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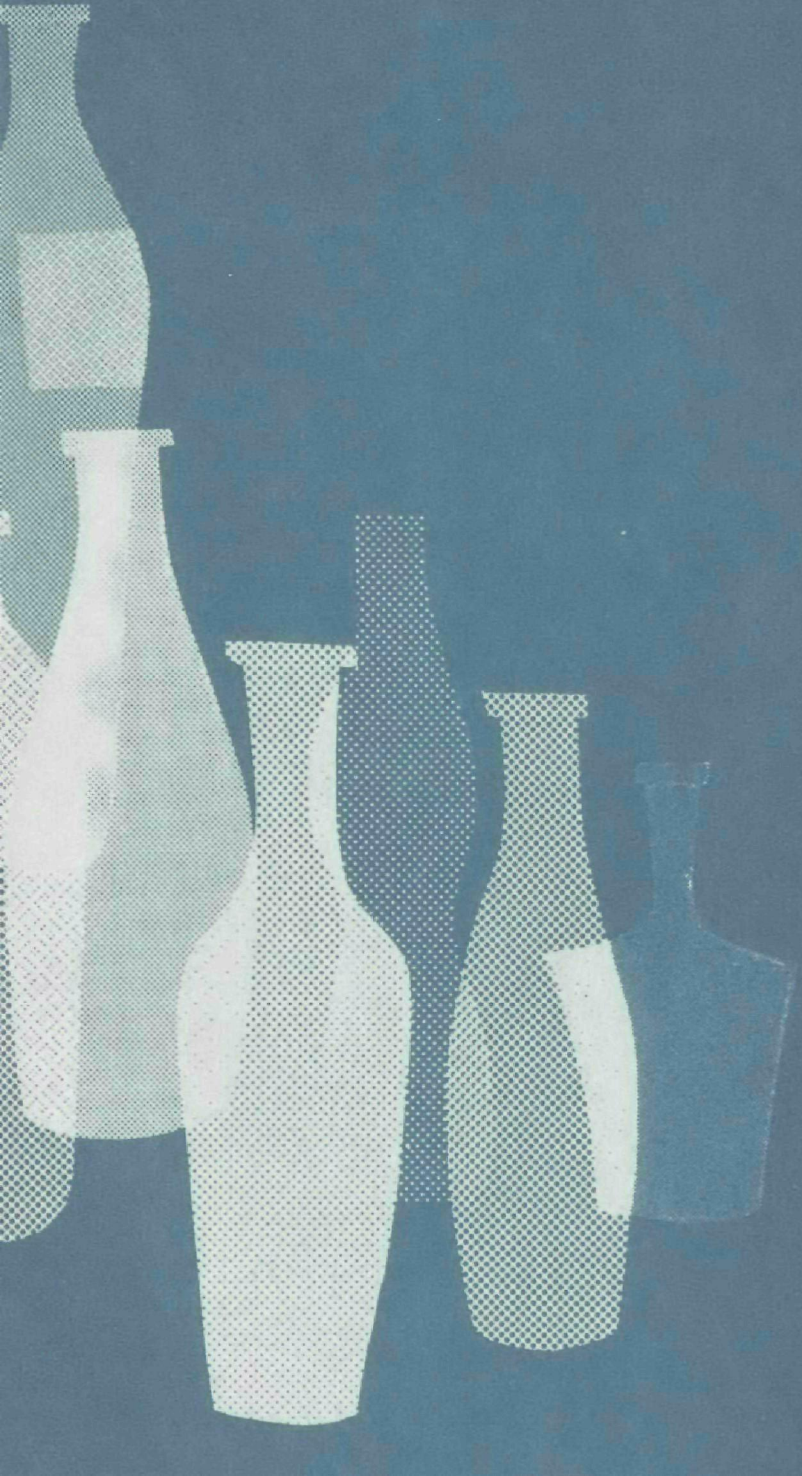

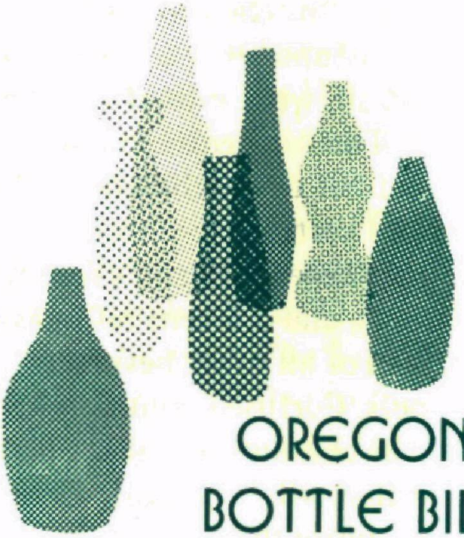

OREGON'S BOTTLE BILL: THE FIRST SIX MONTHS

by Eileen Claussen

Since October 1, 1972, all beer and soft drink containers sold in the State of Oregon have been required to carry refund values. Cans with pull-tab openers have been banned outright. This is the first law of its kind to be enacted by a State, and it has caused a great deal of interest in State legislatures throughout the country. This paper provides a brief analysis of the Minimum Deposit Act and an assessment of its impact since its date of enactment.

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THE LAW

Oregon's "Bottle Bill," signed into law in June 1971 by Governor Tom McCall, went into effect October 1, 1972. The Act required a minimum 2-cent refund to purchasers on the return of "certified" containers of beer, malt beverages, and carbonated soft drinks, and a 5-cent refund on the return of all other beverage containers. Certified containers are defined as containers that are used by, and that will be accepted for reuse by, more than one manufacturer. In addition, the law outlaws the sale of the flip-top or pull-tab beverage container.

Industry reaction to the measure was predictably negative, and suit was filed January 24, 1972, in the Circuit Court of the State of Oregon by various container manufacturers, brewers, and soft drink manufacturers who claimed that the Oregon law was unconstitutional. The defendants were the Oregon Liquor Control Commission and the Oregon State Department of Agriculture. The plaintiffs argued: (1) that the statute violates the commerce clause of the U.S. Constitution by imposing an excessive burden on interstate commerce, and by favoring local concerns at the expense of distant interstate operators; (2) that the statute violates the equal protection clause of the U.S. Constitution by differentiating between carbonated and noncarbonated soft drinks and between reusable and nonreusable containers; (3) that the statute violates the due process clause of the U.S. Constitution by lacking a real and substantial relationship to the objectives sought by the law. The decision of the Court, which was rendered September 1, 1972, declared the act constitutional. The September 1 ruling has been appealed to the Oregon Court of Appeals by the plaintiffs.

The major purpose of the bottle bill is to control litter in the State of Oregon. In a region with a demonstrated concern for environmental quality and an emphasis on outdoor recreation, it was considered essential that measures be taken to avoid the widespread littering that had become characteristic of the region's beaches, highways, and other public areas. A mandatory deposit mechanism, designed to provide disincentives for throwing away containers, was chosen as a means of reducing the beverage container portion of litter.

EFFECTIVENESS OF THE LAW

In a 1972 study by Research Triangle Institute, beverage containers were estimated to constitute 19.1 percent of roadside litter by item count.[1] The breakdown by container type was 73.1 percent cans, 17.0 percent nonrefillable bottles, and 9.9 percent refillable bottles. By container content, beer represented 71.3 percent, soft drinks 25.7 percent, and wine and liquor 3.0 percent of all beverage containers in litter.

Beverage containers contributed a far greater percentage of the volume of roadside litter. A survey conducted by the State of Oregon indicated that beverage containers formed approximately 62 percent of the volume of litter. Analyses by Midwest Research Institute revealed that consumer perception of beverage containers in litter seemed to be based more on their volume than their numerical frequency of occurrence.[2]

Shortly after the bottle bill was passed in 1971, litter surveys were made on a monthly basis by the Oregon State Highway Department. These surveys were continued after enactment of the legislation so that data could be obtained on the

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[1] Bingham, T. H., and P. F. Mulligan. The beverage container problem; analysis and recommendations. U.S. Environmental Protection Agency, Sept. 1972. 190 p. [Distributed by National Technical Information Service, Springfield, Va., as PB 213 341.]

[2] Midwest Research Institute. The national impact of a ban on nonrefillable beverage containers. Kansas City, Missouri, 1971. 120 p.

effectiveness of the law in reducing the beverage container portion of litter. Release of these data to the public caused considerable controversy. Some industry groups claimed that the data collected prior to enactment of the bottle bill were not comparable with the data collected since October 1, 1972, because the early data included beverage-related paper in the non-returnable container total. This was questioned by officials in the Governor's office, and is as yet unresolved. Even if one assumes that this view is correct, there is little change in the basic results of the litter analysis. Beverage-related items totaled less than 2 percent of the total for the period since the law went into effect. Other litter studies, including the study for Keep America Beautiful, Inc., by Research Triangle Institute, showed beverage-related paper as representing below 12 percent of total litter. A deductión of either amount to adjust the figures before the bill's enactment produces only a minor change in the results.

Preliminary comparisons between the winter prior to enactment (1971-1972) and the present winter (1972-1973), for example, revealed that the law had a significant and positive impact on litter in Oregon (Table 1). For these winter months for which litter data were collected in 1971 and 1972, beverage containers averaged

A COMPARISON OF OREGON LITTER DATA BEFORE AND AFTER MINIMUM DEPOSIT ACT*

	Before enactment					*After enactment*					
	Oct.-Nov. 1971	Dec. 1971	Feb. 1972	Winter average	Winter average per mile	Nov. 1972	Jan. 1973	Feb. 1973	Winter average	Winter average per mile	Winter average comparison per mile before/after
Total beverage containers	8,527	9,580	5,254	7,787	269	1,705	949	1,168	1,274	51	–81.0%
Returnable	971	1,060	689	907	32	316	272	335	308	12	–62.5%
Nonreturnable	7,556	8,520	4,565	6,880	267	1,389	677	833	966	39	–85.4%
Total other litter	15,860	11,440	12,357	13,219	456	7,052	4,896	4,470	5,473	219	–51.9%
Total all items	24,387	21,020	17,611	21,006	728	8,757	5,845	5,638	6,747	270	–62.9%
Beverage container percentage of total	34.9	45.6	29.8	37.0	37.0	20.7	16.2	19.4	18.9	18.9	–49.1%

* Source: Oregon State Highway Department Litter Survey

7,787 per month based on 29 one-mile surveys. This represented 269 items per mile per month. Data for the winter after enactment of the legislation showed a definite drop. For the three winter months of 1972 to 1973, there were 1,274 containers littered per month based on 25 one-mile surveys, for an average of 51 items per mile. This was a decrease of 81 percent, or 218 items per mile per month. The proportion of beverage containers in litter also dropped significantly, from 37 percent before enactment to 18.9 percent after the law went into effect.

It is also important to consider that of the beverage containers in litter since enactment of the law, only 24.1 percent were returnable bottles. The remainder were nonreturnables, presumably purchased before enactment of the law and still uncollected. If these nonreturnable containers are disregarded in order to obtain a more realistic picture of current littering in Oregon as compared with littering before the law was passed, beverage containers in litter can be shown to have declined by approximately 96 percent (from 7,787 items to 308 items).

IMPACT ON INDUSTRY

Although the initial effects of the law appear to indicate positive litter reduction, the bottle bill has also been attended by some disruption in the beverage and beverage container industries. The law apparently affected container usage and sales.

Container Usage

Prior to enactment of the bottle bill, the Oregon National Soft Drink Association reported that approximately 51 percent of all soft drinks were sold in refillable bottles, 8 percent in nonrefillable bottles, and 41 percent in cans. This mix of containers changed significantly after October 1, 1972. In March 1973, no nonrefillable soft drink bottles were being sold in the State. Cans had declined to less than 1 percent of the total soft drink market. Only Shasta Beverages, a warehouse brand distributor, continued to sell soft drinks in cans.

In December 1971, the Oregon Liquor Control Commission reported that approximately 35 percent of all beer in Oregon was sold in cans. During the first month of enactment of the law, the percentage of cans decreased to 4.3 percent. This percentage declined still further, and by December 1972, 99.5 percent of all beer was being sold in refillable bottles, with only 0.5 percent sold in cans. This shift resulted in lower cost to the consumer, as beer in cans sold in March 1973 at six for $1.58 (including a 30-cent deposit), while certified refillable bottles of beer sold at six for $1.17 (including a 12-cent deposit).

Prices and Sales

By March 1973, the Oregon market had seen neither a decrease in sales nor an increase in prices since the law had gone into effect. In fact, beer sales for the fourth quarter of 1972 showed an increase of 40,000 barrels over the fourth quarter of 1971, according to the Oregon Liquor Control Commission. (This represented an increase in beer excise taxes collected by the State of Oregon of $52,000.) Sales of soft drinks, while not indicating an increase, did not indicate any unseasonal decrease either.

As of March 1973, retailers in the State indicated that no retail prices had increased, and Oregon consumers were purchasing beer and soft drinks at lower prices on the average than prior to the enactment of the law. This is because refillable bottles, which now account for almost all of beer and soft drink sales, are considerably cheaper for the consumer to purchase than nonrefillable bottles and cans.

Container Industry

The metal container industry has been adversely affected by the Oregon bottle bill. National Can Corporation, the largest metal can supplier to the Oregon market prior to October 1, 1972, had to close one of its plants in Yakima, Washington. This, in conjunction with minor shutdowns in other plants serving the area, resulted in a total layoff of 82 employees.

Glass container manufacturers, while gaining in market share, have had to change from nonrefillables to refillable bottle production exclusively. If trippage rates are high (if each refillable bottle is returned and reused many times), the glass container industry could experience a sales decline. No estimates are yet available on the impact of the law on this industry.

Contract Canners

The State of Oregon had only one contract canner, Emerald Canning Corporation, prior to October 1, 1972. Emerald Canning recently announced that it could no longer continue to can soft drinks. Approximately 60 employees were terminated as a result. It is anticipated that much of the volume once sold in cans will be sold in refillable bottles.

Soft Drink Industry

Major soft drink bottlers have said that the bill has not adversely affected the soft drink bottling industry in Oregon. Most bottlers experienced a gain in market share, although this required increased investment in capital equipment to wash, fill, and deliver refillable bottles. No data were available concerning employment impact on the soft drink industry, although it seemed likely that, assuming no sales decline, employment decreases in the canning sector would be at least partially offset by employment increases in bottling plants.

Brewing Industry

The effect of the Oregon legislation on the brewing industry has been mixed. Brewers operating in the Pacific Northwest have been favored, while shipping brewers (national-brand beer producers who ship their beer from outside the Pacific Northwest) have suffered adverse effects. Approximately 88 percent of all non-bulk beer sales in the State since October 1 have been in certified 2-cent deposit bottles.

Brewers within the States of Oregon and Washington have traditionally accounted for approximately 81 percent of the Oregon beer market. These brewers, all of whom have sold beer in certified containers since October 1, have been positively affected by the bill. Because of their efficient distribution systems, and because the shipping distance from the Oregon market to these northwest breweries has been minimal, the regional brewers have been able to acquire as many 2-cent deposit bottles as they can use. Since new refillable bottles cost as much as five times the deposit values, these brewers have experienced a substantial decrease in costs.

Shipping brewers, on the other hand, have not been able to ship refillable bottles to and from Oregon economically. National Brewing Company, located in Phoenix, Arizona, for example, increased its shipping costs into Oregon by 38 percent (from 32 to 44 cents per case) due to the weight and breakage factors associated with refillable container distribution. The cost of returning the empty containers to Phoenix would be an additional 28 cents. The economics associated with selling nonrefillable bottles or cans of beer in Oregon were, however, worse for the brewing industry, and all brewers were using refillable containers for their Oregon sales.

Most shipping brewers have also experienced low return rates partly because of the speed with which regional brewers have been purchasing returned bottles. No data are yet available, however, on the specific costs and employment impacts associated with the brewing industry.

Retail Stores

Oregon food retailers have already been inundated with empty beer and soft drink containers. This has, quite naturally, resulted in increased costs to the retailer for handling the returned bottles. Some additional markup may be required to compensate the store for these additional costs, although no increases in price were passed on to the consumer as of March 1973.

Retailers have also had substantial space problems due to the additional quantities of returned containers. Increased pickups and deliveries by bottlers were expected to minimize the space problem.

TRENDS

Oregon's bottle bill has now been in effect for 6 months. Certain trends have begun to emerge, and data are becoming available to assess the effectiveness and impacts of the law. The following results can nevertheless be pointed to at this time:

- The beverage container portion of litter decreased by at least

49 percent between winter of 1971 to 1972 and winter of 1972 to 1973.

- Container usage has been dramatically altered by the law. Less than 1 percent of all soft drinks and 0.5 percent of all beer was being sold in cans as of March 1973.

- The enactment of the law has been attended by an initial loss of 142 jobs. A sizeable number of new jobs may be created in the bottling industry to offset these losses.

More data will doubtless be forthcoming in the months ahead. To assist in the accumulation and analysis of these data, the U.S. Environmental Protection Agency is providing the State of Oregon with a grant to evaluate the effectiveness and impact of the law. It is anticipated that this study will provide an objective and definitive assessment of all the costs and benefits associated with the Oregon Minimum Deposit Act.

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