

# Seeking Redemption in a World of Waste:

A Comparative Analysis of Bottle Deposit Systems and  
Campaigns and a Consideration of Their  
Comprehensive Sustainability

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Honors in Environmental Studies  
Final Draft  
April 20, 2016

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## Chapter 1

### Making Cents of it All: Why Bottle Bills?

Resource reuse and recycling has been commonly and creatively incorporated into communities worldwide in a wide variety of ways. This type of process only became formalized into its own sector after the Industrial Revolution incited the advent of a society that uses resources quickly, often inefficiently, and without consideration of disposal costs. Disposal costs include the transport, breakdown, and economic valuation of the costs, or benefits (typically the latter) that waste disposal leaves upon people and the surrounding environment. However, in the present economic system it is typically more profitable for producers to skip this step, as there is often no requirement to cover these costs or take preventative action to reduce waste. This lack of acknowledgement of the production of waste serves to make it invisible, despite the very tangible impacts that waste inflict upon industry, people, and communities. As Ayers describes, “we persist in referring to the ‘final consumption’ of goods as though material objects such as fuels, materials, and finished goods somehow disappeared into the void” (284).

In an effort to push back against this erasure of waste and other environmental issues, many places implement forms of structural environmental policy. There are two major kinds of environmental regulation: command and control and economic market-based regulation (Harrington *et al.*, 17; Olmstead). These two types differ in the techniques they use to encourage compliance, or discourage noncompliance, with environmental policy. Command and control policies are “expected to solve the problem either through control of the processes that lead to the problem ... or through amelioration of the problem after it occurs” (Holling, 329). This type of policy creates sweeping solutions to problems with the understanding that they are “well-bounded” issues, with simple cause and effect origins, while in reality many environmental issues are rooted

in a “complex, nonlinear, and poorly understood natural world” that are not easily “solved” by command and control policies (329).

A more flexible method, and the type that is the subject of this paper, is market-based environmental regulation. These types of systems use economic incentives as the driving force behind its policy, rather than punitive threats for noncompliance. While market-based regulation can inflict higher costs on those being regulated, they tend to provide significant economic savings through its efficient system (Harrington, 17). Bottle deposit systems experience similar types of successes and struggles, as they greatly reduce litter, promote recycling, but have been criticized for increasing costs to consumers and the beverage industry.

The Container Recycling Institute defines a bottle bill as, “a minimum refundable deposit on beer, soft drink and other beverage containers in order to ensure a high rate of recycling or reuse.” In the course of this research I will use the terms ‘bottle bills’ and ‘container deposit legislation’ interchangeably. Both terms refer to all types of recyclables that are currently covered in some container deposit systems in the United States which can include glass bottles, plastic bottles, and aluminum cans for the beverages beer, malt drinks, soda, mixed spirits, quine, liquor, juice, sports drinks, and mineral water. This type of litter is targeted by a deposit system because beverage containers of these types historically make up between 40-60 percent of the total volume of litter and are made up of a type of material that is easily recycled (Geiger, vii; Moore, 59).

Currently ten U.S. states and Guam have active container deposit legislation, as do many other countries around the world including Canada, Australia, South Korea and others. While bottle bills have proliferated across the nation and the world, these legislations are not all identical and their distinct variances can produce differing results and impacts. This research will investigate the influencing factors in passing or defeating bottle bills as well as the various nuances and

implications of the differences between the legislations in the states of Oregon, Maine, Washington and Massachusetts.

Bottle deposit market-based environmental regulation spread like wildfire through the environmentally activated American political system of the 1970s, resulting in six more states enacting various bottle deposit systems within the decade. Immediately, oppositional arguments against bottle deposit systems emerged from the beverage industry, citing the legislation's detrimental effects on beverage prices, beverage industry jobs, and called its litter-reduction impact mediocre. This furious spread of policy and consequent controversy also created significant space for research and reports on the efficacy of bottle bills--many of which are consulted and analyzed for bias in the course of this research. Many even assumed that a national bottle bill was inevitable (Beverage Container Reuse Hearings, 281).

My form of assessment for analyzing the comparative successes or failures of bottle bill systems through a wide range of variables is the Triple Bottom Line (TBL) definition of sustainable practices. A term coined as a multidimensional response to responsible business management, this framework requires consideration of environmental, "social and economic dimensions of sustainable development" (Elkington, 1997). As this research deals with an intersectional issue of business, policy, and economics that have resulting environmental, social, and economic impacts, this TBL assessment of true sustainability best allows me to compare and contrast the ways in which some states' bottle bill systems flourish or fall short.

This research is a case-based comparative analysis between bottle bill campaigns and policies in four different U.S. states in order to analyze the determining and preventative variables in the passage of bottle bills. Additionally, this study compares what ways these legislations are ultimately effective or ineffective in meeting economic, environmental, and social goals. These

four case study states have been selected to exemplify several public, private, and mixed systems that display varying outcomes in participation in the program and impacts on litter and local economies.

Bottle bill systems are well-suited to be analyzed with this comprehensive framework because they can provide economic, social, and environmental benefits to the places where this kind of deposit system is implemented. Economically, bottle bills create jobs in redemption, transportation, and create high quality recycled products in high demand by recycling facilities. Further, the unredeemed deposits from containers not returned results in a large pool of money that can be strategically used for state spending, environmental projects, or to fund the container program itself. Environmentally, bottle bills have proven themselves to be powerful mechanism to decrease litter and to conserve resources through a monetary incentive to reuse and recycle. While it is to be expected that much of the literature on the subject focuses on the cost and economic efficiency of the market-based regulation, I believe that there remains a hole in the literature that fails to directly recognize the ways that deposit systems are entangled in local, state, and even international social systems. It is within this arena that this research is one of the first to explore the social services and social and environmental justice aspects of bottle bills. Scrounging for metals, plastics, and glass increases with the presence of bottle bill systems and the opportunity for redemption provides a valuable social service as a source of income for people who are fundraising, low-income, or the unhoused.<sup>1</sup> Scrounging here, is defined as “to seek to obtain by irregular means” (Ferrell, 8).

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<sup>1</sup> Here I use the term ‘unhoused’ rather than ‘homeless’ because the latter term equates a house with a home, which is not always the case (OSL).

This research is a case-based comparative analysis between bottle bills and bottle bill campaigns in four different U.S. states in order to discover what variables support and prevent the passage of bottle bills, and in what ways this type of system is ultimately effective in meeting economic, environmental, and social goals. The foundation of this research is built upon nine interviews with experts, activists, and government staffers who are or have been previously involved with the bottle bill systems in their respective states. These insights have proved invaluable to the quality and relevance of my work, and I greatly appreciate their knowledge and willingness to share it with me.

This research is an in-depth investigation into a highly specific issue, but the conclusions found here ultimately display wider implications about environmental policy on the state level, suggest powerful campaign techniques, and consider the true sustainability of recycling in the context of the globalized world of today. Bottle bills also brings the concept of “consumer citizenship,” into the discussion. Consumer Citizenship is defined as, “an individual who makes choices based on ethical, social, economic and ecological considerations. The consumer citizen actively contributes to the maintenance of just and sustainable development by caring and acting responsibly on family, national and global levels” (Thoreson, 7). Bottle bills are a type of consumer citizenship because rather than considering a way to end the production of an enormous amount of beverage containers, it develops a system to make the end result of this production *not as* environmentally detrimental. While acknowledging the significance of this standpoint and the unintended consequences both positive and negative that can result from it, this study ultimately takes a critical view of the way that capitalism limits the imagination of environmentalism and corresponding policy to stay within the constraints of consumerism.



The following chapter outlines the relevant major literature concerning bottle bills: state environmental history, political campaign science and strategy, and the international recycling market. Chapter 3 is a depiction of my methodological structure for this research, as well as an explanation of the independent variables that influence the effectiveness of the system and the outcome of bottle bill campaigns Chapter 4 and 5 analyze and compare the bottle bill campaigns in the case study states of Oregon and Maine, and Washington and Massachusetts, respectively. In Chapter 6 all case studies are studied under a different form of comparative analysis to determine relative success of the bottle bill programs under the framework of Triple Bottom Line Sustainability. Chapter 7 explores the international implications of bottle bill systems and tracks the travel and impact of recycled materials internationally. The final chapter will conclude the results of this research and discuss the wider implications of its findings.

## Chapter 2

### Scholarship and Perspectives on Bottle Deposit Systems and Related Issues

#### *Refillable to Disposable: Setting the Stage for Bottle Bills*

Bottle Bills represent a complex intersection of politics, private industry, local economy, environmentalism, social services, and global trade. A Pigouvian tax system is the inspiration for the bottle deposit system, which is one that “requires a consumer to pay a fee at the time of disposal that is equal to the marginal damage caused by the disposal” (Ashenmiller, 2011). Using a market-based disincentive to regulate littering, bottle bill systems instead require a fee payment at the point of purchase. Then, it establishes a deposit refund program that refunds the initial fee paid when containers are appropriately recycled.

Container-deposit systems of recycling materials are a worldwide phenomenon and have long been used both formally through legislatively authorized procedures, and informally through both private business efforts and street scrounging. In the United States before 1935 most beverages were sold in refillable glass bottles from family firms and businesses. Within these small scale grocers and corner stores, an informal bottle return system was built upon container reuse, where the glasses would be reused up to 50 times until too worn down to reuse again, when it was then permanently recycled (Gitlitz, 2013). This system is still common in many countries today, even in the absence of monetary incentives due to the refillable nature of glass bottles and the presence of refilling systems by beverage companies (ILSR).

However, the intense period of technological innovations during and following World War II spurred the beginnings of today’s culture of disposability, largely through the rising popularity of new materials for containers. Steel was used for beer and soda cans starting in 1935, but was beat

out by the powerful introduction of single-use aluminum cans in the late 1950s. Plastic was also a heavyweight addition to the materials arena. Post-war, one plastic executive stated, “virtually nothing was made of plastic and anything could be” (Rogers, 2005). A 1955 article in *Life* magazine called “Throwaway Living” celebrates the potential for human liberation through a culture of disposability—especially within the home (Life Magazine, 1955). Plastic bottles hit the U.S. market in the 1950s and quickly became popular as a very common one-way product for stores, grocers, and restaurants (Walth, 284). In the late 1960s this sense of freedom from single-use items began to be truly questioned by the growing environmental movement. Milestone publications such as Rachel Carson’s *Silent Spring* brought the national attention to the unintended dangers caused by commonly used chemicals and disposable products.

#### *Reports and Studies on Bottle Bill Impacts*

Studies disagree on the significance that beverage containers hold within the makeup of the total litter portfolio prior to any bottle bill system. One study shows that beverage containers make up about 20% of the total litter portfolio<sup>2</sup> in rural areas, and 10% in urban regions, but the Environmental Protection Agency (EPA) estimates that beverage containers represent about 20-30% of all litter by piece count, and 40-60% of volume (Geiger, vii; Moore, 59).<sup>3</sup> With this discrepancy in mind, it was still the case that outdoorsman Richard Chambers was so dismayed by the prevalence of litter in his community that he brought the preliminary idea of a deposit system to the attention of several prominent state politicians. Ultimately, the Oregon State Legislature passed the nation’s inaugural bottle bill legislation in 1971.

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<sup>2</sup> However, whether this litter metric is measured by percent piece count or percent volume is unclear.

<sup>3</sup> Another item that greatly contributes to litter is paper products, although no other single group of throwaway products are as prevalent in litter as the beverage container bottle or can (Maine House, 3/25/76, 686).

A large portion of the literature consulted for this research include reports and analyses of the functioning bottle bills. These policy reports focus on the litter reduction, costs, energy conservation, and economic impact from state container deposit systems. Sources including Gudger and Bailes (1974) and government reports of the Office of Technology (1979) on the subject have provided a large amount of the economic and energy specific data that has been referenced throughout the course of this research.

These policy reports tend to be either highly favorable or highly antagonistic toward bottle bills. Robert Geiger, for one, is critical of them in his piece, "Beverage Container Deposit Laws: Are They Effective?" The major criticisms here include that the major goal of beverage container deposit policies, at their time of passage, to decrease litter fails because beverage containers are only a small fraction of the total litter profile. Additionally, he argues that while bottle bills may establish some entry-level jobs, they take away more highly-skilled positions within the beverage manufacturing industry. He argues that this is the case because the greater system needed for bottle bills creates more lower-wage jobs for sorters and transporters, but decreases the amount of skilled manufacturing positions due to the presence of a competing market of recycled materials (62). Instead of a mandatory bottle bill, Geiger supports voluntary recycling systems that include command and control methods of fines for littering culprits. The author shares several examples of Washington state and Ohio's alternative approach to litter control that he claims, "demonstrates that American communities can be clean without overburdening local government budgets and consumer pocketbooks" (Geiger, 71).

Similarly, Moore and Scott lay out a wider survey of the impacts of Bottle Bills during an anti-regulatory period in the country's history during the Reagan administration. In their 1983 research, they begin by noting the caveat that there exist several flawed research designs underlying so-

called empirical studies in the field. Their major results show that with this caution in mind, bottle bills provide positive environmental benefits, but have shown to cause negative economic results in regards to lower employment of higher level jobs in the beverage industry and increases in container prices and production costs at least in the short-term (77).

Other studies have shown far more supportive results for bottle bills. Don Waggoner, an Oregon businessman who worked to pass the state's bottle bill lays out the benefits of the Oregon system in his survey conducted through the Oregon Environmental Council called, *Oregon's Bottle Bill: Two Years Later*. This 1974 report shows that Oregon's roadside litter decreased by 39% in piece count and 47% by volume (xi). Gudger and Bailes specifically investigate the economic impacts of the Oregon Bottle Bill and conclude that enforcement costs are minimal, no change in sales volume of beer or soft drinks occurred, and inflation skewed the impact of the bottle bill on price of beverages and no product price increases could be conclusively supported by the data. Further, this study showed that the bottle bill's standardization of malt beverage bottle sizes has made the refillable system more easily implemented (25). This aspect of the bottle bill is elaborated upon further, as it also served as a compromise to help gain support of local businesses.

A frequent contest to bottle deposit systems is that alternative litter laws are more appropriate for litter reduction and are less economically intrusive than bottle bill systems. In support of this argument, Geiger cites the Institute for Applied Research Study that 73% reduction in litter in 43 test sites in the state thanks to the presence of the Washington State Litter Control Program, noting that 54% of the litter in Washington is from paper products, not beverage containers (1976). While voluntary recycling systems may also help reduce litter, it requires far more funding, \$1 million in the case of Washington State, and necessitates administration to enforce violations (Beverage Container Reuse and Recycling Act Hearings, 1977). The bottle bill in Oregon, just next door to

Washington, reduced an estimated 47% of its litter and uses no public money to run (ODEQ). The system is estimated to have created annual savings of at least \$366,000 from not having to pick up as much litter as before (Gudger, 68). Further, bottle bills provide a specific infrastructure for which to track recycling participation, which expands the impacts of the bottle bill past litter reduction to a wider goal of resource conservation that can be guided by comprehensive data collection facilitated by a deposit system.

### *Types of Sources Referenced*

Legislation, reports, transcripts, task force publications, and committee presentations from state governments also shed important light on the multi-step, political process of passing a bottle bill. These sources also display the barriers and concerns of stakeholders that faced the legislation at the time of the bill's attempted passage. This research will conduct a thorough exploration of the existing or proposed legislation and campaigns of the states Oregon (1971), Maine (1972), Washington (1970, 1979 and 1982), and Massachusetts' proposed bottle bill expansion (2014).

Ballotpedia is a reliable website to access legislation and corresponding information about ballot campaigns and campaign funding that was referenced frequently throughout the course of this research. Bottlebill.org is a site managed by the Container Recycling Institute and provides a database of bottle bills around the world, key facts, full legislative text, news updates, and has a feature to compare aspects of U.S. bottle bills. While it is a source that directly studies, supports and promotes Bottle Bills in the United States, it nonetheless is a well-cited, comprehensive reference to the details of the types of container deposit systems that are implemented in the US and around the world which I have valued greatly during this study.

## *Stakeholders*

There are a multitude of stakeholders who are impacted by state bottle deposit laws. Initially, there is the state government. The bill might pass into law through the state legislature which would require one or several state legislators to act as sponsors and would involve many governmental discussions, compromises, and committees before the final draft is eventually put up to a vote and potentially passed. If a bottle bill is passed on the public ballot, then it still requires administrative involvement from the government to run and verify the public elections. Depending on the details of the bottle bill system, the state government may play a role in the continuing management of the deposit system, may use taxpayer money for the program, and in some cases the government is the recipient of the funds from the unclaimed bottle deposits.

Private industry can also be involved in the administration of the bottle bill. As is discussed more in later chapters, Oregon has ultimately created a unique management system for its state bottle bill that largely excludes the state government and therefore does not use public money in its day-to-day functioning of the law. This system uses a cooperative that has the membership of 98-99% of all beverage distributors within the state of Oregon (Bertges). This consolidation of businesses allows the cooperative to streamline the refunds of beverage containers to consumers across the state from the various beverage distributors. This entity, called the Oregon Beverage Recycling Cooperative (OBRC), is an enormous stakeholder in support of Oregon's Bottle Bill and is funded by the unclaimed deposits for unreturned bottles.

Consumers are another critical stakeholder and interest group in regards to bottle bills. American consumers in states with bottle bill systems pay an upfront fee of 2-15 cents (depending on the container type) at the checkout counter, and then have the opportunity to receive their deposit back upon container redemption. Additionally, it is important to note that bottle deposit

systems also are a significant form of income for fundraising efforts, homeless, transient, or low-income people. Research such as *The Empire of Scrounge* by Jeff Ferrell discusses the recycling and dumpster-diving lifestyle, but there seems to be significant gap in the literature regarding the importance of bottle bills for these more social, alternative-income creation benefits (2006). Across the nation, support for bottle bills has largely been shown to be positive through both opinion polls and demonstrated support through the action of returning beverage containers.

Consumers react to price of goods during their decision to purchase or not purchase something. Because of this basic economic principle, consumers are a central concern of another stakeholder group for whom consumption is their bottom line: beverage retailers. Beverage retailers here means businesses that are not involved directly in the production of beverage products, but sell them secondarily within their businesses directly to the consumers. These stakeholders can range greatly in size from family-owned “Mom ‘n Pop” stores to mega grocery corporations. Retailers are often linked in with bottle bills because they are concerned about increased prices on beverages discouraging consumption. Grocery stores are also some of the most common locations for container redemption (Spendelow, Sylver). Beverage retailers also cite research that states with bottle bills often have higher prices of products, which is a method of passing the additional costs onto the consumer, (House 3/24/76, 624).

Beverage producers, distributors, and corporations are also stakeholders in this issue. Beverage distributors are different than retailers and producers, as they typically have a business relationship with producers and navigate the sale of products to retailers. Most of these corporations are the large, national or international companies including The Coca-Cola Company, Anheuser Busch, and Pepsi-Cola Company. These beverage corporations are pretty consistently opponents of container deposit legislation and bottle bills because of their concern that an increase in the



checkout price on their products will cut into their profits by discouraging them from buying as many products. If a handling fee is present in a bottle deposit system, it sometimes is the distributor who must pay the several cent fee per bottle (Gitlitz, 2001). This reality often makes beverage distributors anti-bottle bill. Beverage industry members such as bottlers, aluminum smelters, and container manufacturers tend to join in oppositional “anti-bottle bill coalitions” with other opponents of the legislation.

McCuan and Stambough, in their study of how contributions to ballot-issues impact election results find that there is a strong link between funding source and electoral outcomes, and that it is significant to the electorate where the money comes from. However, the details of that information is not always widely disseminated (2005). In the State Legislatures, as well, the anti-bottle bill funding and lobbying has proven very powerful, despite initial support commonly displayed from the public for the legislation. A North Carolina Senator said, "I have touched no bill since I have been in the legislature that was more popular with the people -- or more despised by the opposition." (North Carolina, Bottlebill.org).

Corporations are not necessarily anti-environment, although they may take on environmental goals for profit-motivated reasons. A phenomenon called “astroturfing” has emerged where corporate forces back grassroots movements when the goal is favorable to them (Walker, 293). One example relevant to this topic is the Keep America Beautiful group, which was founded in 1953 with a mission to “inspire and educate people to take action every day to improve and beautify their community environment” (KAB). While this goal greatly appealed to environmentalists, KAB was actually founded by a group of business representatives from the packaging and beverage industries after they realized that the market’s transition to disposable products was having a negative impact on litter. Keep America Beautiful has consistently opposed

bottle bills, funded oppositional campaigns, and proposed alternative litter legislation that is more preferred by the industry, despite the fact that bottle bills have proven to be highly effective at litter reduction, the organization's main goal ("Keep America Beautiful"; Spendelow).

Recycling agencies or facilities are also stakeholders. Bottle bill systems have shown to increase the return rate of beverage containers into the local recycling system (Cahn, 1980). This type of legislation tends to increase the amount of material input, and ultimately profit for these companies (Moore, 64). Additionally, due to the sorting inherent in the bottle bill process, the quality of material for recycling is typically much higher in states with bottle bill systems (Lakeman). This is also an important quality to consider when analyzing the way that bottle deposit systems fit into the international recycling market, as is considered further in Chapter 7. Another group of ardent supporters include the environmental community. The diversion of waste from landfills for reuse, energy savings from recycling, less demand for mineral and resource extraction, and decreased litter all are reasons that environmentalists support bottle bills (Moore, 60). The supporting coalition typically has a foundation of environmental groups.

This paper examines the details of the container deposit legislation at the point of the legislative passage or failure. Research compiled by the Container Recycling Institute displays that there has been a significant slowdown in the passage of bottle bill laws and expansions, and even some laws that have been repealed. Table 2.1 lays out the timeline of bottle bill related legislations at the state level from 1970-2014. This table only includes bills of proposed initial container deposit legislation,<sup>4</sup> not expansions, that got reached a vote, either within a chamber of the state legislature or on the public ballot. It is extremely common that bottle deposit legislation is never brought to a

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<sup>4</sup> Only includes deposit systems, not outright bans on containers.

vote or fails meets the requirements for the ballot. In state legislatures, most bottle bills die in committee or are otherwise avoided through political means. The following timetable cannot encompass all of the hundreds of proposed pieces of bottle bill legislation that were “indefinitely postponed” or sent to die in committee.

The figure on the next page displays a concentrated rise in bottle bill proposals in the 1970s and early 1980s, with a noticeable gap in proposed legislation between 1988 and 2002. Several states had multiple attempts to pass bottle deposit systems, with only about half ultimately succeeding. Bottle bill legislation on the ballot proves much harder to pass over time, with just 3 of 12 ballot proposals passing into law. Studies show that the number of initiatives on all issues are decreasing, especially at the state level (McCuan, 263).

One shift on the political stage since most of these bottle bill legislations were passed is the 2010 Supreme Court ruling of *Citizens United vs Federal Election Commission*. The ruling in favor of *Citizens United* legally permits corporations and unions to spend unlimited amounts of money on the political candidates of their choice through the intermediate body of a Super PAC. John Coates argues that the ruling of *Citizens United* has prevented politics from reflecting the opinions and goals of its individual stakeholders and citizens because it legally protects shareholder interests through campaign results in this new “corporate democracy” (657).

Figure 2.1

State	Year Enacted	State Legislature or Ballot?	Result	Notes
Washington	1970	Ballot	Defeated	
Oregon	1971	Legislature	Passed	
Vermont	1972	Legislature	Passed	
Maine	1976	Ballot	Passed	Legislatively Referred to Ballot
Michigan	1976	Ballot	Passed	
Massachusetts	1976	Ballot	Defeated	Defeated by 0.86%
Colorado	1976	Ballot	Defeated	
Iowa	1978	Legislature	Passed	
Connecticut	1978	Legislature	Passed	
Alaska	1978	Ballot	Defeated	
Washington	1979	Ballot	Defeated	
Maine	1979	Ballot	Defeated	Attempted repeal of bottle bill law
Ohio	1979	Ballot	Defeated	
Montana	1980	Ballot	Defeated	
Massachusetts	1982	Legislature	Passed	Legislative override of gubernatorial veto.
Delaware	1982	Legislature	Passed	
Arizona	1982	Ballot	Defeated	
California	1982	Ballot	Defeated	
Washington	1982	Ballot	Defeated	
California	1982	Ballot	Defeated	
Colorado	1982	Ballot	Defeated	
New York	1982	Legislature	Passed	
California	1986	Legislature	Passed	
Washington DC	1987	Ballot	Defeated	
Montana	1988	Ballot	Defeated	
Hawaii	2002	Legislature	Passed	
Delaware	2010	Legislature	Law Repealed	BB Law replaced with Universal Recycling Law
Guam	2011	Legislature	Passed	Also requires military support.
Nevada	2011	Legislature	Passed	Study Bill. Many exemptions to law.

Research by Haight *et al.* displays the increasing ease in which these national corporations can influence the outcome of a supposedly democratic election (7). For example, large corporations like Coca-Cola and Anheuser Busch funnel millions of dollars into anti-bottle bill campaigns across the country. Further, bottle bills are not being proposed to state governments as frequently, especially within the last five years. In fact, the data and policy sites Ballotpedia, Container Recycling Institute and Bottlebill.org, show that only one bottle deposit system,

amendment, or expansion has passed the ballot or state legislature since 2010 (Powell). However, it is important to note that proposed legislation to repeal bottle deposit systems was also defeated.

The effort to expand the bottle bill to include more types of beverage containers for redemption other than beer and soda containers has been at the center of many political discussions of bottle bills over the past decade. This research will specifically explore the 2014 rejection of a proposed expansion of the bottle bill to include plastic water bottles in the state of Massachusetts. Viscusi *et al.* explores the specific topic of water bottle recycling practices in their 2009 piece, “Discontinuous Behavioral Responses to Recycling Laws and Plastic Water Bottle Deposits.” This source is specifically relevant to the case study of Massachusetts. This paper explores the contradiction that waterbottles experience in contrast to standard economic theory: for actors to either recycle diligently, or not at all. Ultimately, Viscusi concludes that water bottle redemption appears differently from the deposit system of other containers because “the measures have a transformative effect, shifting individual consumers from not recycling at all to becoming committed recyclers. Consistent with our result that people respond in a discontinuous manner to recycling incentives, policies have their greatest effect among those who would not already choose to recycle” (25).

Major aspects of the bottle bill literature discuss the deposit price, impacts of the price on consumer habits, and the effectiveness of the system on litter reduction. States in the U.S. that have bottle bills have deposit prices that range from \$0.02 to \$0.15, depending upon the type and size of container. The impact of bottle bills upon beverage prices with rebate opportunity has been the focus of many studies including Criner which found that a comparison of Maine beverage prices with non-bottle bill states such as New Hampshire and Rhode Island, Maine sodas were priced between 14 and 16 cents higher, and beer was 1-2 cents higher in cost than NH and RI (37).

Research conducted by Santoni and Van Cott in 1977 states that for some consumers, mandatory deposit laws will increase the price of beverages. Therefore, the system requires a 14.26% decrease in litter “in order to be considered efficient” (1977). However, debate began between academics of the BLM and these scholars about the methods for measuring litter reduction (Loomis, 1978). Loomis maintained that the research in the Santoni and Van Cott paper was misleading in their measurement of the change of amount of containers recycled before and after the legislation. This type of methodological debate is common within the existing literature on this topic.

Altogether, state-administered bottle bill systems do create costs, but this net loss is often counteracted by assigning a per container price value on unredeemed containers that returns to the government through a full or partial escheat. Escheat is, “a common law doctrine that transfers the property of a person who dies without heirs to the state (“Unclaimed Deposits”). Depending on the amount of containers that are returned or not returned for their deposit by consumers, this can be a large source of revenue for the state (“Unclaimed Deposits”). Economic analyses of the predicted impact of a bottle bill in the state of Maine lists increased costs for grocers, brewers, bottlers, and distributors, but a total gain of over \$3 million under a returnable system due to reduced litter collection, reduced costs to consumers, and container cost savings for brewers and bottlers (O’Brien, 1975; Ginn, 1973).

### *Social Issues and the Bottle Bill*

As I mentioned earlier, there is a gap in the literature about the connections between social issues and bottle bills. Many of my interviewed sources have shared anecdotal information that bottle bills are a powerful form of alternative income creation and fundraising, albeit one that is tinged with the stigma associated with “trash” (Ferrell, 3). A first-of-its kind study found that bottle deposit systems are most commonly used by the lowest wage earners, and that the income they

make from the process is therefore very significant (Ashenmiller) However, it also has become apparent through these interviews that these social services were unintended consequences of bottle deposit systems, structurally inferior to environmental and economic goals. Several recent changes in states systems are being conducted without much consideration of the needs of these kinds of users, especially the unhoused. This is discussed in greater detail later in this research.

Waste and recycling is often the end step of the consumer cycle. Because of this, it is highly difficult to obtain accurate data and information about the details of the recycling and garbage industry, especially if these systems get linked into the international trade of waste (Minter, i). The recent book *Junkyard Planet* by Minter provides some limited insight into this ever-changing industry that's controlled by the global market forces, but more up-to-date information is shared regularly by ISRI, the Institute for Scrap Recycling Industries Inc. Extraction of resources for manufacturing of materials such as PET plastic, aluminum, and glass can be a highly carbon and time-intensive process. Aluminum in particular requires the mining and extraction of bauxite, which is a mineral compound that is frequently removed with strip mining methods in many developing countries and then is smelted at the expense of the health and safety of workers, local people and the environment (Auty, 143; O'Connor, 75). While the pressure to export waste out of a developed country like the United States is powerful, it is also highly motivated by the reality of a powerful, magnetizing force of the market from places such as China. van Beukering writes about the growing demand for plastic products worldwide, and China's consequent need to import existing plastics in order to supplement its insufficient domestic primary plastic production industry. This research will focus specifically on the impacts of the imported plastic recycling industry in Wen'an County, China.

## Chapter 3

### Comparative Research Methods

My research is performed on the scale of analysis of the state for all stages of comparison. This more macro level of analysis is informed both by primary interviews, policy study, and relevant scholarly research. With ten bottle bill systems enacted in the country currently, this research is more intensive than extensive in its scope of study (Landman, 29). The four case studies were chosen in order to have the findings more grounded in its specific state context and to overall maintain a lower level of abstraction upon the research (Landman, 24).

The dependent variable in this study is the political outcome of either the passage or defeat of bottle bill legislation. From there, the quality of its result is considered and compared between states through nine major independent variables and consideration of the state's socio-political setting. This type of analysis is an empirical type of study, in which the research seeks to "establish causal relationships between two or more concepts to explain observed phenomena" (Landman, 15). This is an inductive reasoning system that strives to explain results through the observation of known facts

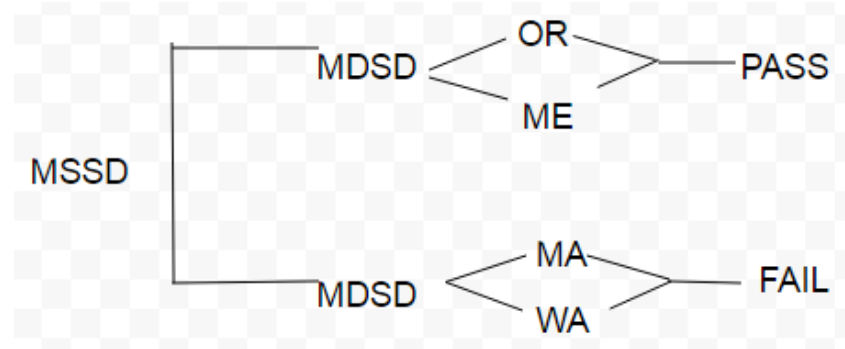
#### ***Comparative Research Design***

Throughout this analysis I use a two-tiered comparative analysis system, diagrammed in *Figure 3.1*. First, between the cases with "like" results (Oregon and Maine; Massachusetts and Washington), I employ Most Different Systems Design, or MDSD. This form of comparison is useful to explore the ways that independent variables influence how these quite contrasting pairs of states from opposite sides of the country arrive at either their eventual passage or rejection of a bottle bill system. This method of differential comparison "allows the researcher to distill out the



common elements from a diverse set of countries that have greater explanatory power” (Landman, 29; Przeworski, 1970). The MDSD method is appropriate for this stage of my research because it allows me to explore which factors between case studies were most influential in bringing the states to the same ultimate conclusion of the dependent variable. It is for this reason that I paired up the states of Oregon and Maine which have passed comprehensive bottle bill legislation, to compare with the unfulfilled campaigns of Washington state’s attempts to pass a bottle bill in the 1970’s, and 1982, and the failed Massachusetts water bottle expansion of Issue 2 in 2014 (Spendelow, Ballotpedia).

Over all of the case study states with existing bottle bills I will employ Most Similar Systems Design, or MSSD, to answer the question: why do similar state bottle bill laws on the same issue result in varying results and impacts? This MSSD comparative method is based off of J.S. Mill’s method of difference, and serves to identify key differentiating features among similar systems “which account for the [different] observed political outcome” (Landman, 29). Further, the geographic proximity of the pairs of Oregon and Washington, and Maine and Massachusetts, respectively, helps add to the underlying similarity upon which this comparative system is based. This MSSD technique will allow me to highlight specific differing results between case studies that relate back to the classifications and indicators that are explained throughout this chapter. *Figure 3.1* visually depicts the analytical trajectory of my Research Design.

*Figure 3.1****Independent Variables for Comparison***

I impose several categories upon the bottle bill policies explored as case studies. These classifications will largely fall upon the mechanisms that are outlined in the bottle bill legislation itself. *Figure 6.1*, in Chapter 6 details most of the considered indicators. The variables and indicators used in this research include the system's policy administration, sense of state environmental ethos, ownership of unredeemed deposit funds, handling fee price, method of passage, social services as a form of alternative income, deposit price, net oppositional funding against the bottle bill, strength of the supporting coalition, and the majority political party of the time. Several other variables that are considered in research cannot be explained or described so neatly into the cells of a table because they are more contextually based. These include the use of bottle deposit systems as a social service and alternative income method, as well as the unique situation of political and historical events that frame the way a state interacts with environmental policy. The details of the context-specific importance of these variables are discussed further on a case-by-case level in following chapters.

Classification of the influencing indicators that lead to passage or defeat of bottle bill legislation is an important part of my methodology, but throughout this research I also compare the overall results of these policies, in order to understand which types of policies can bring about more or less effective trends in results. I will refer to these facts as either variables or indicators,

because they display certain information about the policy mechanisms and effectiveness within a state. These indicators may be either quantitative or qualitative.

### *Administration of the Bottle Bill*

The first indicator is the administration and ownership of the system. This is an important consideration because the administrator of the system is the one who that has both the responsibility of and the power over the implementation the bottle bill system. While the administrator holds a large determining role in the effectiveness and inner workings of the bottle bill, it is also one that requires a substantial amount of funding to maintain the organization and its employees. This variable is considered in the MSSD section, because all of the bottle bill systems require very similar types of administration, and therefore allows for a consideration of the state's comparative effectiveness bottle bill administration.

### *Ownership of Unredeemed Deposits*

This research will consider whether the bottle deposit system is state-owned or industry owned. This research defines private as “any entity that is not a unit of government, including but not limited to a corporation, partnership, company, nonprofit organization or other legal entity or a natural person” and public as a government entity paid for by funds collected from the public (Oregon Laws). Maine uses a state-owned system while Oregon uses a private, industry-owned system. A significant aspect of this ownership is that the owner also retains the unredeemed deposits from cans. As this is a figure in the millions of dollars, this is an important structural aspect of the bottle bill and can influence whether or not certain groups will support or oppose their initiative based on their access or exclusion from this pool of money. At the time of the legislation's passage or attempted passage within the case studies explored here, states either

allocated their unredeemed deposits to the state for general uses, to the state for environmental uses, or to private industries who were the initiators of the deposit.

### *Handling Fee*

Another classification that differentiates the differing versions of bottle bill systems explored here is the presence or absence of a handling fee. This is significant because the presence of a handling fee puts an additional financial burden onto the beverage industry distributors, which further incentivizes these stakeholders to resist to the implementation or to the expansion of a bottle bill system. The case study states investigated here have handling fees that range from 0-4¢.

### *Mode of Passage*

This category differentiates between whether the legislation was proposed as a bill within the State Legislature or to the public on the ballot. Bills typically make their way through the state legislature with elected officials as its champions who facilitate shepherding it through the various committees, discussions, votes, and other bureaucratic steps until it is passed by a majority of both the House and Senate bodies of the state. The second option in many states is through the process of a Citizen's Ballot Initiative. Any citizen who legally collects the requisite signatures and completes the appropriate paperwork within a specific timeline can initiate a ballot initiative. After the requirements are fully met and verified in all of the steps, a ballot initiative is put forward for a vote for either passage or rejection by the citizens of the state. This categorization is significant because it also defines who will vote on any updates or changes to the state's beverage container deposit system.

### *Deposit Price*

The price of the deposit per container affects the rate of return of the container. At the time of the passage of the first bottle bill, the nickel deposit was the equivalent of 28¢ today (Spendelow). Consequently, return rates were also higher in the past when the real value of the nickel was higher than it is today. Therefore, the deposit price of containers is another variable category that is considered when comparing case study states because this directly influences the amount of container returned and the level of public participation in the program. Additionally, this factor continues to be an important consideration because some states are considering a future increase of their deposit price from a nickel to a dime.

### *Bottle Bill Opposition and Funding*

The presence and strength of political opposition can be a powerful determinant in the passage or defeat of bottle bill legislation. This analysis references the total quantitative spending records that display evidence of political opposition against the bottle bill, and I also utilize the net oppositional funding as a means of comparison. The net oppositional funding is the amount of money spent by opposition in anti-bottle bill efforts, as compared to the amount of money spent by the bill's supporters. In these earlier bottle bill campaign, campaign funding was not as publicly recorded, and so in many cases there are estimated ranges based off of several sources' spending records. This research will explore, and in some cases challenge the understanding that, "campaign spending is the best predictor of the success of ballot measures" as well as legislative lawmaking (McCuan, 77).

### *Majority Political Party*

The relative power of a political party in the state government is particularly important when the bottle bill is considered through the state legislature. However, if the government is divided or does not perceive the political climate as favorable to pass a bottle bill, in some cases it can also recommend the bill to the state for a public vote, as it did in the case of Maine. Therefore, the makeup of the state legislature can be significant with either method of passage. As is discussed further in following chapters, the issue of environment has become polarized along party lines in recent years. This wasn't always the case, as the research displays through its case study comparison. As bottle bill legislation is foremost considered to be a form of environmental policy, (although it also has many other aspects) a consideration of the majority party in power in state government can delineate the partisan or bipartisan levels of support for bottle bills. This can also offer insight into the ways that political parties compromise or divide over issues such as environmental policy.

### *Strength of Supporting Coalition*

The size, variability, and tactics used by the supporting coalition for the bottle bill can hold large influence over whether or not bottle bill legislation passes in a state. This research describes this strength of support using quantitative data of the amount of funding that the group was able to raise. Several forms of qualitative data are also referenced here, including a consideration of which groups make-up the coalition, whether or not the coalition is multi-sectoral, their advertising and messaging tactics and volunteer participation

### *State Environmental Ethos*

State environmental ethos is a difficult trait to qualify, as it depends largely upon personal experience and one's own subjectivity. However, there are some indicator variables that suggest the presence of an environmental ethos, such as other pieces of environmental legislation and the

number and activity of local environmental nonprofits. As an Oregonian myself, I hold some deeper perceptions and understanding about the state culture there. However, I also recognize that this is also a personal bias, and it likely impacts the way that Oregon is represented in my research.

In an attempt to understand the state environmental cultures in Maine, Massachusetts, and Washington I largely rely upon the information given to me by my interviewees in the state. I repeatedly heard references in Oregon and Maine to a strongly held cultural value for conservation of natural beauty and environmentalism as an influential factor in successfully passing container deposit legislation. I also reference secondary literature which considers the environmental culture present in U.S. states, who cite Oregon and Maine as states who hold a powerful “environmental imagination” (Judd, 2003; McCloskey, 2013). While this sense of an environmental ethos was not explicitly referenced in my interviews about Washington and Massachusetts and the bottle bill, the reasons for this omission are unknown. This does not mean that the culture of Washington and Massachusetts is to not value their environment. Instead, this shows that that something is different in the way that their bottle bill campaigns occurred *within* the context of their existing state environmental ethos. This aspect is elaborated upon more in following chapters within the MDSD analysis of the case studies.

### ***Semi-Structured Interview Format***

Many of the sources that I use for this research are primary sources from interviews that I have conducted with people in the relevant political, economic, and activist spheres regarding this bottle bill research. These semi-structured interviews were conducted in-person, over the phone, or over email. Each interviewee has signed an IRB consent form prior to participating in an interview, were given access to example questions that may be included in their interview, and have the option of anonymity or to opt out of recording. These interviews are critical to my research

because they better inform my analysis of the more qualitative indicators, as well as more behind-the-scenes information on campaigns and policy discussions. As Todd Landman writes, interviews can be used to, “uncover a deeper level of information in order to capture meaning, process and context (20). Additionally, there is a paucity of recent sources of research on the topic and these interviews served as great resources to investigate the current functioning of bottle bills in the case study states.

### *Secondary Sources*

Newspaper articles and web sources are also valuable resources for my research. News articles can provide insight into the local understanding and the opinions of its bottle bill system. Articles were consulted from the local and state newspapers, for example, that describe the statewide preparations for the bottle deposit system and highlight opinions of local citizens and various stakeholders. Audio and video recordings of news reports and interviews are also very helpful, because they provide a second look into a person’s firsthand experience with the issue. These kinds of secondary sources offer valuable insight into the different stages of bottle bill campaigns and allowed me to study the international impact of the recycling market, as I wasn’t always able to interview people who were directly involved due to temporal, geographic, and language constraints.



## Chapter 4

### Surpassing the Bottleneck: Bottle Bill Campaigns in Oregon and Maine

This chapter will use the Most Different Systems Design, MDSD, to examine the different variables that influenced the passage of Oregon and Maine's bottle deposit legislation into law. This is a valuable method of comparison because it displays a wide variety of successful political techniques to pass environmental policy. This chapter will examine how the independent variables listed in *Figure 6.1* of Chapter 6 such as a state environmental ethos, political opposition, activity of supporting coalitions (including political champions), support from the local business community, and the bill's specific financial structuring influenced the ultimate passage of bottle deposit systems into law.

#### ***Oregon***

Oregon was the first state in the country to pass container deposit legislation on the state level, and it did so through its State Legislature. The idea to ban disposable containers was originally suggested by Richard Chambers, who detested the rising amount of garbage that he came across during his kayaking and hiking expeditions that spanned nearly the entirety of the Oregon Coast (Walth, 255). Chambers reached out to friend, former fisherman, and State Representative Paul Hanneman, who ultimately scrounged up other politicians to co-sponsor the House Bill (HB) 1157 (Walth, 286). When the House Speaker found the legislation frivolous, it was sent to the State and Federal Affairs Committee (SFAC), which was a committee that was often said to serve as a "political graveyard" for legislation that the Speaker did not want to move forward. However, Representative Roger Martin of Lake Oswego was the SFAC chair at the time

and also one of the original co-sponsors of the bill. He gave the bottle bill a starting push by granting it a public hearing.

The hearing was well-attended, and included many different types of testimony. An aide to then-Governor Tom McCall testified to the Governor's support of the idea, and farmers and fishermen described the dramatic ways that litter was disrupting their work, property, livestock, and way of life. On the other side of the issue, industry representatives from paper, glass, metal, and beverage corporations cited evidence that beverage container made up a negligible portion of roadside garbage, "and union lobbyists stepped in to spin gloomy tales of job losses in the glass and metal industries if such a bill ever passed" (Walth, 261) The negative testimony left an impact, and Hanneman shortly suggested a compromise that, "rather than ban returnables, the bill would require a five-cent deposit as an incentive to return bottles and cans" (288). This newly proposed system harkened back to the refillable container methods that bottling and brewing companies had used prior to the industry's nationwide shift to single-use bottles and cans.

This compromise kept HB 1157 alive but also its publicity from the hearing attracted industry opponents to more directly to fight against the bill (McCloskey, 84). Beverage industry lobbyists put heavy pressure through the committee SFAC Chairman Representative Martin to ensure that the committee would not have the votes to send the bottle bill to the House floor. Despite the industry pressure, Hanneman was able to convince a fellow outdoorsman Republican Representative Carroll Howe to flip the vote in favor of forwarding the bill to the floor for a vote. While the bill did not pass in the 1969 session, it had a hardy 23-37 showing in support. Hanneman tried to reach out to Governor McCall, who had publicly supported the idea previously but the Governor was silent on the issue except for rumor of a letter that circulated among state

Republicans that McCall did not want a bottle bill to pass that session due to the presence of a competing anti-littering initiative (Walth, 294).

In the waiting period for the 1971 session, an interim committee was established to conduct preliminary studies and hearings on the issue of the bottle bill. This study would ultimately help lead to the creation of the inaugural bottle bill law, the Oregon Beverage Container Act. The bottle bill opponents still remained powerful and had ready access to resources and lobbyists, but the bill's supporters were also more organized and unified this time around. Other strategic compromises were made such as the deposit price for small "stubby" beer bottles from breweries. Lobbying for both sides intensified to unprecedented levels and Governor McCall and others decried the oppositional campaign for its so-called, four D's of "Distortion, Deceit, and Dollars, equaling Defeat" (McCloskey, 86). These aspects of the campaign are explored in greater depth later on, as the theme of these "four D's" relate to all of the case studies investigated in the scope of this research.

The Beverage Container Act was passed into law in 1971 with votes to spare in the House of Representatives, but barely passed by the Oregon Senate with a vote of 16-14 in favor amid frenzied lobbying. As the country's inaugural bottle bill, this landmark passage of the Oregon bottle bill sparked many other U.S. states to propose or refine their own forms of container deposit legislation. This section will focus in more detail upon the specific aspects that made Oregon's bottle bill successfully pass into legislation with the intention of using similar variables to compare with Maine in the second part of this chapter.

In Oregon specifically, the present ballot initiative process is recognized by many as one of the easiest states to get a proposal onto the public ballot. This is largely because of the state's history of progressivism and early non-partisanship which supported putting issues of law to the

public (Oregon Blue Book). Oregon also holds the current record for the highest total state ballot initiatives attempted at 384 since the process was approved by the state legislature in 1902. However, passing legislation on the public ballot can be quite difficult, requiring highly specific strategies as are discussed in the case of Maine. The fact that the bottle bill was passed successfully through the Oregon State Legislature and not on through the state's oft-used Ballot Initiative process appears due to several reasons. First, the consistent presence of strong champions that supported the bill was incredibly important. These champions were Richard Chambers, Representative Hanneman of Tillamook, and ultimately Governor McCall (Edwards, 54; Walth, 282). These champions were often willing and able to convince other elected officials of the bottle bill, and were active advocates and coalition-builders both inside and outside of the capital (Walth, 261). It must be noted that Hanneman, McCall, and Chambers all identified as Republicans as well as supporters of the bottle bill. The House of Representatives was controlled by Republicans at the time, and had Rep. Hanneman not been a Republican as well, it is likely that his efforts might not have been as well met (Hall).

Oregon as a state holds a strong ethos of environmental protection, largely due to its historical dependence upon the timber and fishing industries. McCloskey poses that this sense of environmental ethos within Oregon might be because "the idea of conservation and reserves for that purpose are better understood in rural regions" (219). The 1970 census identified Oregon's population as 32.93% rural, and since the state Senate equally represents all districts with two Senators, rural communities still maintained a large presence in the state government (U.S. Census Bureau). Senator and author Richard Neuberger held the belief that, "those who farmed and ranched the vast interior grasslands of the Pacific Northwest would never succumb to the mass ideologies that seemed to dictate global order in the 1930s and 1940s. Their opinions, he insisted,

reflected the ‘independence, freedom, and uniqueness of the majestic hinterland in which they live’ (Judd, 2). Even the state motto, “She flies with her own wings” uses elements of nature to illustrate the “proud ability of Oregonians to be independent spirits” (Hall).

Oregon as a “frontier state” fashioned a culture that was also highly dependent upon the land, and so incorporated ideas of environmental protection into its cultural ethos because its economy depends so much upon the land.<sup>5</sup> The utopian novel *Ecotopia* by Ernest Callenbach recognizes this environmental identity of the Northwest bioregion in his reimagining of a seceded Northwest that centers upon a society that is structured upon environmental sustainability. Today, recreational hiking, hunting, fishing and boating are popular activities and the identity of Oregon as “the leading environmental state” continues to largely be upheld through state and local policy (McCloskey, xii).

Coalition building was also critical to the eventual successful passage of the Oregon bottle bill. As broad as the issue is, the corresponding supporting coalition was consequently also quite diverse in nature, consisting of environmental groups, local grocery stores, breweries, and even the soda company Dr. Pepper (McCloskey, 85). Don Waggoner and the Oregon Environmental Council (OEC), which remains a powerhouse in state environmental politics today, created a subgroup within the organization titled “People Against Non-Returnables” (McCloskey, 84). This group performed research, gave testimony, and several other kinds of lobbying activities that were frequently successful in brokering game-changing compromises.

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<sup>5</sup> It is essential to recognize the presence of Native peoples of Oregon, and truly in every case study that is examined in this study. The Chinook, Willamette, Umpqua, the Siletz and many more groups of indigenous peoples of Oregon intricately incorporated the details of the northwest bioregion into their culture and conducted boating, hiking, and hunting for their own cultural and survival purposes long before white Americans began creating their own sense of “outdoorsiness.”

The bottle bill also found unlikely allies in the shape of local grocers Fred Meyers and Plaid Pantry. John Piacentini, the owner of convenience stores Plaid Pantry, launched his own promotional bottle bill system in which he told people to return empty containers to any of his stores to receive a penny per container in exchange (Spendelow). In the first two weeks of the program the response was hugely positive, so much that the National Guard was called in to help remove the estimated 150,000 cans that were returned to Plaid Pantries across the state. This outpouring of support helped assuage the fears of grocery stores regarding the financial burden of processing the returned beverage containers. Oregon Department of Environmental Quality Solid Waste Analyst Peter Spendelow suggests that because these local stores like Fred Meyers and Plaid Pantry had an invested stake in the state of Oregon, they supported it, “because they understood the environmental aspects” and because they also as Oregonians wanted to reduce litter (Spendelow).

Back in the state capitol of Salem, lobbying was intense on both sides of the bottle bill issue, and there were even “charges of attempted bribery” that arose (McCloskey, 86). The acknowledgment of this bill as a landmark opportunity with the potential to set a precedent throughout the country added further to the so-called “poisonous” climate surrounding the bill in the state government. Lobbyists for the metal industries offered \$5,000 in campaign contributions for any senator who would vote against the bill (Walth, 296). In fact, it got to such high levels of hostility that the Attorney General and the American Organization for Industry (AOI) publicly decried the candor of the oppositional campaign (McCloskey, 86).

The final product of the bottle bill was shaped through Hanneman’s and Waggoner’s willingness to compromise with the Oregon business community. The first major compromise occurred after the first Congressional hearing on the proposed bill, when the bill transformed from

the form of a ban on non-returnables to the deposit-scheme in response to industry concerns posed in testimony of the impact of a disposable bottle ban on jobs (Walth, 261). As Hanneman proposed this deposit amendment to the committee, he noted that “it was hardly radical, as it only required brewers and bottlers to operate as they had a few years before” (261). After all, the onset of throwaway containers was still relatively new and even smaller bottling companies still had the institutional memory to facilitate a refillable system.

Hanneman and other advocates of the bottle bill recognized that the smaller companies in the brewing and soda industries were under a lot of stress due to heightened levels of competition to take advantage of the price advantages gained by using single-use containers. Breweries nationwide were forced to consolidate or go out of business, resulting in a loss of about 27,000 jobs (Walth, 258). At the same time, Oregon was forming its culture of independent breweries in alongside the debate over the bottle bill, so it was essential and highly tactical to include these stakeholders in the conversation (Woodward; McCloskey, 85). The OEC met with Bill Wessinger of the Blitz-Weinhard brewery and agreed on a compromise of a reduced deposit price of two cents on small “stubby” brown beer bottles in exchange for his support of the bottle bill. This addendum also had the result of standardizing the size of all Oregon-based beer bottles to these 11oz bottles for which “all the brewer had to do was put the bottle through a washing machine, wash off the existing labels on that, fill it with beer, slap their own label on it and then send them off” (Spendelow). This “brewer’s exemption” and its efficiency-promoting standardization of bottles helped discredit the opposition’s argument that the bottle bill is “anti-business,” an argument still commonly made today.

Another critical part of the reason why Oregon’s Beverage Container Recovery Act passed in 1971 is that it was specifically crafted to be privately-owned and not involve any public money.

Initially this meant that bottlers and distributors joined together into several cooperative groups to administrate the bottle bill, but now all of the distributors have joined together to form a single cooperative corporation with a 99% membership rate for Oregon bottlers and distributors (OBRC, Bertges).

Oregon also never proposed a handling fee as a part of its container deposit legislation. The absence of additional costs per container made the law less economically threatening for distributors, bottling companies, and pickup agencies. Ultimately, this was made possible because the funds from unredeemed containers, a fund of around \$16 million dollars per year, is almost entirely owned by the distributors themselves<sup>6</sup> (Bottle Bill Task Force Report, 14). “Whatever profits the co-op generates are divided among the 80 beverage distributors that own the Oregon Beverage Recycling Cooperative” (Thomas). While, as will continue to be discussed, it is unduly apparent that there was a presence of strong opposition against the Oregon bottle bill, it can be argued that the fight for passage would have been *even more* highly contested if the law was constructed to include more out-of-pocket costs for businesses in the beverage industry. Though it can never be known for sure, this slightly more pro-business structure may have made the difference, as the vote in the Senate was as close as it possibly could be and still be in favor of passage, 16-14.

Overall, Oregon’s bottle bill was successfully passed into law in 1971 due to a combination of the presence of committed legislative champions across party lines, a powerful state environmental ethos, a strong coalition of supporters—including local businesses, and through repeated considerations, consultations and compromises with stakeholder in the beverage business

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<sup>6</sup> Some funds are allocated to the Oregon Liquor Control Commission for their partial administrative role



community. This research now looks to the state of Maine to compare the different ways that a state can successfully pass container deposit legislation.

### ***Maine***

Maine was the third state in the U.S. to pass container deposit legislation, following Oregon and Vermont. The originally proposed legislation LD 931/1888, An Act to Require Returnable Beverage Containers, was put forward in the regular legislative session of 1975, but was rejected in the House of Representatives (Legislative History, 2013). As is discussed later on, there was a significant amount of lobbying on this issue, particularly in opposition to the bill.

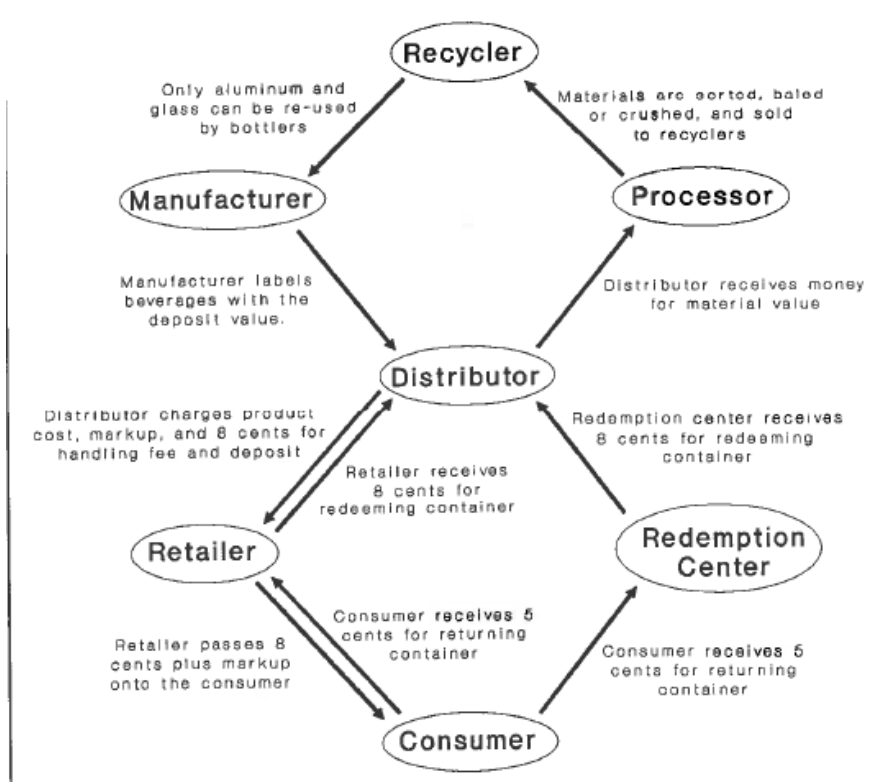
The topic was posed again in the 1976 Special Legislative Session, largely thanks to a Joint Order from the Natural Resources Committee requiring a study of solid waste (House 3/24/76, 641). It was cited that of this thirteen-person Committee, eleven “felt that a returnable beverage container provision should be included in a comprehensive solid waste bill” (Senate, 3/26/76, 742). Such a bill was proposed in the Maine House of Representatives in the form of H.P. 2090/L.D. 2249, “An Act to Improve Solid Waste Management” (House, 3/24/76, 641). It went through a series of amendments crafted by both the Committee on Taxation and the Maine Senate, and there was significant debate about whether a bottle bill should be included in the act--especially after it was only slightly adjusted after it the Senate rejected it in the previous session (Legislative History).

It was suggested on March 24, 1976 by proponent of the bill Representative McKernan of Bangor that the proposed bottle deposit system “is an opportunity to allow the people to vote on something that they are very concerned about and that they favor” (House, 3/24/76, 641). This sentiment was echoed in the Senate by Senator Collins of Knox in a floor statement that, “this [referendum provision] not only has a value involving a judgement but a value in educating our

citizens to the importance of solid waste management” (Senate, 3/26/76, 746). While this action was framed by the state government as an attempt to include the public in state politics, many aspects suggest that due to intense lobbying the Maine Legislature decided to “kick the can further down the road” in order to pass on the bottle bill as someone else’s problem (ME Audubon - Ginn).

Eventually, HB 2090 was approved by the Maine Legislature on April 1st and 2nd, 1976, with the specific provision for the bottle bill system to be determined by the people of Maine through a public referendum. The House voted 36-103 in favor of passing the bill and forwarding it to the Senate, where it then passed easily and was sent on to the Governor’s office with an approving vote of 26-4 (House, 4/1/76, 890; Senate, 4/2/76, 925). Then, just the section of the bill regarding the potential for the creation of bottle bill system was put forward to the voters, who widely approved it on Election Day 1976 (Ballotpedia, Maine Minimum Bottle Refund). The Maine bottle bill system was implemented on June 1, 1978, and its original process is outlined in the following figure.

Figure 4.1.  
Criner, 1991, pg  
19.



*Figure 4.1* displays the cycle of Maine's deposit system, and illuminates the roles or burdens that each stakeholder or groups takes on throughout the process. One aspect that this diagram fails to include is that not all recycled material stays in the region and neatly goes back to the distributor who initially sold it to the recycler. Rather, once the glass, plastic, or aluminum is sold to the recycler, those materials are sold for reuse to the highest bidder. In some cases, this may include exporting the product internationally.

Like Oregon, Maine also has a powerful environmental ethos rooted deeply within its culture as a state. After the Second World War, Maine's economy fell behind the rest of the nation's, as it was fairly marginalized from the rest of the country and depended largely upon its local economy (Judd, xii). This attributed to a growing sense of individualism in Maine that was largely rooted in the land. One poet describes a vision in which Maine was separated from the rest of the country by "blow[ing] up the bridges to the mainland...and return to the free life, the life without fences" (Judd, 1).

However, the state's burgeoning tourism industry indirectly allowed for the incorporation of these environmental ideals into the politics of the state of Maine through support of local beautification ordinances and a "Keep Maine Scenic" government program (16). Current Maine Senator and former Governor Angus King who was a lobbyist for the National Resource Council of Maine during the passage of the bottle bill says that, "As a tourist-oriented state whose major attraction is its natural beauty, we are very aware of the contribution of the deposit system in keeping our roadsides clean. The deposit law has had a positive effect in fostering over 1,600 jobs with annual wages of \$22.8 million at local redemption centers throughout the state" (Bottlebill.org).

More anecdotally, in an interview Maine native Sarah Lakeman also expressed that the bottle bill is seeded deeply into the state's culture and that if in her work at an environmental non-profit "You mention, hey, they're trying to mess with the bottle bill and everyone's like no way it's not going to happen. It's a part of our culture here I think people just are proud of it, and it's what we do and...it would be really hard to go against that" (Lakeman). Further, Beth Milligan mentioned that upon moving to Maine from elsewhere that she noticed, "there's a lot of hunters, there's a lot of fisherman, they like to snowmobile...There's a really deep appreciation for the outdoors...and I think that's the culture and it's a generational thing that's passed down."

In Maine, there is a popular public ballot system for citizens to directly vote bills into law. As was outlined earlier, this bill went through a combination of both of the two political options for passing legislation because it was first passed by the Maine Legislature specifically to be posed as a referendum to the people. The Maine Returnable Container Beverage Law passed with 57.8% of the vote for and 42.2% against on November 2, 1976.

Proposed legislation on the public ballot is often more present in the public consciousness than bills in the State Legislature, because there is a necessity to get the state's citizens to care, about the issues, decide their opinion on it, and physically get themselves out to vote (Ellis, 2002). In fact, Senator Berry from Cumberland states during a Senate discussion that, "by the time this plebiscite takes place everybody in the State of Maine is going to be so well informed on all the features of the thing that they will know more about the bill than we do now when we vote on it" (Senate 3/29/76, 791).

This sense of public political discussion leaves more work for the interest groups involved in campaigns as they strive to reach the wider public rather than the several hundred elected officials who can all be found predictably within the state capitol. However, with campaigns comes

a necessity for fundraising, and studies often show that whichever side has the most money in a political campaign will come out the victor due to their superior access to lobbyists, advertising, and hired campaign staff (Gourevitch, 57; McCuan, 52). Maine, may prove an exception to this rule, as is discussed later in the chapter.

By 1976 two bottle bills had already been passed and one in Washington had been defeated. Both supporters and opponents of the Maine Returnable Container Beverage Law could then reference and learn from these experiences to help frame their efforts in Maine. The coalition opponents of the Maine bottle referendum in 1976 consisted of brewers, bottlers, canners, material industries, soft-drink companies, and container manufacturers (AP, 1978; Bowers).

The presence and level of political opposition is a significant factor in whether legislation passes, or does not pass. In 1975 during the first consideration of container deposit legislation in the state of Maine, Senator Reeves of Kennebec cited that just the television and newspaper advertising for the bottle bill opposition amounted to “some fifteen to twenty thousand dollars” in an attempt to sway just the votes of Maine’s elected officials (Senate, 3/22/76, 575). During the 1976 Special Legislative Session, the level of oppositional spending is unclear. However, the records of governmental sessions include an accusatory statement from Senator Collins toward Senator Katz, who had suddenly changed his vote to oppose the bottle bill. Collins charged that Katz was now in the pocket of the anti-bottle bill coalition when he said, “it is obvious that the lobby for the liquor industry and the soft drink industry has been diligently at work overnight” (Senate, 3/30/76, 824). These examples display the intensity of the anti-bottle bill coalition.

In the five months following the legislative referral of the law to the public these opponents launched an all-out attack against the referendum. The figures for the funding vary slightly, but most estimate that these opponents spent between \$350,000-\$500,000 on their anti-bottle bill

campaign (ME Audubon - Bill Ginn; Bowers). Typically, this wielding of such a heavy financial weapon can deal a fatal blow to a container deposit system campaign. However, evidence shows that in Maine this attempt may have backfired. Due to the state's small population of just over one million in 1976, the anti-bottle bill techniques of the opposing coalition have been described as a "complete saturation," with advertisements on all types of media, billboards, bumper stickers, and pamphlets everywhere (Bowers).

As a state with a small population and with five other issues on the ballot that fall, William Ginn of the Maine Audubon Society says that despite the bitterness of the political battle, "It was overkill...People got fed up with this show of muscle" (Ginn, 2005; Bowers). This feeds back into Maine's cultural individualism of practicality, love for the outdoors, and a dislike of being pushed around by big money (ME Audubon - Bill Ginn). A study of Maine campaigns and elections notes that in many instances "in Maine ballot measure campaigns, having more resources than your opponent is not a guarantor of victory...it's not the independent variable it's cracked up to be" (Potholm, 158). Even today, Ginn notes, Maine is an anomaly in the nation as data shows that "Mainers" tend to vote by "conscience" more frequently than it votes for the side with more money" (ME Audubon - Bill Ginn). The coalition in support of the bottle bill spent somewhere between \$29,000 and \$40,000 on their campaign, which was about ten times less than what the anti-bottle bill coalition spent (ME Audubon - Bill Ginn, Bowers).

While the overwhelming nature of the anti-bottle coalition seems to have resulted in overwhelming and frustrating many Maine voters, a lot of credit also has to be given to the supporting coalition and its leaders. This group consolidated themselves under the name, "Maine Citizens for Returnable Containers" and was largely made up of environmental groups, including Maine Audubon, the Natural Resource Council of Maine (NRCM), and the Keep Maine

Scenic Committee (Maine's Bottle Bill, 5). Additionally, the bottle bill received support from local politicians, both Democrat and Republican who were campaigning at the time (AP, 1976).

This larger coalition of supporters was quite effective in organizing large amounts of volunteers, and in many ways conducted a type of grassroots organizing effort before that term entered popular political dialogue. Ginn says that this coalition, “fielded as much money in the forms of volunteers out on the sides of roads as our opposition did with their financing and their slick ads.” He credits the referendum’s large margin of victory to this “extraordinary volunteer effort” (ME Audubon - Bill Ginn). It also seems that Ginn himself, then the assistant director of Maine Audubon, was also very active. Sometimes speaking with to five audiences a day, Ginn travelled more than 7,000 miles around the state in the fall of 1976 (Adams, 2015). The presence of committed organizers and a large-scale mobilization of passionate volunteers were a large factor in passing the Maine bottle bill initiative.

An important factor in a container deposit system is the means of collecting payment to cover the costs of the system’s procedures. In the case of Maine, the costs for running a redemption center are covered by a handling fee, which must be paid by the distributors who initiate the deposit. These distributor groups are often household beverage company brands, including Coca-Cola, Pepsi, Gatorade and Nestlé. Unsurprisingly, these groups are very opposed to the presence of a handling fee because they are working on large scales of collection, in which a one-cent handling fee on average resulted in a \$310 fee per ton in 1977 (Resource Conservation Committee, 159).

Since the original passage of the legislation, the handling fee has been increased from 1¢ in 1976 to 3.5¢ or 4¢<sup>7</sup> today (BottleBill.org). This increasing price continues to be a thorn in the

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<sup>7</sup> If part of the co-mingling agreement

side of beverage distributors, but pits them against the small business owners who run any of the 800 container redemption centers across the state who depend upon the handling fee to cover their costs (Lakeman). As local businesses employing around 1,000 people, the redemption center sector has a vested interest in protecting and increasing the handling fee, as business costs increase over time. The redemption center owners also still remain highly involved in efforts to defend the bottle bill from attacks from the opposition, as happened in 2014 (Lakeman).

At the time of the original bottle bill's passage in 1976 the language of the legislation awarded the deposits to the "sole initiators of the deposits," the distributors (Criner, 21). Distributors also typically pass on the additional handling fee to the consumers through the product price. Therefore, if containers are unredeemed and thus do not require handling, distributors at this time could gain a six-cent profit per container. Unredeemed deposits were very profitable for the distributors under the original bottle bill, a reality which contrastingly conflicts with the underlying goal of a high return rate for containers.

Partially because of this counterproductive incentive, Maine changed the final ownership of unredeemed container deposits. It is currently the case that if containers included under the bottle bill go unredeemed, the 5¢ or 15¢ profit either returns to the state into the Maine General Fund, or to the bottle manufacturers who are part of a "comingling agreement," which was established later on, in 2003. Comingling is defined by the Maine Department of Agriculture to be when, "two or more initiators of deposit (distributors) of beverage containers for which they have initiated deposits to be commingled by dealers and redemption centers. The advantages of comingling agreements allow for the comingling of beverage containers by like product group, (beer, wine, spirits and soft drinks etc.) material, and size" (Maine Dept. of Agriculture, 4). This agreement encourages comingling, which allows for more high quality recyclable material to be



sold to the recycling industry, but also creates greater uncertainty in the deposit amount returned for each distributor.

Sarah Lakeman of the NRCM noted that the large amount of money collected from unredeemed deposits in the state of Maine today is largely “new news” to the state’s current group of legislators. Lakeman said that she didn’t “think they [Maine’s elected officials] realized how much money was essentially going to the state” from the unredeemed deposits, which in 2014 amounted to about \$1.8 million dollars. Manufacturers who are members of the co-mingling agreement are not presently required to report how much money they receive from unredeemed deposits under the bottle bill, but it is estimated to be at least double the amount that the state receives, approximately \$3.6 million (Lakeman). This is an internally built-in compromise that provides monetary benefits to some manufacturing groups, who would otherwise likely be a staunch opponent.

The fact that the bottle bill in Maine’s bottle bill began in the legislature and was referred to the public through referendum greatly changed which tactics were most critical in passing the proposed legislation into law. In Maine, there is also a strong, pre-existing environmental ethos that greatly supported the ideas of litter-reduction--especially as a state whose growing tourism industry depends upon its rural, and rustic beauty. Maine holds a unique cultural value for individualism due to its post-war economic isolation and heavily rural population (US\_Census, 1970). This sense of individualism remained strong in the face of big money contributions from bottle bill opponents and ultimately led to a significant victory of the Maine Returnable Beverage Container Law on the public referendum.

### *Comparing Oregon and Maine*

Oregon and Maine both hold strong core environmental values as a part of their state cultures. This common disgust with the new phenomenon of litter in rural and beach communities who are dependent on agriculture and tourism created the initial support needed for container deposit legislation to be feasible. The two states on different sides of the country then split off into two paths that exemplify different ways to pass bottle bill legislation.

Bottle bill initiatives in both states were met with significant political opposition from a well-funded coalition of beverage-related industries and grocers. However, bottle bill advocates in Oregon and Maine approached this obstacle in different ways. Oregon's strong political champions in the State Legislature worked with supporting activists to broker compromises with key players within the beverage industry, most notably local brewers. The oft-made argument that container deposit legislation is "anti-business" was softened in the case of Oregon because of these efforts to compromise with the local business community, and due to the unwavering support from several other local businesses whose leaders personally approved of the environmental goals of the bottle bill. In Maine, the setting of the bottle bill legislation on the public referendum required different techniques. The supporting coalition was largely made up of Maine environmental groups, and under their leadership they organized a mass mobilization of volunteers and an outreach to all parts of the sparsely populated state. Underpinning this success was Maine's culturally-rooted distrust of "big money" and consequent frustration with the incessant harassment from bottle bill opposition.

Certain structural aspects of these two bottle bill legislations were also important in allowing their passage into law. In Oregon, the absence of a handling fee and the ultimate ownership of the unredeemed deposits by the distributors was a critical point of compromise to

the beverage industry. Any inclusion of additional costs to the beverage industry and manufacturers likely would have increased oppositional lobbying, and since the bill only passed the Senate 16-14, any further lobbying might have resulted in the defeat of the bottle bill. Maine's original one-cent handling fee was highly opposed by the opposing coalition, and it was argued that this handling fee was detrimental to businesses--including "Mom 'n Pop" local stores (House 3/24/1976, 624). However, the argument that the bottle bill was anti-business was largely overshadowed by the perceived opportunity posed through establishing redemption centers in the state. This created a new local jobs sector and it was generally accepted that the handling fee was the necessary means to pay for these systems.

These are not the only ways to successfully pass bottle bill legislation at the state level, as the presence of eight other bottle deposit systems around the country clearly demonstrate. However, these case studies from opposite coasts do exemplify the critical aspects that have the potential to influence a successful passage of container deposit legislation. Next, this research explores two case studies of defeated bottle bills in order to discover pivotal aspects that encourage the defeat of proposed bottle deposit legislation.

## Chapter 5

### How to Beat a Bottle Bill: Comparative Case Studies of Washington and Massachusetts

This chapter will use the MDSD comparative methodology to investigate how and why these two states failed to pass bottle deposit legislation. This chapter will explain how the specific situations and variables facing Massachusetts and Washington created incompatible settings for deposit systems to pass into law. The major variables in consideration in these case studies include the handling fee, anti-bottle bill oppositional messaging and tactics, the attempted method of passage onto the public ballot, and the simultaneous presence of alternative litter-reduction systems. These variables are significant because identification of the tactics that have defeated bottle bills in the past can help frame future attempts at passing forms of environmental policy when facing similar barriers.

This will consider Washington's three attempts in 1970, 1979, and 1982 at passing a bottle bill in conjunction. This combination is because in these three attempted ballot initiatives build off of each other in many ways, experience similar barriers to legislative passage, and lead to the ultimate inability to pass container deposit legislation in the state. The Massachusetts case study addresses the existing bottle bill system as important contextual information, but the focus of the section is on the 2014 Question 2 campaign. This was a ballot initiative campaign to expand the bottle bill to add other updates to the state's bottle deposit system.

As was displayed in *Figure 2.1*, bottle bills as ballot initiatives versus bottle bills proposed in the legislature have very different levels of success. Here, both Washington and Massachusetts attempted to use the ballot as the method to pass bottle bill legislation. However, unique challenges face ballot initiatives that do not also face legislatively proposed bills. Direct democratic initiatives

have fewer structurally incorporated protections to protect from outside interference with the democratic process than the structure of legislative lawmaking (McCuan, 53) The United States political system is dependent upon checks and balances, and some argue that the design of direct democracy is in many ways a power limitation upon representative government. However, since the professionalization of politics through the use of pollsters, paid canvassers, and media consultants has recently become normalized, it is now questionable how accessible the path of direct democracy is for the average citizen (McCuan,52).

Oregon, as laid out in the previous chapter, did not face these exact kinds of challenges. This is largely because working through the state legislature is often more removed from the public eye, and because the process of committees drafting and editing legislation allows for increased opportunities to develop supporting champions through politically-achieved compromises. However, Maine did experience similar kinds of challenges when the bottle bill was on the ballot there.

### ***Washington***

Robert H. Keller, Jr was a History and Indian Law and Policy professor at Western Washington University in Bellingham, WA in 1969. A class project in his class was to reduce litter in a local park, and his students struggled to accomplish their litter reduction goals with signage, punitive fines, or volunteer clean-ups. Together, Professor Keller and his students referenced a previous petition and the Oregon proposal to collect signatures and submit an Initiative to the People to propose a statewide deposit on beverage containers on the public ballot (Schmidt, 2010).

Initiative 256, Washington Ban on Non-Refundable Beverage Containers, was put to the people on the 1970 public ballot. This is before the first bottle bill in Oregon was passed, so this first initiative was largely in uncharted territories. It failed by a margin of 51.28% against with

48.725% in support (Ballotpedia, Initiative 256). After this loss at the ballot the Washington State University newspaper commented that its defeat, “reflects the apparent apathy and lack of concern for natural resources on the part of the voters” (Williams, 1970). Just a few months later, Oregon passed the nation’s inaugural bottle bill. Inspired by this new market-incentivized form of environmental legislation, states across the country began proposing – with many passing – their own versions of bottle deposit legislations. In 1971 the Washington State Legislature, however, passed the, “Waste Reduction, Recycling, and Model Litter Control Act” as “an alternative to beverage container deposits” (Litter Laws, WA Gov). This law was ratified by Washington voters in 1972 to study litter patterns, create a task force on the issue, and to enforce litter penalties.

With several successful campaigns across the U.S., bottle bill proponents prepared to present a second bottle bill on the Washington ballot in 1979. However, this proposal was defeated by an even greater margin than before, with 57.28% opposed and only 42.37% in support. By the time that a deposit system was proposed again in 1982, it was easily beaten with more than 70% in opposition to the initiative. This period of the 1980s was also highly anti-regulatory at many levels of government and the beverage industry implemented a “Vote No” campaign against bottle bills that largely stifled the spread of the legislation across the nation (Schmidt, 103). Just four of eleven bottle bill initiatives passed into law during the Reagan administration.

*Figure 2.1* displays that several states have tried to pass deposit laws multiple times. However, only Massachusetts and California have been successful, while Colorado and Washington have found it impossible to pass bottle bill legislation in later attempts. In 1982 the Washington D.C. group Environmental Action tried to coordinate bottle bill initiative campaigns that were on their second or third try for passage, largely unsuccessfully (Schmidt, 101).

While an exploration of why certain states are able to pass bottle bills into law after the first attempt and others weren't entails a different research project, it does show that it is difficult to pass bottle bill legislation on the second attempt. Therefore, the fact that Washington attempted not twice but *thrice* to pass bottle bill legislation displays the declining chances of the bill's passage. The initiative results over time also display a corresponding decrease in the public's favorability for the bottle bill in Washington state. Between 1970 and 1979 support for the bottle bill fell almost 6% and dropped nearly 13% between 1979 and 1982.

*Triumph of Innovation: The Supporting and Opposing Coalitions*

Professor Keller's class completed the final proposal in mid-April of 1970, which is typically too late to begin a campaign for a ballot in a November election. However, David Schmidt writes that Keller's students were excited and impatient to work on the campaign and Professor Keller agreed to submit the initiative petition on their behalf despite the unideal timing (96). Though the coalition was substantial and included the Washington Environmental Council, The Sierra Club, and even local banks who conducted bottle collection demonstrations<sup>8</sup>, this campaign was still left with just six months to convince the public to support the bottle bill. However, the proponents still garnered significant support because of the national environmental energy that was sweeping the country. The coalition collected 188,102 signatures over eight weeks, which was the record number of petition signatures ever gathered in Washington at the time (Schmidt, 97).

Interestingly, there was not a huge expectation of significant opposition from the beverage industry against bottle bills, because these companies too were riding high on the environmental movement's popularity and tailored marketing tactics to include ideas of recycling and reuse. Therefore, it was a relatively easy transition for the proponents of the Washington Bottle Bill to

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<sup>8</sup> These instances were similar to the case of Plaid Pantry in Oregon.

build off of these sentiments and ask questions directly from the environmental pamphlets of beverage companies such as Coca-Cola's rhetorical question, "Wouldn't you rather borrow [a] bottle than buy it" (Schmidt, 97). However, as shall be discussed, the beverage industries were *not* passive in the issue of bottle bills.

Although there was a poll less than a month before the election that said that voters supported the initiative by 76%, ultimately the supporting groups were outflanked by a superior messaging tactic (Schmidt, 99). Using a "carrot and stick" approach, the industry presented an alternative litter law just two months before the election, and also spread the message that a bottle bill would be bad for local businesses and increase unemployment. As Keller and his supporters went to lobby the unions on the premise that a bottle bill creates more jobs than a throwaway system, "they found that the industry had gotten to the unions first and convinced the retail clerks that they would be forced into an unwanted role as garbage collectors, that beverage sales would plummet, that producers and distributors of drinks in throwaway containers would be forced to shut down, and that unemployment would worsen" (Schmidt, 98). Several of these arguments are incorrect or exaggerated, but they still had the intended effect of decreasing support for the bottle bill.

These distributors, corporations, and grocers then successfully rebranded themselves as a *Pro-Litter Law* coalition rather than an *anti-bottle bill* coalition. The following year, a version of this law passed in the Washington State Legislature. This legislation is more favorable to bottlers, distributors, beverage companies, and grocers because it focuses on implementing litter fines, fees, and other methods at the consumer or "litter-er" instead of at the level of industry. Additionally, the minimal taxes that are paid by the beverage industry to fund this program just make up 2% of the taxes, while many other industries are required to pay far larger contributions.



The argument for a Litter Law is that it reduces required actions from consumers and industry, addresses total litter rather than just beverage containers, and is not economically disruptive. In response, bottle bill supporters often point out that Litter Law proponents are typically deeply involved with those whose profits would suffer under a bottle bill, as shown by the testimony delivered at a Congressional Hearing. Nearly all of those who mentioned the Washington Litter Law favorably in their testimony were themselves members of the beverage industry in some way (Beverage Container Reuse and Recycling Hearings). Additionally, there is a great amount of discussion about the comparative level of effectiveness between Litter Laws such as Washington's and bottle deposit systems. Proponents of the Model Litter Law maintain that studies show the law cut litter by 66%, but bottle bill proponents have been skeptical of the validity of this figure because of controversy over the starting amount of litter and the methods of counting--by piece or by volume. (Beverage Container Reuse and Recycling Hearings). Seven years after the passage of Washington's Model Litter Law the former Governor was quoted calling roadside litter, "a disgrace. The worst I've ever seen it" (Litter Taxes).

The opposition to the proposed bottle bills on the Washington state ballot initially began at a high level and continued to increase over the years. The opposition is primarily made up of beverage corporations, distributors and the grocers. These groups oppose the bottle bill because it adds additional responsibilities, and consequent additional costs to their companies through the required compliance with a state bottle bill system (Spendelow).

The oppositional tactics to the proposed bottle bills in Washington were made possible by their large pool of anti-bottle bill funding. The anti-bottle bill coalition hired one of the most renowned Seattle political advertising firms to consult on how to beat the initiative. With this

professional advice, the oppositional coalition launched an intense advertising effort against Initiative 256 (Keller, 1970).

This coalition was especially effective in Washington's later campaigns because they had time to refine and adjust their techniques (Schmidt, 101). It is estimated that in 1979 and 1989, respectively, the opposition spent \$856,000 and \$717,951 to fight against the Washington bottle bill (Bottle Bill Initiative Spending Records). Peter Spendelow worked on the bottle bill campaign in 1979 and 1982 and notes that, "the industry was very good at picking an issue and creating their own narrative and with lots of money they could get that narrative out." In the case of Washington, this money was also used to fund highly effective and original oppositional techniques.

In Washington where grocers were almost universally aligned with the beverage industry to oppose the bottle bill, the grocery store was a very valuable location to spread the anti-bottle bill message. Spendelow describes that the anti-bottle bill coalition attached small tags to each six-pack of cans or bottles that said, "if measure 61 passes, this six-pack will cost you 55¢ more." While this information is incorrect, it was ultimately effective in confusing the consumers about the pricing and functioning of the proposed system. Additionally, stores printed "'Vote No' messages on grocery bags, had clerks put 'Vote No' leaflets into them, and set up 'Vote No' advertising displays in stores (Schmidt, 101). These types of techniques were very effective because they were placed in high-traffic locations that directly related to the issue on the ballot.

In Washington state there is some sense of a state culture of environmentalism, especially regarding land conservation efforts and the outdoor tourism industry (Catton, 1997). However, it is significant to note that here this sense of state ethos was not powerful *enough* to overcome the anti-bottle bill coalition as it was in the cases of Oregon and Maine. In Washington, it was not just opponent spending and advertising that were going against the bottle bill, but also the inappropriate

timing of the supporting coalition, compounding presence of alternative legislation, and the multiple attempts to pass the bill on the public ballot that made it essentially impossible to pass container deposit legislation in the state. Further, as time passed after the first attempt to pass a bottle bill in 1970 the industry refined its oppositional tactics and became increasingly more effective. A comparison of the case studies of Washington and Massachusetts will continue to expand on the different ways that bottle deposit legislation can be defeated on the public ballot.

### *Massachusetts*

The original bottle bill passed in Massachusetts in 1982 after one failed attempt in 1976. It was ultimately passed the second time from the State Legislature's override of the Governor's veto. These were highly contested campaigns, including heavy lobbying and unprecedented spending budgets (Adams, 2014). This law covered carbonated soft drinks, mineral water, malt, and beer with a five-cent deposit and originally included a two-cent handling fee. The handling fee was first increased from 1 to 2.25¢ in 2010. The Massachusetts system awards ownership of unredeemed deposits to the State's General Fund under the Commonwealth's existing "escheat law," or reversion of property the state. The uses for this fund are vast, but include the basic functioning of government from employee payroll to funding for repairs and structural maintenance (UMAS).

In 2014, the executive Director of Massachusetts Public Interest Research Group (MASSPIRG) Janet Domenitz filed a proposed expansion to the Massachusetts bottle bill to include non-carbonated beverage containers in the state's deposit system, increase the handling fee, and would send the unredeemed deposits into a Clean Environment Fund. These non-carbonated, non-alcoholic drinks include plastic water bottles, sports, and energy drinks, which now make up a large percentage of the waste and litter stream. However, only 23% of these types

of containers get recycled in the absence of an inclusive bottle bill, as compared with the 80% recycling rate of containers that are covered by the deposit system (MASSPIRG). The details in this proposed expansion were heavily opposed by the many members of the beverage and grocery industries in Massachusetts. This opposition is outlined throughout this chapter within the context of the current United States campaign finance system, with special attention to the implications of the 2010 Supreme Court case *Citizens United v FEC*.

The push for an expanded and updated bottle bill is not unique to Massachusetts. By the time that Massachusetts was considering Question 2 on the ballot, several other states including Oregon and Maine had expanded the scope of their deposit systems, increased handling fee levels where present, and even passed legislation to increase the deposit fee to a dime (Bottle Bill Task Force). The reasoning behind these updates and edits to the bottle bill is mostly to increase the amount recycled, redemption rate and economic stability of the deposit systems. A source noted that she believed even the current handling fee should be increased, because it is already difficult for redemption center owners to make ends meet for these small businesses (Lakeman).

### *Supporting and Opposing Coalitions to Question 2*

In the specific case of Massachusetts, members of the supporting coalition for Question 2 included the state's Sierra Club, MASSPIRG, the League of Women Voters, Audubon Society, the Environmental League of Massachusetts, and others. Overall, these groups came together in two formal coalitions: 'Coalition for an Updated Bottle Bill' and 'Update the Bottle Bill.' Several state political leaders including former Governor Deval Patrick and several Democratic State Representatives publicly supported the initiative.

These supporters desired to increase the scope of the deposit system to include more types of beverage containers because bottle bills are considered more effective than curbside recycling

at redirecting waste from landfills (MASSPIRG). The proposed increase handling fee increase from 2.25¢ to 3.5¢ was supported by the Coalition for an Updated Bottle Bill because it provides more funds to redemption centers to keep afloat in a difficult economy for small businesses. The proposed changes in Question 2 would shift tens of millions of dollars generated per year from the unredeemed deposits of the covered containers into the preexisting “Clean Environment Fund” or CEF. This fund is legislatively allocated “to provide support for recycling, composting, solid waste source reduction, and other environmental programs related to the bottle bill.” While not all of the funds are actively put toward projects that “stimulate and support recycling, the bottle bill, and other innovative solid waste programs”—it still undoubtedly helps meet the environmental goals of many of the members of the supporting coalition (“Unclaimed Deposits”).

On the other side, the opposition to Question 2 organized themselves into a group called, “No on Question 2: Stop Forced Deposits.” Its members included Beverage Associations, Nestlé, and the Stop-and-Shop Supermarket Company. The proposed expansions were opposed by these groups because they require more of their products to be included in the deposit, additional organization, increasing transportation of used beverage containers, and raise out-of-pocket costs (Wiseman). This opposition also dislikes that the funds from the unclaimed deposits are held by the state for additional solid waste management, as it means that distributors and retailers are not reimbursed for the cost of the handling fee they are required to cover.

Similarly to other case study states in this research, the bottle bill opposition had access to a lot of money to fund “No on Question 2.” Spending over \$9.1 million throughout the course of the campaign (outspending the proponents nearly ten times over), the opposition to Question 2 framed its argument in three parts (Wiseman). First, they claim the bottle bill is a dated and old idea and that there are preferable alternatives. Second, they argue that expanding the bottle bill is

too expensive because it means that the state is using public money to fund the bottle bill system at an expanded level while it also pays for residential curbside recycling system for every resident. Lastly, the opposition claims that the CEF is not effective or active in improving recycling and solid waste management.

These three major messages were made public by television ads, pamphlets, radio messages, and whatever money could buy. Christina Wiseman of the Massachusetts Audubon Society described the scene during the campaign during an interview. “They [the opposition] bombarded TV channels with misleading ads, claiming that a ‘No’ vote on the expanded bottle bill would actually increase recycling. Not having much experience with campaigning myself, it was pretty infuriating to witness. They claimed that we needed to focus on expanding curbside recycling instead, as though a vote for them would somehow do that. In actuality they had no plan for how to increase curbside, but their messaging was everywhere.”

Concerns about the false nature of the data and information spread through these advertisements that “blanketed the airwaves” in the Boston Metropolitan area and across the state is brought up frequently throughout the course of the campaign (Abel). The Coalition for an Updated Bottle Bill tried to address the incorrect information through reaching out to the State Attorney General and through their own advertisements, but ultimately, “Our campaign couldn’t compete financially, and even once we started running our own TV ads it was too little too late” (Wiseman).

Additionally, the bottled water industry is unique in of itself which began in earnest in the 1950’s at the same time that plastic, disposable containers entered the market. Bottled water comes into direct competition with municipal water systems but has largely been successful because it is marketed as pure and safe water, in contrast to the potential dangers of public water that

unfortunately occur in many United States cities and towns. However, many of these bottled water companies also get their water from municipal sources or through contracted access to rivers and streams on publically-owned land (Miller, 25).

By 2014 the *Citizens United v FEC* ruling had taken place and corporations and unions were experiencing newfound freedoms surrounding campaign finance (Citizens United). While a direct correlation cannot be proven here, Question 2's campaign just four years after *Citizens United* was also one of the most expensive issue campaigns, from the opposition's side, in the state's history. It seems reasonable to suppose that the campaign was impacted by the recent expansion of the campaign finance system.

Massachusetts, as one of the original colonies of the country, has experienced a large amount of human-caused environmental change. As is described in the book *Remaking Boston*, the physical shoreline, local water quality, and other natural aspects of the region have been irreversibly changed by the nearly four centuries of Western-American presence in the region (Penna). While these types of impacts have unequivocally happened in many other places across the United States, the other three states in the scope of this research were not impacted as intensively as Massachusetts. In a recent Supreme Court case, Massachusetts led a group of states who sued the EPA for its attempt to regulate greenhouse gas emissions under the auspices that they were pollutants and implicit in climate change. In the end the Court ruled that Massachusetts did have standing to sue, and that the EPA cannot regulate these kinds of emissions without first proving that current standards are insufficient or that there is a present danger that can be solved through regulation (Meltz). The fact that Massachusetts was the lead prosecutor in this case indicates that state leadership was willing to take a stand that many would consider "anti-

environment” and also that Massachusetts leaders believed they had the political capital to go against the EPA.

It is important to note that the issue of the environment has become increasingly polarized across partisan lines over time. In the 1970s, many considered the environment to be a “politically consensual issue” as was greatly exemplified by the largely bipartisan support for environmental legislation under the Republican Nixon administration (McCright, 251). Since the consolidation of the American conservative ideology after the end of the Cold War, studies show that between 1970 and 2012 there has been a steady decrease in support for environmental and conservation legislation among Republicans and a corresponding increase in support in Democratic politicians (McCright, 253). Therefore, as Massachusetts considered Question 2 in 2014, the electorate was considerably more polarized on the issue along partisan lines during the campaign than in any of the other case studies considered in this research. While there is a thriving environmental community in Massachusetts, especially within its urban areas, this sense of a state environmental culture is not as deeply incorporated into the state’s identity. Therefore, it does not appear that it was a centering point for bottle bill supporters to rally around.

### ***Concluding Comparisons: Washington and Massachusetts***

In the case of Washington and Massachusetts the political settings in which they existed were very different, with nationwide support for the policy in one and a campaign finance system in the other that greatly enables corporations to take control of campaigns through their donations. The defeat of Question 2 on the 2014 Ballot in the state of Massachusetts was made possible due to the unique combination of factors of a post-*Citizen’s United* campaign finance system, highly effective and expensive corporate messaging techniques, and the different perceptions of deposits on bottled water. The absence of a powerful environmental ethos in either state made it initially



more difficult to gather overwhelming public support that could mitigate the money-fueled tactics of the opposing coalition.

Repeated attempts to pass bottle bill legislation on the ballot proved deadly in the past in Washington and has made Massachusetts bottle bill supporters wary of attempting to pass another expansion. Messaging tactics of innovative advertising was a powerful tool for the opposition in the case of Washington, while a complete saturation of media outlets was the preferred method for the “No on Question 2” campaign in Massachusetts. In Washington the supporting coalition was taken by surprise by the strength of the opposition in the first attempt to pass a bottle bill in 1970, and afterward was not able to overcome the advantage that the anti-bottle bill coalition held by putting out initial messaging and tweaking during the elections of 1979 and 1982. In Massachusetts, the supporting coalition was almost entirely made up of environmental groups and did not include the voices of small and local businesses in their efforts to expand the bottle bill. This gap in the coalition gave further legitimacy to the opposition’s claims that the bottle bill would be expensive and anti-business. In the next chapter the case studies are considered in conjunction to best consider how bottle bill deposit systems are effective as forms of environmental policy.

## Chapter 6

### Are Bottle Bills Triple Bottom Line Sustainable? An MSSD Comparison of Case Studies

While the previous chapters discuss in detail the different ways that bottle bill legislation can pass or not pass in the United States, there are also many takeaways from a consideration of how these systems are structured in very similar ways but have different results. This chapter uses Most Similar Systems Design, MSSD, to examine how the current-day, existing bottle bill systems in my case studies work using the same basic structure to have different results. This chapter will consider how the independent variables interact to create different results and levels of effectiveness for deposit systems in Oregon, Maine, and Massachusetts. Washington is excluded from this comparison because it does not currently have container deposit legislation. The following table shows the details of the independent variables for each state as well as the corresponding legislative outcome.

#### *Administration*

The first variable for consideration is the overall administration of the bottle bill system. As has been previously mentioned, the administration of the Oregon Bottle Bill is run by the Oregon Beverage Recycling Cooperative (OBRC) in communication with the Oregon Liquor Control Commission (OLCC), which is the public agency that is responsible for enforcing compliance and any deserved penalties or fines. The OBRC is responsible for what Cheryl Bertges, Outreach Manager, describes as the “day-to-day operations of the law.” This includes coordinating and implementing the retrieval of all the used beverage containers, connecting these recyclables with the recycling plants, and refunding the grocers with deposits.

Figure 6.1

State	Independent Variables									Dependent Variable
	Administration	Ownership of Unredeemed Deposits	Handling Fee at time of passage	Method of Passage	Deposit Price	Net Oppositional Funding Against Bottle Bill	State Ethos of Environmentalism	Strong, multi-sector Supporting Coalition	Majority Party in Power in State	Legislative Outcome
OR	Private	Private	0	State Leg.	\$0.02, \$0.05	Untracked	Yes	Yes	Republican	Passed
ME	Public	State and Private	\$0.01	State Leg. Then Ballot	\$0.05, \$0.15	+ \$321,000 - \$460,000	Yes	No	Rep majority in Senate, Dem. Majority in House	Passed
WA	Public	n/a	Unspecified	Ballot	\$0.05	1970: +\$295,500 1979: +\$1,411,145 1982: +\$717,951	No	Yes	Dem. majority in Senate, Rep. majority in House	Did not Pass
MA	Public	State	\$0.01	Ballot	\$0.05	+ \$7,599,362	No	No	Democratic	Did not Pass

Since OBRC is run by a membership that represents nearly every distributor in the state of Oregon, the system is centralized and easily allows for coordination of the deposit refund system through this joint representative body of industry. Therefore, the 5¢ deposits from purchased containers can be forwarded from the retailers to OBRC, who then refund the retailers with the returned deposits weekly (Bertges).

Despite being a legislatively initiated process in which any structural changes must be voted upon and passed, the administration of the bottle bill in Oregon uses almost no public money. This is because the process is funded by the funds from the unredeemed deposits that stay with OBRC, essentially the distributors (Bertges). Since distributors are motivated through their membership in OBRC to keep the rate of return high because they sell the recycled products to buyers in the recycling market – occasionally at Oregon recycling plants owned by OBRC – there is no perverse incentive to try and increase the amount of unredeemed containers.

OBRC presents an interesting model of governance, because the administration of the “recycling system [is run] by the same people who are making or distributing the regulated beverages” (Powell). It is the first of its kind and is being carefully watched and considered by those involved in solid waste management across the country because so far, it seems to effectively meld together the goals of the bottle bill with the goals of the beverage industry. All in all, the Oregon system is highly efficient and is continuously working to improve the procedures for redemption in the state. For example, in 2009 the state legislature passed an amendment to the system expanding the bottle bill in many ways, including increasing the deposit price to a dime in 2017 (Spendelow).

The administration of the Maine bottle bill was assigned quite ambiguously, but is now run through the state government (Maine’s Bottle Bill, 1977). It has recently been transferred from the Department of Agriculture to the Department of Environmental Protection, or DEP. DEP is responsible for managing the bottle bill, which includes coordinating finances, managing the location of redemption centers, distributor or retailer compliance, and dealing with issues of fraud. The funds for this system are paid by state funds, some of which may be from the deposits of unredeemed containers that the state of Maine partially retains through escheats if the distributor of those containers are not a part of the comingling agreement (“Unclaimed Deposits”).

As was mentioned previously the Maine bottle bill law was written in such a way that “The distributor or manufacturer that actually puts the bottle into circulation is the one that is required to actually take it back out of circulation” (Milligan). This means that there are many different entities, including hired third party pickup agents, who are in charge of picking up the used beverage containers from all the retailers and redemption centers within the state of Maine. The presence of multiple actors within such a varied industry requires additional organizational steps,

which in turn makes the process more expensive and inefficient. Spendelow notes that the bottle bill in Maine “is set up in a way that really pushes the cost up a lot...Because different beverage companies sign up with different service companies to get the containers redeemed so they don’t have to go out there and do it themselves. When you go into a redemption center, you see a hundred containers and they are putting different thing in each one.” This sorting process increases expenses because it takes up a lot of time, labor and physical floor space.

Massachusetts administers its bottle bill through the state’s Department of Environmental Protection, the finances are managed by the Department of Revenue, and the Attorney General’s Office, “deals with enforcement of any violations” with regulatory guidance from the Secretariat of Energy and Environmental Affairs (Sylver). The DEP is also responsible for some day-to-day operations of the bill including coordinating the stakeholders involved, problem-solving regulatory and planning issues, and issuing redemption center licenses. This delegation of roles of the separate parts of the Maine Bottle Bill between three state agencies allows for the specificity of work performance by each department, but also necessitates inter-department communication, especially because the state roles for regulation are not clearly specified in this law (Sylver).

The funds for administering the bottle bill system are, in a sense, provided by the unredeemed deposits of used beverage containers, because some of those nickels go back into the Massachusetts State General Fund. However, the administration process is quite complicated and interacts with multiple state agencies, each with total budgets of greater than \$29 million. Consequently, it is unclear if the funding from the unredeemed deposits even comes close to covering the costs of the time it takes to run the Massachusetts Bottle Bill. The decentralized nature of the Massachusetts administrative system makes it less efficient.

### *Deposit Price*

The deposit price per container is an important variable to consider in each of these three states' bottle bills when trying to determine their systemic effectiveness. The deposit set on the container by the legislation is the incentivizing factor that allows for the functioning of the entire system. Attributing a monetary value to containers is therefore a disincentive to litter or otherwise not return deposit containers for redemption, meeting anti-litter and recycling goals. It simultaneously encourages picking up littered beverage containers. Therefore, the per-container price assignment value is critical because it influences the level of return of deposited containers as compared to the number of containers purchased with a deposit, called the redemption rate.

The redemption rate of containers covered by the state's deposit system indicate the level of participation in the system through comparing the number of containers purchased with the number returned. A higher redemption rate is preferable for the system to run effectively. High redemption rates allow the policy to achieve its goals of environmental conservation as well as to maintain a profitable and consistent product supply for recycling industries and other related aspects of local economy, such as redemption centers. This rate is highly influenced by the deposit price of the container and increases in correlation with deposit price. The redemption rates for the case studies in the scope of this research are listed in Figure 3.2.

Research shows that "If states set their bottle deposit high enough, harvesting recyclables becomes viable employment for low-income households" (Ashenmiller, 2011). As deposits per container increase, redemption rates do as well. This encourages a higher level of recycling and, studies show, a lower presence of litter. This pricing is an indicator of the participation in the state deposit systems of Oregon, Maine, and Massachusetts, which consequently also suggests the level of environmental awareness in the state. It's important to note that all of these states passed their

bottle deposit systems into law 25 to 45 years ago, at a time when a nickel was worth between 20 and 28¢ today. Inflation is an important factor that makes a deposit system less effective because people are less incentivized to redeem containers for 5¢ each than they would be for 25¢ (Spendelow).

In Oregon, there is a 5¢ deposit on all beverage containers except wine, liquor, milk, and milk substitutes<sup>9</sup>, and a 2¢ deposit on the small, “stubby” brown beer bottles that are commonly used at breweries. The redemption rate for the state is calculated annually through the OBRC and the Department of Environmental Quality. In 2015, the redemption rate was 68.26%, which was much lower than the 94% redemption rate in 1973. Prior to the bottle bill’s implementation there was an estimated 25% return rate (Spendelow, 2004). While the redemption rate displays that public participation with the bottle bill has been decreasing over time, there are policies that have been put in place in Oregon to improve the effectiveness of the bill. Since the rate has dropped below 80% for two straight years, the 2011 expansion of the Oregon policy states that the deposit price will increase to 10 cents per container, after verifying calculations confirm the redemption rate (Oregon Deposit Law). The reasons for this decline are uncertain, but interviews and sources have indicated that it is largely because of the declining quality of experience during the redemption process along with the devaluation of the nickel since the bill’s original passage in 1971.

A major reason for the drop in the Oregon container redemption rate is because of the negative customer experience at redemption sites. Sources describe the time, outdoor location, mechanical malfunctions, and other inconveniences as reasons why the public participation rate has dropped down to below 70% (Spendelow, Powell). Additionally, at the setting of the reverse

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<sup>9</sup> By 2018, as per the 2011 expansion of the bottle bill.

vending machines, which are automated machines that accept, count, and break down deposit-covered beverage containers, “there’s often a population of people who are returning containers who, you know really need the money. They’re gleaners, they might be homeless or transient. And, other people they kind of don’t want to go to the return areas because they don’t want to hang out with them. For lack of a better word for that” (Bertges). This public perception has inspired a shift in Oregon from reverse vending machines to indoor redemption centers, which is discussed in detail later.

Studies of litter reduction in Oregon under the bottle bill has resulted in a wide variety of figures, as different research used different percentages of beverage containers as a portion of the litter profile along with other methodological differences. Additionally, many of these types of studies are either conducted by or hired by groups that either actively support *or* oppose the bill. The level of Oregon litter reduction ranges from 10% to 47% in volume between two studies conducted in the state in 1974 (Gudger, ODEQ). The impact of this legislation on litter reduction in Oregon has been highly politicized, with the uncertainty of its numerical effectiveness giving fuel to the fire of the opposition.

Maine has a 5¢ deposit price for all types of beverage containers except dairy products and unprocessed cider, and a 15¢ deposit on wine and liquor containers. Due to the many distributors and redemption center owners who are directly involved in the redemption of beverage containers in Maine, there is no singularly calculated redemption rate annually. However, in 2011, there was an estimated 90% participation rate in the recycling of beverage containers in the state of Maine (Lakeman). While this figure’s reliability is unclear, it is impressive that while many other states are struggling to keep up their redemption rates, Maine seems to maintain a very high participation rate in the bottle bill program. This is likely because there is a higher deposit price on wine and



liquor containers, and because the law is quite comprehensive in the types of containers it includes in the deposit system. Additionally, there is current discussion of the potential incorporation of Maine produced cider and blueberry juice into the scope of the law (Lakeman).

Litter reduction under the Maine deposit law was found to be a 34-64% decrease in total litter in 1980. More anecdotally, municipal workers observed a significant decline in the amount of solid waste entering Maine landfills within just 4 months of the law's enactment (USGAO, 9). Additionally, as a state with a large tourist industry Maine would likely spend money to remove litter in order to maintain its pristine and rustic public image. Therefore, litter reduction structuralized as a bottle bill system is likely to save between \$100,000-\$250,000 for litter clean up annually (Ginn).

The state of Massachusetts has a price of 5¢ on beer, malt, carbonated soft drinks, & mineral water containers. In 2014 the state had a 64.08% redemption rate of beverage containers through their deposit redemption system (Massachusetts Deposit Law). Massachusetts has both the lowest redemption rate and the least comprehensive type of legislation (in terms of types of containers included) of the three case study states considered in this section of my research. These realities along with the fact that this state has just a nickel value on all its returnables and has most recently experienced a huge anti-bottle bill campaign in 2014 makes it the least effective bottle bill in consideration of this research. Further, with the memory of the defeat of Question 2 looming in recent memory, sources say that there is currently no incentive or political capital for the legislature to try and update the bottle bill (Wiseman).

A 1987 study in Massachusetts found a 30-35% decrease in litter after the bottle bill's implementation in 1983 (EAF). However, between 2000 and 2010 the sales of juices, sports drinks, juices, and bottled water have increased their sales nationally by over four times. People in

Massachusetts who collect used beverage containers for redemption share that “it’s frustrating that most bottles they find aren’t redeemable” and call it “a waste” because many of these otherwise containers are going to landfills due to their lack of deposit (Abel). The Massachusetts bottle bill’s incomprehensive nature, political stagnation on the issue, and low deposit price degrades the efficiency of the entire system and makes the bottle bill increasingly less effective in achieving its goals of environmental conservation and litter reduction.

### *Bottle Bills as a Social Service*

Bottle bill deposit systems are not only useful for environmental and economic motivations, but can also be a form of alternative income for people. A significant amount of users of the redemption system are fundraisers, unhoused, transient, or low-income people. Described as an unintended consequence of the bottle bill, which was specifically crafted with environmental goals to decrease litter and increase recycling, the potential to make money off of redeeming beverage containers is a widely accessible social service (Spendelow).

Many groups use the redemption of beverage containers as a technique for fundraising. Lakeman points out that in Maine, “a lot of our deposits or unclaimed deposits is a big source of charity around here. I remember as a kid doing a lot of bottle drives for sports teams and things like that.” Because of this, people know to save up a collection of their containers to give away if they are not going to redeem the deposits themselves. This format of donating containers is described as quite widely supported, and seems to be understood to be a social benefit of the bottle bill.

However, the public perception of the bottle bill as a social service mechanism changes when the users in consideration are not Girl Scouts or sports teams, but people experiencing homelessness, low-income, or who otherwise desire ways to make extra money. Interestingly, this

is an aspect of the bottle bill that “even its supporters are loath to mention” (Abel). A study shows that in Santa Barbara area of California, close to 60 percent of the income from redeemed deposits was collected by households earning less than \$25,000 annually. The study also found that the lowest one percent of earners – those making \$10,000 or below – retrieve around 20 percent of the total value of all the beverage containers redeemed (Ashenmiller, 2011).

As these people are typically not the initial purchasers of the beverage containers, many spend significant amounts of time collecting or scrounging for unredeemed beverage containers. This frequently includes going through public or private garbage or recycling receptacles. Bottle bills increase these informal activities through incentivizing recycling (Gowan, 2010). Though the 1988 Supreme Court ruling of *California v Greenwood* defined one’s garbage as “outside the constitutionally guaranteed privacy of the home,” it is still a practice that is often frowned upon in many communities on the basis that the activity of scrounging constitutes “offensive conduct.” Some cities and municipalities have gone so far as to impose crackdowns on activities such as dumpster diving and bottle collection, calling it deplorable acts of “thievery” (Ferrell, 11).

Over the course of my interviews, different sources indicated the ways that their different communities interact with beverage container collection. Sarah Lakeman describes that her experience in Portland, Maine is that, “if I can’t make it to my redemption center I don’t put my bottles and cans in with my normal recycling but I would probably leave them separate because there are the same people that come around every week and they would look through everybody’s recycling bins for the bottles and cans to take. I’d save them, give them away to those people, or if I saw them go by I would run out and give them my bag.” My family in Portland, Oregon has similarly established a relationship with a homeless man in my neighborhood, for whom we collect our bottles and cans until the next time he visits. In Massachusetts, a newspaper article chronicles

the story of a low-income family in the city who depend upon the collection of deposit-covered containers for a significant portion of their income. These collectors note that Massachusetts' Question 2 would have allowed them to, "redeem bottles from water, sports drinks, and other non-carbonated beverages that they now ignore...and [they] could more than double their income" (Abel, 2014).

As was stated earlier, Oregon is switching its redemption system from one primarily of reverse vending machines to indoor, employee-run redemption centers. Much of the reason behind this is because, "it upsets a lot of people who live in the neighborhoods where a lot of people redeem things – they don't particularly like homeless people coming through their area" (Spendelow). Therefore, many of these planned redemption centers are going to be in less centralized neighborhood spaces like grocery stores usually are. Most are placed in the suburbs and none of the redemption centers are in Downtown Portland, where there is a large community of unhoused people due to the presence of shelters and other services (BottleDrop Centers).

When asked to consider if this change in Oregon's system would impact accessibility of the bottle redemption process to homeless or low income people, people responded that it is likely to be "a tradeoff, of an environmental benefit to a social service loss" (Powell). As many low-income or unhoused people don't have easy access to a car, it seems likely that the disbursement of these redemption centers will make container redemption less accessible to many of the people for whom it provides the greatest social service (Ashenmiller, 64). With many states around the country switching to the system of redemption centers which provide jobs and a more regulated environment for redemption, this switch will change the way that the bottle bill can function as an accessible social service for unhoused, transient, and low-income people.

## Chapter 7

### The International Implications of Bottle Bills: Outsourcing Your Sense of Justice?

Recycling is often considered a beginner's step toward sustainability and solid waste management. In some cases, recycling has also taken on the role of what I shall call "placebo environmentalism." For example, in clinical trials of dangerous illnesses, some patients are given placebo medicine in response to which they may feel better, despite the fact that they were not actually given active medicine and the illness itself is probably still continuing. Some people consider placebos -- essentially the strength of human willpower -- to be enough to start a true healing process. Considering climate change as the "illness" in question and recycling as the placebo medicine, the latter is simply not enough to solve the former. And yet, as is depicted in the graphic novel *As the World Burns*, many people consider recycling to be sufficient environmental effort from the individual when it is actually playing into the capitalist and colonial system that originated the problem in the first place (Jensen, 2011).

While bottle deposit legislation greatly increases recycling rates, improves the quality of recyclable products, reduces litter, and many other benefits that are outlined throughout the course of this research, this study would be remiss in considering these systems under the TBL definition of sustainability if it did not ultimately ask, what happens to the recycled products after they are redeemed? The answer to this question varies widely state by state, but the options include: in-state facilities, out-of-state facilities, and export of the product internationally. This final section of this research will consider the environmental, social, and economic implications of the international export of American recyclables, specifically to Asia, and with these realities in consideration can this action truly be considered "sustainable"?

Activism through consumerism is not a viable method to solve the pressing environmental problems that face the world today, but I do not hold any grandiose ideas that the bottle bill is a silver bullet environmental policy. Still, I think that bottle bills effect greater changes past consumer activism, due to its accidental role as a social service, how it provides opportunities for communities to learn to fight back against corporate interference in the political process, and because it creates a very clean recyclable product. This latter aspect has a large implication on issues of social and environmental justice, as is discussed in this chapter.

*Where do Oregon, Maine, and Massachusetts send their recycled products?*

Many distributors have specific relationships with domestic recycling plants for the specific types of recycled materials collected that can be collected through a bottle bill system: PET plastic, glass, and aluminum.<sup>10</sup> Considering the three case study states with functioning bottle bills today, Oregon has completely eliminated its international export of redeemed recyclables from the Oregon bottle bill system. Prior to 2012 the OBRC sold its PET product to the highest bidder on the market, which was typically to a buyer in Asia. A quite low-value product, Cheryl Bertges of the OBRC says that Asian markets were “the only place[s] we could really get money for it.” However, the cooperative became a partial owner of the Oregon PET, or ORPET facility in Southern Oregon. Afterward, most of the plastic products from ORPET stay in the Northwest of the country, although some of the buyers are located on the east coast. Glass is processed at a plant called Glass to Glass in Portland. Part of the reason that the parent companies of Owens-Illinois and eCullet chose to locate their glass recycling facility in Portland is because, “the city has a reliable supply of waste glass provided through the 'Oregon container deposit programme’”

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<sup>10</sup> It must be emphasized that the data presented from the recycling and waste industries is notoriously difficult to track and in some, cases, unreliable and should be treated more as estimations than fact. This is because these industries are societal byproducts and as many loads are mixed and are not precisely calculated (Minter, 2013).

(Packaging-Gateway). Oregon's aluminum collected from the bottle bill is sent to the Midwest of the country, due to the absence of aluminum smelters in the Northwest region (Bertges). Aluminum smelting is a notoriously dirty and polluting industrial process (OECD, 9).

In Maine the story of the end-product of the recyclable material is more difficult to follow because it is not a centrally organized system. All of the distributors who are involved in the bottle bill either directly pick up the redeemed containers of their products, or hire a contracted third party to do it for them. After that, the recycled material is in the hands of each of the distributors to decide where the products should go. Elizabeth Milligan of TOMRA, one of the third party pickup agencies for the redeemed beverage containers, says that the market dictates the end location of the glass, plastic, or aluminum that they collect on behalf of the beverage companies that contract them. She says that all materials go out of the state of Maine, glass is recycled at a plant called Strategic Materials in Massachusetts to be melted down for new bottlers or fiberglass. Aluminum is sent to the smelting factory Aloca in New York. The collected plastic products by TOMRA are sent to a wide variety of places, depending on the market prices and other forces. Milligan says that "some of it goes overseas, some it stays within the United States in various locations, and some of it goes to Canada." These products can be turned into any number of plastic items including new bottles, polyester, fleece, carpet backing, or if it is a high quality it can be turned into resin (Milligan).

In Massachusetts, my sources were not able to provide specific information about the next steps for the recycled products after they are recycled through the bottle bill system. Similar to Maine, Massachusetts relies upon the individual distributors—whether national beverage corporation or local brewing company—to transport the beverage containers after they are redeemed either through their own services or through a contracted pickup agent. Without

confirmation, it seems to be a reasonable conclusion that the path of Massachusetts' recyclables are similar to those of Maine's--that the glass stays in-state at Strategic Materials and aluminum also somewhere domestic such as Aloc. As Environmental Planner for the state of Massachusetts Sean Sylver points out that material, "coming out of the bottle bill redemption stream is very clean material because there's really no sorting involved...from speaking with professionals who use recycled materials in the production of new materials they want those particular bales because they are clean and they know that they're high quality. So from a domestic perspective from where in America you're trying to produce goods to a certain standard...you are going to get domestic producers who are going to want that recycled material." However, it seems that because PET plastic has a very low market value, frequently the only way to make a profit off of those materials is through export abroad, often to Asian markets.

It is largely PET plastic material that is exported from U.S. bottle bill systems to Asia for recycling by container ship. China imports more than half of the world's plastic exports, which is estimated to be around a \$500 million dollar industry for the country (Guilford). As China is the most common destination for exported plastic such as those derived from bottle bill systems, this example will focus specifically on the situation of plastics in China, although plastics are also imported from the United States to places such as India and Thailand (Minter). Upon arrival in a Chinese port, most likely the plastics are sent to one of the 60,000 small, family-run plastic recycling workshops, likely in the Wen'an County in northeast China (Minter, 145). In Wen'an County, there are businesses that specialize in the recycling of certain kinds of plastics, including PET. There is a complete chain of industry present, "from sorting and cleansing, to melting, shredding, granulating, and molding" (China Daily US).



*The Plastic Recycling Industry in Wen'an County, China*

While this import of recyclable plastic to places such as China is supported by market forces and helps meet the growing demand for plastics in the country, it is not without cost. Despite being more formalized than industries such as electronics recycling, the plastics recycling industry in China is endangering the health of the surrounding environment and the people involved in the industry. Just a quarter of a century ago, the Wen'an County area could be described as, "bucolic, – an agricultural region renowned for its streams, peach trees and simple, rolling landscape" (Minter, 146). Now, the pollution from these processes has made Wen'an County residents reluctant to drink the local water, for fear that it is contaminated (China Daily US). As Minter writes in his book, "nobody wants to live in Wen'an" (152). Families who can afford it spend most of their time outside of Wen'an, and quickly send their children out of the region to attend higher quality schools.

A 2016 study finds that samples of Wen'an County road dust show accumulations of contaminants from plastics and heavy metals associated with plastic production that are 1-2 levels of magnitude higher than in other areas without plastic industry. These levels of contaminants exceed the recommended limits for children and pose a potential health risk to children over long-term exposure through inhalation or direct contact with road dust (Tang et al, 634). A local resident notes that high blood pressure and movement-restricting pulmonary problems are commonplace here, even occurring in young people, which never used to happen (Minter, 157). He also recognized the problem of "the stress related to living in a, 'dirty, stinky, noisy environment. It takes a physical and mental toll'" (152). Further, some companies indiscriminately provide Wen'an plastic processors exemptions to the Restriction of Hazardous Substances evaluation, which is a standardized test intended to require compliance to environmental, safety and health

standards (151). Further, “environmental and safety equipment is neither required nor available at the local equipment and chemical dealers” (148).

In the past few years the Chinese government has been more active in acknowledging, and in some cases taking action, its country’s dangerous pollution problems. A major attempt to stop China from being used as a “dumping ground” for the west was when the government shut down the plastics recycling industry in Wen’an County in 2011. On grounds of addressing issues of pollution, the government banned all plastic material imports into the area. Without an alternate plan to address pollution or provide other forms of employment to the region, this attempt left hundreds of thousands of people without livelihoods, including a large migrant worker population from other areas of China (China Daily US).

The policy shifted in February, 2013 when Beijing announced its new Green Fence policy, in which the nation shared their intention to reject “poorly sorted or dirty shipments of recyclable waste from foreign exporters” into China (Berg). China rejected 68,000 tons in the first five months of the Green Fence through random inspections and sent the shipments back to its country of origin at their expense. This policy puts the onus on countries like the United States to improve their quality, sorting, and decreased levels of contamination and has even suppressed prices of PET products on the west coast (Guy, 2013). However, as the Chinese demand for recycled plastics remains powerfully strong and illegal exports are being smuggled into the nation to meet this demand, it remains unclear how much impact the rejection of the worst-of-the-worst imports will have on the pollution levels, and health of people in places such as Wen’an County (Guilford).

Bottle bill products from the United States are typically of high quality and are increasingly less likely to enter the international recycling market because of their demand domestically. If products are exported abroad from these systems, they are likely to be PET plastics. If this plastic

is sent to China, recyclables from bottle bill systems would probably pass a Green Fence inspection. Nonetheless, this analysis of the international plastic industry shows that the act of recycling in of itself is not as benign as the simple “sustainable” action that many perceive it to be. In actuality, recycling of plastics tend to result in environmental degradation and unsafe and unhealthy working conditions. While bottle bill systems are less likely to contribute to the environmental injustices as outlined here in Wen’an County, they still contribute to the greater problem that creates a market for plastics in China, and elsewhere in Asia.

## Chapter 8

### Conclusions: Bottle Deposit Systems in the Bigger Picture

The exploration of the highly specific topic of container deposit legislation systems in the United States begets bigger questions about the past and present nature of the nation's political climate, campaign finance system, environmental policy techniques, international export trends, and social class norms. The MDSD analytical framework allows for the comparison of states from different sides of the country to conclude the variety of ways that differing situations can result in either the passage or defeat of bottle bill legislation. The MSSD comparative system presents a framework for the similar bottle bill systems of Oregon, Maine and Massachusetts to display the reasons behind their different levels of effectiveness in meeting the bottle bill's prescribed, and unprescribed goals of environmental protection and economic development. The overall conclusions of the effectiveness of these two systems of comparison sheds light on several methods of how the state political system can support or not support effective or ineffective bottle deposit systems on the state level.

This research displays that if put to a vote, the state legislature tends to be a far more favorable method to pass bottle bill legislation than the public initiative or ballot system. The presence of strong political champions, the legislature's structural ability to compromise and negotiate, the presence of a cross-sectoral supporting coalition, and the allocated relinquishment of power or economic benefit to beverage retailers or distributors within the bill are all critical factors in passing a bottle bill through the state legislature. Compromise is a critical part of politics, and bottle bills are no exception. This also leads to the conclusion that bottle bills have the potential to be an issue with bipartisan support, and must be so in order to pass in most state legislatures.

However, in the current polarized and highly partisan political climate—with the environment inexplicitly as one such polarizing issue—bipartisan bottle bill support for environmental policy such as bottle bill systems seems increasingly less likely. The bottle bill shows that the political climate wasn't always this way, as Republican and Democratic politicians proposed and advocated for bottle bills in their states because of its multitude of benefits economically and environmentally. Remembering the successes of bipartisanship and the situations in which it was made possible is critical in the politically polarized and largely stagnant United States government that we see today. Yet, even in states such as Massachusetts, where just 17% of the state legislature seats are filled by Republican politicians, legislative action to expand the existing bottle bill system still proves to be very politically tenuous.

Through the public ballot, outreach and an effective messaging stance is critical to pass a piece of bottle bill legislation. As the goal is to convince the majority of the state to actively support in a bottle deposit system with a “Yes” vote in the election, a successful bottle bill coalition will organize widespread outreach, speakers, in attempts to unify the supporting voters, as was done in the state of Maine. This effort can be successful with either access to significant financial resources, or a passionate volunteer base. The latter is largely successful because grassroots movements gain their power from the passion of their supporters and the connectivity of people's different communities (Hart, 2001). It takes a lot of time, energy and resources to win over the public's support for a ballot initiative, especially in the face of heavy opposition. Therefore, it is important that the first ballot attempt is conducted at the appropriate time and is successful. After all, the state legislature will refuse to act on the issue for a while due to a perceived lack of public support from being defeated on the ballot. Further, the ballot itself will prove less and less forgiving because the opposition has already established a winning, hard-to-beat strategy.

The public ballot proves especially difficult to pass bottle bill legislation -- or more recently, any kind of legislation -- because of what McCuan and Stambough refer to as the professionalization of the initiative process (52). Through easy access to large amounts of resources in order to access superior consultants, advertisements, polls, or employees this new professionalization of what was *intended* to be the people's legislative check on government, may itself directly pose a threat to the direct form of democracy that is the public ballot. The case of Massachusetts' Question 2 in 2014 is a prime example of this professionalization. Through outspending the supporting coalition by more than 8 million dollars the bottle bill opposition was successfully able to concisely frame their messaging of the bottle bill as a tax through a deluge of advertisements. By getting voters to be even slightly uncertain about if a policy change will do them bad or good, the opposition has already won (Wiseman). Further, the example of the 1970 campaign in Washington displayed that the competing presence of a proposed Litter Law disrupted support for the bottle bill on the same ballot. Alternative policies are often deadly to ballot initiatives, because choices divide public support and typically serve to confuse the messaging and differentiating purposes between the two proposals.

This examination of bottle bills tells a lot of information about the level of corporate influence in the United States today. First, it displays that corporate oppositional funding is omnipresent throughout all stages of and attempts to pass bottle bill legislation. This oppositional funding can prove dangerous, although not necessarily fatal to bottle bill systems.

A key variable that can powerfully push back against the presence of massive amounts of corporate funding is an independent, environmental state cultural ethos. "Historical studies often treat environmental politics and environmental ideals as separate topics. In this book we trace their interaction. Politics drew inspiration from perceptions of the environment, and in turn politics

encouraged new ways of thinking about the environment” (Judd, 2003). This concept is particularly true in less-densely populated places such as Maine and Oregon<sup>11</sup> that depend upon the pristine nature of their environment for the tourism industry, and the health of the rural and agricultural sector. However, this state ethos of environmentalism goes deeper than economic incentives. Judd and Beach’s concept of the “environmental imagination” describes the “core beliefs that animate the political defense of nature” (X). When combined with a well-organized, multi-sector coalition of supporters who work to validate this ‘environmental imagination’ through messaging and people-power, can prove triumphant. While many other states with bottle bills may have a state culture of environmentalism, it is typically those who successfully activate their environmental imagination who are able to pass heavily-opposed legislation such as bottle deposit systems, into law.

Ultimately, in the grand scheme of a world with a changing climate, war and violence, volatile economic markets and a dwindling resource supply, bottle deposit legislation can appear to be just a drop in the bucket of progress, or contrastingly a slight inconvenience for the beverage industry. However, in a world of ‘corporate democracy’ in many ways it seems like no fish is too small to fry if profits may at all be affected by environmental policy (Coates, 657). Additionally, bottle bills display the issues that come from incorrect information being shared by campaigns as though they are fact. The case studies of Massachusetts and Washington especially display that this type of confusion, even if proven incorrect, can greatly shake public support. Bottle bills display on a micro level the macro issue of dirty corporate influence in the political system, and the great extent to which industry will act in order to protect its bottom line -- often at the expense of the environment.

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<sup>11</sup> Oregon and Maine both had populations of less than 3 million when their bottle bill’s first passage (US Census).

The bottle bill systems considered in this research also show how society tends to isolate its most vulnerable members, as well as exemplifies ways that social taboos, such as those that disapprove of scrounging through trash or recycling, can become incorporated into local or state law. The reason for this exclusion stems from the classist stigma within our society that causes non-homeless or middle-income people to dislike, or feel uncomfortable being in the presence of homeless or low-income people. Bottle bill systems were structurally intended as a policy for litter reduction and resource conservation, not as a social service. Over time, the administrators of bottle bill systems have been changing to better accommodate non-homeless or non-low income users to meet these environmental goals. It appears that during this process low-income, transient, and unhoused bottle bill users are directly being isolated from the social service that the bottle bill inadvertently provides. By recognizing this trend and bringing the issue to the administrators of the bottle bill, perhaps action can be taken to reverse this trend and serve all bottle bill users equally.

In the end, one must ask, who does the bottle bill serve: the people who use and value it the most, or the people who are most easily welcomed into stores and community spaces? With these kinds of considerations in mind, the bottle bill provides a valuable opportunity to make environmentalism more accessible and intersectional, which are areas of needed improvement for the entire environmental movement. As Jensen writes, “the human species must acknowledge that any future that allows us to retain our humanity will jettison capitalism, patriarchy and white supremacy - and be based on an ecological worldview.” It is due to this reason that I framed this entire research project under a Triple Bottom Line definition of sustainability, because “without a rejection of the dominator logic of white supremacy and patriarchy, there is no future worth living in” (Jensen, 2013).



The political, environmental, and economic situations in the states profiled in this research have changed vastly since the passage of their original bottle bills. Sylver says that, “I think that any time you have a law that’s been around for thirty years there’s tweaks that need to occur...to make the system work more smoothly.” As time passes, inaction on updating the state’s deposit system in order to best fit its current situation does a disservice to the legislation and the people that it serves by making it a less effective policy. Despite the presence of barriers to passage such as corporate funding of opposition due to the allowances provided by *Citizens United*, the results from this research that outline the different ways that bottle bill campaigns were successful or defeated could prove useful in future attempts to keep state bottle bill systems comprehensive and effective through updates or attempted amendments or repeals.

Finally, an investigation of bottle bill systems and their effectiveness raises the question, who do we make environmental policy for? While many tout the many environmental, social and economic benefits of bottle bills, the greater systemic pressures that allow bottle deposit systems to function once they’re passed into law are due to the presence of domestic and international markets for the recycled products to continue to make more new products. While the reuse of existing material saves significant energy and some argue that “The worst, dirtiest recycling is still better than the very best clear-cut forest or the most up-to-date open pit mine,” it is important to remember that the underlying motivations making the system possible are entirely economic and profit-based (Minter, 7). The fact that bottle bills use the capitalist system to obtain environmental and social benefits along the way is significant to be sure. Yet, these non-economic values must be continually reinforced and protected at times because the policy is dependent upon an economic profit-based foundation that constantly threatens to overpower these other benefits.

The United Nations Framework Convention on Climate Change (UNFCCC) has decidedly argued that the human-imposed combustion of fossil fuels has caused massive and unprecedented changes in climate and that these changes can greatly disrupt the basic functioning of life on the planet. Within this period of global crisis, it is critical to practice sustainably sound procedures in all aspects of human life, industry, and government. Further, this crisis requires to urgent action to reduce resource consumption -- especially those that compound the impact of greenhouse gases. Resource conservation efforts are an important part of this work. The Intergovernmental Panel on Climate Change (IPCC) reports that recycling is an important adaptation and mitigation measure for the industrial sector as it can improve energy efficiency, reduce product demand through more intensive product use, and ultimately can “help reduce GHG emissions below the baseline level” (IPCC Synthesis Report, 102).

This research displays the far-reaching impacts that even a statewide environmental policy can have and suggests that legislation of this kind is most easily passed through the state legislature, and oppositional funding can be overcome in a state that maintains a strong environmental ethos through the hard work of compromising, coalition-building, and grassroots organizing. The most effective bottle deposit systems are centralized and are self-funded, with the trailblazing example of OBRC showing new, innovative ways of structuring environmental. Bottle bills are a valuable and effective type of recycling because they produce a product of such high quality that it mostly does not feed into the international recycling market, which is a system that is fraught with social and environmental injustices.

The concept of the bottle bill was a spark within the nation’s ‘Environmental Imagination.’ It provided an innovative way to prioritize state environmental values over corporate desires. Bottle bills have played important roles in decreasing litter, conserving energy, creating clean

recyclable products, developing new jobs, and providing a valuable form of alternative income. In all of these areas, bottle bills have required people, industry, and government to think differently about the consumer culture and corporate interference in politics that pervades the United States. While bottle bill systems have not gotten close to solving these larger issues, they do initiate valuable discussions on wider environmental, social, and economic issues.

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