



Container Recycling Institute

Caribbean Recycling Summit

December 1 & 2, 2016

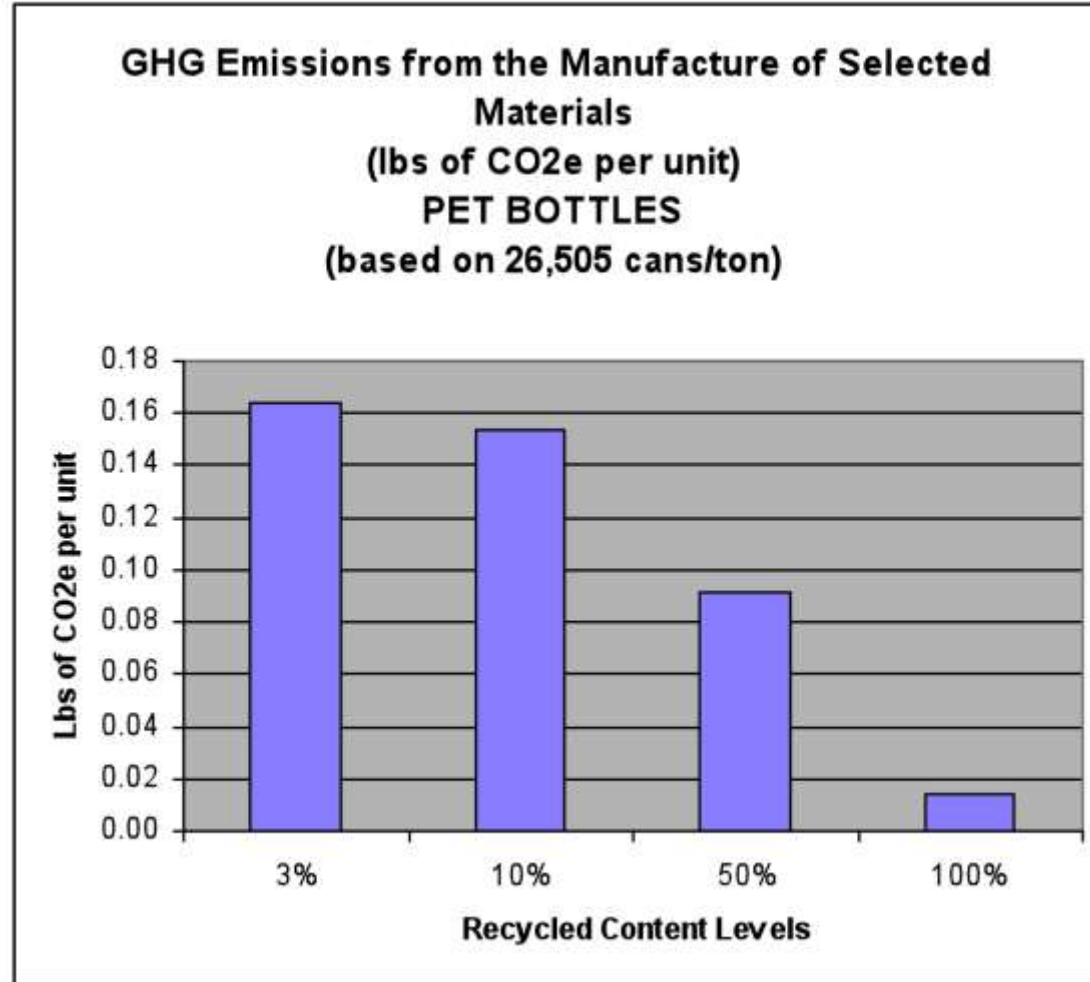


Why Recycling is Important

Recycling is More Than Just Diversion From Disposal

- When a product is made from recycled material, the use of virgin materials is not required.
 - Extraction, transport and processing of virgin materials is avoided
- This avoids/reduces:
 - Upstream energy usage
 - Upstream greenhouse gases
 - Upstream production of toxics
- Recycling more by WEIGHT is not necessarily better (environmental footprint is important)

Recycled Content for PET Bottles: 3%, 10%, 50% and 100%

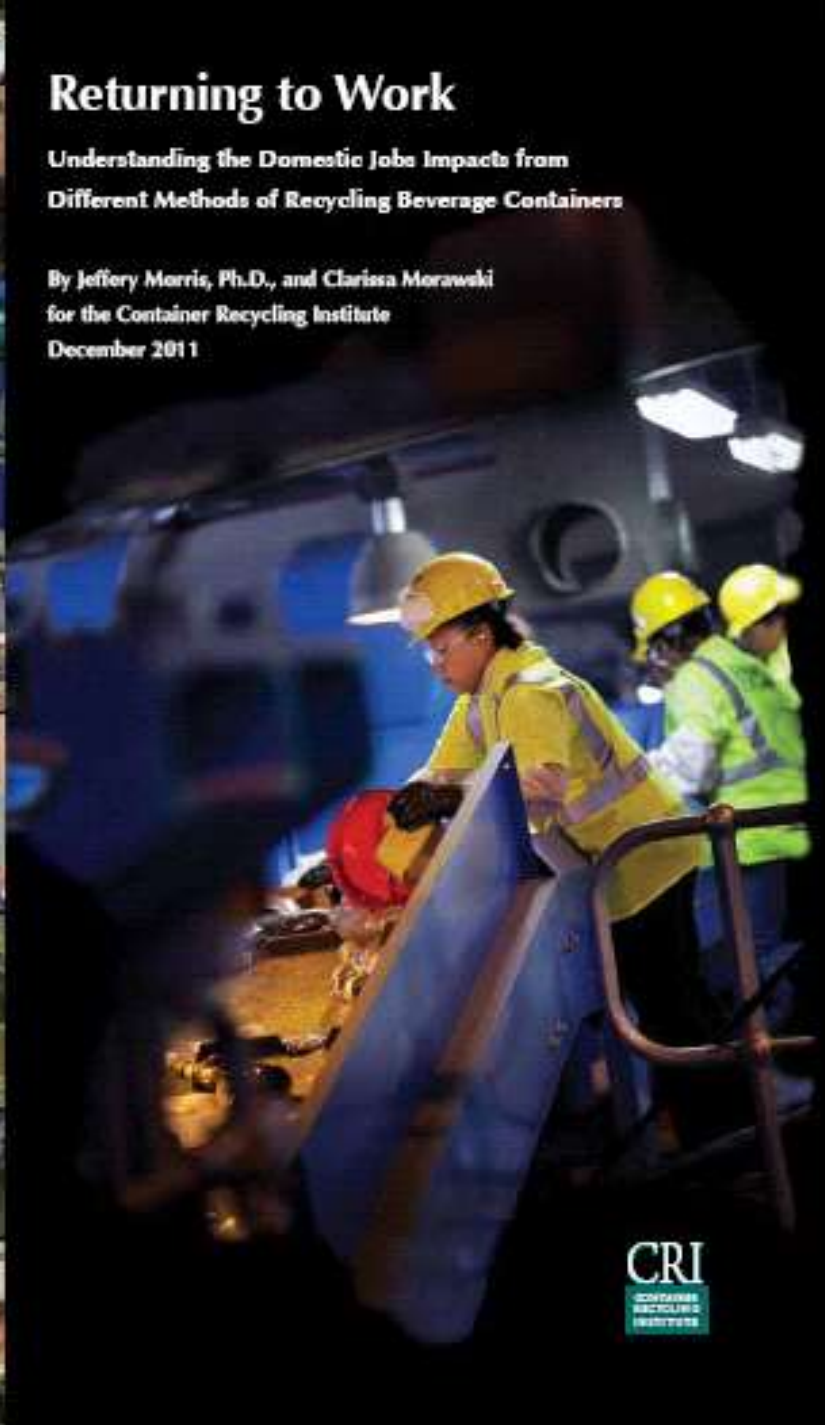




Returning to Work

Understanding the Domestic Jobs Impacts from
Different Methods of Recycling Beverage Containers

By Jeffery Morris, Ph.D., and Clarissa Morawski
for the Container Recycling Institute
December 2011



Prepared by:



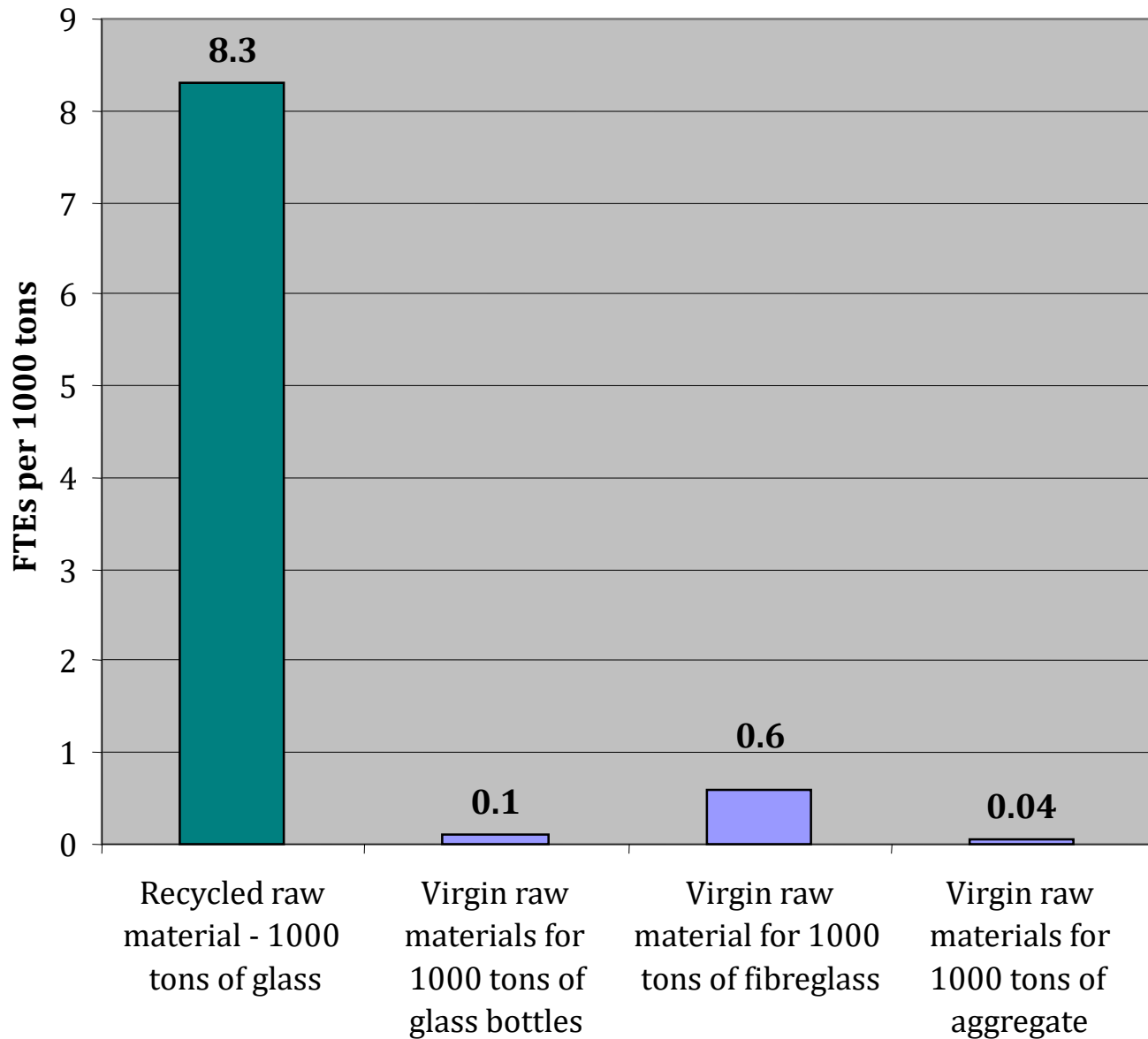
Sound Resource
Management



Finding #3

- Material throughput is the primary driver of recycling jobs.
- Policies that require more recycling can create more jobs
 - Residential, commercial, etc.

Comparing the Jobs from Recovering Glass vs. Virgin Raw Material Extraction

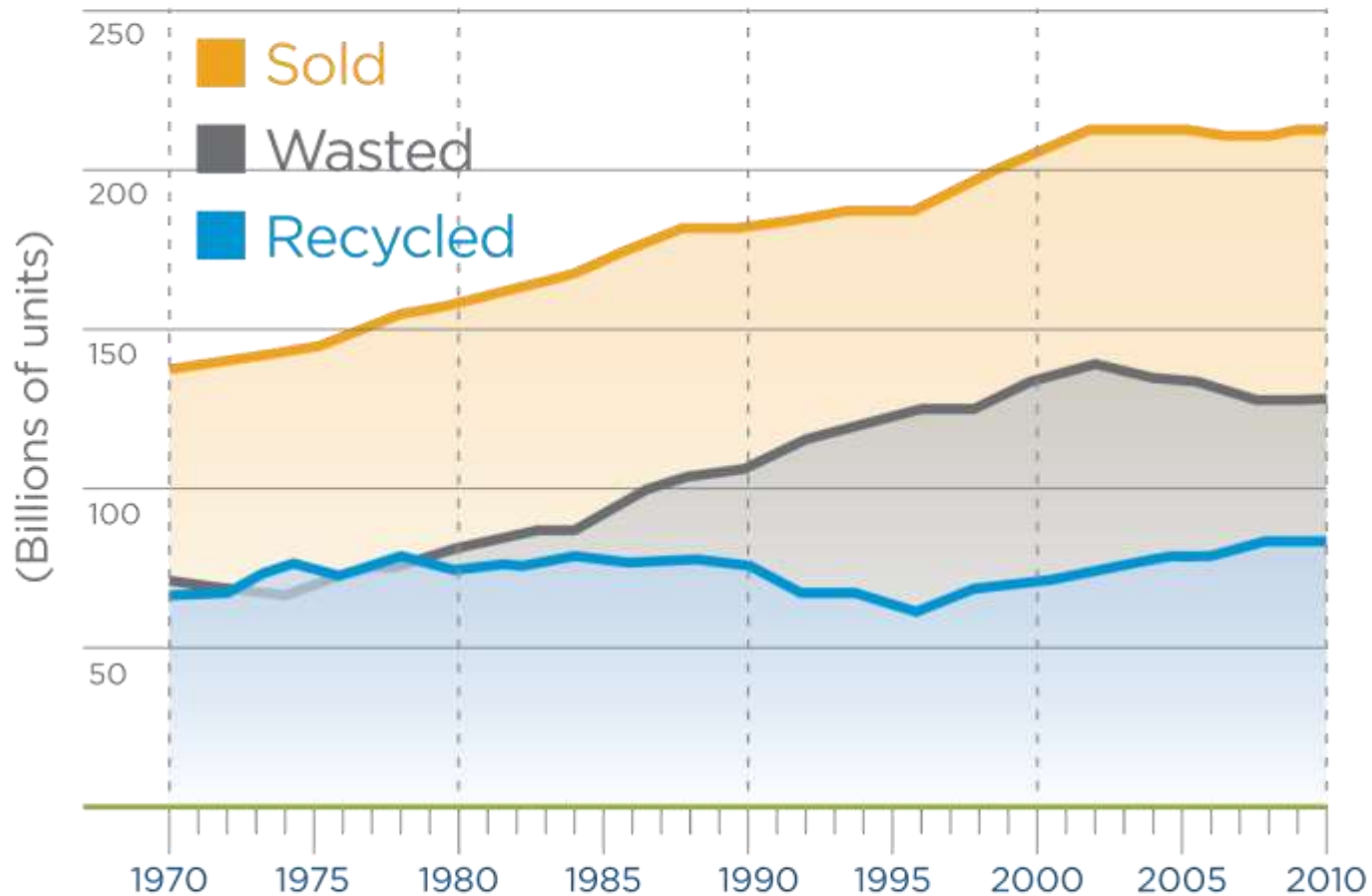


Why Beverage Containers?

- Significant greenhouse gas emissions can be avoided by recycling beverage containers rather than manufacturing new ones
- Consume large amounts of energy in the manufacturing process
- Litter
- Consumed on the go -- one third of all drinks sold are consumed away from home
- Significant volume in the waste stream

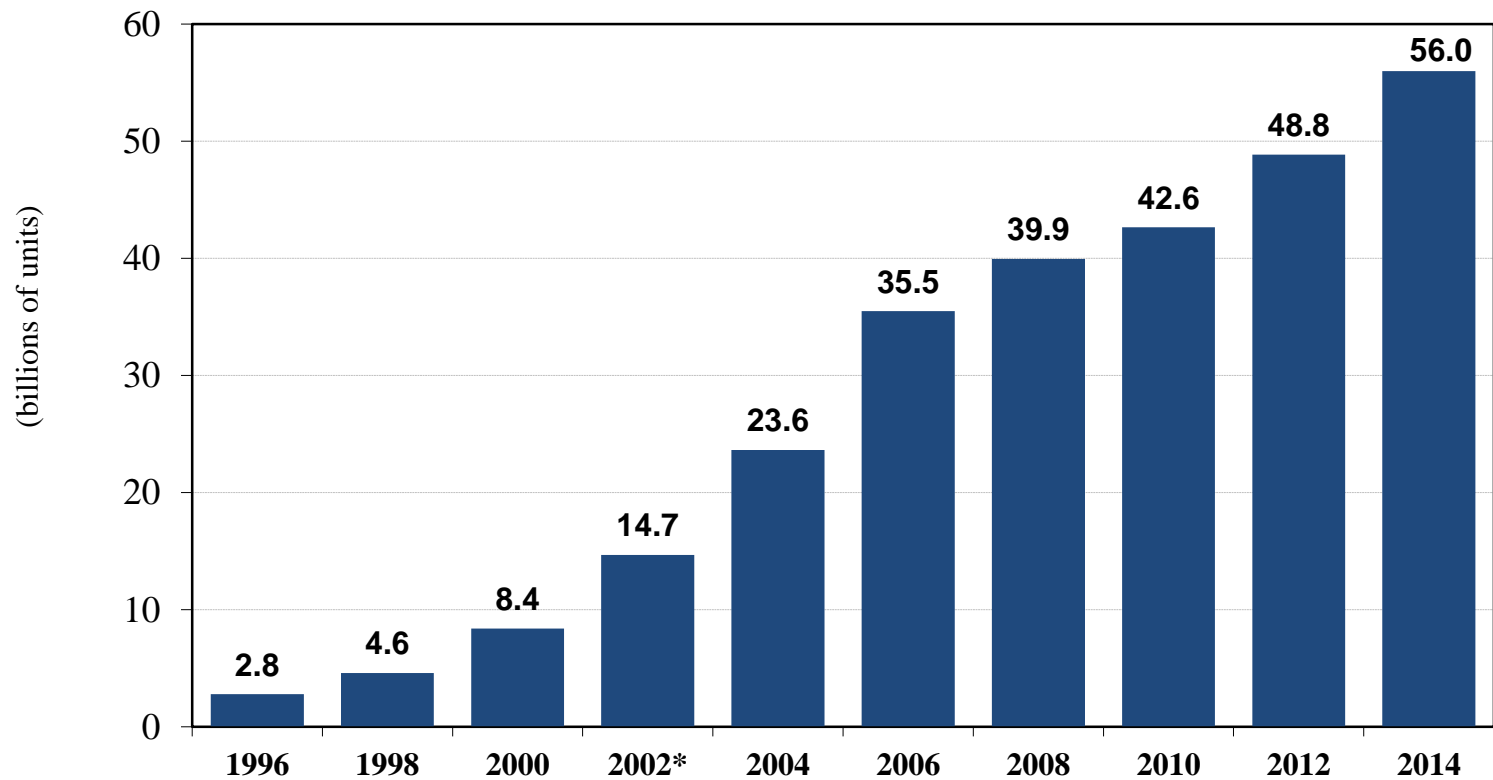


U.S. Beverage Sales, Recycling & Wasting, 1990-2010



Excludes aseptic boxes, gable-top cartons and foil pouches. Excludes wine coolers, champagne, sparkling wine, frozen fruit concentrates and milk.

U.S. PET Plastic Bottled Water Sales, 1996-2014*



* Defined as domestic, non-sparkling water packaged in PET plastic, in sizes of 1 gallon and less. Excludes flavored, enhanced and sweetened waters (3.2 billion units in 2014). Derived from Beverage Marketing Corporation data, 2002-2015.

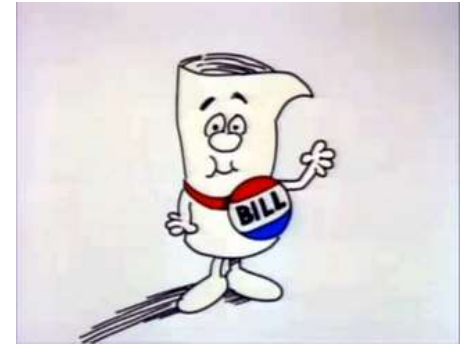
Waterway and Marine Debris



Solution: Place a mandatory deposit on beverage containers to provide an incentive to recycle and a disincentive to litter.



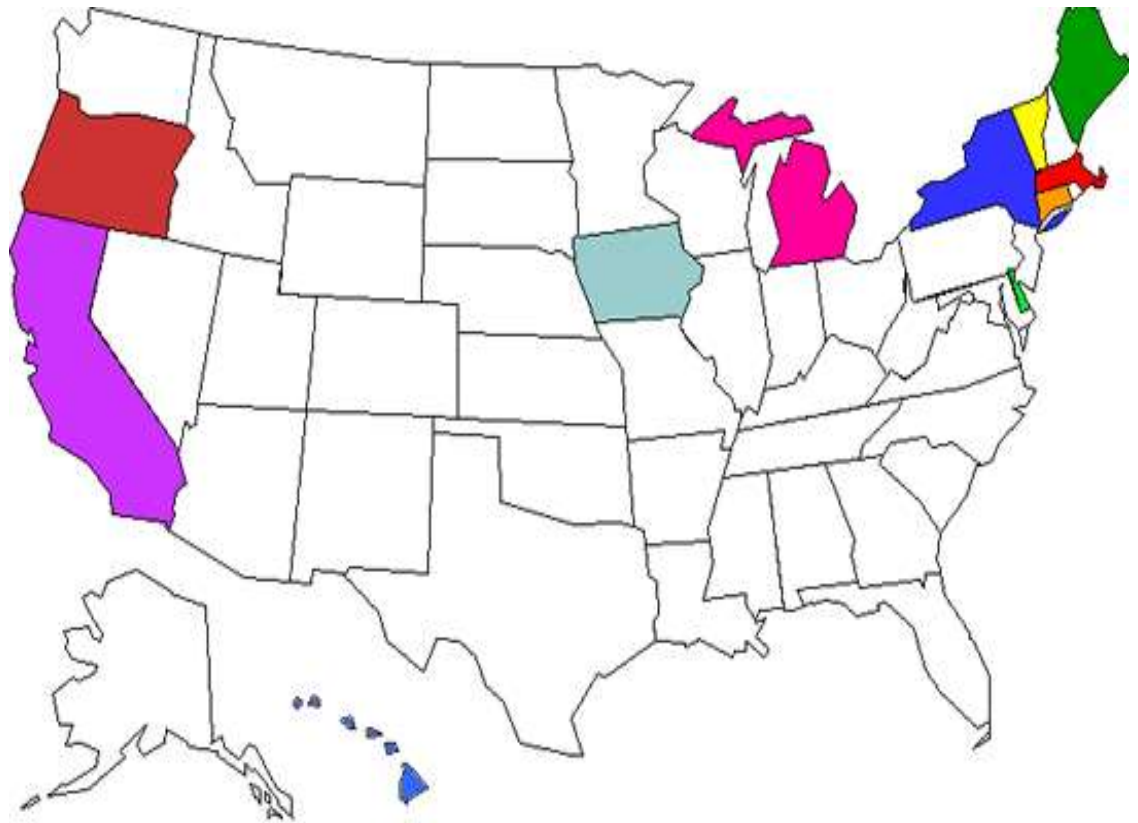
What is a “Bottle Bill”?



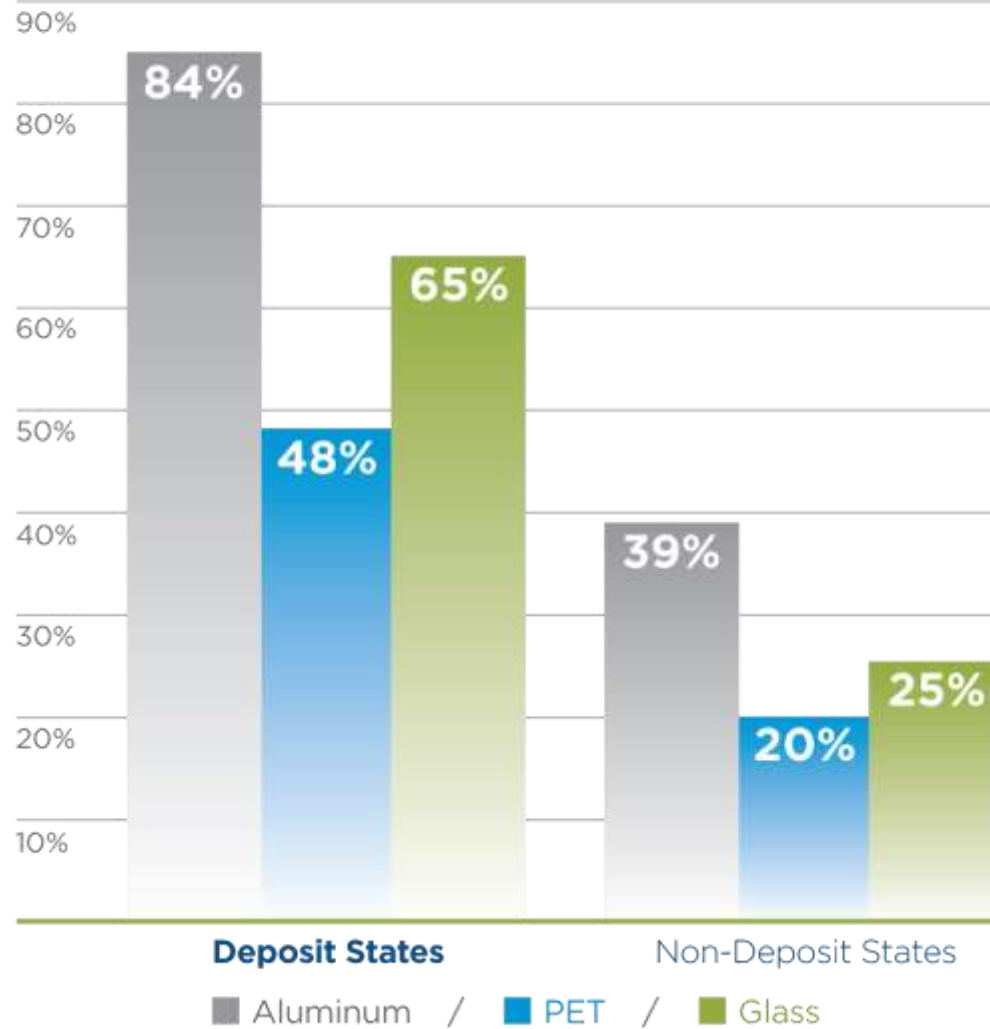
- Distributors and retailers collect a minimum refundable deposit, when a beverage is sold (5 or 10 cents)
- Creates a privately-funded collection infrastructure for beverage containers
- Makes producers and consumers responsible for their packaging waste
- a.k.a, container deposit-refund
- 300 million people have programs worldwide

U.S. States: Container Deposit Laws for 90 Million People

48% of all beverage containers recycled in the U.S. come from these 10 states (w/ 28% of US pop.)

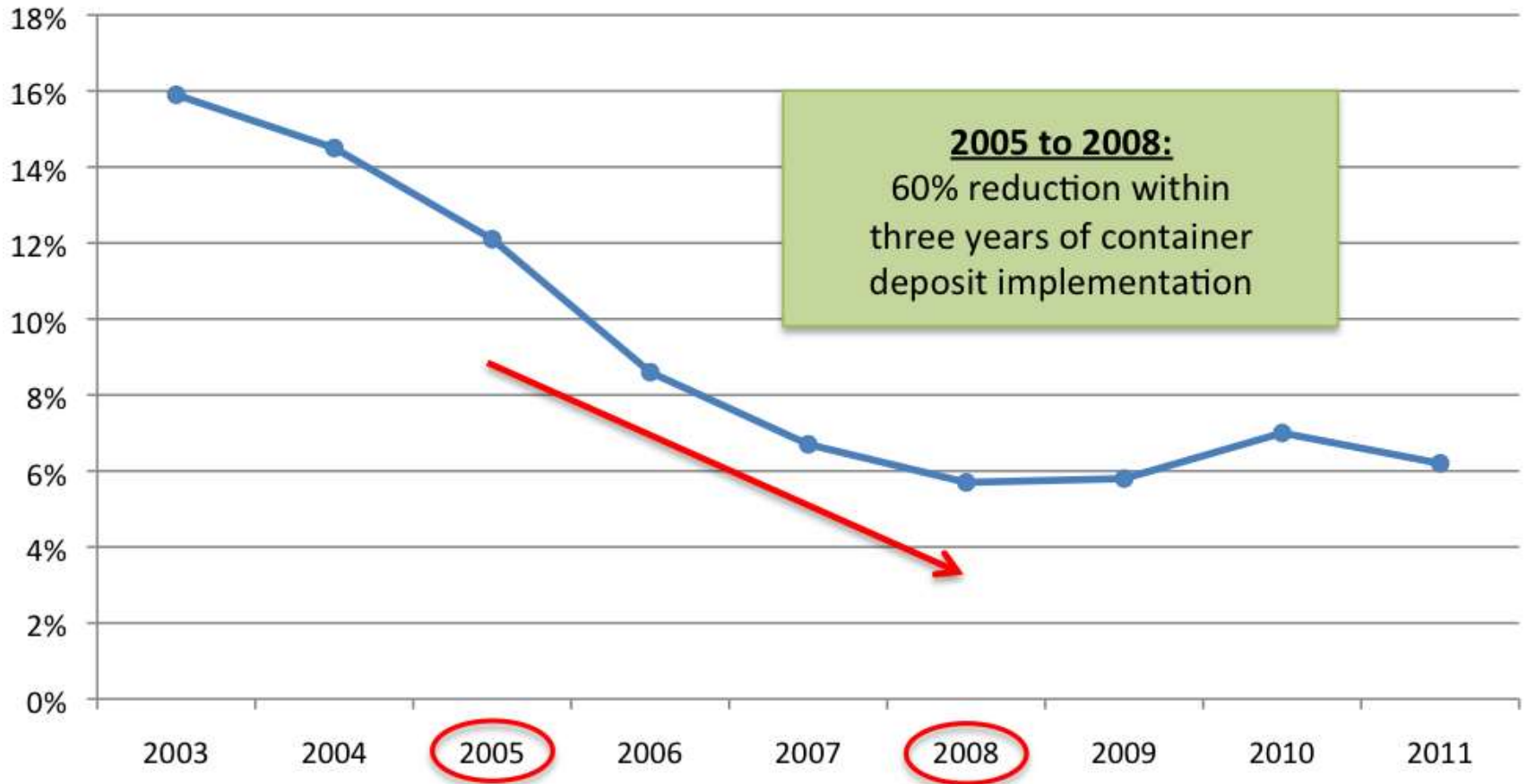


Deposit States Have Higher Beverage Container Recycling Rates



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Beverage Containers As Percentage of Total Litter Collected in Hawaii



Source: Ocean Conservancy International Coastal Cleanup, 2003-2011

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Extra Slides

Why Deposit-Refund?

10 Reasons

Twelve New Container Deposit Laws for 106 Million People Since 2005

Region	Year	2016 Population, millions
Croatia	2005	4.2
Estonia	2005	1.3
Germany	2005	80.7
Hawaii	2005	1.4
Fiji	2011	0.9
Guam	2011	0.2
Northern Territory of Australia	2011	0.2
Turks and Caicos	2011	0.03
Lithuania	2015	2.9
New South Wales, Australia	2017	7.6
Queensland, Australia	2018	4.6
Western Australia	2018	2.5

Seven Expanded Container Deposit Laws for 86 Million People Since 2000

Region	Year	2016 Population, millions
California	2000	39.4
Ontario, Canada	2007	13.8
South Australia	2008	1.7
Alberta, Canada	2009	3.6
Connecticut	2009	3.6
New York	2009	19.9
Oregon	2009/17	4.0

Benefits of a Modern Deposit System

1. **Higher collection rates:** 70 to 96%
2. **Cleaner, higher quality recyclables**
3. **Litter reduction**
4. **Environmental benefits:** Reduced toxics, greenhouse gas emissions reduced energy use
5. **Equitable/Fair:** Shifts the cost away from taxpayers to producers and consumers

6. Supports the domestic beverage manufacturing industry

7. **Job creation:** Recycling creates about 10 x more jobs than landfilling

8. Economic savings for taxpayers and municipalities

- Reduced costs of litter collection
- Reduced storm water clean-up costs
- Reduced landfill fees
- Reduced waste collection and treatment costs
- Less recycling collection

9. Fundraising for charities and community non-profits

New Opportunities

- ✓ Higher volumes of beverage containers will be recovered and need to be processed.
- ✓ Existing businesses can serve as redemption centers – building on existing capacity.
- ✓ Existing municipal facilities can play a revenue generating role in managing collection of these new containers.

Michigan



Oregon





CRI's Goals

Research “best in class” programs; educate on best practices; assist with technical data

Emphasis on high-quality materials that are able to achieve the promise of recycling, which is replacement of virgin materials in the manufacturing process

Programs are paid for by consumers and producers, not taxpayers and ratepayers

Highest quantity, highest quality, lowest cost