packages went from 54 percent in 1992 to 37 percent a decade later.

The absolute quantity of bottles and cans landfilled, littered or incinerated has nearly doubled during the last decade, going from 64 billion units in 1992 to 118 billion in 2002. During that same period, aluminum-can wasting increased from 551,000 to 820,000 tons per year, while PET bottle wasting increased from 395,000 tons to 1.4 million tons. Figure 1 illustrates the increase in container wasting from 1982 to 2002.

The increased tonnages appear paradoxical since the number of curbside programs in the U.S. tripled during the 1990s, as shown in Figure 2; however, the figures can be attributed to a number of factors:

- Increased away-from-home consumption;
- The decimation of the buyback infrastructure;
- Stagnant scrap prices;
- Decreased emphasis on recycling by government and the media;
- Growing public apathy.

But that is only part of the story. The national picture stands in stark contrast to beverage container recycling in the ten deposit states (California, Connecticut, Delaware, Iowa, Maine, Massachusetts, Michigan, New York, Oregon and Vermont). Recycling rates in the deposit states range from 60 percent in California – where the California Redemption Value (CRV) was, until recently, as low as 2.5 cents per unit – to 70 percent and higher in states where the deposit is a nickel and 95 percent in Michigan, the only state with a dime deposit. Figure 3 illustrates this disparity between the deposit states and the national average, while Figure 4 highlights the difference in 1999 between deposit states and non-deposit states.

Outperforming the Joneses

Now let's look at efficiency as measured in terms of cost and per-capita recovery. In 2001, a multi-stakeholder report by Businesses and Environmentalists Allied for Recycling (BEAR) found that a combination of recycling methods in the nation's ten deposit states recycled a total of 490 beer and soda containers per capita in 1999, at an average unit cost of $0.0153. Meanwhile, the nation's 40 non-deposit states, which relied solely on curbside and drop-off programs, recycled a total of 191 containers per capita, at an average cost of $0.0125 per container. In other words, deposit states have great bang for the buck. At an additional cost of only $0.0168 per six-pack, deposit states' recovery rates are more than two-and-a-half-times higher than states without bottle bills.

Bottle bill opponents have seized on declining redemption rates in deposit states as evidence that these laws no longer work. Although redemption rates have slipped from a high of 85 percent in New York and Massachusetts to about 70 percent today, that's still twice as high as the national average, which is itself pulled up by the high rates in the deposit states.

The declining redemption rate is largely related to the failure of the nickel deposit to keep up with inflation (a 1980 nickel is worth about $0.022 today), and to the diversion of containers into curbside recycling collection programs, which, with the exception of California, are not counted in the redemption rate .

Room for improvement

Traditional bottle bills are not perfect. In an ideal world, handling fees would be raised to better offset retailers' and redemption centers' handling costs; the deposit would be raised to a dime; non-carbonated beverages would be added to the laws – as they have in California and Maine; and onerous brand-sorting would be eliminated. In an ideal world, laws would be uniform from one state to another, making the entire process more consumer-friendly, more resistant to fraud and more cost-effective for bottlers and distributors.

But it is not an ideal world. For every proposal to update or expand a bottle bill, another would repeal it altogether or replace it with an advanced disposal fee – a system providing no consumer incentive to recycle or refrain

Straight from the horse's mouth

As evidenced by the rhetoric from both sides of the debate, supporters and detractors of bottle bills clearly have a fight on their hands.

"My whole attitude towards the current system is that it has become irrelevant and totally outdated. What we really need to do is get rid of it and replace it with a more comprehensive curbside recycling program."

– Massachusetts State Sen. Robert O'Leary, quoted in the Cape Cod Times.

"New Jersey's system…does nothing to prevent litter from being created. It's like dealing with a leaky roof by buying more buckets. What's needed is an incentive system such as [the Massachusetts] bottle bill to complement our current program."

– Sunil Somalwar, Chair, Sierra Club of New Jersey, in an August letter-to-the-editor to the Cape Cod Times.

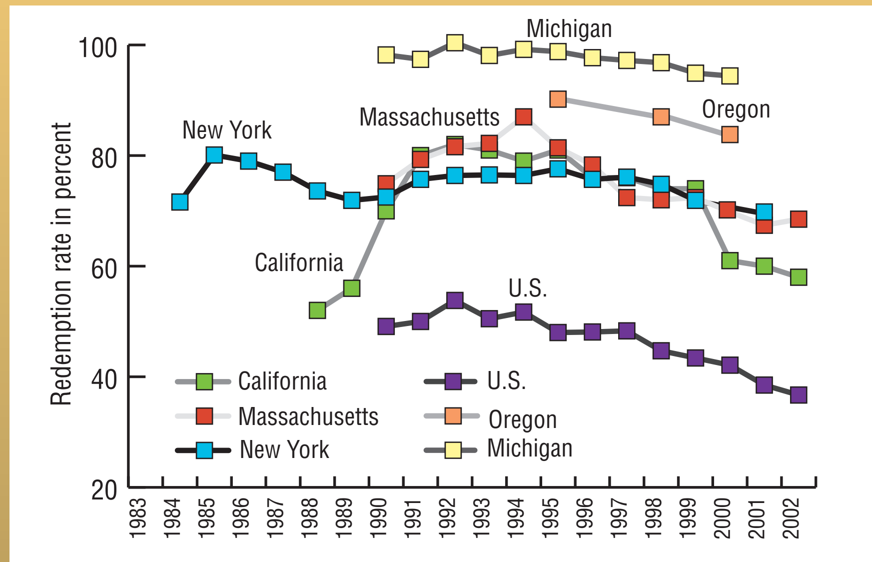
"When the bottle bill was first passed, recycling programs were in their infancy. Today, in compliance with DEP policy, every community has a recycling program, allowing consumers to place recyclable products in blue bags or bins. ...Separating at the home has become customary and more convenient for busy families."

– Michael DeFeo, Vice-President of Coca-Cola Bottling New England, testifying on March 8, 2004 against SB 549, which would expand the Connecticut bottle bill to include non-carbonated containers.

"Creating a strong financial incentive for recycling is good for business. Glass and other materials collected through deposit systems, unlike those collected through curbside recycling programs, are of a higher quality, and thus more marketable. That's why I support the legislation sponsored by Sen. Jeffords."

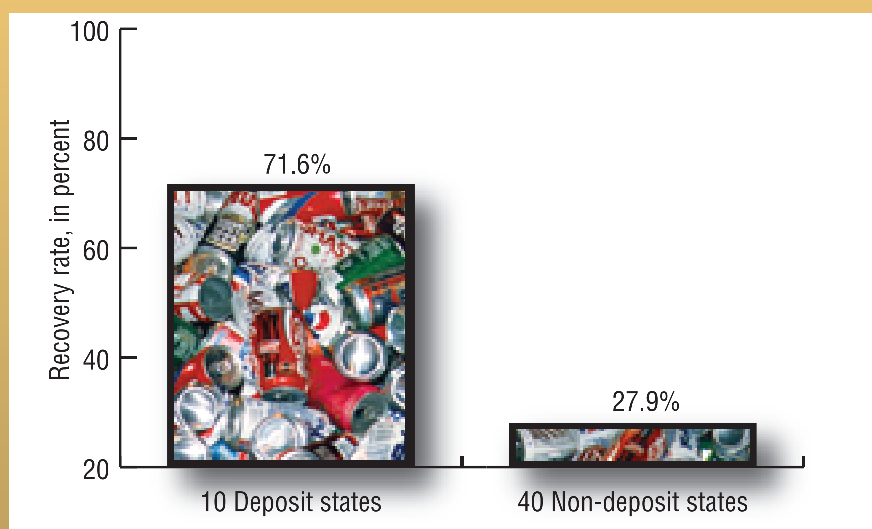
– Tex Corley, President of Strategic Materials, Inc. (Houston), the nation's largest glass processor.

Figure 3 Beverage Container Redemption Rates vs. U.S. Average, 1990-2002



Source: Container Recycling Institute, 2003.

Figure 4 Aggregated Beverage Container Recycling Rates in Deposit States vs. Non-Deposit States, 1999



Source: BEAR, 2002.

from littering. In Connecticut, for example, SB 450 seeks to replace the current bottle-bill system with advanced disposal fees and grants to municipalities for recycling. Massachusetts H2953, on the other hand, would repeal the bottle bill and create a short-term, industry-funded account for recycling grants and litter cleanup.

So what do most legislative committee chairs do? Hold their public hearings, listen to the usual suspects on either side of the aisle deliver their spiels and, in a frustrated pseudo-compromise, opt to do nothing. The status quo is preserved. From an environmental and economic standpoint, this status quo is unacceptable.

> What many in the recycling arena do not realize is that beverage container recycling in the U.S., despite a huge boost in the early 1990s, is in serious trouble.

The environmental consequences of replacing 118 billion wasted bottles and cans with new ones made from virgin materials squandered the energy equivalent of 33 million barrels of crude oil — enough to meet the annual needs of two million U.S. homes —and generated four million tons of greenhouse gases. Other impacts include groundwater contamination, SOx and NOx emissions and habitat loss from strip mining. Many of these impacts are borne by communities in remote resource-extractive regions — far from the gaze of the U.S. consumer.

In contrast, the economic consequences of not recycling are primarily borne by the American taxpayer. From 1990 to 2002, annual per capita beverage container sales climbed 19 percent, from 548 to 653 billion units. Meanwhile, per capita wasting grew from 279 to 413 billion units – a 48 percent increase. All this means an ever-increasing burden on cities and towns, whether through additional volumes in curbside recycling collection programs, more trash to collect or more litter to pick up.

In an effort to minimize these economic and environmental burdens, Senator Jim Jeffords (I-VT) has introduced the National Beverage Producer Responsibility Act. If passed by Congress, the bill would require a $0.10 deposit placed on beverage containers in any state not currently recycling 80 percent or more of its bottles and cans. Under the bill, the beverage industry would have the latitude to design the nuts and bolts of the system.

Because the deposit would be national in scope, all industry arguments about interstate fraud and border business flight would be eliminated and minimal industry costs would be passed on to the consumer. The proposal may not be perfect, but it certainly puts the nation one step closer to reversing the wasting trend. **RR**

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