October 26, 2011

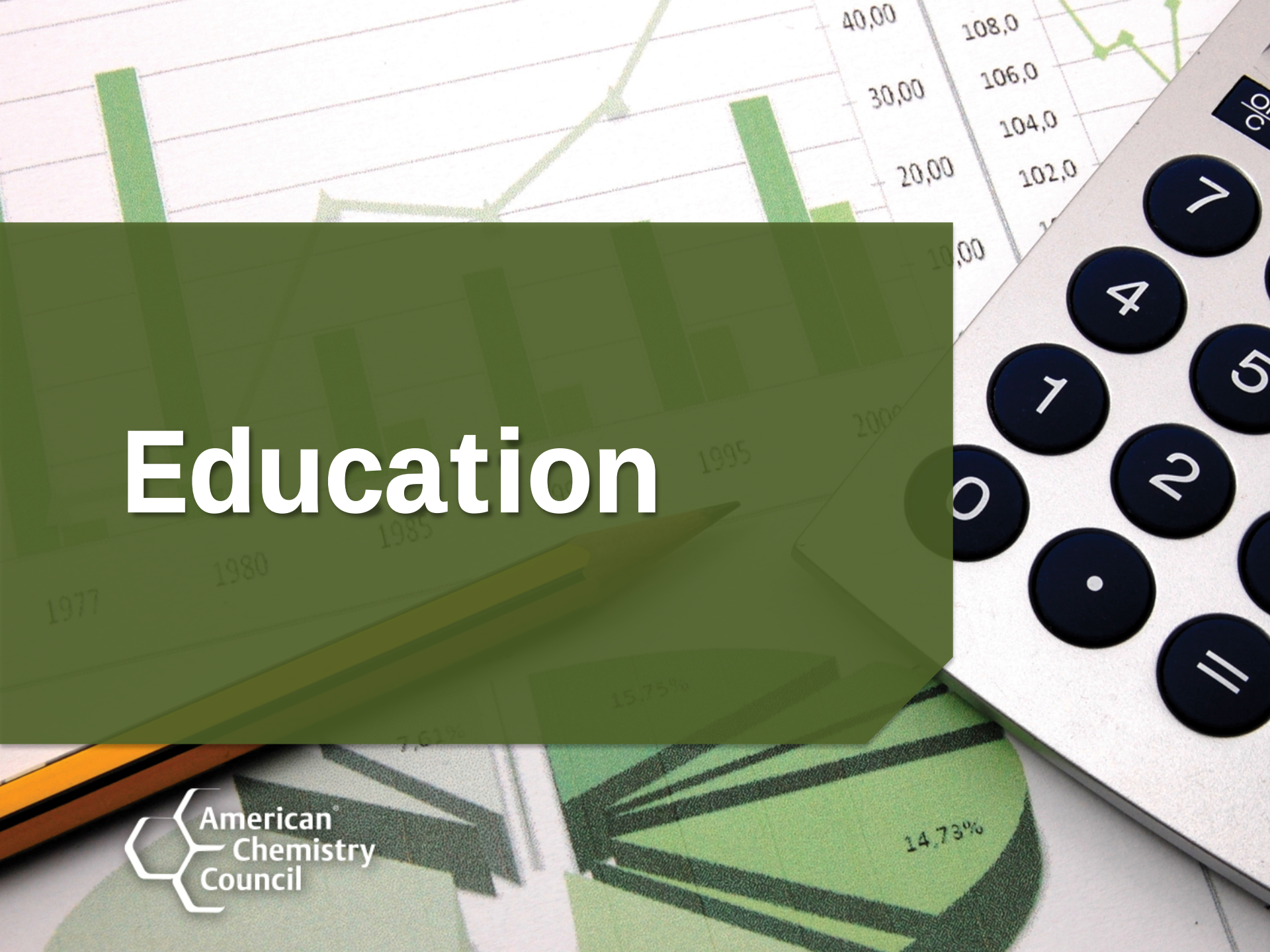
RIGID PLASTIC PACKAGING
ACC OVERVIEW

American Chemistry Council

ACC's Plastic Division

The Plastics Division of the American Chemistry Council (ACC) represents leading manufacturers of plastic resins.

The Rigid Plastics Packaging Group (RPPG) is affiliated with ACC's Packaging Team, and its members include the manufacturers of injection-molded and thermoformed rigid plastic packaging (lids, cups, and containers) as well as suppliers of raw materials and equipment used in these processes.


Education
American Chemistry Council

Why do we use plastics?

- Reduce Material Use and Weight
- Maintain Freshness
- Reduce Breakage
- Reduce transportation costs through light weighting
- Economical

Plastics also have positive environmental attributes

- **Plastics reduce energy use by 61% and greenhouse gas emissions by 57% across variety of applications compared to alternatives.**

1 Denkstatt, “The impact of plastics on life cycle energy consumption and greenhouse gas emissions in Europe,” June 2010


Reporting
American Chemistry Council

Recycling Success

US EPA: more than 4 billion pounds of plastic are recycled annually

2009: more than 2.5 billion lbs. of plastic bottles were collected for recycling[3]

California: more than 62% have curbside recycling of all plastic containers [6]

3 "2008 National Post-Consumer Plastics Bottle Recycling Report," published 2010.
2009 United States National Post Consumer Report on Non-Bottle Rigid Plastics Recycling, published 2011
Rigid Plastic Recycling Collection: National Reach Study, Moore Recycling Associates 2011

Environmental Benefits of Plastic Recycling[4]

Existing plastic recycling, particularly PET and HDPE, results in significant savings in energy and greenhouse gas emissions

The amount of energy saved by recycling PET and HDPE containers including bottles in 2008 was the equivalent to the annual energy use of 750,000 U.S. homes.

The corresponding savings in greenhouse gas emissions was an amount comparable to taking 360,000 cars off the road.

[4] **"Final Report—Life Cycle Inventory of 100% Postconsumer HDPE and PET Recycled Resin from Postconsumer Containers and Packaging**," published 2010.

2009 Non-bottle Rigid Report

Key Findings:

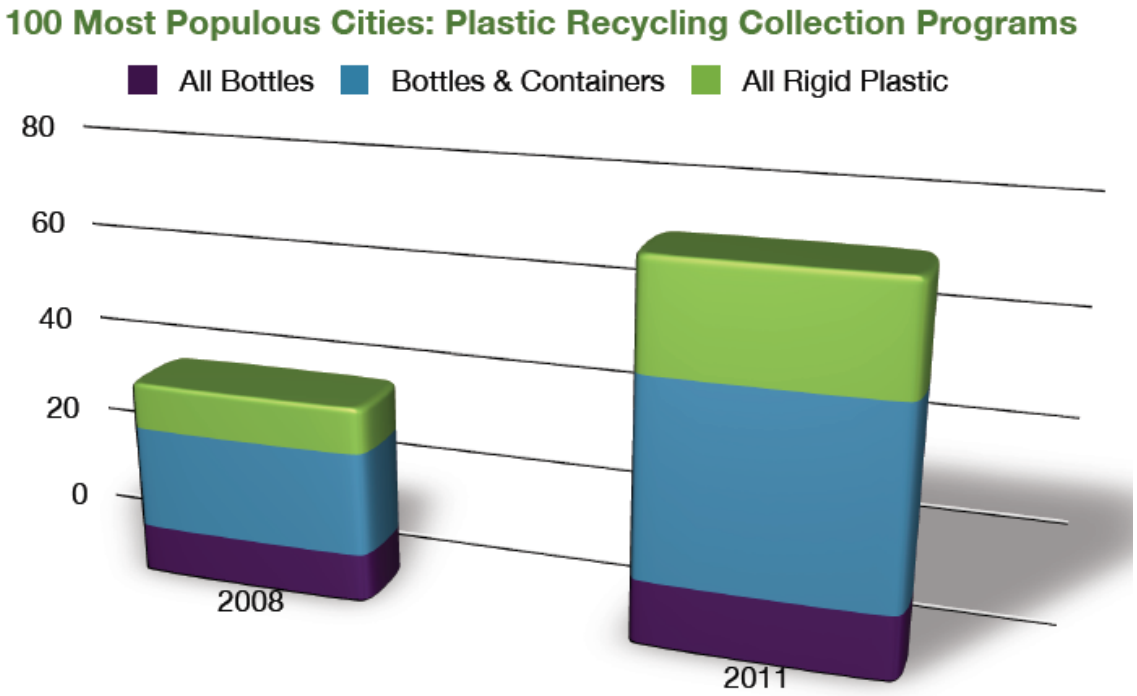
- In 2009, nearly 480 million pounds of post-consumer rigid plastics were collected for recycling nationwide
  - an increase of ~ 33 % from 2008 and 47% from 2007;
- Increase in the number of processors, end users and reclaimers of rigid plastics
- Number of communities offering rigid plastics recycling continues to increase

National Plastic Recycling Collection: National Reach Study

- At least 94% of the U.S. population has access to PET and HDPE bottle recycling
- 40% has access to, at least, all plastic bottles and all non-bottle rigid containers
- 48% has access to non bottle PP recycling of items such as yogurt tubs
- Identified 1,137 cities and 215 unincorporated areas of counties in the U.S. that collect all non-bottle rigid plastics

Plastic Collection Program	Percentage of US Population with Recycling Access
All Plastic	2.4%
All Rigid Plastic	13.0%
All Bottles & Non-Bottle Rigid Containers & Specific Plastics	3.0%
All Bottles & Non-Bottle Rigid Containers	21.2%
All Bottles & Specific Plastics	1.9%
All Bottles Only	12.5%
PET & HDPE Bottles & Specific Plastics	12.9%
PET & HDPE Bottles Only	26.8%
All CRV Bottles & Specific Plastics	0.1%
All CRV Bottles Only	0.2%
Other Specific Plastics	0.6%
No Plastic Program	5.4%

More cities collecting rigid plastics



- Compared 2008 survey of 100 most popular cities with 2011 data
- In 2008 only 29 cities had access to non-bottle rigid plastic recycling, compared to 59 today
- In 2008 only 38 percent had access beyond PET and HDPE bottle recycling, compared to 71 today

Cities Adopting Non-bottle Rigid Recycling

- **New York City, NY**
  - New legislation implemented in 2010 to recycle all rigid plastic containers
  - Will place 300 recycling bins in public areas in the next three years and 700 within a decade
- **Philadelphia, PA**
  - Now accepting rigid plastics
  - Recycling has risen to 16 percent as the city has added materials, moved to weekly collections, and switched to "single-stream" recycling
- **Connecticut Communities**
  - Starting May 2010, residents of 64 Mid-Connecticut communities began to recycle “all plastic food and beverage containers.”

Partnerships and Outreach

American® Chemistry Council

Outreach to Virginia Peninsula

ACC wants to help expand rigid plastic recycling programs by:

Provide funding to neutral third party to host open market/buyers forum, with:

- City Recycling Staff
- Regional & State Organizations
- Local & Regional Haulers

Creating resources to educate communities on rigid recycling:

- Tools to facilitate information exchange
- Local education/outreach
- Encourage common language

Education with Numbers *Plastics Recycling Outreach*

A Joint Project by ACC and APR

Encouraging the Collection of Bottles and Containers

Opportunities to Increase Non-Bottle Rigid Plastic Recycling

ACC Efforts

- Document collection of non-bottle rigid plastics annually
- Detail the types, efficacy of recycling technologies
- Illustrate current and potential demand for products

APR Efforts

- Work toward clear, consistent definitions
- Enforceable reclaimer-generated bale specifications
- Work with grocers on rigids in their stores to create recycling solutions


Thank You
American Chemistry Council