

Sacking the Culture of Convenience: Regulating Plastic Shopping Bags to Prevent Further Environmental Harm

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“Using cloth bags has been seen as an extreme act of a crazed environmentalist. We want it to be seen as something a smart, progressive person would carry.”¹

- Vincent Cobb, Founder of Reusablebags.com

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1. Elisabeth Rosenthal, *Motivated By a Tax, Irish Spurn Plastic Bags*, N.Y. TIMES, Feb. 2, 2008, at A3, available at http://www.nytimes.com/2008/02/02/world/europe/02bags.html?page=1&_r=1.

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INTRODUCTION

The single-use plastic carryout bag has become an ever-present item in modern society. Consumers use plastic shopping bags with careless indifference to the detrimental environmental effects that result from the creation and disposal of such items. Much to the dismay of environmentally conscious citizens worldwide, the ubiquity of the free plastic carryout bag has bred nonchalant consumers who take this modern convenience for granted.² Although exact numbers are indeterminable, Americans use an estimated 100 billion plastic bags every year, each typically discarded after a single use in which only a few items are carried in the bag.³ While convenient for consumers, plastic shopping bags raise three major environmental concerns. First, the single-use plastic carryout bag is a product made from natural gas or petroleum that does not biodegrade.⁴ Second, wind currents easily sweep lightweight plastic bags into the environment causing widespread pollution.⁵ And third, plastic bag production, shipping, and recycling have overarching negative environmental ramifications due to greenhouse gas emissions.⁶

In order to address the damaging environmental effects of these convenient plastic bags, legislative bodies worldwide have taken action in various ways. Current plastic bag legislative initia-

2. The Food Marketing Institute reports that the average American makes 2.3 trips to the grocery store per week, using five to ten grocery bags each trip. Bill Avant, *Paper or Plastic? A Simple Question, Right? Wrong!*, TENN. CONSERVATIONIST Jan./Feb. 2006, at 1, available at http://www.tennessee.gov/environment/tn_consrv/archive/paperplastic.pdf.

3. Katharine Mieszkowski, *Plastic bags are killing us*, SALON, Aug. 10, 2007, http://www.salon.com/news/feature/2007/08/10/plastic_bags/.

4. See Nina Bellucci Butler, *What's in Store for Plastic Bags?*, RESOURCE RECYCLING, June 2007, at 2, available at <http://www.plasticbagrecycling.org/08.0/Bellucci%20plastic%20bags.pdf>. Accompanying this are the environmental hazards of harvesting fossil fuels. Mieszkowski, *supra* note 3.

5. See Mieszkowski, *supra* note 3. For an illustration of the plastic bag's light, aerodynamic nature, the film *American Beauty* features segments in which wind currents continuously sweep up and move a plastic bag through the air. AMERICAN BEAUTY (DreamWorks Pictures 1999).

6. Butler, *supra* note 4, at 4.

tives include extensive recycling programs, bag bans, taxes or fees, and public education campaigns; there is much debate, however, as to the best approach. This Note will analyze the range of legislative regulations available to United States municipal and state legislatures. Within this analysis, this Note will examine legislative efforts already imposed worldwide, as well as in the United States. Additionally, the Note discusses current barriers to legislative efforts in the United States, such as the American plastics industry's lobbying efforts to prevent legislatures from enacting measures that reduce plastic bag consumption. This Note concludes that legislatures must adopt a consumer-based fee on plastic bags along with education and recycling programs in order to truly curb the plastic bag's deleterious environmental effects.

I. HISTORY OF THE PLASTIC CARRYOUT BAG

Over the past thirty years, the plastic bag has become a pervasive symbol of convenience and consumerism worldwide. The plastic polymer, polyethylene, which was created in the 1930s, first appeared in grocery bag form in 1977.⁷ Soon after, in 1982, major supermarkets such as Kroger and Safeway were regularly using mass-produced plastic bags in their checkout lanes.⁸ The lightweight bag served a single-use purpose: for consumers to carry purchased items from the retailer to the home.⁹ Retailers readily preferred the strong, compact plastic carryout bag to the more expensive, bulkier paper bag.¹⁰ Likewise, consumers liked the plastic bag's strength, carrying handles, and ability to accommodate moist grocery items without breaking.¹¹ By 1996, plastic bags comprised four out of every five grocery bags used by consumers in the United States, which still holds true today.¹² Currently, American re-

7. L.J. Williamson, *It's Not My Bag, Baby!*, ONEARTH, Summer 2003, available at <http://www.nrdc.org/OnEarth/03sum/bag.asp>.

8. *Id.*

9. *Id.*

10. *See id.*

11. Paper bag manufacturers did not equip the difficult-to-carry paper bag with carrying handles until the late 1990s; by that time, grocery retailers substantially preferred plastic bags. *Id.*

12. Food Marketing Institute, *Background, Plastic Grocery Bags—Challenges and Opportunities 2* (2008), <http://www.fmi.org/docs/media/bg/Plast>

tailers collectively pay an estimated \$4 billion per year in order to continually provide free plastic carryout bags to consumers.¹³ In comparison to the single-use paper bag, the plastic carryout bag is more durable, remarkably compact,¹⁴ considerably lighter,¹⁵ and releases fewer emissions into the air during production and shipping.¹⁶ These positive attributes are minimized, however, in the face of mass production, over-consumption, and improper disposal.

II. HARMFUL ENVIRONMENTAL EFFECTS OF THE PLASTIC CARRYOUT BAG

Single-use plastic shopping bags harm the environment in several ways, from the point of creation to eventual disposal. First, these plastic bags are comprised of high-density polyethylene (“HDPE”);¹⁷ therefore, the production of plastic carryout bags requires both petroleum and natural gas, which are non-renewable resources.¹⁸ It takes an estimated twelve million barrels of oil to produce 100 billion plastic bags, the estimated number of plastic bags used in the United States each year.¹⁹ Additionally, transport-

ic_Bag_Backgrounder.pdf (citing The Society of the Plastics Industry, Film and Bag Federation, *History of the Plastic Bag*, www.plasticsindustry.org/about/fbf/environment.htm#plasticbaghistory).

13. It is common for retailers to pass plastic bag costs to the consumer through higher prices on purchase items. See Reuseablebags.com, *The Real Cost of Free Plastic Bags*, <http://www.reusablebags.com/facts.php?id=2> (last visited Aug. 23, 2009).

14. A stack of 2000 plastic bags measures 7.25 inches in height in comparison to seven feet for the same number of paper bags. Avant, *supra* note 2.

15. ENVIRONMENTAL PROTECTION AGENCY, *Questions about your community: Shopping Bags: Paper or Plastic or . . . ?*, available at <http://www.marinav.com/paperORplastic.html> (last visited Mar. 26, 2010) (stating that 2000 plastic bags weigh thirty pounds compared to the same number of paper bags, which weigh 280 pounds).

16. As compared to paper bag production, plastic bag production releases ninety-two percent fewer emissions into the air. For shipping purposes, one truckload holds approximately one million plastic carryout bags, while the equivalent number of paper bags requires six trucks. *Id.*

17. Mieszkowski, *supra* note 3; see Determining the Type of Plastic Film, <http://www.plasticbagrecycling.org/02.0/s02.1.php> (last visited Aug. 23, 2009).

18. EPA, *supra* note 15.

19. Jim Wright, *Time To Bag Plastic?*, CONTAINER RECYCLING INST., Nov. 29, 2007, <http://www.container-recycling.org/media/newsarticles/plastic/2>

ing plastic bags to retailers, and later to landfills or recycling centers, releases carbon dioxide emissions into the air.²⁰ Carbon dioxide emissions increase toxicity in air particles, contributing to air pollution and arguably to global warming.²¹

Second, plastic carryout bags are not biodegradable.²² Rather, polyethylene bags break down into smaller plastic pieces through a slow photodegrading process.²³ Ultraviolet rays weaken the bags, eventually breaking them into smaller and smaller particles until finally they are invisible to the naked human eye but still exist as a toxic substance.²⁴ As litter, a plastic bag's life expectancy is more than 1000 years, ensuring its presence on the planet for generations.²⁵ This is a daunting statistic considering consumers worldwide use an estimated 500 billion to one trillion plastic bags annually—almost one million per minute.²⁶ If a plastic bag is submerged in a lake or ocean, scientists believe the photodegrading process slows considerably due to cooler temperatures and indirect sunlight, resulting in the likely passing of thousands of years before the plastic bag changes from its original form into smaller pieces.²⁷ Similar to a plastic bag being submersed in water, plastic bags disposed in landfills will also exist for generations because

007/11-29-NJ-TimeToBagPlastic.htm. Each barrel of oil is approximately forty-two gallons; therefore, twelve million barrels per year is approximately 504 million gallons of oil. Society of Petroleum Engineers, Unit Conversion Factors, http://www.spe.org/spe-app/spe/industry/reference/unit_conversions.htm (last visited Mar. 25, 2010).

20. See Butler, *supra* note 4, at 1.

21. See *Carbon Emissions Linked to Global Warming in Simple Linear Relationship*, SCIENCEDAILY, June 11, 2009, <http://www.sciencedaily.com/releases/2009/06/090610154453.htm>; *Biogeochemists Map Out Carbon Dioxide Emissions in the U.S.*, SCIENCEDAILY, Dec. 1, 2008, http://www.sciencedaily.com/videos/2008/1209-tracking_co2.htm.

22. See generally ALAN WEISMAN, *THE WORLD WITHOUT US* 140–61 (2007), *excerpt available at* <http://worldwithoutus.com/excerpt.html>.

23. *Id.*

24. *Id.* Aside from the small percentage incinerated, the components of every plastic bag ever manufactured are still in existence today. *Id.*

25. Kari Huus, *How plastics industry battles bans on its bags*, MSNBC.COM, Mar. 14, 2008, <http://www.msnbc.msn.com/id/23596727/>.

26. Reusablebags.com, *The Numbers . . . Believe It or Not*, <http://www.reusablebags.com/facts.php?id=4> (last visited Aug. 23, 2009).

27. See WEISMAN, *supra* note 22.

landfills lack the air and sunlight necessary for photodegradation.²⁸ However, even though the photodegrading process in a landfill is considerably slower, landfills are a preferred final resting place for plastic bags; the problem is successfully getting the bags to the landfill, which leads to the third environmental concern—the plastic bag’s lightweight nature.

The plastic bag’s lightweight nature makes it especially susceptible to being inadvertently transported by the wind. Currents of air easily lift bags from garbage trucks, the tops of landfills, and trash receptacles, resulting in the littering of city streets, landscapes, and waterways.²⁹ Before government regulation, South Africa dubbed plastic bags the “national flower” because they were so prevalent in the natural landscape.³⁰ Likewise, China refers to the problem as “white pollution.”³¹ All over the world, people regularly see plastic bags hanging in trees or bushes, tumbling across fields, or clogging storm drains.³²

Not only are plastic bags an eyesore on land but wind and water currents also carry plastic bags to the ocean,³³ where marine animals, particularly sea birds and turtles, mistake them for food or become entangled in them.³⁴ The 2007 International Coastal

28. To prevent materials in modern landfills from breaking down and leaking into the environment, clay and plastic liners seal the landfill from water, light, oxygen. Nothing decomposes in modern landfills because garbage items lack exposure to the elements that allow the process to take place. Food Marketing Institute, *supra* note 12, at 2.

29. See David Goldstein, *Eye on the Environment: Windblown Bags Create Plastic Litter*, VENTURA COUNTY STAR, Nov. 30, 2008, available at <http://www.venturacountystar.com/news/2008/nov/30/wind-blown-bags-create-plastic-litter/>; see also Mieszkowski, *supra* note 3.

30. Reuseablebags.com, Trends From Around the World, <http://www.reuseablebags.com/facts.php?id=9> (last visited Aug. 23, 2009).

31. *Id.*

32. In 1988 and 1998, plastic bags caused massive flooding in Bangladesh due to their clogging the country’s drainage system. *Id.*

33. OCEAN CONSERVANCY, INTERNATIONAL COASTAL CLEANUP 6 (2007), available at http://www.oceanconservancy.org/site/DocServer/ICC_AR_07.pdf?docID=3741 (stating the majority of marine debris comes from land-based activities and litter).

34. Mieszkowski, *supra* note 3; see also Algalita Marine Research Foundation, Research, June 27, 2002, http://www.algalita.org/pelagic_plastic.html. Volunteers documented twenty-two marine wildlife species entangled in plastic bags during the 2007 International Coastal Cleanup event. OCEAN

Cleanup data showed a recorded 587,827 plastic bags pulled from participating countries' shorelines, where plastic bags are amongst the top ten ocean debris items.³⁵ Harm to the ocean is also evident in the presence of the North Pacific Subtropical Gyre, where natural ocean currents have created a swirling mass of non-biodegradable plastic and industrial debris that is estimated to be twice the size of Texas.³⁶ Known to oceanographers as the "Great Pacific Garbage Patch," this large area of ocean collects floating debris from half of the Pacific Rim, approximately ninety percent of which appears to be three million tons of plastic.³⁷ A recent study of marine life in this area also showed tiny pieces of plastic in the stomachs of fish.³⁸ A concern for scientists is that the lowest species in the food chain, plankton, consume tiny particles of plastic, mistaking them for food, which leads to predators also ingesting them.³⁹ Scientists worry that if plastic particles make their way up the food chain, humans will regularly consume fish contaminated with plastic toxins.⁴⁰

CONSERVANCY, *supra* note 33, at 10. A floating plastic bag can resemble jellyfish, which are often preyed upon by sea turtles. *Leatherback Turtle Threatened by Plastic Garbage in the Ocean*, SCIENCE DAILY, Mar. 16, 2009, <http://www.sciencedaily.com/releases/2009/03/090315224258.htm>. One study on fulmar carcasses washed ashore North Sea coastlines showed ninety-five percent of the birds with plastic in their stomachs. *See* WEISMAN, *supra* note 22.

35. OCEAN CONSERVANCY, *supra* note 33, at 7. This number does not include food wrappers and containers, which totaled 693,612 pieces recorded. *Id.* An estimated seventy percent of all discarded plastic sinks to the bottom of the ocean, where it smothers the sea bottom and kills the marine life found there. Greenpeace International, *The Trash Vortex*, <http://www.greenpeace.org/international/campaigns/oceans/pollution/trash-vortex> (last visited Aug. 23, 2009).

36. Charles Moore, *Great Pacific Garbage Patch: Plastic Turning Vast Area of Ocean into Ecological Nightmare*, SANTA BARBARA NEWS-PRESS, Oct. 27, 2002, available at <http://www.mindfully.org/Plastic/Ocean/Pacific-Garbage-Patch27oct02.htm>; *see also* WEISMAN, *supra* note 22 (stating figures were corroborated by U.S. Navy calculations).

37. WEISMAN, *supra* note 22.

38. Algalita Marine Research Foundation, *Update on Fish Ingestion Study*, <http://www.algalita.org/bisapap-ingestion-update-9-09.html> (last visited Jan. 25, 2010) (stating that a scientific research publication will be available early 2010).

39. *See id.*; *see also* WEISMAN, *supra* note 22.

40. WEISMAN, *supra* note 22.

While convenient for both retailers and consumers, the proliferation of the plastic carryout bag is resulting in excess, unnecessary plastic in our environment and landfills. Even though plastic shopping bags are more compact than paper bags, a preference for plastic over paper bags means that plastic bags fill greater volumes of space in landfills than paper ones do.⁴¹ Also, because consumers recycle paper bags at a much higher rate than plastic bags, a greater number of plastic bags are sent to landfills.⁴² Some consumers reuse plastic bags for trash bin liners and picking up pet waste. While these are applauded ways to reuse plastic carryout bags, too many plastic bags are not reused and find their way into the environment as litter. More often than not, consumers use plastic bags for their single-use purpose—to carry items from the retailer to the home, sometimes using one bag to carry only a few items.⁴³ In short, the detrimental environmental effect of a plastic bag's entire life cycle greatly outweighs the short-lived purpose that it serves.

III. REGULATING THE PLASTIC CARRYOUT BAG

In response to recent concern about the environmental effects of single-use plastic carryout bags, several governing bodies in the United States and worldwide have initiated legislation to regulate the use of these bags. The primary goal is to reduce plastic bag consumption in order to reduce the number of plastic bags that end up in the environment;⁴⁴ additional goals include reducing global warming emissions released into the air through manufacturing and shipping plastic carryout bags and reducing the unnecessary volume of plastic bags in landfills.⁴⁵

Three hurdles stand in the way of accomplishing these goals. First, changing consumer behavior regarding the use of the plastic bag is difficult because society has become accustomed to the plastic bag's convenience and ubiquitous existence; it is a cultural norm of daily American life. Second, regulations can create

41. See Food Marketing Institute, *supra* note 12, at 2.

42. See Avant, *supra* note 2 (stating that forty-five percent of all paper products and five percent of all plastics are recycled).

43. See Mieszkowski, *supra* note 3.

44. See *id.*

45. Butler, *supra* note 4, at 1.

alternative environmental problems if not thoroughly explored.⁴⁶ Third, regulations face resistance from the plastics industry, retailers, and consumers.⁴⁷ Part III of this Note will examine the effectiveness of the various legislative measures that nations and cities have adopted in an attempt to remedy the environmental problems previously discussed.

A. Recycling the Plastic Bag

Plastic bag recycling is the least stringent regulation method available to states and municipalities. Supported by the American plastics industry, plastic bag recycling is increasingly popular across the nation. In recent years, California, New York, and numerous municipalities have encouraged and even mandated grocery stores to implement plastic bag recycling programs where consumers can return clean plastic bags to the retailer for recycling.⁴⁸ Although plastic bag recycling is a step in the right direction, as a stand-alone measure it falls short when analyzed against the larger goal of reducing the plastic bag's harmful environmental effects.

Overall, regulations mandating the recycling of plastic carryout bags help reduce the negative environmental effects of the bags. Plastic bags are not recycled back into flimsy HDPE bags⁴⁹ but are usually recycled into other products such as railroad ties, parking lot curbs, signs, and composite lumber.⁵⁰ The market is steadily growing for recycled plastic film; the going rate for a pound of clean HDPE bags is approximately twenty-five cents.⁵¹

46. See, e.g., *infra* Part III.B. (discussing the drawbacks to San Francisco's plastic bag legislation).

47. See *infra* Part IV.

48. See A.B. 2449, 2005–2006 Gen. Assem., Reg. Sess. (Cal. 2006) (codified as amended at CAL. PUB. RES. CODE §§ 42250–42257 (West 2008)); A11725, 2008 Leg., 231st Sess. (N.Y. 2008) (codified as amended at N.Y. ENVTL. CONSERV. LAW §§ 27-2701 to 27-2713 (McKinney 2008)). The number of municipalities across the United States that have legislative-driven recycling programs is too numerous to name individually.

49. To do so would create a much weaker plastic bag; however, recycled HDPE can be manufactured into thicker plastic bags. See Butler, *supra* note 4, at 2.

50. *Id.* at 3.

51. *Id.* Plastic film is defined as plastic sold in the thickness of up to ten mils. One mil is the equivalent of one one-thousandth of an inch. Plastic film is most commonly found in the form of plastic packaging, wrapping, and bags.

As curbside recycling pickup is usually not an option for plastic bags, recycling receptacles located at major retailers (i.e., supermarkets) provide a convenient option for public drop-off.⁵² In-store recycling campaigns contribute to increased consumer participation because the stores provide both the bags and the option to recycle them.⁵³

Plastic bag recycling, although an applaudable initiative, does have negative repercussions. First, it is still necessary to “train” the public to make the effort to recycle. Plastic bag recycling rates are currently far lower than paper bag recycling rates, with varying estimates showing a consumer recycling rate of only one to five percent.⁵⁴ Additionally, the physical logistics of plastic bag recycling can be difficult. Most curbside recycling programs for bottles and containers do not accept plastic bags because the bags clog sorting machines.⁵⁵ It takes human sorters too long to manually collect lightweight plastic bags, making this alternative less desirable when weighing the time and money spent against the final product.⁵⁶ Compostable bags, an alternative type of plastic bag that is biodegradable, present an additional problem because they are not recyclable and the biodegradable materials in the compostable bags render entire batches of recycled polyethylene film useless.⁵⁷

Three states have passed legislation that mandates at-store plastic bag recycling programs: California, New York, and Dela-

HEADLEY PRATT CONSULTING, UNDERSTANDING PLASTIC FILM: ITS USES, BENEFITS AND WASTE MANAGEMENT OPTIONS 2–5 (1996), http://www.americanchemistry.com/s_plastics/bin.asp?CID=1211&DID=4603&DOC=FILE.PDF.

52. See HEADLEY PRATT CONSULTING, *supra* note 51, at 20.

53. *Id.* A secondary positive effect of in-store plastic bag recycling initiatives is that they allow consumers and retailers to recycle packaging film and plastic wrapping, which is also composed of HDPE. *Id.*

54. See, e.g., Huus, *supra* note 25; Mieskowski, *supra* note 3. As recycling drop-off sites for plastic bags become more prevalent, these percentages are likely to increase.

55. See Goldstein, *supra* note 29.

56. *Id.*

57. Reusablebags.com, What About Biodegradable Bags?, <http://www.reusablebags.com/facts.php?id=8> (last visited Jan. 9, 2009); see Butler, *supra* note 4, at 1 (stating that biodegradable plastic bags disrupt recycling programs for polyethylene film because bio-resins act as contaminants in the recycling stream); see also *infra* notes 74–79 and accompanying text for a discussion on compostable bags.

ware. In 2006, California enacted the “Plastic Bag and Litter Reduction Act,” which requires retail stores larger than 10,000 square feet that distribute free plastic carryout bags to consumers to implement in-store recycling programs.⁵⁸ Stores execute the recycling programs by providing identifiable and accessible bins into which customers can place their used plastic bags on a return trip to the store.⁵⁹ Following California’s lead, the New York and Delaware state legislatures passed legislation mandating in-store recycling, signing bills into law in December 2008 and August 2009, respectively.⁶⁰ The New York law mirrors the California law but also orders in-store recycling programs for retail chains operating five or more stores over 5000 square feet.⁶¹ In comparison to California and New York, the Delaware law has the broadest reach because it mandates in-store recycling programs for stores larger than 7000 square feet and chain stores operating five or more stores over 3000 square feet.⁶² All three state laws require that “PLEASE RETURN TO A PARTICIPATING STORE FOR RECYCLING” be printed on all single-use plastic bags.⁶³ Finally,

58. Assem. B. 2449 §§ 42250–52, 2005–2006 Gen. Assem., Reg. Sess. (Cal. 2006). The bill also mandates that stores implement public education programs and ensure availability of reusable bags for sale to customers. *Id.*

59. *Id.*

60. 77 Del. Laws, c. 198, § 1 (2009) (codified as amended at DEL. CODE ANN. tit. 7, § 6099A (2009) (effective Dec. 1, 2009)); A11725, 2008 Leg., 231st Sess. (N.Y. 2008) (codified as amended at N.Y. ENVTL. CONSERV. LAW §§ 27-2701 to 27-2713 (McKinney 2008)).

61. N.Y. ENVTL. CONSERV. LAW § 27-2701(6) (McKinney 2008). At the time of enactment, New York City already had a more expansive municipal law in place mandating the same for *all* stores larger than 5000 square feet. See Approval Memorandum for A11725, 2008 Leg., 231st Sess. (N.Y. 2008). Because New York City’s law targeted a greater number of retailers, the governor exempted New York City from the state law’s preemption clause concerning plastic bag recycling. *Id.* While this type of exemption is uncommon, New York City celebrated it as a victory because its law reached further than the state law.

62. DEL. CODE ANN. tit. 7, § 6099A.

63. CAL. PUB. RES. CODE § 42252(a) (West 2006); DEL. CODE ANN. tit. 7, § 6099A(d)(1); N.Y. ENVTL. CONSERV. LAW § 27-2705(1). Attempting to address the compostable bag contamination problem previously discussed, New York added a statutory provision that all compostable bags contain the phrase: “COMPOSTABLE BAG – DO NOT PLACE IN RECYCLING BIN.” N.Y. ENVTL. CONSERV. LAW § 27-2707(2).

the state laws require that stores make reusable bags available for purchase.⁶⁴ California and Delaware also strengthen their in-store recycling provisions by requiring plastic bag manufacturers to create public education campaigns that encourage reducing, reusing, and recycling plastic bags and to make the educational materials available to all stores that provide recycling.⁶⁵

Even though it is better than not addressing the problem at all, promoting plastic bag recycling as the *only* measure to reduce the number of plastic bags consumed each year falls short of having a truly positive impact on plastic bag consumption and waste. Mandated recycling programs are unlikely to change consumer behavior in the actual checkout lane, where consumers will likely use the same number of plastic bags each week and each year. The only possible changed behavior is that consumers *might* recycle the bags *after* use—a change that requires large numbers of people not otherwise invested in the environmental goals to believe in the recycling model. Furthermore, it is unlikely the general public will respond to a small message printed on a plastic bag that indicates it can be returned to a store for recycling.

A public education campaign attached to a recycling program, as required in California and Delaware, could potentially increase recycling rates. Nevertheless, if the plastic bag recycling rates remain drastically low, and if consumers use the same number of bags in the checkout lane, the number of plastic bags in landfills or scattered in the environment will not change. This is the case in New York City, where the mayor found that the city's current recycling mandate is not enough to reduce plastic bag usage and wants to supplement it with a six-cent fee on *all* plastic bags.⁶⁶ The best possible solution to the harmful environmental impacts of the plastic bag will come from conservation; effective legislation, therefore, should *enforce* conservation. "Recycling should not serve as a replacement for source reduction or reuse but

64. CAL. PUB. RES. CODE § 42252(e); DEL. CODE ANN. tit. 7, § 6099A(d)(5); N.Y. ENVTL. CONSERV. LAW § 27-2705(5).

65. CAL. PUB. RES. CODE § 42253; DEL. CODE ANN. tit. 7, § 6099A(e); see also *infra* Part III.D. for a discussion on plastic bag education programs.

66. See David W. Chen, *In Mayor's Plan, The Plastic Bag Will Carry a Fee*, N.Y. TIMES, Nov. 7, 2008, at A1, available at <http://www.nytimes.com/2008/11/07/nyregion/07bags.html>. This would include both HDPE and compostable bags. *Id.*; see also *infra* Part III.C.

rather as a secondary measure in the transition to a more sustainable way of life.”⁶⁷

B. Banning the Plastic Carryout Bag

Another way to reduce consumption of plastic shopping bags is to prohibit retailers from providing them. Commonly known as a “bag ban,” in 2007 San Francisco became the first American city to ban plastic HDPE bags from use in major retail stores. Several other American cities have also considered bans, but only a few cities and counties have implemented bag bans to date.⁶⁸ Also, though not usually a pioneer in environmentalism, China initiated a countrywide ban on thin plastic carryout bags in June 2008 with surprising tolerance from retailers and consumers.⁶⁹ In the United States, however, plastic bag bans have garnered significant resistance from the plastics industry.⁷⁰ Contrary to its name, a “bag ban” is not always an absolute ban on all plastic carryout bags, as evidenced by San Francisco’s plastic bag ordinance.

The City of San Francisco’s plastic bag ban took effect in the spring of 2007. The city first considered imposing a fee on retailers providing free plastic carryout bags to consumers. California’s aforementioned “Plastic Bag and Litter Reduction Act,” however, preempted this avenue.⁷¹ California’s statewide act to mandate in-store recycling programs states that a city, such as San Francisco, cannot “[i]mpose a plastic carryout fee upon a store that is in compliance with this chapter.”⁷² In response to this statewide

67. Butler, *supra* note 4, at 4.

68. American cities or counties that have instituted a plastic bag ban in some form include Palo Alto, CA; Malibu, CA; Fairfax, CA; Maui County, HI; Westport, CT; Edmonds, WA; Bethel, AL; North Carolina Outer Banks (Currituck, Dare, and Hyde Counties); N.C.; and the District of Columbia. Kate Galbraith, *Where Recycling Plastic Bags Is Mandatory*, N.Y. TIMES, Aug. 19, 2009, available at <http://greeninc.blogs.nytimes.com/2009/08/19/where-recycling-plastic-bags-is-mandatory/>.

69. Yingling Liu, *China Watch: Plastic Bag Ban Trumps Market and Consumer Efforts*, WORLDWATCH INST., June 30, 2008, <http://www.worldwatch.org/node/5808>.

70. See *infra* Part IV.A.

71. Assem. B. 2449, 2005–2006 Gen. Assem., Reg. Sess. (Cal. 2006) (codified as amended at CAL. PUB. RES. CODE §§ 42250–42257 (West 2008)); see *supra* notes 58–59 and accompanying text.

72. Assem. B. 2449 § 2, 2005–2006 Gen. Assem., Reg. Sess. (Cal. 2006) (codified as amended at CAL. PUB. RES. CODE §§ 42250–42257).

measure, San Francisco opted to ban plastic HDPE bags altogether, doing so through an ordinance⁷³ that mandates stores, which provide free carryout bags, to supply *only* compostable plastic bags⁷⁴ and recyclable paper bags.⁷⁵ The strongest feature of the San Francisco ordinance is that all single-use carryout bags provided to consumers will eventually biodegrade if they become litter. As a comprehensive plan, however, the San Francisco bag ban falls short.

In several ways, San Francisco's bag ban is ineffective in mitigating the environmental harm caused by single-use shopping bags. San Francisco's "bag ban" still enables retailers to provide free single-use bags to consumers who will continue to use the bags for convenience. The ordinance merely replaces HDPE bags with compostable plastic bags, with the result being that just as many lightweight plastic bags make their way into the environment. Even though compostable bags are biodegradable, it still takes approximately eighteen months for a biodegradable plastic bag to compost, and even longer if the bag is submerged in water.⁷⁶ Although the compostable bags will not exist indefinitely, they still may clog drainage systems, harm animal life, and deface nature during their lifecycle.⁷⁷ Likewise, it is still necessary that the compostable bags be shipped to retailers and then travel to landfills, a process that continually releases carbon emissions into the air. Furthermore, in spite of an HDPE bag ban, roughly the same number of compostable plastic bags are disposed in landfills, where the biodegrading process is slowed considerably due to landfill conditions that lack oxygen and sunlight.⁷⁸ Further complicating mat-

73. S.F., CAL., ENV'T CODE §§ 1701–1709 (2007).

74. "Compostable plastic bag" means that the bag is both biodegradable and conforms to California Department of the Environment regulations for biodegradable material. *Id.* § 1702(b).

75. "Recyclable paper bag" means a paper bag that contains no old growth fiber, is completely recyclable, and contains at least forty percent post-consumer recycled content. *Id.* § 1702(j). In recent years, advances in technology have produced a compostable biodegradable plastic bag made from cornstarch, soybeans, or other plant-based material. *See* Food Marketing Institute, *supra* note 12.

76. *See* Reusablebags.com, What About Biodegradable Bags?, <http://www.reusablebags.com/facts.php?id=8> (last visited Aug. 23, 2009).

77. *Id.*

78. *See* Food Marketing Institute, *supra* note 12.

ters, biodegradable plastic bags are not recyclable and can have harmful effects if mixed with plastic HDPE bags in the recycling process.⁷⁹

Essentially, San Francisco's HDPE bag ban has simply shifted plastic bag production to a different type of use-and-toss bag.⁸⁰ This substitution will not change consumer behavior regarding single-use carryout bags in the checkout line nor their quick disposal thereafter. Additionally, in comparison to regular plastic bags, compostable plastic bags require almost the same amount of energy and natural resources to produce, leading to no change in overall energy consumption.⁸¹

The City of San Francisco bag ordinance also incorporates recycled paper materials as well as banning HDPE bags, but this incorporation of recycled paper materials is not enough. The ordinance requires only forty percent recycled paper materials.⁸² If paper bag consumption increases due to the ban, the environmental costs of production and consumption outweigh the benefit.⁸³ San Francisco City Supervisor Ross Mirkarimi asserts that the goal of the ordinance is not to cause consumers to switch to paper bags but to start bringing their own reusable bags to stores; the legislation, however, leaves retailers and consumers with too many free use-and-toss alternatives.⁸⁴ Additionally, the San Francisco regulation applies only to major supermarkets grossing more than \$2 million

79. See Butler, *supra* note 4, at 2. Biodegradable bags contaminate the purely polyethylene material derived from recycled HDPE plastic bags, sometimes rendering entire polyethylene batches useless. *Id.* Thus, the San Francisco HDPE ban appears to be working in tandem with the State of California's recycling mandate (Assem. B. 2449), but the two actually work against each other because the city-mandated compostable bags are not recyclable.

80. See Reusablebags.com, Top 10 Reasons Why Bans Don't Make Sense, <http://www.reusablebags.com/facts.php?id=21> (last visited Aug. 23, 2009).

81. Reusablebags.com, What About Biodegradable Bags?, <http://www.reusablebags.com/facts.php?id=8> (last visited Aug. 23, 2009).

82. S.F., CAL., ENV'T CODE § 1702(j).

83. See *infra* note 98 and accompanying text.

84. See Paige Kollock, *San Francisco's Plastic Bag Ban Gets Mixed Reviews*, VOANEWS.COM, Dec. 31, 2008, <http://www.voanews.com/english/2008-12-31-voa35.cfm>. At the same time, the San Francisco legislation is working in tandem with the statewide public education campaign of A.B. 2449, potentially leading to more people using reusable bags. See Assem. B. 2449 § 2, 2005–2006 Gen. Assem., Reg. Sess. (Cal. 2006).

per year and to larger pharmacies, leaving smaller stores unregulated.⁸⁵ Thus, San Francisco's bag regulation is not far-reaching enough to have the intended positive impact on the environment and on cultural attitudes toward plastic bag consumption.⁸⁶ While the City of San Francisco is at least advocating change through promoting biodegradable and recyclable materials, the overall plan is shortsighted.

As mentioned previously, China, growing tired of the "white pollution" problem and concerned about saving energy,⁸⁷ instituted a countrywide plastic bag ban that took effect on June 1, 2008.⁸⁸ Differing from San Francisco's ban and backed by several branches of the country's government, China's bag ban prohibits all shops, supermarkets, and sales outlets from handing out free carryout bags.⁸⁹ China's ban is more encompassing than San Francisco's because it prohibits the production, sale, and use of flimsy HDPE plastic bags, while also placing a consumer-paid fee on thicker plastic bags and paper carryout bags provided in stores.⁹⁰ In a country where daily plastic bag consumption totaled an estimated three billion bags, the ban had immediate, noteworthy results. Within the first month, consumption of plastic bags in some cities decreased as much as half, with some supermarkets in Beijing reporting a ninety percent reduction.⁹¹ In an initial review after the first year, the National Development and Reform Commission reported a sixty-six percent reduction in the use of plastic

85. S.F., CAL., ENV'T CODE § 1702(I)(1)–(2).

86. Also in California, the City of Malibu's plastic bag ban, effective November 2008, notably goes further than San Francisco's ban by banning *all types* of plastic bags and extending the ban to *all* retail outlets. The single-use paper bag option, however, is still available to consumers. Jonathan Friedman, *Malibu Passes Plastic Bag Ban*, MALIBU TIMES, May 14, 2008, available at <http://www.malibutimes.com/articles/2008/05/14/news/news2.txt>.

87. According to one estimate, China uses thirty-seven million barrels of oil each year to produce one trillion plastic carrier bags. Guo Shipeng, *China's Plastic Bag Ban Kicks in to Mixed Response*, REUTERS U.S., June 2, 2008, <http://www.reuters.com/article/latestCrisis/idUSPEK210811>.

88. Liu, *supra* note 69.

89. Shipeng, *supra* note 87.

90. *Id.*; see also Liu, *supra* note 69. For a discussion on the effect of consumer-based bag fees, see *infra* Part III.C.

91. Liu, *supra* note 69.

bags, saving China an estimated 1.6 million tons of petroleum.⁹² Moreover, Chinese consumers appear to be generally supportive of the ban, resorting to the baskets or woven sacks used prior to the introduction of plastic bags.⁹³

An important component to the complete ban on flimsy HDPE plastic bags is the fee imposed on consumers wishing to use thicker bags.⁹⁴ If this fee were not in place, it is probable that retailers and consumers would merely switch to an alternative type of bag, as they did in San Francisco, severely weakening the overall environmental effect of the ban. If enforced, China's ban should meet the country's goal to save energy and vastly reduce the plastic bag pollution scattered throughout the landscape. Enforcement has been an issue for stores in rural towns throughout China, but the Chinese government set a high price for retailers who violate the ban: 10,000 Yuan, the equivalent of \$1465.⁹⁵ Theoretically, the bold approach to eliminate the manufacturing and sale of thin HDPE bags will make them increasingly unavailable within China's borders, which will make the ban more easily enforceable. Any governing body instituting a similar plastic bag ban⁹⁶ will likely succeed in altering consumer behavior because the government is forcing retailers and consumers to change their behavior, leaving few readily acceptable alternative options.

In order for legislative action to have a substantial positive effect on the environment using *only* a "bag ban," it is necessary that the ban includes *all* carryout bags, plastic *and* paper, in all sales outlets. This strict legislative approach, however, would be difficult to enact in most areas of the world.⁹⁷ But if a legislature enacts a plastic bag ban without addressing the paper carryout bag, one environmental problem is replaced with another. Without a "paper or plastic?" choice in the checkout line, and without an additional fee-based measure imposed on paper bags, like that used

92. Ben Block, *China Reports 66-Percent Drop in Plastic Bag Use*, WORLDWATCH INST., June 19, 2009, <http://www.worldwatch.org/node/6167>.

93. Liu, *supra* note 69.

94. *See infra* Part III.C.

95. Block, *supra* note 92. On the second day of regulation, authorities fined a store in Beijing for "secretly using the ultra-thin bags." Shipeng, *supra* note 87.

96. Rwanda, Bangladesh, Zanzibar, and Paris, for example. *See* Wright, *supra* note 19.

97. *See infra* Part IV.

in China, there will be an inevitable increase in the use of paper bags, which has alternative detrimental effects on the environment.⁹⁸ A plastic bag ban, without any secondary measures in place to address all single-use carryout bags, is ineffective in achieving the legislation's desired results. China's use of a consumer-based paper bag fee is an example of a secondary measure that is effective.⁹⁹

C. Imposing a Fee or Tax on the Plastic Bag

An increasingly popular method used to regulate plastic bag consumption is a fee or tax. Governments can accomplish this approach in two ways: 1) by taxing retailers who provide plastic carryout bags to customers, or 2) by enacting a direct consumer fee or tax for each bag used at the point of purchase.¹⁰⁰ Currently, there are few examples of governing bodies taxing retailers,¹⁰¹ but charging a consumer-paid fee on a per-bag basis is an idea gaining momentum worldwide.¹⁰² Initial trials of a retailer tax or carryout bag fee show that such fees have a direct effect on changing con-

98. Increased use of paper bags will lead to increased deforestation for paper bag production. One tree that is fifty to twenty years old produces around 700 paper bags. Avant, *supra* note 2. In 1999, approximately fourteen million trees were cut down to produce ten billion paper carryout bags. *Id.* Additionally, there are increased global warming emissions due to a larger number of trucks needed to transport paper bags. *Id.* In comparison to plastic bags, paper bags take four times more energy to produce and create fifty times more water pollutants during production. *Id.*; see also Reusablebags.com, Paper Bags Are Better Than Plastic, Right?, <http://www.reusablebags.com/facts.php?id=7> (last visited Aug. 23, 2009) (citing FED. OFFICE OF ENV'T, COMPARISON OF THE EFFECTS ON THE ENVIRONMENT OF POLYETHYLENE AND PAPER CARRIER BAGS (Aug. 1988)). Finally, even though paper bags have a significantly higher post-consumer recycling rate than plastic bags, the energy used to recycle a pound of paper is ninety-one percent greater than recycling the same weight in plastic. *Id.*

99. See Liu, *supra* note 69.

100. The distinction between a fee and a tax is potentially important in the United States; usually, a municipal governing body gives approval for a fee, while a tax requires approval from a state's legislature. See Chen, *supra* note 66.

101. Targeting retailer plastic bag habits, Belgium, Italy, and Denmark impose retailer-paid taxes. See Reuseablebags.com, *supra* note 98.

102. John Roach, *Plastic-bag Bans Gaining Momentum Around the World*, NAT'L GEOGRAPHIC NEWS, Apr. 4, 2008, <http://news.nationalgeographic.com/news/2008/04/080404-plastic-bags.html>; see also Chen, *supra* note 66 (stating that several American cities are considering imposing consumer-paid fees on plastic bags).

sumer behavior and reducing consumption of plastic carryout bags.¹⁰³ Not only do fees help reduce plastic bag use, but governing bodies also typically divert funds generated from the plastic bag fees or taxes to different environmental causes such as pollution cleanup or waste management.¹⁰⁴

The pioneer of the plastic bag tax, Ireland, has had promising results since instituting the “Plastax” in 2002. Ireland enacted the Plastax with the purpose of changing consumer behavior, not generating revenue.¹⁰⁵ Consumers pay a fifteen-cent consumption tax for each plastic bag used at a store’s checkout.¹⁰⁶ The store collects the fee, maintaining simple purchasing records, and the government collects the revenue.¹⁰⁷ Prior to any regulation, Ireland’s Environment Ministry estimated that Irish consumers used approximately 1.2 billion free plastic bags a year.¹⁰⁸ Within months of imposing the tax, use of plastic carryout bags decreased by more than ninety percent.¹⁰⁹ Both retailers and consumers support the Plastax,¹¹⁰ and the generated tax revenue funds a variety of environmental projects.¹¹¹

Three American governing bodies that previously adopted plastic bag recycling programs, the City of Los Angeles, New

103. See, e.g., *Irish bag tax hailed success*, BBC NEWS, Aug. 20, 2002, <http://news.bbc.co.uk/1/hi/world/europe/2205419.stm> [hereinafter *Irish bag tax*] (discussing Ireland’s success in drastically reducing plastic bag consumption through the Plastax). While not the most effective approach, taxing retailers (rather than taxing consumers directly) also caused plastic bag consumption to decline by sixty-six percent in Denmark. Reuseablebags.com, *supra* note 98.

104. See *Irish bag tax*, *supra* note 103.

105. See Waste Management (Amendment) Act, 2001 (Act No. 36/2001) (Ir.) available at <http://www.irishstatutebook.ie/2001/en/act/pub/0036/sec0009.html#sec9> (last visited April 9, 2010); see also Reuseablebags.com; The Plastax – Overview of Ireland’s Plastic Bag Consumption Fee, <http://www.reusablebags.com/facts.php?id=20> (last visited Aug. 23, 2009).

106. *Id.*

107. *Id.*

108. See *Irish bag tax*, *supra* note 103.

109. *Id.* (“In the three months after the tax was introduced, shops handed out just over 23 million plastic bags—about 277 million fewer than normal . . .”).

110. Rosenthal, *supra* note 1. The founder of the largest supermarket chain in Ireland is a zealous advocate of the tax, even though he was skeptical at first. *Id.*

111. *Irish bag tax*, *supra* note 103.

York City, and the State of California, currently have legislators wishing to adopt a fee or tax.¹¹² The City of Los Angeles wants to reduce plastic bag use thirty percent by 2010.¹¹³ Due to the aforementioned California legislation prohibiting cities from imposing bag fees,¹¹⁴ Los Angeles will institute a plastic bag ban beginning July 2010 *unless* the state passes legislation requiring at least a twenty-five cent consumption charge on all plastic bags.¹¹⁵ Similarly, in response to New York City's uninspiring results from the in-store recycling mandate, the New York City mayor wants a six-cent consumer-based fee placed on plastic carryout bags.¹¹⁶

As a statewide measure, California Assembly Member Julia Brownley has twice proposed amendments to the state's current plastic bag recycling mandate to also include a plastic bag tax. Brownley introduced the first bill, A.B. 2769, in April 2008, but the final amendment did not include the plastic bag legislation.¹¹⁷ Undeterred, Brownley introduced A.B. 68 for the 2009-2010 California legislative session.¹¹⁸ This comprehensive bill would have required a twenty-five cent "Bag Pollution Cleanup Fee" on all single-use carryout bags at the point of purchase, while still mandating in-store recycling and public education campaigns.¹¹⁹

112. Chen, *supra* note 66; David Zahniser, *City Council will ban plastic bags if the state doesn't act*, L.A. TIMES, July 23, 2008, <http://articles.latimes.com/2008/jul/23/local/me-plastic23>; *Legislation to Reduce Ocean Pollution Announced by Members of the Assembly Coastal Caucus*, CAL. CHRON., Mar. 5, 2009, <http://www.californiachronicle.com/articles/view/93445>.

113. Zahniser, *supra* note 112.

114. *See supra* Part III.A.

115. *See* Zahniser, *supra* note 112.

116. Chen, *supra* note 66. Unlike California's state measure, the State of New York did *not* include a preemptive clause for city-imposed fees on plastic bags. This means, if desired, New York City could impose a consumer-based fee on plastic carryout bags in the future.

117. Assem. B. 2769, 2007–2008 Gen. Assem., Reg. Sess. (Cal. 2008) (as amended in senate Aug. 28, 2008).

118. Assem. B. 68, 2009–2010 Gen. Assem., Reg. Sess. (Cal. 2009) (first reading on Dec. 16, 2008).

119. Assem. B. 68, 2009–2010 Gen. Assem., Reg. Sess. (Cal. 2009) (as amended Apr. 23, 2009). As of February 2, 2010, AB 68 died in committee pursuant to article IV, section 10(c) of the California Constitution. This provision sets forth, in short, that neither house may act on a bill after a specific amount of time has passed since its introduction in the house of origin. CAL. CONST. art IV, § 10(c).

Even though governing bodies in the United States are now considering plastic bag consumption fees, getting fee-based legislation passed has proven difficult.¹²⁰ United States legislatures consistently resist imposing a bag fee or tax even though this form of regulation is popular in Europe and exists as part of China's effective plastic bag regulation.¹²¹ Cities considering fees generally opt for plastic bag recycling programs instead.¹²² This approach is predominantly the work of special coalition groups formed by the plastics industry.¹²³ A recent attempt to pass fee-based legislation in Seattle illustrates the plastics industry's efforts. The Seattle City Council passed a bag fee ordinance in the summer of 2008. The mayor immediately signed the ordinance into law, and the ordinance was scheduled to be implemented in January 2009.¹²⁴ However, rather than beginning the twenty-cent-per-bag fee on schedule, community resistance froze the ordinance.¹²⁵ A trade group for independent grocers, influenced by the American Chemistry Council ("ACC"), launched a signature drive to overturn the ordinance and have it placed on a citywide ballot.¹²⁶ As a result of the

120. *But see Fairbanks Imposes 5-cent Plastic Bag Tax*, JUNEAUEMPIRE.COM, Sept. 14, 2009, http://www.juneauempire.com/stories/091409/reg_493072968.shtml (indicating that Fairbanks, Alaska will implement a five cent consumption fee on all plastic bags at major retail stores); Maura Judkis, *D.C. Council Gives Final Approval to Bag Tax Bill*, U.S. NEWS & WORLD REP., June 3, 2009, <http://www.usnews.com/money/blogs/fresh-greens/2009/06/03/dc-council-approves-plastic-bag-tax> (stating that the District of Columbia's city council passed a five-cent consumer-based fee on plastic bags).

121. Consumers must pay for plastic bags in Germany, Holland, Ireland, and Switzerland, while other European countries are also considering a bag ban or tax. Roach, *supra* note 102; *see also supra* Part III.C.

122. Dallas, New York City and Pittsburgh for example. *See Huus, supra* note 25.

123. *See infra* Part IV.A.

124. Deirdre Gregg, *Grocers Launch Drive to Overturn Seattle Shopping-Bag Fee*, PUGET SOUND BUS. J., Aug. 11, 2008, available at <http://www.bizjournal.com/seattle/stories/2008/08/11/daily7.html?t=printable>; Marc Ramirez, *Seattle voters don't buy shopping-bag charge*, SEATTLE TIMES, Aug. 19, 2009, available at http://seattletimes.nwsource.com/html/politics/2009686467_elexseabagfee19m.html.

125. Gregg, *supra* note 124.

126. *Id.* The independent grocers trade group supposedly created the "Stop the Seattle Bag Coalition" and a website advocating against the Seattle bag fee (www.StopTheSeattleBagTax.com); however, the American Chemistry

ACC's extensive lobbying campaign and the estimated \$1.4 million spent to fight the surcharge, Seattle residents rejected the ordinance, fifty-eight percent to forty-two percent, in August 2009.¹²⁷

Ideally, Congress could impose a nationwide single-use plastic bag fee in the United States.¹²⁸ In April 2009, North Virginia Congressman Jim Moran introduced legislation, H.R. 2091, that would place a five-cent tax on all single-use plastic bags, beginning on January 1, 2010, with a later increase to twenty-five cents per bag in 2015.¹²⁹ This is the first time that a congressperson has introduced plastic bag legislation, and it boldly covers *all* single-use bags.¹³⁰ The majority of bills, however, never make it out of committee.¹³¹ While this Note shows that fee-based legislation imposed on all single-use bags will have the greatest impact on the aforementioned goals, supporters of a nationwide bill will likely face the same resistance that legislatures confront on the municipal and state levels.

In order to be effective, the plastic bag tax or fee should apply to all single-use carryout bags, paper or plastic, and should be imposed directly on the consumer. It is necessary to apply the tax to all carryout bags in order to avoid replacing plastic bags with

Council actually registered the group's website domain name. See West Seattle Blog . . . , *Two Bag Fee Updates: Website's Real Backer, Plus Comic Relief*, <http://westseattleblog.com/blog/?p=9724> (Aug. 13, 2008, 10:24 PST); see also Sharon Pian Chan, *Seattle's 20-cent Plastic Bag Fee on Hold Until Citywide Vote, Likely Next August*, SEATTLE TIMES, July 29, 2008, available at http://seattletimes.nwsourc.com/html/localnews/2008182101_bagfee16m.html (reporting that the American Chemistry Council paid for most of the signature-gathering campaign, costing approximately \$180,600).

127. See Pian Chan, *supra* note 126.

128. Traditionally, the Commerce Clause of the United States Constitution affords Congress the power to regulate federal environmental matters. See, e.g., A. Dan Tarlock, *Is There a There in Environmental Law?*, 19 J. LAND USE & ENVTL. L. 213, 223–24 (2004). Ireland's Plastax became effective only after it applied nationwide, as opposed to voluntary fee-based programs imposed by individual retailers.

129. Press Release, *Moran Introduces National Plastic Bag Bill on Earth Day* (Apr. 22, 2009), available at http://moran.house.gov/apps/list/press/va08_moran/Plastic.shtml.

130. Under the proposed legislation, a "single-use" bag includes all grocery sacks used by a retailer at the point of sale with a customer. *Id.*

131. Plastic Bag Reduction Act of 2009, H.R. 2091, 111th Cong. (2009), available at <http://www.govtrack.us/congress/bill.xpd?bill=h111-2091>.

an alternative use-and-toss bag and substituting one environmental problem with another.¹³² Further, the government must impose the tax or fee directly on the consumer, rather than allow retailers to pay it, in order for the fee to be an effective conduit for social change.¹³³ Otherwise, the consumer will not make the necessary intuitive connection between the extra charge and the plastic carryout bag.¹³⁴ Consumers will notice a direct request to pay for each bag used in the checkout lane, whereas retailer-paid taxes are likely “hidden” from the consumer—passed on to customers through higher prices or merely absorbed in the retailers’ costs.¹³⁵

A consumer-paid fee on plastic bags is a powerful tool for changing consumer behavior in the checkout lane. The fee is not an absolute for each trip to the store; rather, the decision is up to the consumer: pay the fee for each bag used, bring sustainable reusable bags when shopping, or do not use a bag.¹³⁶ Providing these choices will put an end to the mindless consumption of plastic carryout bags and will raise public awareness about the role individual choices collectively play with regard to litter and waste management.¹³⁷

132. See *supra* Part III.C. Ireland’s Environment Minister ensured that this would not happen by telling retailers that the tax would apply to all carryout bags if retailers attempted to switch to paper bags. See Rosenthal, *supra* note 1.

133. Indeed, Ireland’s Environment Minister made it illegal for retailers to pay the plastic bag fee on behalf of customers. Rosenthal, *supra* note 1. Also, as the tax or fee system gains momentum in the United States, legislatures must determine the appropriate fee rate that will actually produce this change in consumer behavior. Ireland recently increased the plastic bag tax from fifteen cents to thirty-three cents after a small increase in plastic bag consumption. *Id.* Manitoba, Canada is implementing a low five-cent tax in 2009. Switzerland has a thirty-cent fee. The New York City mayor proposed a six-cent fee. Chen, *supra* note 66. Los Angeles is demanding a twenty-five-cent fee. Zahniser, *supra* note 112. Seattle wants to charge a twenty-cent fee. Pian Chan, *supra* note 126. By a 13-0 vote in June 2009, the D.C. City Council will impose a five-cent consumer fee on plastic bags. Judkis, *supra* note 120.

134. See Reuseablebags.com, Trends From Around The World, <http://www.reuseablebags.com/facts.php?id=9> (last visited Aug. 23, 2009).

135. See Rosenthal, *supra* note 1.

136. This might entail placing all shopping items in a grocery cart to transport to an automobile in a store parking lot or simply carrying items without a bag.

137. See *Irish bag tax*, *supra* note 103 (quoting Ireland’s Environment Minister: “It is clear that the levy has not only changed consumer behaviour in

D. Public Education Campaigns and Promoting Reusable Bags

A public education campaign should accompany any legislative effort designed to regulate plastic bags. It is necessary for a governing body that imposes such regulations to educate citizens as to why consumers are being asked to change familiar behaviors. Research shows that the general public usually does not know the effect of daily consumption decisions.¹³⁸ For instance, one 2004 study showed that beyond public transportation and recycling, the average person does not recognize further daily decisions or habits that impact the environment.¹³⁹ Public education will raise consciousness regarding decisions made in the checkout lane, where cashiers and consumers robotically throw all purchased items in plastic bags. Any public education campaign should include the facts, statistics, and detrimental effects that flow from plastic bag production and improper disposal. In addition, promoting reusable bags is an important component of a public education campaign.

Reusable bags are becoming readily available for purchase nationwide. California's current plastic bag legislation, A.B. 2449, defines "reusable bag[s]" as "either of the following: (1) A bag made of cloth or other machine washable fabric that has handles. (2) A durable plastic bag with handles that is at least 2.25 mils thick and is specifically designed and manufactured for multiple reuse."¹⁴⁰ Estimates show that the average family uses approximately sixty plastic carryout bags within four trips to the grocery store; if the same family used reusable bags instead, the family would conserve at least a 1000 plastic bags over one reusable bag's lifetime.¹⁴¹

Convincing the average citizen to switch to reusable bags is not an easy undertaking since the public has become accustomed to the plastic bag's convenience for the last thirty years. However, as shown by several countries that have already instituted plastic bag

relation to disposable plastic bags, it has also raised national consciousness . . .").

138. ANDREW DARNTON, DRIVING PUBLIC BEHAVIOURS FOR SUSTAINABLE LIFESTYLES 5 (2004).

139. *Id.*

140. Assem. B. 2449, 2005–2006 Gen. Assem., Reg. Sess. (Cal. 2006) (codified as amended at CAL. PUB. RES. CODE §§ 42250–42257 (West 2007)).

141. Reuseablebags.com, The Numbers . . . Believe It Or Not, <http://www.reuseablebags.com/facts.php?id=4> (last visited Aug. 23, 2009).

bans or fees, success is possible.¹⁴² For example, after Bangladesh instituted a plastic bag ban, consumers returned to the jute bags of years past.¹⁴³ Consequently, there is now a revived and booming jute bag industry within the country, where jute plants grow abundantly.¹⁴⁴ Also, after Ireland passed its plastic bag fee, carrying a plastic carryout bag quickly became a stigma and pushed consumers to use reusable bags.¹⁴⁵

While reusable bags are gaining popularity, additional public education must teach consumers that not all reusable bags are an environmentally friendly alternative. Some stores selling “reusable” plastic bags provide a cheap bag that is still made from a form of polypropylene.¹⁴⁶ While these are reusable and cut down the use of lightweight HDPE carryout bags, they require a great deal of energy to produce and ship,¹⁴⁷ can compromise durability, and are sometimes sold as more of a marketing ploy than as a response to true environmental initiatives.¹⁴⁸ An environmentally friendly reusable bag is one made out of canvas, hemp, or similarly strong materials; it should be washable and should not require shipping from far distances.¹⁴⁹ Consumers must consider the type of reusable bag they will use and make an environmentally responsible decision. Public education about reusable bags is just one example of alerting citizens to their own personal consumption

142. Ireland, China, South Africa, Eritrea, Rwanda, Somalia, Tanzania, Kenya, and Uganda, for example. See Roach, *supra* note 102.

143. Bangladesh entrepreneurs create jute bags from woven plant fibers, and consumers can reuse these bags indefinitely. See Reuseablebags.com, Trends From Around The World, <http://www.reuseablebags.com/facts.php?id=9> (last visited Aug. 23, 2009).

144. *Id.*

145. See Rosenthal, *supra* note 1.

146. Stacy Greenberg, *Paper or Plastic? More Opt Instead for Reusable in Efforts to Reduce Waste*, COMMERCIALAPPEAL.COM, Dec. 18, 2008, <http://www.commercialappeal.com/news/2008/dec/18/its-in-the-bag/>.

147. China produces and ships the vast majority of cheap, reusable bags sold in grocery stores in the United States. See *id.*

148. Reuseablebags.com, The Hidden Costs of Cheap Reusable Shopping Bags, <http://www.reuseablebags.com/facts/php?id=23> (last visited Aug 23, 2009). Many stores selling cheap reusable bags also gain the advertising benefit of their logo on the bags. See Greenberg, *supra* note 146.

149. See Greenberg, *supra* note 146. It is not necessary that a person purchases a reusable shopping bag, but rather, a reusable carrier can be any bag from around the house or even a sturdy basket. *Id.*

habits, and often times this raised level of consciousness will encourage people to take their own actions.

E. Voluntary Efforts

Despite the overwhelming evidence of the plastic shopping bag's negative environmental impact, some governing bodies still choose to do nothing. Here, any efforts for change are left to grassroots environmentalist groups, concerned citizens, and individual retailers. Taking note of the needless harm that plastic bags cause, a few major retailers have instituted their own plastic bag bans or bag fees.¹⁵⁰ These actions are commendable considering many retailers fear that customers will react by frequenting competitor retailers who still offer plastic bags. A recent trend for large retailers has been to give incentives for consumers who use their own bags, usually in the form of a small rebate, whereas these consumers forego using the stores' free single-use bags.¹⁵¹

Seeing "green" preferences increase among consumers, some major retailers in the United States have started promoting eco-friendly practices without waiting for legislative action. For example, the grocery retailer Whole Foods Market conducted tests in San Francisco, Toronto, and Austin before initiating a company-wide plastic bag ban.¹⁵² Ultimately, the customer base surprised the grocer with a positive response, applauding the company's progressive stance towards the environmental issue.¹⁵³ Whole Foods Market also partnered with singer-songwriter Sheryl Crow

150. For example, IKEA previously charged five cents per bag until an ultimate phase-out in October 2008; Whole Foods and Trader Joe's are two grocers who have ceased offering plastic carryout bags.

151. Bruce Horovitz, *Target, CVS put plastic bags in the bull's-eye, pay for reusables*, USA TODAY, Oct. 19, 2009, at 01B, available at http://www.usatoday.com/money/industries/environment/2009-10-18-target-plastic-bags-green-environment_N.htm (stating that Target, CVS, Whole Foods, and Trader Joe's have implemented or will implement incentive-based programs). The largest retailer, Wal-Mart, however, has no plans to pay customers to use their own bags. *Id.*

152. Press Release, Whole Foods Market Press Room, Whole Foods Market to Sack Disposable Plastic Grocery Bags by Earth Day (Jan. 22, 2008), <http://www.wholefoodsmarket.com/pressroom/blog/2008/01/22/whole-foods-market-to-sack-disposable-plastic-grocery-bags-by-earth-day/>.

153. *Id.*

to develop a reusable bag made from recycled plastic bottles.¹⁵⁴ This type of retailer action is not only a positive public relations action for the store but also shows environmental responsibility by advocating recycled products.¹⁵⁵

Similarly, IKEA and Traders Joe's also banned plastic carryout bags.¹⁵⁶ Major retailer IKEA produced surprising results with its "Bag the Plastic Bag" program in 2007 and 2008. On an environmental mission to reduce in-store plastic bag consumption by fifty percent in one year, from seventy million to thirty-five million, IKEA offered three alternatives to customers: 1) bring your own reusable bags; 2) purchase an IKEA sustainable reusable bag for fifty-nine cents; or 3) pay five cents for each plastic carryout bag used at checkout.¹⁵⁷ Surprisingly, customers zealously supported the plastic bag program, and IKEA reported a ninety-two percent reduction in plastic bag use in the first year.¹⁵⁸ Capitalizing on this success and recognizing that paper bags are a poor alternative, IKEA banned *all* single-use carryout bags in October 2008.¹⁵⁹ IKEA's plastic bag phase-out approach is a strong model for legislative initiatives. These American retailers' voluntary efforts could reach much further through legislation that applies to all retailers, but across-the-board regulation faces serious opposition in the United States.

154. See, e.g., Greg Gosdin, *When it comes to going green, retailers say it's in the bag*, AUSTIN BUS. J., Nov. 21, 2008, available at <http://www.bizjournals.com/austin/stories/2008/11/24/focus3.html?q=plastic%20bag%20education%20campaigns>.

155. In addition, some retailers spend thousands of dollars per year providing plastic bags to consumers, so a major decrease in single-use plastic bag consumption enables retailers to save money and pass the savings on to consumers. For example, the second largest retailer in the United States, Target, purchases 1.8 billion bags each year. Reusablebags.com, *The Numbers . . . Believe It or Not*, <http://www.reusablebags.com/facts.php?id=4> (last visited Aug. 23, 2009).

156. Teresa F. Lindeman, *Shopping bag choices moving beyond just paper or plastic*, PITTSBURGH POST-GAZETTE, Apr. 22, 2008, available at <http://www.post-gazette.com/pg/08113/875319-28.stm>.

157. Press Release, IKEA, *The Results Are in . . . Over 92% of IKEA Customers Bagged the Plastic Bag!* (Apr. 2, 2008), http://www.ikea.com/ms/en_US/about_ikea/press_room/press_release/national/blue_bag_thank_you.html.

158. *Id.*

159. *Id.*

IV. OPPOSITION TO REGULATION

A. *The Plastics Industry*

The largest opponent of plastic bag regulation in the United States is the plastics industry itself. Organizing into coalition groups and backed by the American Chemistry Council (“ACC”), the plastics industry has been fighting plastic bag legislation for years—and succeeding at preventing meaningful change.¹⁶⁰ Through the ACC’s main coalition group, Progressive Bag Affiliates (“PBA”), the ACC challenges plastic bag legislation throughout the United States, particularly targeting plastic bag bans or fees.¹⁶¹ Members of the PBA include leading manufacturers of plastic bags and polyethylene resins such as The Dow Chemical Group, ExxonMobile Corporation, and Superbag Corporation.¹⁶² A public relations company, David J. Edelman, Inc., operates the PBA and uses aggressive public relations strategies to deter governing bodies from passing plastic bag bans or fees, while promoting less stringent recycling programs.¹⁶³

Through the PBA, the ACC is spearheading the “national recycling trend” for plastic bags, even going so far as creating an entire comprehensive program for grocery stores.¹⁶⁴ These programs include store signage, suggestions for collecting bags, and instructions on how to set up and maintain recycling programs.¹⁶⁵ The PBA has influenced states and municipalities considering a ban or fee to opt for a recycling program instead, as in the case of a 2008 Pennsylvania initiative.¹⁶⁶ Shortly before a Pennsylvania state representative was to introduce a statewide bill to phase out plastic

160. See, e.g., Lindeman, *supra* note 156.

161. *Id.*; see also Ramirez, *supra* note 124.

162. See American Chemistry Council, Progressive Bag Affiliates, http://www.americanchemistry.com/s_plastics/doc.asp?CID=1106&DID=6983 (last visited Aug. 23, 2009) (listing participating members).

163. See SourceWatch, Progressive Bag Alliance, http://www.sourcewatch.org/index.php?title=Progressive_Bag_Alliance (last visited Jan. 9, 2009).

164. See, e.g., American Chemistry Council, Recycle Plastic Bags at Your Store, <http://www.plasticbagrecycling.org/00.0/images/toolkit.pdf> (last visited Aug. 23, 2009).

165. *Id.*

166. See Huus, *supra* note 25 (listing New York, NY; Austin, TX; Phoenix, AZ; Annapolis, MD; and Los Angeles, CA as cities that have considered plastic bag bans but instead opted for plastic bag recycling programs).

carryout bags, lobbying efforts of the ACC and PBA affected her decision to opt for a plastic bag recycling program instead.¹⁶⁷

Another affiliated group of the PBA and the plastics industry, the “Coalition to Support Plastic Bag Recycling,” won a major lawsuit against Oakland, California, resulting in the city rescinding a plastic bag ban ordinance similar to San Francisco’s ban.¹⁶⁸ The group filed suit claiming that Oakland did not conduct a full investigation into the possible environmental effects of the legislation, as necessary per the California Environmental Quality Act (“CEQA”).¹⁶⁹ The Alameda County Superior Court, finding sufficient evidence that the city’s ban could have a significant effect on the environment, held that the environmental impact study must be conducted prior to the legislation taking effect.¹⁷⁰ Previously, the group won an identical suit against the City of Fairfax, California.¹⁷¹ Because Fairfax is a smaller municipality, the city did not have the funds to conduct an extensive environmental report per the CEQA requirements and consequently could not sustain the plastic bag legislation.¹⁷² Essentially, the PBA’s lawsuit forced the city to make the plastic bag ban *voluntary* for retailers.¹⁷³ Following the PBA’s lobbying and judicial success, another coalition group, “Savetheplasticbag.com,” has initiated similar suits in various California cities.¹⁷⁴

167. Lindeman, *supra* note 156 (The state representative’s remarks regarding the plastics industry were, “They want recycling. They’re going to get recycling.”).

168. Oakland, Cal., Ordinance 12,893 C.M.S. (Sept. 4, 2008), available at <http://clerkwebsvr1.oaklandnet.com/attachments/20384.pdf> (rescinding Oakland, Cal., Ordinance 12,818).

169. Christopher Heredia, *Lawsuit delays Oakland’s plastic bag ban*, SAN FRANCISCO CHRON., Jan. 29, 2008, at D4, available at <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/01/29/BAIDUNPN4.DTL>. CEQA requires that governing agencies conduct an environmental impact study and consider alternatives prior to taking proposed action that affects the environment. California Environmental Quality Act, CAL. PUB. RES. CODE §§ 21000-21006 (West 2007).

170. Huus, *supra* note 25.

171. Rob Rogers, *Fairfax Folds on Plastic Bag Ban*, MARIN INDEP J., Oct. 30, 2007, available at http://www.marinij.com/ci_7318889?source=most_viewed.

172. *Id.*

173. *Id.*

174. Savetheplasticbag.com, Litigation, <http://savetheplasticbag.org/ReadContent541.aspx> (Litigation page) (last visited Sept. 21, 2009) (listing legal

The criticisms the ACC and other groups raise to legislative bodies that are considering plastic bag fees are easily refutable. First, with consumers facing inflation and rising food and fuel costs, people are worried about the ability to pay any new fees imposed.¹⁷⁵ This position, however, overlooks the fact that people do not have to pay the surcharge; customers can easily avoid it by bringing their own reusable bags, or legislatures can provide some form of reprieve for the initial fees.¹⁷⁶ For example, if the City of Seattle's bag fee legislation had passed, the city planned to provide at least one free, reusable bag to each household.¹⁷⁷ In response to critics who claim a plastic bag fee will unfairly burden low-income citizens, fee-based legislation can include a provision to either exempt low-income citizens or create reusable bag giveaway programs.¹⁷⁸ Additionally, many retailers now sell inexpensive reusable bags that will pay for themselves through fee avoidance.¹⁷⁹

Critics of a bag fee point to Ireland's subsequent increase in consumer purchases of plastic trash bags, claiming that the increase is a result of people no longer re-using plastic carryout bags as trash bin liners in the home.¹⁸⁰ This criticism is short-sighted for two reasons: first, consumers wishing to continue re-using plastic bags for other purposes (e.g., picking up pet waste, lining trash bins, etc.) can still do so by paying the minimal fee to consume the product;¹⁸¹ and second, heavier plastic bags used for garbage do not

actions filed against the following California cities: Encinitas, Los Angeles, Manhattan Beach, Morgan Hill, Mountain View, Palo Alto, San Diego, San Jose, Santa Clara, Santa Monica).

175. *Id.*

176. Gregg, *supra* note 124 (quoting Seattle City Council President Richard Conlin).

177. Pian Chan, *supra* note 126.

178. Assembly Bill 68, introduced in the California legislature, would implement a reusable bag giveaway program for low-income residents. Assem. B. 68, 2009–2010 Gen. Assem., Reg. Sess. (Cal. 2009) (as amended Apr. 23, 2009).

179. Gosdin, *supra* note 154 (stating that several companies now sell reusable bags, including Austin-based Whole Foods).

180. See Jim Downing, *Free grocery bags targeted for extinction in California*, SACRAMENTO BEE, Aug. 25, 2008, available at http://www.roplast.com/documents/Free_grocery_bags_targeted_for_extinction_in_California_-_Sacramento_Politics_-_California_Politics__Sacramento_Bee.pdf.

181. Theoretically, the customer would pay for the bag just as he would pay for any other household item. It seems the consumer is not so much con-

pose a significant risk of becoming litter in the environment due to their specific purpose of carrying waste from the home to the landfill.

The plastics industry's lobbying efforts are significantly changing possible legislative avenues around the country. The PBA and affiliated groups are succeeding in modifying proposed legislation,¹⁸² slowing proposed legislation,¹⁸³ and halting passed legislation.¹⁸⁴ Naturally, the industry supports plastic bag recycling as the single measure for reducing environmental harm, as this method allows plastic bag manufacturers to continue producing essentially the same number of bags while publicizing their "concern" for the environment.¹⁸⁵ In order for any governing body to have success against the plastics industry's revolt against more stringent regulations, the proposed legislation will have to appease the plastics industry somewhat, as well as have strong data to support and explain the legislation's environmental impact.¹⁸⁶ A plastic bag fee could potentially appease the plastics industry because it allows plastic bag manufacturers to transition into an era of lessened consumption since plastic bags would not be entirely eliminated, as with an aggressive bag ban.¹⁸⁷

cerned with re-using plastic carryout bags for the environment but rather that he no longer receives a consumer good for free.

182. See Pennsylvania, for example. See Lindeman, *supra* note 156.

183. See Seattle and the State of Virginia, for example. See Jonathan O'Connell & Vandana Sinha, *Proposed fees on plastic and paper worry retailers*, WASH. BUS. J., Feb. 27, 2009, available at <http://washington.bizjournals.com/washington/stories/2009/03/02/story2.html>; see also Pian Chan, *supra* note 126.

184. See Oakland and Fairfax, CA, for example. See Heredia, *supra* note 169; Rogers, *supra* note 171.

185. The Progressive Bag Affiliates of the ACC announced a \$50 million investment to increase plastic bag recycling. The ACC promised forty percent recycled content in all plastic bags by 2015. Press Release, American Chemistry Council, Plastic Bag Manufacturers Set Aggressive Recycled Content Goal (Apr. 21, 2009), http://www.americanchemistry.com/s_acc/sec_news_article.asp?SID=1&DID=9466&CID=206&VID=142&RTID=0&CIDQS=&Taxonomy=False&specialSearch=False.

186. Ireland's bag fee did not face resistance from the plastics industry because there were no plastic bag manufacturers in the country; rather, China supplied Ireland with most of its plastic bags. Rosenthal, *supra* note 1.

187. See generally Butler, *supra* note 4 (highlighting the benefits of plastic bag recycling as related to the plastics industry).

B. Retailers

Plastic bag bans and fees have garnered some resistance from retailers who have grown accustomed to distributing the plastic bag, which is cheaper, more convenient, and more compact than the paper bag. Additionally, stores want to cater to their customers, making their purchasing experience as convenient as possible.¹⁸⁸ Retailers know that consumers expect plastic bags in the checkout line and worry that lines will be slower because people are fumbling with their own reusable bags.¹⁸⁹ Finally, retailers are concerned about shoplifting, operating under the assumption that the plastic carryout bag protects stores from theft.¹⁹⁰

Some retailers worry both about the cost of legislative-driven plastic bag regulation and their ability to implement and track a fee system.¹⁹¹ Ireland, however, easily implemented the tax because most retailers already had computerized checkout systems in place; accommodating the tax required minimal reprogramming and the installation of an effortless tracking system.¹⁹² In the United States, electronic checkout registers compute and track state taxes, making the addition of a bag fee or tax relatively unproblematic.¹⁹³ Additionally, legislation can provide that retailers keep a portion of the fee collected to offset any inconvenience experienced by the retailer.¹⁹⁴ The retailers could also use the proceeds to cover the costs of administering the fee, initiating public educa-

188. Williamson, *supra* note 7 (stating that grocery stores attempt to create a perfect “climate of consumption” where the consumer’s experience must remain as convenient as possible).

189. See Downing, *supra* note 180.

190. See Williamson, *supra* note 7 (suggesting that a potential problem of shoplifting could be overcome by requiring customers to show a purchase receipt upon leaving the store premises).

191. See O’Connell & Sinha, *supra* note 183.

192. Rosenthal, *supra* note 1.

193. See *id.* (stating that Ireland’s markets are part of chains that are highly computerized and have programming mechanisms for collecting taxes).

194. Seattle’s proposed legislation would allow large retailers to keep five cents per fee charged; smaller retailers could retain the entire twenty-cent fee. See Pian Chan, *supra* note 126. Along the same lines, California’s proposed legislation would reimburse stores’ costs associated with the collection of the bag fee, the production of in-store education materials promoting reusable bags, as well as any other store-driven community initiatives. See Assem. B. 68, 2009–2010 Gen. Assem., Reg. Sess. (Cal. 2009) (as amended Apr. 23, 2009).

tion campaigns, setting up recycling programs, and providing free reusable bags to customers in need.¹⁹⁵

Retailers are also concerned that a bag tax or fee will be bad for business.¹⁹⁶ The founder of the largest supermarket chain in Ireland claims he felt the same way and spent many months arguing against a plastic bag tax.¹⁹⁷ This same person is now one of the biggest supporters of the tax because he sees that it not only reduces plastic bag consumption but ensures that the tax is applied nationwide.¹⁹⁸ Indeed, Irish retailers who attempted to initiate individual regulatory policies faced consumer rebellion and the risk that customers would shop elsewhere.¹⁹⁹ Now that the Plastax applies to all Irish retailers, however, retailers need not worry about lost customers.²⁰⁰ The nationwide application of the tax allows for the intended impact of reducing plastic bag consumption and changing the image of using alternative reusable bags.²⁰¹

C. Consumers

Some consumers show resistance to plastic bag regulation.²⁰² These consumers are wary about remembering to bring their own bags with them when shopping, but it is important to remember that society would be merely returning to a practice used years ago. One argument consumers regularly have against a plastic bag ban or fee is that people actually reuse such bags as lunch bags or trash bin liners.²⁰³ While these are excellent examples of reuse, the number of discarded plastic carryout bags polluting landscapes and waterways, stockpiled behind the pantry door, or discarded after a single use shows that not enough people practice these behaviors. Another popular criticism is that a bag fee or ban would be unfair to low-income families unable to pay the addition-

195. See *supra* Part III.C.

196. Rosenthal, *supra* note 1.

197. *Id.*

198. *Id.*

199. *Id.*

200. See *id.*

201. *Id.*

202. See, e.g., Chen, *supra* note 66 (expressing resistant consumer views to bag regulation).

203. See Avant, *supra* note 2.

al fee or buy reusable bags.²⁰⁴ Many legislative proposals take this concern into account, however, such as Seattle's effort to provide every family with at least one reusable bag and Los Angeles's clause exempting qualifying consumers from paying the fee.²⁰⁵ With the largest opposition coming from the plastics industry and retail groups, the consumer public, if properly informed, will likely conform and adapt to plastic bag regulation.

V. PLASTIC BAG REGULATION THAT WILL SUCCEED IN THE UNITED STATES

Implementing only one regulation method to reduce plastic bag consumption will not effectively change consumer behavior and meet environmental goals. In order to truly change consumer practices toward sustainable lifestyle behaviors, it is necessary that legislatures adopt a multi-faceted plan, changing the variables as needed.²⁰⁶ The right combination of intervention methods must be found in order to achieve the intended impact.²⁰⁷

In order to stop the unnecessary consumption of plastic bags, governing bodies in the United States must first implement a consumer-based fee or tax as a basis of regulation. Even if some citizens do not realize the significance of reducing plastic bag consumption, these same people will take notice when the regulation affects their pocketbook. A consumer-paid fee will make people think twice about whether they need to use plastic carryout bags and will help them better assess the number of bags they acquire in each shopping trip. It is easy to opt out of paying the fee or tax by using reusable bags when shopping. The consumer makes the choice as to whether he pays the fee because it can be avoided by foregoing single-use bags. In this way, the plastic carryout bag is a convenience that should be paid for like any other product. The fee or tax method, as a basis, would have the largest impact on reducing the total number of bags consumed at the checkout counter, thus reducing the number of plastic bags diverted to landfills or

204. Martin Kaste, *Debate Over Plastic Bags Heats Up In Seattle*, NATIONAL PUBLIC RADIO, Aug. 10, 2009, <http://www.npr.org/templates/story/story.php?storyId=111662657>.

205. See Chen, *supra* note 66; see also State Assem. B. 2769, 2007–2008 Gen. Assem., Reg. Sess. (Cal. 2008) (as amended in senate Aug. 28, 2008).

206. DARNTON, *supra* note 138, at 16.

207. *Id.*

polluting nature. Eventually, the total number of plastic bags manufactured and transported would also be measurably reduced, all of which would have a direct, positive impact on the environment.

As a secondary measure, legislation should support plastic bag recycling. Even with a fee-based system, there will still be plastic carryout bags in circulation; these should continue to be recycled. Clear plastic bags used to hold produce or meat are not included in the fee-based system and can also be recycled if not contaminated. Also, while there are positives to using compostable plastic bags,²⁰⁸ a mandate that stores offer only compostable plastic bags is unwise because they are not recyclable.²⁰⁹ Plastic bag recycling has benefits and is a positive ending to a plastic bag's lifecycle.²¹⁰ In-store recycling programs divert plastic bags from landfills and allow consumers and retailers to easily recycle alternative plastic films, such as packaging film and plastic wraps.²¹¹ In this way, a recycling regulatory measure would complement a primary fee-based measure to reduce overall plastic bag consumption. Legislation supporting a recycling-only initiative, however, falls short of having the desired environmental impact discussed in this Note.²¹²

The plastics industry's success in slowing or halting fee-based or ban-based legislation shows that the ACC's interest must be contemplated when considering possible legislation. Fee-based legislation allows stores to continue to offer plastic HDPE bags while transitioning to an era in which shoppers will consume fewer bags. Even though plastic bag production would lessen, fee-based

208. The most notable advantage of biodegradable bags is that they *will* decompose eventually, as opposed to the plastic HDPE bag, which will be around for hundreds, possibly thousands, of years. *See supra* Part II.

209. *See supra* Part III.A.; Assem. B. 68 § 42285(b)(1)(iv), 2009–2010 Gen. Assem., Reg. Sess. (Cal. 2009) (as amended Apr. 23, 2009). Furthermore, compostable bags purchased by consumers would not biodegrade in landfills but would require consumers to actually compost the bags themselves or divert the bags to a composting site. This approach, however, poses the risk that wind currents will carry the bags into environment. Mieszkowski, *supra* note 3. Rather, the decision to offer compostable plastic bags in place of HDPE plastic bags within a fee-based system should be left to each individual retailer. *See* Assem. B. 68, 2009–2010 Gen. Assem., Reg. Sess. (Cal. 2009) (as amended Aug. 23, 2008).

210. *See supra* Part III.A.

211. *See* Butler, *supra* note 4, at 3.

212. *See supra* Part III.A.

regulation would allow plastic bag manufacturers to continue producing plastic bags for consumer use. In this way, the plastics industry might be slightly placated with more time to transition to less plastic bag consumption. Plastic bag bans have the most significant impact on the plastics industry's livelihood in the shortest amount of time, likely leading to greater industry opposition to proposed regulation. As this Note has shown, and in agreement with those opposing bag regulation, legislation that implements *only* plastic bag bans are not the answer because it creates substitute environmental problems.²¹³ Alternatively, and not in conformity with the plastics industry's goals, the most significant impact on environmental goals will occur from weaning the public off this unnecessary consumption item altogether.

Finally, a continued public education campaign is necessary to raise widespread consciousness about this issue. Not surprisingly, the California and New York legislatures have been pioneers in tackling the problem, but the United States as a whole is far behind other countries in moving toward regulations that promote environmental sustainability and reduce pollution. As governing entities continue to educate the public on environmental concerns associated with all single-use carryout bags, and in particular, plastic carryout bags, public support for regulation will gain momentum. Educating Americans about the detrimental effects of plastic carryout bags plays a small role in tackling avoidable consumption in our current throwaway society, but it can collectively make a significant difference if consumers start scrutinizing their personal behaviors. In the words of the Progressive Bag Affiliates president: "Plastic is a valuable resource, too valuable to waste."²¹⁴ Preventing this waste is precisely why conservation and less consumption is the answer.

213. See *supra* Part III.B.

214. See Press Release, American Chemistry Council, Families Lose in Toronto as Council Imposes New Tax on Free Retail Plastic Bags (Dec. 4, 2008), available at http://www.americanchemistry.com/s_acc/sec_news_article.asp?CID=206&DID=8516.