Rochester Committee
for Scientific Information
Rochester, NY

RCSI Bulletin 180
Legislating Deposits on Beverage Containers in Monroe County, New York

By: Joint Bulletin with League of Women Voters: Jane
March 1975

THE ROCHESTER COMMITTEE FOR SCIENTIFIC INFORMATION
P. O. Box 5236, River Campus Station
Rochester, New York 14627

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Legislating Deposits on Beverage Containers in Monroe County, N. Y.

by
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Environmental Quality Committee
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Summary

A bill pending before the County Public Works Committee requires a 5 cent deposit on all containers of soft drinks and malt beverages, whether or not they are reusable. The bill is aimed at encouraging bottlers to market soft drinks in returnable bottles and the public to return bottles for refilling. It is hoped that litter will decrease, landfill space be saved and energy use decreased.

The consequences of such a law in Oregon are examined. In Oregon there was a great decrease in litter right after the bill was enacted, and two years later there is still a great decrease in litter.

Glass and can manufacturers, bottlers and canners in Monroe County have been questioned on how they may be affected by the proposed County law.

Most agreed that the numbers of jobs would either remain static or increase. Only American Can Co. said that there would be a sure loss of jobs as a result of the law. Those interviewed predicted some turnover of jobs; skilled jobs on can lines may be lost, for example, and less skilled jobs transporting and sorting bottles will be increased.

Assuming that the law is effective and results in a major switch to reusable bottles, there will be substantial increases in expenses for some of the concerns that both produce and sell within the County. The soft drink canner we interviewed may lose his can line. All bottlers will have large initial expenses for bottles, bottle washing equipment and storage space as well as hidden costs such as increased bills for heating water to wash bottles and fewer bottles filled per hour. These changes have alternately been described as stimulating the economy.

Bottlers with major franchises predict that their costs will rise and therefore the cost of their soft drinks will rise. The variety of bottle sizes will decrease. Independent bottlers who now sell their drinks at a discount by the case in returnable bottles do not predict a rise in price for their products.

Since the purpose of the law is to change a technology, it must be recognized that there will be discriminatory costs to businesses in the change as well as decreased convenience for buyers of soft drinks. The bill is presumably being enacted for the general benefits of moving to a less wasteful economy, and the League of Women Voters' survey indicates that roughly 70% of the questioned Monroe County residents, both city and suburban, are willing to make the move.

Monroe County is small. Many of our manufacturers market much of their material directly or indirectly outside the County. Bottlers have the option of not switching to reusable containers, and simply selling the one-way glass to Owens-Illinois and the cans to American Can or landfilling. There are glass companies with sales offices in Monroe County that do most of their business elsewhere in the State; they would not be affected by a County law. Therefore, the disruption in the County may not be anywhere near as great as the trade projects. Many of the problems listed at the end of this bulletin may only occur if a State law is passed.

Background

A law regulating beverage containers has been in effect in the State of Oregon since October 1972 and in Vermont since July 1972. A beverage container law was enacted in Cayuga County in New York State last year. It is not yet operational and is in court on a technicality.

There have been several studies(1,2)of the effect of the two State laws on costs, commerce, jobs and litter, and different interest groups have come to widely variant conclusions. In general the laws seem to be considered a success by many in Oregon and a failure by many in Vermont.

The Monroe County Environmental Management Council has published a general study (3) on the need for such a law in this County which includes as much information as they had available on what the effect might be on local business. Not much is available. The Center for Governmental Research is considering doing a larger study. Much of the data needed to understand the economics of bottling in this area are available in a privately distributed publication called the Nielson Report. The Nielson Report is for the trade only.

This bulletin has been prepared hurriedly to distribute in time for a public hearing on March 13. It presents data from a number of interviews with local business men, and attempts to determine some of the effects the law will have on this county. We have interviewed in person Owen-Illinois (glass manufacturers); Canada Dry & 7-Up Bottlers, FIZ Bottlers (small independent), Genesee Brewery, and American Can. By telephone we have interviewed: New Crown Bottlers (small independent), Leone Industries(small N-R bottle and jar manufacturer in Monroe County), Anchor Hocking, Foster Forbes, Glass Container Corp., Metro Containers, and Thatcher Glass (all 5 of these manufacture out of state but sell beverage containers in this County); Kerr Glass, and Wegmans Super Market Chain. Although they manufacture beverage containers, Kerr does not sell them in this county; Leone, Foster Forbes, and Metro Containers all stated they have very little beverage container business in Monroe County.

The Major Arguments in Favor of "Bottle Deposit" Laws

1. America must learn to conserve both resources and energy. In order to do this it is necessary to change the way we handle materials. The most efficient system includes maximum use before any product is discarded, and the shortest recycling loop between use and reuse which means, in the case of soft drinks, reusable bottles rather than recycling the glass and remaking bottles from the reclaimed melted glass.

2. The best way to solve the solid waste problem is to reduce the amount of material that is generated and that will eventually need disposal - pickup, landfilling, or reclamation.

3. Litter will be decreased. See discussion of effect on littering in Oregon, below.

4. Returnable bottles require less energy than non-returnables and much less energy than for cans(1). This argument applies to the entire cycle, not just to the manufacturing or just to the bottling procedure. It includes the energy used in transportation and assumes that a refillable bottle will make a number of trips, but will not travel as long a distance as a disposable container.

5. An argument against the bottle deposit law is that it forces the soft drink and beer industries to adopt an unwieldy, awkward way of delivering goods to customers and discards a flexible and convenient way of marketing. People who support the law see the same facts as an argument in favor of the law, because they believe that the law will curb a technology that is getting out of hand. The analogy is to the laws that prohibit the use of rifles for hunting deer, and force the hunters to use a more awkward and shorter range gun precisely because it is less efficient.

General Arguments Against a Bottle Deposit Law

The major arguments against the law presented in this bulletin are derived from an interview with Mr. Rapp, co-owner of a company that bottles 25% of the soft drinks marketed in Monroe County. The company's total sales revenue in 1974 was 8 million dollars, 4 million 700 thousand from this county. This is a measure of the economic importance of the bottling industry. Mr. Rapp is against any law mandating the use of refillable bottles or making it economically disadvantageous to market soft drinks in disposable containers. His general reasons for being against the law are:

1. We are over-legislated, often to the detriment of what we hope to accomplish and at high cost. There should be as little government intervention as is possible in a complex society.

2. The law is a form of customer harassment. It will result in less choice and higher prices for the individual. The public is entitled to the right to choose what it wants and the market will follow their choice.

3. The law would be discriminatory - giving an advantage, for example, to fruit juice drink canners and bottlers whose prices will not have to rise.

4. Economic problems are considerable. These are discussed in detail below.

5. There are many advantageous ways of marketing that can be applied only to non-returnable containers - these result in substantial savings to the customer.

6. It is far from sure that a deposit law will decrease litter in this state.

7. Even if there were to be a law, the laws being suggested are not carefully thought out and do not take into consideration many problems.

Roadside Litter in Oregon(4)

All who have analyzed the amount of litter on the roadside before and after the Oregon deposit law went into effect late in 1972 agree that not only bottles and cans but all litter decreased in amount shortly after the law became effective. The reason usually given is that advertising of the law made people aware of how much they littered.

Roadside counts have been made by the Oregon State Highway Department. The Oregon Beverage Industry Task Force has used some of these figures to cast doubt on the continued efficacy of the law into 1974. We do not have the figures for every month for every year, but our analysis of the figures that we have indicates that the law was essentially as effective in 1974 as in 1972 - 1973 in controlling litter. Counts of litter were done on 1 mile stretches of road; in the data that we have, 24 to 30 such stretches were averaged together. Most counts are for 1 month. Sometimes the period is 1.5 or 2 months, in which case we divided to get a 1 month value for comparison.

Table. Litter Counts from Oregon Roads

Date	No. of 1 mile sections	No. of non-returnables	No. of returnables	Total No. of beverage containers	% Decrease as compared to Aug. 1, 1972
1972 Feb. 1	30	2,283	345	2,628	
1972 April 1	30	5,620	802	6,422	
1972 Aug. 1	30	3,220	537	3,757	
		5¢ Deposit Law			
1973 Jan. 1	25	677	272	949	75%
1973 Feb. 1	25	831	335	1,166	69%
1973 July 1	?	207	109	316	92%
1973 Aug. 1	?	220	118	338	91%
1974 July 1	24	273	175	448	88%
1974 Aug. 1	15	200	188	388	90%
1974 Sept. 1	24	403	531	934	75%

Before the deposit law there were between 2,500 and 6,000 bottles on the roads which is a tremendous variation depending on season and random behavior. After the ban the number fell to between 277 (Sept 1, 1973) and 1,166, again a tremendous variation, but always dramatically below the pre-deposit figures. A drop from 3,757 to 1,166 is only 69%, but it is a much larger number of containers than a 127% rise when dealing with numbers in the low hundreds, which was the calculation made by the Beverage Task Force (4). In other words, percent can be very large and yet can stand for an insignificant number of items.

These litter figures show that the law was extremely effective in stopping bottle and can litter done by people who shop in Oregon. About half of the bottles picked up were classed as non-returnable after the law went into effect. We presume that this means that they were not purchased in Oregon. There is no evidence on who purchased them. The two possibilities are transients and residents who live near the border. There are no data to differentiate between them and therefore no evidence that there is any increase in out of state purchases by Oregon residents.

Glass Bottle Manufacturers in Monroe County

Owens Illinois in Brockport and Leone's in Rochester make bottles. Owens Illinois runs 11 bottle lines; only two of them are for the beverages affected by this law; the rest are for wine, fruits, etc. At present they make only non-returnable bottles, but the lines are convertible at an unrevealed price.

Owens Illinois hires 650 people. Approximately 50 people are required on 3 shifts daily to maintain a bottle line; this includes inspectors, packers, etc. Currently O-I makes returnables at Fairmont, Va. where they have Applied Color Lettering (ACL) equipment for marking bottles. They also have similar equipment in Claremont, Pa., but none at Brockport. This equipment is very expensive.

Leone's runs one bottle manufacturing line; they make non-returnable beverage bottles in winter, canning bottles in summer. Leone's sells very few beverage bottles in this County though they hope for County business. Therefore, they probably would not be seriously affected by a County law. However, they fear that if they do have to convert they will not be able to compete pricewise with the larger manufacturing firms.

There are two concerns-Anchor Hocking and Thatcher-that bring in mainly non-returnable beverage bottles, but they do not manufacture them here. A third concern, Glass Containers, brings in both returnable and non-returnables manufactured in Pennsylvania. ACCORDINGLY THERE IS NO MANUFACTURER OF RETURNABLE GLASS CONTAINERS IN THIS COUNTY, so at present freight is a real expense to county bottlers who fill reusable bottles.

Comments of the Bottle Manufacturers on a County Deposit Law

Owens-Illinois believes that their work load would increase right after the law goes into effect, as they make bottles to saturate the market, then will drop when only replacement bottles are needed. They are willing to supply "whatever the customer asks for" and their customer is the bottler.

From this small bit of information it seems that Owens-Illinois will increase its market within the County if the county law goes into effect and if they convert the Brockport lines. If deposit laws are introduced gradually county by county they will be at an advantage as they supply bottlers in one region after the other. The fact that no returnable bottles are manufactured here and all must travel relatively long distances to be filled stresses the need for a local deposit law if saving energy is one of the objectives.

Can Manufacturing in Monroe County

American Can hires 625 people and manufactures beverage and food containers, and oil cans. 40% of their business is in beverage containers with 23% in Monroe County. This company maintains that 40% of the work force will be affected and possible loss of the plant would occur if the law were to pass. We estimate that of the cans sold by American Can for filling in Monroe County, over 3/4 are then shipped out of the County by the beverage dealers. This number of cans would consequently still be bought, unless a State law is passed. It is also possible that some cans sold by this firm and filled outside the County are retailed here and they would lose that business.

Canners in Monroe County

There are two can lines in Monroe County. Mr. Rapp's company runs the only soft drink can line and sells 58.7% of his cans in Monroe County. Can lines are expensive - Mr. Rapp still owes $285,000 on his, and this law would create a difficult marketing problem for him.

Genesee Brewery cans beer and most of their market is outside the County. They buy the cans from American Can in Fairport. A County law would probably not close their can line, but they still favor a state law because they envision difficult problems in marking and inventory.

Bottlers in Monroe County

FIZ and New Crown are two small bottlers who bottle their own soft drinks and sell them by the case in returnable cases. They also act as distributors for beer. Each felt that their soft drink business would benefit. One bottler (FIZ) estimates that the company will have to expand and hire more people. The second bottler (New Crown) handles beer as well as soft drinks and has sufficient storage and transportation. Both of these bottlers operate "drive thru" businesses where cases of returnables are removed from the car and the new cases put in while the driver remains at the wheel. Together FIZ and New Crown have 27 additional outlets or franchises. Both are proud of their lower prices. There are at least 4 such companies in Monroe County.

Genesee Brewery hires 550 people and serves all of northeastern USA with only a small percentage of sales actually in Monroe County. 45% of sales are in returnables - both draft beer containers and retail bottles (export). Eighty percent of their package business is in non-returnables but they don't know what fraction of that is cans. They feel business would drop off some if the Monroe County law were passed, but do not feel total employment would be affected. Some jobs might be lost due to decreased sales but others would be gained in order to handle returnables and truck them.

Mr. Rapp, who bottles for Canada Dry, Seven Up, Dr. Pepper, Star Market and Hires gave us the costs that he expects to incur if the 5¢ deposit law goes into effect.

Table 2. These figures assume that 1/3 of the bottles are in stores, 1/3 in the consumers' hands and 1/3 with the bottler. They are based upon 2½ to 3 trips for each bottle. This is the present rate for Mr. Rapp's bottles. Presumably, the bigger the return, the less cost will be assigned to glass, and the more to washing. 35% should be added for freight and installation.

Investment in glass	\$2,876,300 (County law)
	4,900,000 (State law)
Additional bottle line	650,000
Two extra bottle washers (Life of a bottle washer is 10 years)	400,000
Trucks - has 28, need 9 or 10 more at \$15,000/truck (truck life - 4 years)	150,000
Storage - has 140,000 sq. ft. Need 50,000 more at \$12/ft.	600,000

All of these costs would have to be financed with borrowed capital, and the interest rate would be 1% over prime (prime was 9.5% at time of interview).

There is also one major loss. The company has a new can line on which it still owes \$285,000. It would be inactivated unless there is enough business outside the County to sustain it.

Mr. Rapp further explained to us that today it is cheapest to market soft drinks in cans, partly because they can be filled so much faster and partly because they are easier to store, ship and market. However, returnable bottles are the cheapest for the bottler to buy, and all bottles are significantly cheaper than cans. When the cost of the tray to carry the bottle is added to the cost of the bottle all 3 become competitive. The cost of labor and equipment for returnable bottles is so much more expensive because the bottles must be washed. Overhead also becomes more expensive because of the increase in cost of water, sewage, and heat. The estimate is that overhead will rise from today's 78 cents per case to \$1.03 if there is a switch to all returnables. Delivery costs also rise because bottles have to be reloaded, brought back to the factory, unloaded, sorted and stored. For a complete economic analysis these costs would have to be equated with mileage, driver costs, and increased sales.

Finally, Mr. Rapp estimated the changes in his labor force for us:

Table 3. Changes in Labor Force if 5¢ Deposit Law is Enacted

	Employed at present	Projected employment
Number of people employed	133	not given
Truck drivers	13	18
Night workers - loading and sorting	8	16
Day crew	not given	9 less
Net change	--	4 increase

So in this company there may be some shifting of jobs, from more skilled jobs on the can line to less skilled jobs in sorting but there will be a net gain in jobs.

Supermarket Chains

We did not have time to interview the retailers in depth but we did speak to them briefly. Both Star and Wegmans indicated that they will have to hire more help and that they envision a handling problem.

Additional Problems

A. The problem of obtaining equipment.

At present, when very few bottle washing machines are being purchased, the lead time between order and delivery is 18 months. A State law would scale up the demand and increase the lag time. One advantage of introducing legislation county by county is that it will stagger the demand for machinery.

B. The problem of natural gas - as described by Mr. Rapp.

This plant heats exclusively with natural gas. Recently the amount of natural gas purchasable has been restricted. Mr. Rapp's company may not purchase any more than it used in 1974.

Returnable bottles have to be washed with very hot water. (The law requires washing with 3% caustic at 120°; however franchisers such as Canada Dry, require 4% caustic at 180°.) The latter will require a 39% increase in heating gas. The Public Service Commission has been petitioned for an increased gas allotment. The request was refused. To get extra heat would therefore require either a legislated change in policies of the PSC, or the installation of a whole new system by the manufacturer. Propane is 3 times as expensive as natural gas.

C. The problem of purchase across the County line.

Many of the bottlers fear that County residents will buy their soft drinks and beer at Eastview Mall, across the County line. There is no way of estimating the importance of this problem in advance.

D. The problem of taxation.

Sales tax on containers will be lost; only the contents of returnable bottles are taxed. Both container and contents are taxed when beverages are packaged in non-returnable bottles. This amounts to a loss of revenue to both County and State.

A representative of the United States Brewers' Association has said that he considers a county deposit as a tax or control which is in violation of the alcoholic beverage control law which gives the state sole authority over the control of alcoholic beverages. Before the Monroe County law is finalized this conflict should be investigated.

E. The problem of color marking of bottles.

The Monroe County law as written, does not differentiate between the new returnable bottles which will appear on the market and which could be interchangeable among companies as beer bottles now are, and the returnable bottles now in use which are individualized with the name of the company on the bottle. The latter marking requires expensive applied color lettering equipment (ACL) and Owens-Illinois sees this as a problem in conversion of their bottle manufacturing line in Brockport. Their line in Pennsylvania has this equipment and they may just ship bottles in. (The proposed New York State law recognizes this difference and levies deposits accordingly.)

F. The problem of redemption centers.

Some stores will not be able to handle the increased volume of returnable bottles even if they restrict the variety of sizes and brands. Redemption centers will be needed. The right to build such centers is specified in the Monroe County law, but further specification is needed to insure that an adequate number of centers will be ready in advance of the effective date of the law, and that markets and individuals will not go to needless expense building more storage space than is needed. Construction and running of redemption centers, of course, will result in an increase in jobs.

G. The non-problem of polluting the water in Monroe County.

Increased use of detergent will not significantly increase water pollution because the detergents are phosphate free. We do not know if the law exempts soft drink bottlers. The pollution involved with washing returnable containers is of minor amount when compared with the waste from can manufacture. It is comparing soap and beverage residues which are readily treated in existing sewage treatment systems with wastes from sulfuric acid baths, leachates of chloride and chromate solutions from processing aluminum and tin plated metals.

H. The problem of pure water taxes and water rates.

The Pure Waters bill increases with an increase in water usage and property evaluation. Thus water to wash bottles and increased building for storage space will result in an increase in Pure Waters bills. Those we spoke to mentioned this with special resentment because a new law that they feel is unnecessary, is causing them this increase.

I. The problem of bottles and cans manufactured here, shipped out to be filled and returned to be sold.

Owens-Illinois says that they cannot tell what percent of sales of non-returnable bottles manufactured in the County are sold in the County because they also manufacture them in Ohio, Pennsylvania and Virginia and they do not keep easily available separate records. We also do not know whether any of the bottles made by Leone Industries which are filled elsewhere retail here. Wegman's store brand soft drink is bottled by Curtice Burns in Erie County in non-returnable bottles. We do not know where they get their bottles. American Can did not tell us how many of their cans are shipped out of the County to be filled and then brought back in. We assume that this may be a major problem for them. In other words, some of the bottlers and canners may be affected indirectly, and of course, all would be affected by a State law.

Table 4. Beverage Business in Monroe County.

Firm	Number of people employed in Monroe County	Jobs affected in County by proposed law	% total of firm's beverage business in Monroe County	% of beverage business in returnables	Additional equipment to comply with law
Genesee Brewery	550	No probable effect	confidential	20%[a]	Bottlers, soakers, washers, unpackers
Canada Dry, 7 Up Bottlers	133	Hire approximately 4 more people	58.7%	5%	Bottles, washers, trucks, space
FIZ Bottlers	20[b]	Hire more people	100%	100%-soft drink beer-very small[c]	Trucks, space
New Crown Bottlers	15[b]	No effect	75%	100%-soft drink 20%-beer[c]	None
Wegmans(21 Stores)	2894	30 hrs.addnl.work/store Approx. 16 people	2½%	10.2%, soft drink only	Space
Star (23 Stores)	2000	Hire more people	?	20%	Space
Owens-Illinois	650	100 jobs in question; not affected if O-I converts	not known	0	Conversion
Leone Industries	70	No effect	Negligible	0	--
Glass Containers Corp.	Sales office only	No effect	20%	Confidential	--
Thatcher Glass	Sales Office only	No effect	Unknown	Very small	--
Anchor Hocking	Sales office only	No effect	Very small	Very small	--
Metro Containers	Sales office only	No effect	Negligible	--	--
Foster Forbes Glass Co.	Sales office only	No effect	Negligible	--	--
Kerr Glass Mfg.	Sales office only	No effect	None	0	--
American Can Co.	625	Please see text	23%	0	--

(a) This jumps to 45% when draft containers are included.
(b) Franchise 27 other outlets that also hire people.
(c) Bottle only soft drinks; distributors only for beer

On the Writing of a Law to Encourage the Manufacture, Return and Reuse of Bottles

The Environmental Protection Agency has recently released a study (5) of the effects of various bottle laws on their communities. The way in which the laws are written apparently has a great effect on what they accomplish. Monroe County's law is one of the simplest. It has neither a lower deposit for using a standardized container that can be interchanged between companies nor a special permit requirement for putting containers in a landfill. Our law, of course, does not ban "flip-top" cans.

The first two additions would encourage reuse of bottles rather than simply recycling.

References

(1) New York State Senate Task Force on Cultural Problems, *No Deposit, No Return; A Report on Beverage Containers.* February 1975

(2) New York State Council of Environmental Advisors, *"Litter as an Environmental Problem in New York".* March 1975; available from the Council, 2 World Trade Center, Room 8211, New York 10047, N.Y.

(3) Monroe County Environmental Management Council, *Proposed Monroe County Beverage Container Deposit Law.* October 1974

(4) *Oregon State Highway Department Litter Survey 1971-1974.* Later data reported in news release of Rockey-March Public Relations Inc., for the Oregon Beverage Industry Task Force of Can Manufacturers Institute, Jan. 1975

(5) U. S. Environmental Protection Agency, *Resource and Environmental Profile Analysis of Nine Beverage Container Alternatives (SW-91c).* 1974; Washington D.C.: U. S. Government Printing Office