A ‘bottle bill’ is a law that requires a minimum refundable deposit on alcoholic, soft drink, and other beverage containers in order to insure a high rate of recycling or reuse. There are 11 states that have enacted such bottle bills. Bottle bills attempt to encourage consumers to return bottles to a retail store or redemption center, where they subsequently receive a deposit pre-determined by state law. Container manufacturers are then required to pay handling fees to redemption centers and retail stores that participate in the reclamation of recyclable containers.¹ Thus, both the redemption center and returnee receive monetary compensation for specific bottle types returned.²

Bottles are processed differently in each state due to the existence of varying state redemption laws. For example, Vermont participates in a ‘co-mingling’ redemption program, which is defined as the sorting of beverage containers at a redemption center by material type rather than brand in accordance with the requirements of an approved co-mingling agreement.³ Manufacturers that are not part of a co-mingling program require that the redemption centers separate containers for pickup and then pay the redemption center a four-cent handling fee. Manufacturers that allow their containers to be co-mingled with other brands of containers can take advantage of a lowered 3.5-cent fee.⁴ Brand owners that wish to create a co-mingling program must follow certain procedures, which are outlined in the Vermont Department of Environmental Conservation January 2010 report to legislature on the co-mingling pilot program.⁵

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⁴ Container Recycling Institute, “Vermont.”
States with Bottle Redemption

As indicated in Figure 1, ten states and one territory have bottle bills in place: California, Connecticut, Hawaii, Iowa, Maine, Massachusetts, Michigan, New York, Oregon, Vermont, and the U.S. territory of Guam. Delaware previously had a bottle bill in place, which was repealed and replaced with a temporary tax in June of 2010.

![Figure 1: States and Territories in the U.S. with Bottle Bills](http://www.bottlebill.org/legislation/usa.htm)

Vermont

Vermont passed the nation’s first bottle bill in 1953 named the Beverage Container Law, which banned the sale of beer in non-refillable bottles. The legislature then allowed the bill to expire four years later as a result of strong lobbying pressure from the beer industry. Vermont’s current bottle bill was the second passed in the United States. It was enacted to “reduce litter, increase recycling, reduce waste disposal costs, create local jobs and save energy.” The original law covered all beer and soda containers, and was the first to include a handling fee of 3.5 cents for retailers. In 1991, the Beverage Container Law was expanded to include liquor.

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6 Container Recycling Institute, “What is a Bottle Bill?”
8 Container Recycling Institute, “Vermont.”
9 Vermont Solid Waste Division, “Bottle Bill Rules,” accessed February 1, 2012,
Vermont’s handling fee has created a large number of redemption centers. In 2005, the overall redemption rate in Vermont was 85%.

Oregon

Oregon has the longest running bottle bill law, enacted in 1971 and implemented in 1972. It currently covers beer, malt, carbonated soft drinks, and bottled water. The bill was created to eliminate litter, particularly in public areas, beaches, and highways. Refillable containers have a deposit value of two cents; all others have a deposit value of five cents. Oregon has an overall redemption rate of 75%.

Oregon’s bottle bill remained unchanged until 2007. In 2007, the bill was amended to include water bottles. This amendment went into effect in 2009. The state expanded the bill again in 2011. The 2011 expansion requires all beverage containers to be redeemable, with the exception of wine, liquor, milk, and milk substitute containers. The expansion will occur either after 60% of all containers is recycled at approved redemption centers or by 2018, if the former does not occur. The expansion also requires that the deposit value for bottles increase to 10 cents if the average redemption rate falls beneath 80%. However, new bottles added by the 2011 legislation are not counted in this calculation.

All bottles were reclaimed at retail locations until 2010 when Oregon created two approved redemption centers. The 2011 legislation called for the establishment of a large-scale approved redemption center.

Maine

The Maine Returnable Beverage Container Law (“MRBCL”) was enacted in 1976 and implemented in 1978. All beverages are covered under this law except for dairy products, unprocessed cider, and aseptic containers. Aseptic containers are those made with paper products and polyethylene. Wine and liquor containers have a redemption value of 15 cents and all other beverage containers have a redemption value of five cents. Beverage containers can be reclaimed at retail stores and at designated redemption centers. Beverage container distributors who initiate deposits have an obligation to pick up containers from the retail


11 Source: Vermont Solid Waste Division, as per phone conversation between Evan Deal McDaniel and Cathy Stacey on 1/27/12.


14 Container Recycling Institute, “Oregon.”

15 Container Recycling Institute, “Oregon.”
dealers they distribute to or from the licensed redemption center that serves those retail dealers. There is a $100 fine per container for tendering containers purchased from out-of-state for redemption. In order to prevent out-of-state redemption fraud, rules were added to the MRBCL requiring individuals wishing to redeem more than 2,500 beverage containers at a time to provide the retail dealer or redemption center with their name, license plate number, and address each time containers are returned in bulk. Non-profit organizations are exempt from this rule. In 2011, beverage industry sources reported an overall redemption rate of 90%.16

Michigan

Michigan enacted their bottle bill in 1976 and implemented it in 1978 through the Michigan Container Law (MCL) 445.571.17 The accepted containers included beer, carbonated soft drinks, and mineral water. The original purpose of the bill was to reduce roadside litter, clean up the environment, and conserve energy and natural resources. The bottle bill put a 10-cent deposit on beer, carbonated soft drinks, and mineral water. It also included a five-cent deposit on refillable containers. In 1988, Michigan’s bottle bill was amended to include wine coolers and canned cocktails. In 1989, Michigan passed legislation giving retailers 25% of the unclaimed deposits. The other 75% is then deposited in the state's environmental fund.18

Currently, Michigan has the highest recycling rate in the country at 97%. At ten cents per bottle, it also has the highest deposit value in the country (Container Recycling Institute 2011).19 The graph below measures redemption rates in Michigan from 1990 to 2004, and asserts that Michigan's recycling rate has consistently remained above that of other states.20

Fraudulent container redemption takes place when containers without a designated deposit value are redeemed for money at a redemption center.21 To deal with the issue of fraudulent redemption, Michigan passed a number of amendments to the original act (House Bill 6442 [Act #384] and Senate Bill 1532 [Jelinek]: [Act # 389]) in 2008.22 These amendments mandate that manufacturers must place a machine-readable, state-specific marking on all metal and glass 12-
ounce (oz.) containers and 20 oz. plastic containers sold in a volume over 500,000 cases per year. They also created penalties for participating in fraudulent redemption. Fraudulent redemption in Michigan can result in penalties up to five years in prison, a fine of $5,000, and restitution.

Figure 2: Beverage Container Redemption Rates in States with Bottle Redemption Programs, vs. the U.S. Average.


California

California enacted its first bottle-bill in 1986, which was updated in 2007 through the California Beverage Container Recycling and Litter Reduction Act (AB 2020). The beverages covered under AB 2020 are beer, malt liquor, wine and distilled spirit(s) coolers, and all non-alcoholic beverages. The program does not include milk or any vegetable juice containers over 16oz.

23 Container Recycling Institute, “Michigan.”
Redemption amounts for consumers are five cents per container under 24 ounces and 10 cents per container larger than 24oz. Reclamation sites in California include state certified redemption centers, registered curbside operations, and drop-off centers.\(^{25}\) The state pays a 0.86-cent handling fee per container to supermarkets, non-profit convenience recycling, and rural region recyclers.\(^{26}\) The unredeemed profits from the program (profit from unreturned beverage containers) are property of the state. These profits are used for program administrative fees and non-profit grants. The program has been successful with an 86% redemption rate in 2011 of all beverage containers. Redemption rates have increased drastically over the years from 52% in 1988 to 86% in 2011.\(^{27}\)

**Delaware**

Delaware’s bottle bill was enacted in 1982.\(^{28}\) The bill originally placed a five-cent deposit on beer, malt, ale, soft drink, mineral water, and soda water bottles.\(^{29}\) Bottles were redeemable at retail locations and redemption centers.\(^{30}\) The five-cent deposit fee was intended to establish producer and consumer responsibility.\(^{31}\)

In May 2010, the Delaware Legislature approved the bill that would repeal the previously existing bottle bill. This replaced the 5-cent deposit for bottle redemption with a four-cent, non-refundable recycling fee. The fee was intended to create a fund for start-up curbside recycling programs. The bill also requires that all private and municipal waste haulers offer curbside recycling services for single-family homes by September 2011, for multi-family homes by 2013, and for commercial buildings by 2014.\(^{32}\)

Delaware legislators in favor of the repeal believe that the original bottle bill was ineffective in promoting recycling. Officials noted that many retail locations refused to accept returned bottles.\(^{33}\) Compared to other states with bottle bill legislation, Delaware’s redemption rate was considerably lower. In 2004 the recycling rate was found to be 14%.\(^{34}\)


\(^{29}\) Container Recycling Institute, “Delaware.”

\(^{30}\) Container Recycling Institute, “Delaware.”


\(^{32}\) Container Recycling Institute, “Delaware Replaces Bottle Deposits With Controversial Recycling Fee.”

\(^{33}\) Container Recycling Institute, “Delaware Replaces Bottle Deposits With Controversial Recycling Fee.”

\(^{34}\) Delaware Solid Waste Authority, “Estimated Statewide Residential Recycling Rates,” last modified in 2004, accessed on February 8, 2012,
Canadian Provinces with Bottle Redemption

Every Canadian Province has some form of policy or regulation with regards to beverage container waste management. In eight provinces, the law requires a deposit-return system for most or all beverage containers. This forces the producers and retailers to bear the costs of the system—full producer responsibility. Other provinces, such as Manitoba and Ontario, have voluntary redemption programs. In all ten provinces, beer containers are collected via deposit-return systems because of either government mandate or industry self-regulation.  

Ontario has two different program initiatives for container collection and redemption. Ontario created the Municipal Blue Box Program in 1994, which is a province-wide regulated residential curbside recycling program. This includes aluminum food and beverage containers, steel, polyethylene terephthalate (PET) plastics, and glass. Other containers may be voluntarily added to the program. Collection of these containers is facilitated through a curbside program instituted by municipal authorities. Brand owners and first importers (hereinafter, “stewards”) are charged with providing 45% of the funding for the Municipal Blue Box Program. The stewards also contribute an additional five percent to continuous program improvements. Municipalities are responsible for providing 55% of the net program costs.  

A new program called the Ontario Deposit Return Program (ODRP) was created in 2007 to include all wine, spirits, and beer. The Liquor Control Board of Ontario (LCBO) is the organization responsible for oversight of the program and contracted ‘The Beer Store’ for the purpose of beverage container collection. The Beer Store is a chain of retail beverage stores owned by Labatt Brewing Company Ltd., Molson Coors Canada, and Sleeman Breweries Ltd. The beverage containers are collected at any Beer Store locations, which include breweries, retail partner stores, LCBO agency stores, and empty bottle dealers. The ODRP is financed through the provincial government and unredeemed deposits. Fifty-one percent of program funds come from the unredeemed deposits. The other 49% is funded through the government. Containers returned through both programs provide an overall return rate of 91%. However, this is due to extremely high return rates for refillable beer containers, the overall collection rate for the curbside program is only 40%.  

Manitoba instituted a curbside recycling system in 2008 under the Waste Reduction and Prevention Act. This program is similar to the initiatives instituted by Ontario. Municipal  

authorities operate or contract out multi-material curbside programs. The program is funded through a two-cent Container Recycling Fee (CRF), which is voluntarily paid by most non-alcoholic beverage stewards (distributors and first importers). This cost is then passed on to the consumer at retailers. Refillable and non-refillable beer containers are collected and paid for through a different program initiative run through the beer industry (Brewers Retail Inc.). The province has a total container recovery rate of 56%.  

Conclusion

Since Vermont’s first bottle bill was enacted in 1953, ten other states have implemented bottle bills of their own. While programs differ from state to state, the mission of the programs remains constant – an effort to reduce litter and waste, encourage recycling, and re-use consumer materials. Each state bill places a specific deposit value on certain bottles, ranging from five to 15 cents. All states currently with bottle recycling programs report high rates of return on beverage containers. This ranges from a low of 75% return rate in Oregon to a high of 97% return rate in Michigan. The Michigan bottle bill places a 10-cent deposit value on beer, carbonated soft drinks, and mineral water and a five-cent deposit on refillable containers, currently holding the highest redemption rate in the country (96.9%). Delaware, which repealed its once-existing bottle bill in 2010, had a 5-cent deposit on bottles covered under the bill and a redemption rate of 12%. As displayed in the chart below, it is clear that states with higher monetary incentive for bottle redemption displayed increased redemption rates. States without redemption programs have a recycling rate of 24.2% on average, whereas the states with redemption programs have recycling rates of 70% or greater. 

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The original version of this report was completed by Stephanie Bennett, Matthew Reed and Steve Adams on March 11, 2002, in response to a request from Senator Virginia Lyons. The updated report was completed on by Alexander Rosenblatt, Suzannah Balluffi-Fry, Michael Gibson, and Evan Deal McDaniel under the supervision of graduate student Kate Fournier and Professor Anthony Gierzynski on February 16, 2012.

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Disclaimer: This report has been compiled by undergraduate students at the University of Vermont under the supervision of Professor Anthony Gierzynski. The material contained in the report does not reflect the official policy of the University of Vermont.

40 Container Recycling Institute, “Delaware Replaces Bottle Deposits With Controversial Recycling Fee.”
41 Container Recycling Institute, “All U.S. Bottle Bills,” accessed January 27, 2012,
<table>
<thead>
<tr>
<th>State</th>
<th>Name</th>
<th>Dates</th>
<th>Beverages Covered</th>
<th>Containers Covered</th>
<th>Amount for Deposit</th>
<th>Handling Fee</th>
<th>Other Fees</th>
<th>Reclamation System</th>
<th>Unredeemed Deposits</th>
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</thead>
<tbody>
<tr>
<td>VT</td>
<td>Beverage Container Law (1972), Solid Waste Act (1987)</td>
<td>Enacted 4/7/72, Implemented 7/1/73</td>
<td>Beer, malt, carbonated soft drinks, mixed wine drinks; liquor</td>
<td>Any bottle, can, jar or carton composed of glass, metal, paper, plastic or any combination (Biodegradables excluded)</td>
<td>Liquor: 15¢ All others: 5¢</td>
<td>4¢ for brand-sorted containers and 3.5¢ for commingled brands</td>
<td>Retail stores and redemption centers, If retailer is located conveniently near a licensed center and thereby gains state approval, retailer may refuse containers</td>
<td>Retained by distributor/bottlers</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>The Beverage Container Act</td>
<td>Enacted 7/2/71, Implemented 1/01/72</td>
<td>Beer, malt, carbonated soft drinks, &amp; bottled water (will cover all beverages except wine, liquor, milk, and milk substitutes by 2018)</td>
<td>Any individual, separate, sealed glass, metal or plastic bottle, can, jar containing a beverage</td>
<td>Standard refillable: 2¢; all others 5¢ (with potential to increase to 10¢)</td>
<td>none</td>
<td>Retail stores or approved redemption centers</td>
<td>Retained by distributor/bottlers</td>
<td></td>
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<tr>
<td>ME</td>
<td>Maine Returnable Beverage Container Law</td>
<td>Enacted 1/2/76, Implemented 6/1/78</td>
<td>All beverages except dairy products and unprocessed cider</td>
<td>All sealed containers made of glass, metal or plastic, containing 4 liters or less, excluding aseptics</td>
<td>Wine/liquor: 15¢ All others: 5¢</td>
<td>4¢ (.5¢ less if part of qualified commingling agreement)</td>
<td>Retail stores and redemption centers; Dealers may refuse containers if they have an agreement with a nearby redemption</td>
<td>Property of state</td>
<td></td>
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<tr>
<td>State</td>
<td>Law Title</td>
<td>Enacted Date</td>
<td>Implemented Date</td>
<td>Covered Beverages</td>
<td>Container Type</td>
<td>Deposit</td>
<td>Redemption Center</td>
<td>Revenue Distribution</td>
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<tr>
<td>MI</td>
<td>Michigan Beverage Container Law</td>
<td>11/2/76</td>
<td>12/3/78</td>
<td>Beer, soft drinks, carbonated &amp; mineral water, wine coolers, canned cocktails</td>
<td>Any airtight metal, glass, paper, or plastic container, or a combination, under 1 gallon</td>
<td>10¢</td>
<td>None</td>
<td>Retail stores</td>
<td>75% to state for env'tl programs, 25% to retailers</td>
</tr>
<tr>
<td>IA</td>
<td>Beverage Container Deposit Law</td>
<td>4/1/78, Implemented 6/2/79</td>
<td></td>
<td>Beer, carbonated soft drinks &amp; mineral water, wine coolers, wine &amp; liquor</td>
<td>Any sealed glass, plastic, or metal bottle, can, jar or carton containing a beverage</td>
<td>5¢</td>
<td>1¢, paid by distributor to retailer or redemption center</td>
<td>Retail stores and redemption centers</td>
<td>Retained by distributor/bottlers</td>
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<td>CT</td>
<td>Beverage Container Deposit and Redemption Law</td>
<td>4/12/78; Implemented 1/1/80</td>
<td></td>
<td>Beer, malt, carbonated soft drinks, and bottled water</td>
<td>Any individual, separate, sealed glass, metal or plastic bottle, can, jar or carton containing a beverage. Excluded are containers over 3L containing noncarbonated beverages, and HDPE containers.</td>
<td>5¢</td>
<td>Beer 1.5¢, other beverages 2¢</td>
<td>Retail stores and redemption centers</td>
<td>Returned to the state</td>
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<td>MA</td>
<td>Beverage Container Recovery Law</td>
<td>6/4/81, Implemented 1/1/83</td>
<td></td>
<td>Beer, malt, carbonated soft drinks, &amp; mineral water</td>
<td>Any sealable bottle, can, jar, or carton of glass, metal, plastic, or combo. Excludes biodegradables</td>
<td>5¢</td>
<td>2.25¢</td>
<td>Retail stores and redemption centers</td>
<td>Property of state general fund</td>
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<td>NY</td>
<td>New York State Returnable Container Law</td>
<td>6/15/82, Implemented 7/1/83</td>
<td></td>
<td>Beer, malt, carbonated soft drinks, water, wine coolers</td>
<td>Airtight metal, glass, paper, plastic, or combination of the above, under 1</td>
<td>5¢</td>
<td>3.5¢</td>
<td>Retail stores and redemption centers</td>
<td>80% to the state General Fund; 20% retained by distributor</td>
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<td>State</td>
<td>Lawnesen</td>
<td>Enacted</td>
<td>Implemented</td>
<td>Beverage Container Recycling and Litter Reduction Act (AB 2020)</td>
<td>Enacted 9/29/1986</td>
<td>Implemented 9/1/1987</td>
<td>Beer, malt, wine &amp; distilled spirits coolers, all non-alcoholic beverages except milk</td>
<td>Aluminum, glass, plastic and bi-metal. Exempts refillables</td>
<td>(10¢: 24oz and greater) and (5¢: under 24oz.)</td>
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</tr>
<tr>
<td>CA</td>
<td>Solid Waste Management; Deposit Beverage Container Law (Act 176)</td>
<td>Enacted 6/25/02, Implemented 1/1/05</td>
<td>All nonalcoholic drinks, except for milk or dairy products, and limited alcoholic drinks (beer, malt beverages, mixed spirits, mixed wine).</td>
<td>Aluminum, bi-metal, glass, plastic (PET and HDPE only) up to 68 oz.</td>
<td>5¢</td>
<td>Variable fee of 2–4¢ paid to redemption centers from the Deposit Beverage Container Fund.</td>
<td>1¢ non-refundable &quot;container fee&quot; (added to price of beverage) paid to fund redemption centers.</td>
<td>Certified Redemption Centers (CRCs) operated by privately owned by State permitted Solid Waste facilities.</td>
<td>Property of state: used for program administration</td>
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</tbody>
</table>