

Oregon Bottle Bill

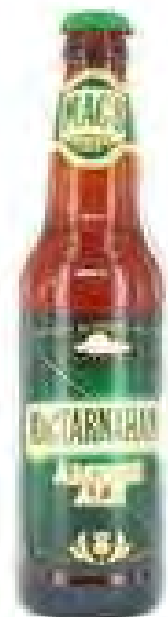


Oregon Bottle Bill Background and Overview

November 9, 2007

Peter Spendelow

Oregon Department of Environmental Quality





Beverage sales pre-WWII

- Almost all beverages sold in refillable bottles
- Bottlers/distributors charged deposit to stores for bottles
- Stores charged the same deposit to customers
- Customers got their deposit back when they returned empty containers to the store
- Distributors/bottlers picked up the containers at the store and repaid the deposit to the store.

Before the Bottle Bill



Beer cans introduced 1935 – gained 50% market share nationwide by the late 1960s

Non-refillable beer bottles soon followed. Allowed national companies to grow and to ship beer further.



Before the Bottle Bill



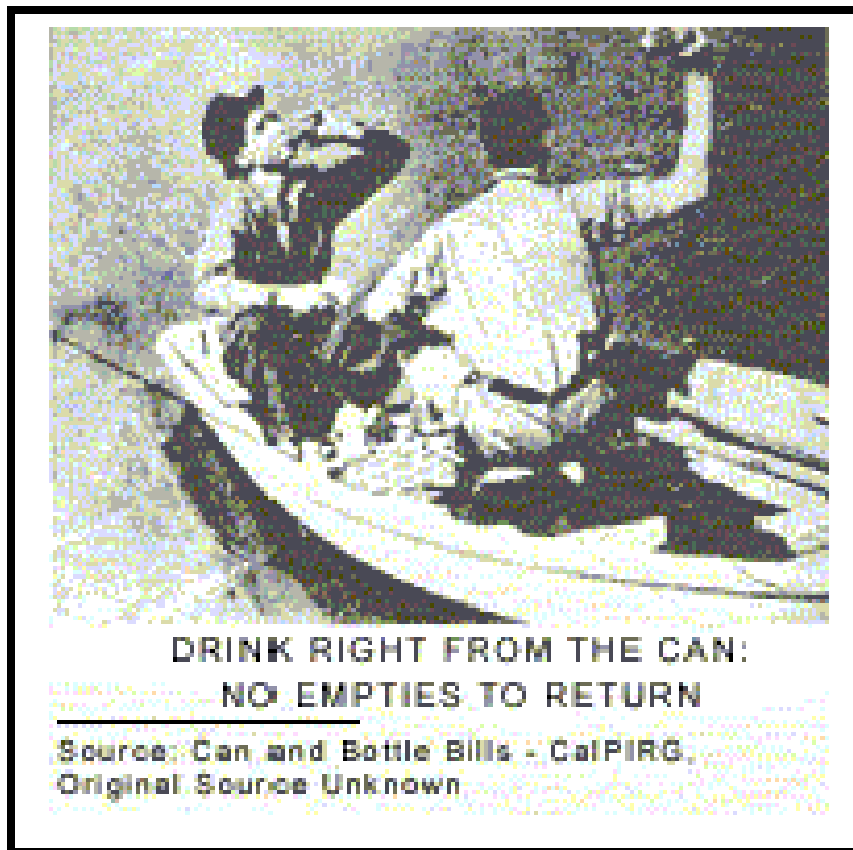
Soft drink cans came later and took much longer to gain market share

Non-refillable soft drink bottles not really used until the mid 60s.



Before the Bottle Bill

The original sales pitch for non-refillables was clear:

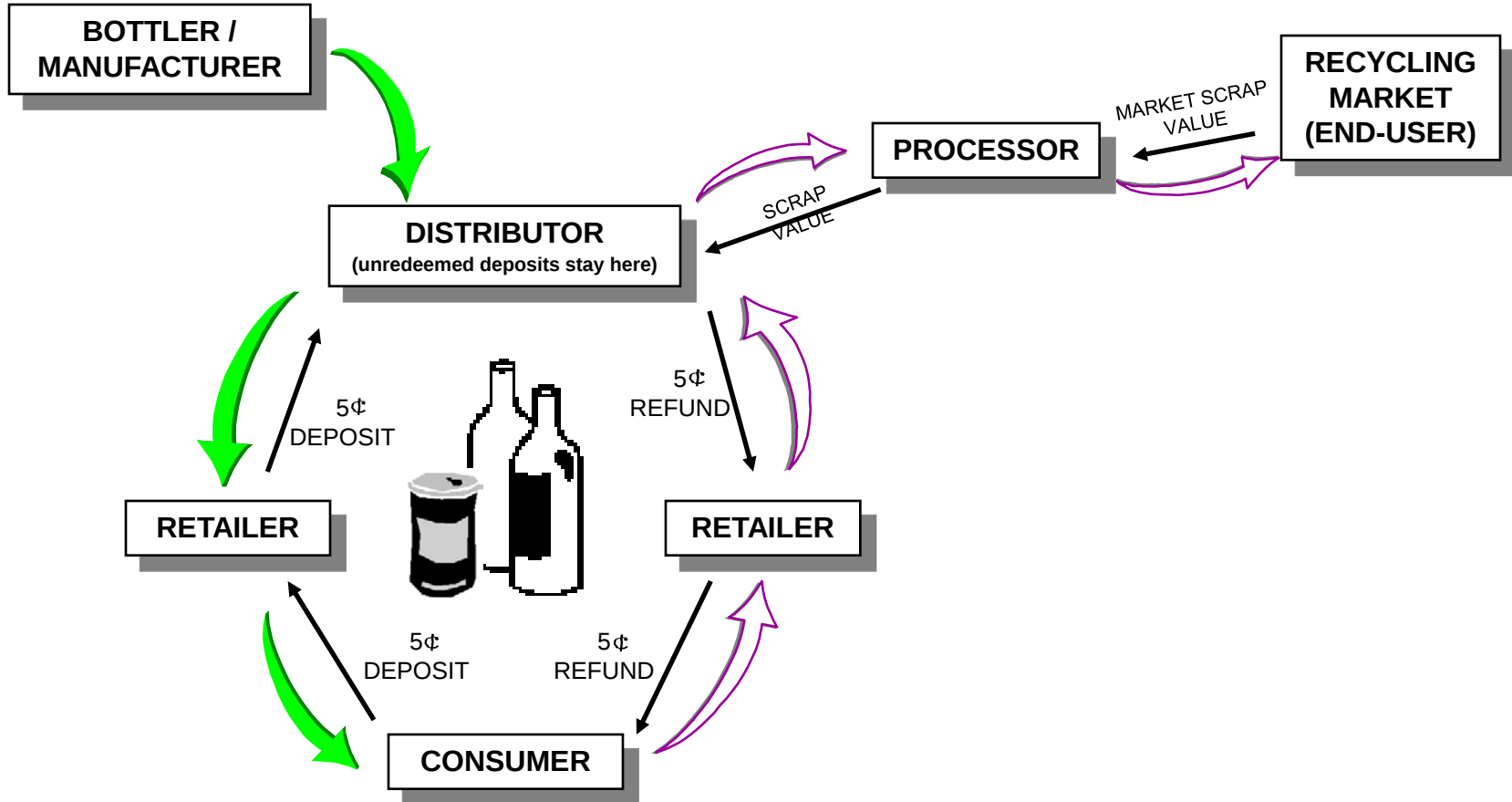




Oregon Bottle Bill

- **Passed in 1971, effective date October 1, 1972**
- **Covers only beer and soft drinks.**
- **Does not cover water, juices, milk, wine, liquor, most sports drinks**
- **Barely changed since passage – until SB 707 in 2007.**

Oregon Bottle Bill





DEQ

Market share right before Oregon's law took effect:

	Refillable bottles	Non- refillable bottles	Cans
Soft drinks	60%	6%	34%
Beer	32%	24%	44%



Market Share 1972 vs 1973

		Refillable bottles	Non- refillable	Cans
Soft drinks	Before	60%	6%	34%
	After (73)	91%	0%	9%
Beer	Before	32.1%	24.3%	43.6%
	After (73)	94.9%	0.4%	4.7%

Return Rates after passage (1973)

	Bottles	Cans
Soft drinks	92%	70%
Beer	94%	70%



Changes to the beverage system have been many:

- Beverage distributors formed joint ventures to make collection from stores and processing more efficient:
 - Container Recovery Inc. (CRInc)
 - Beverage Recyclers of Oregon (BROCO) in Eugene
- New Containers: PET beverage bottles, aseptic drink boxes, and plastic pouches



More changes:

- New beverages packaged in single-serving containers:
 - Juices
 - Teas
 - Sports Drinks
 - Water
 - Coolers
- Refillable bottles have all but disappeared



More changes:

- Reverse vending machines now commonly used to redeem containers at stores.
- Inflation. To match the buying power of a nickel in 1971, you need 25 cents today. The deposit on a six-pack would be \$1.50, not 30 cents, if the deposit kept up with inflation

Oregon Bottle Bill - Effects



Litter went down

(but not this much in other surveys)
(source: Oregon Bottle Bill “Truth Squad”)



Oregon Bottle Bill

2005 Oregon Glass Container Tonnage compared to national average

Material Name	Disposed	Recycled	Generated	% recycled
Based on EPA per capita				
Beer & soft drink	60,928	26,902	87,830	30.6%
Other container glass	39,308	7,002	46,310	15.1%
Total glass bottles, jars	100,236	33,904	134,140	25.3%
Actual Oregon estimates				
Beer & soft drink	10,063	63,055	73,118	86.2%
Other container glass	31,827	29,149	60,976	47.8%
Total glass bottles, jars	41,810	92,204	134,094	68.8%

Oregon Bottle Bill

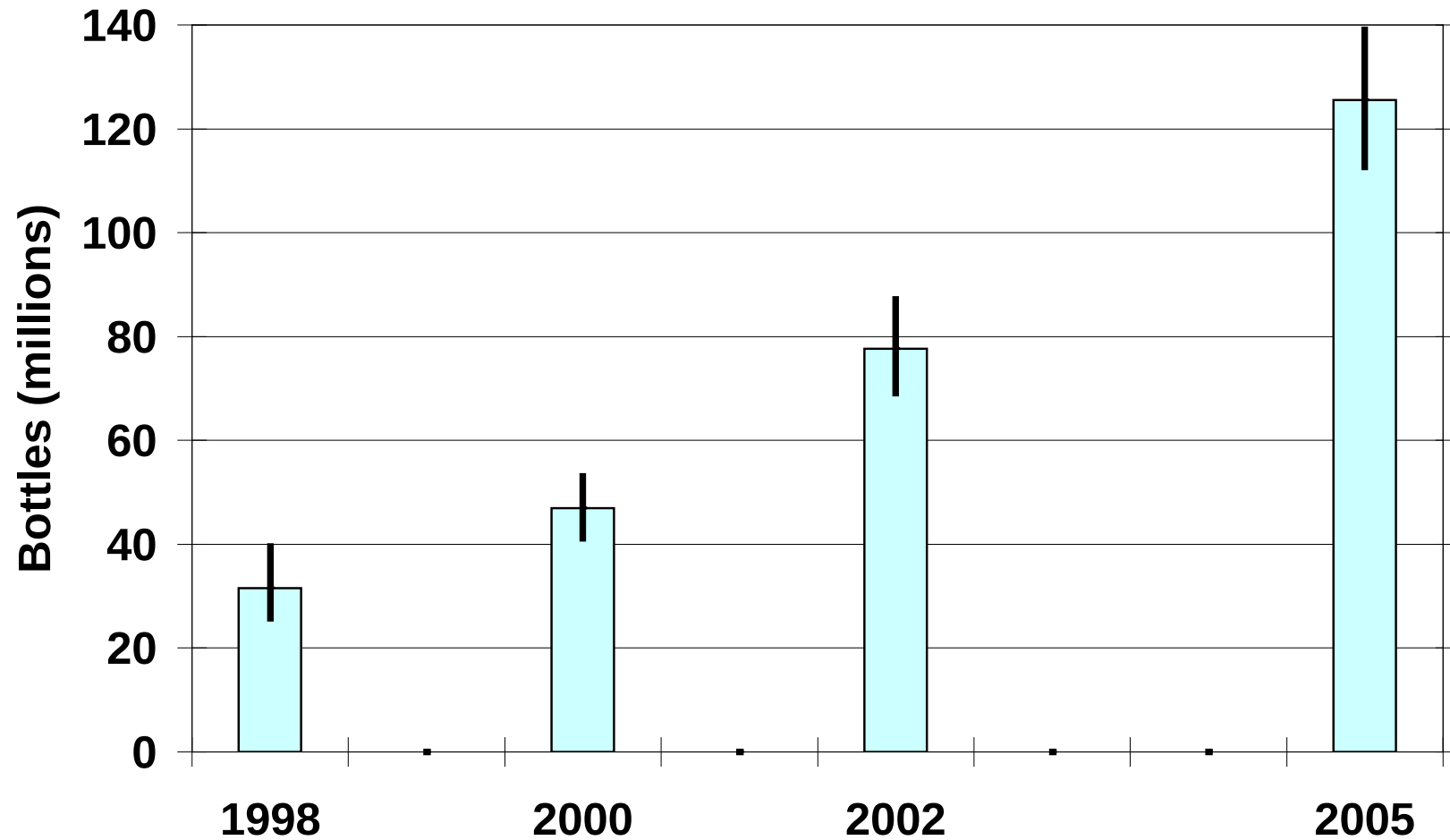
Disposal, Recycling, and Redemption (in millions of containers: 2005 data/estimates)

Material Name	Disposed	Recycled Not redeemed	Redeemed	Total	% recycled
Deposit Beer & soft drink	254.3	63.0	1163.1	1480.9	82.8%
Water	125.5	60.7		186.2	32.6%
Juice/tea/other*	126.0	54.1		180.1	30.0%
Milk	43.6	37.2		80.8	46.1%
Wine	11.5	26.4		37.9	69.6%
Liquor	9.4	7.4		16.8	44.3%
Total no-deposit	316.0	185.9		501.8	37.0%

* Corrected after original presentation – originally reported as 137.7 million juice/tea/other containers disposed

Oregon Bottle Bill

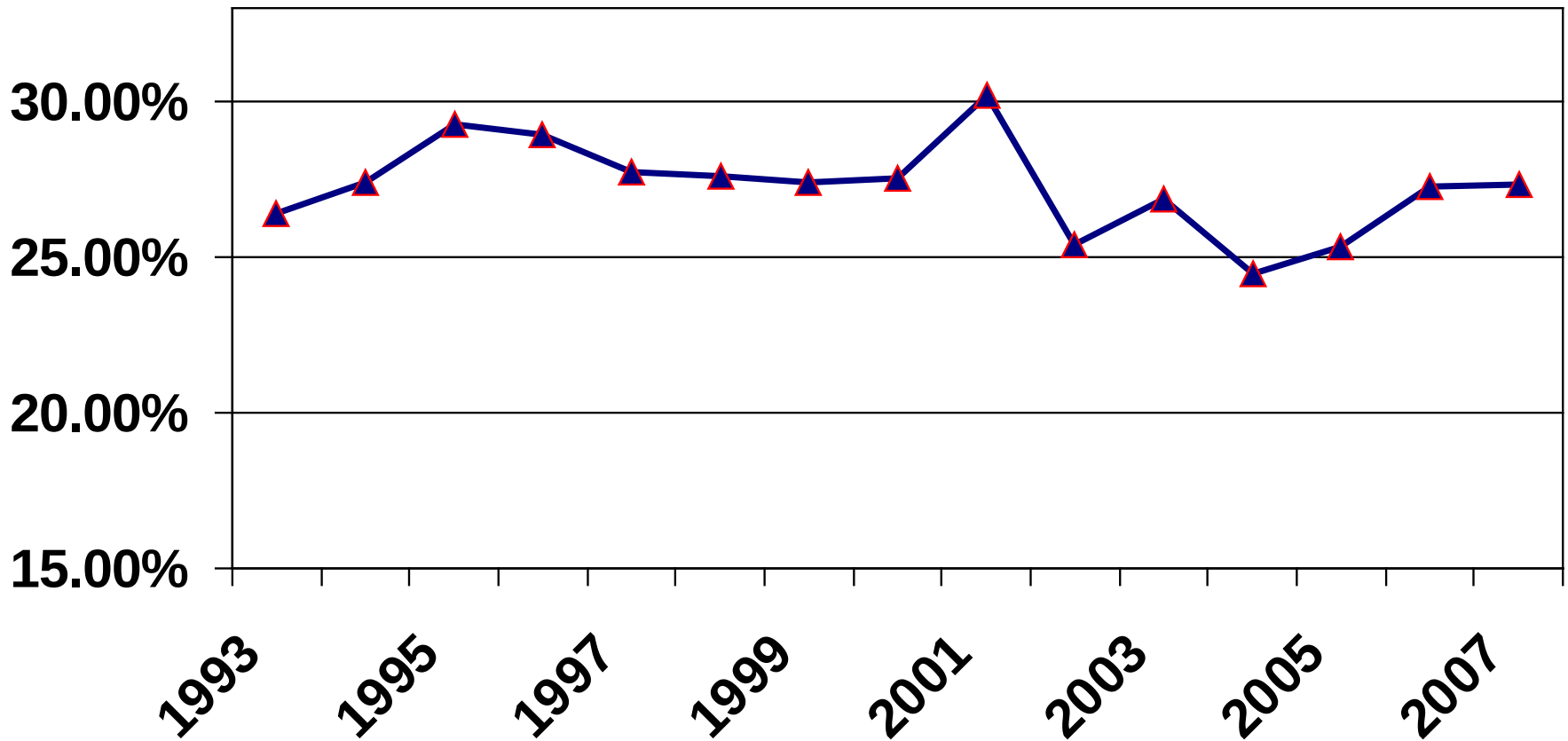
Oregon Water Bottle Disposal



Oregon Bottle Bill

Oregon Rigid Plastic Container Recycling Rate

2006 and 2007 numbers are projections





Plastic Container Recycling Tonnage 2005 by Source (Clean, dry tons)

	Tons	Percent	Comment
Curbside/Hauler	8,422	57.7%	Plus 1,700 tons est. loss
Bottle Bill	4,448	30.5%	
Other (AgriPlas, Weyerhaeuser, etc.)	1,714	11.8%	
Total	14,584	100%	



Disposal by Plastic Container Type (2005 preliminary estimates) September 30, 2007

	Tons	Percent
Deposit bottles	1,837	4.3%
No-deposit beverage bottles	10,130	23.5%
Non-beverage bottles	9,786	22.7%
#2,#5 tubs, pails, pots	9,210	21.4%
Other rigid plastic containers	12,072	28.1%
Total	43,035	100%



Disposal by Plastic Beverage Container (2005 preliminary estimates) September 30, 2007

	Tons	Percent Beverage	Percent RPCs
Deposit Bottles	1,837	15.4%	4.4%
Water Bottles	2,769	23.1%	6.4%
Juice/Tea/Sports Drinks	4,172	34.9%	9.7%
Milk Jugs/Bottles	2,663	22.3%	6.2%
Liquor Bottles	303	2.5%	0.7%
Other Beverages	223	1.9%	0.5%
Total	11,640	100.0%	27.9%



Bottle bill 1972 to mid-2006:

- 37.5 billion beer and soft drink containers sold
- 31.1 billion returned for deposit
- \$1.76 billion in deposits paid, \$1.45 billion redeemed
- Recycled or refilled:
 - ❖ 4,100,000 tons of glass
 - ❖ 300,000 tons of aluminum
 - ❖ 100,000 tons of PET plastic



Bottle bill 1972 to mid-2006: (continued)

- Recycling /refilling saved 77.7 trillion BTUs of energy compared to disposal
- This is the equivalent of 620,000,000 gallons gasoline
- Reduced carbon dioxide equivalents releases by a net of 6 million metric tons
- Equivalent of keeping 1,310,000 cars off the road for a year