

Flexible Packaging and Data Informed Advocacy

PLASTICS
Recycling Open House
August 12, 2026



Dan Felton
President & CEO
Flexible Packaging Association



Agenda



Flexible Packaging Association and Industry Overview

Sneak Peak: Market Segmentation, Recyclability and PCR

Sneak Peak: Mono-Material Flexible Packaging

Flexible Packaging Format Changes – Not so Simple

Let's Talk Flexibles!



About the Flexible Packaging Association (FPA)



Primarily flexible packaging converters/manufacturers and their suppliers – **and now brand owners too.**

Focused on growing and protecting the flexible packaging industry:

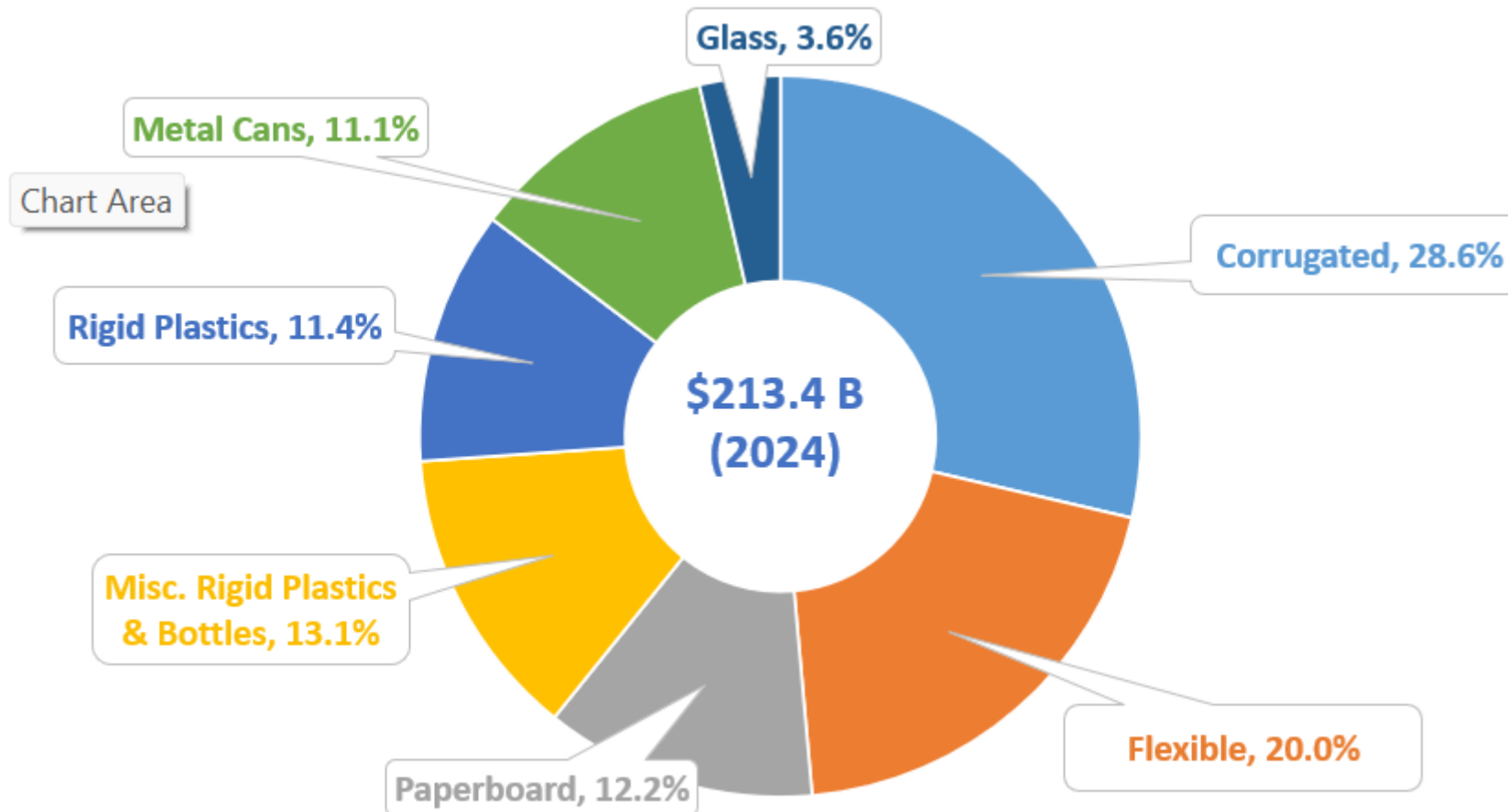
- Providing advocacy and representation
- Promoting and protecting the industry and its products
- Supporting sustainable packaging within a circular economy
- Providing market, packaging and policy research
- Providing educational and networking opportunities

Celebrated 75 years in 2025!

About the U.S. Flexible Packaging Industry



Breakdown by Segment – 2024

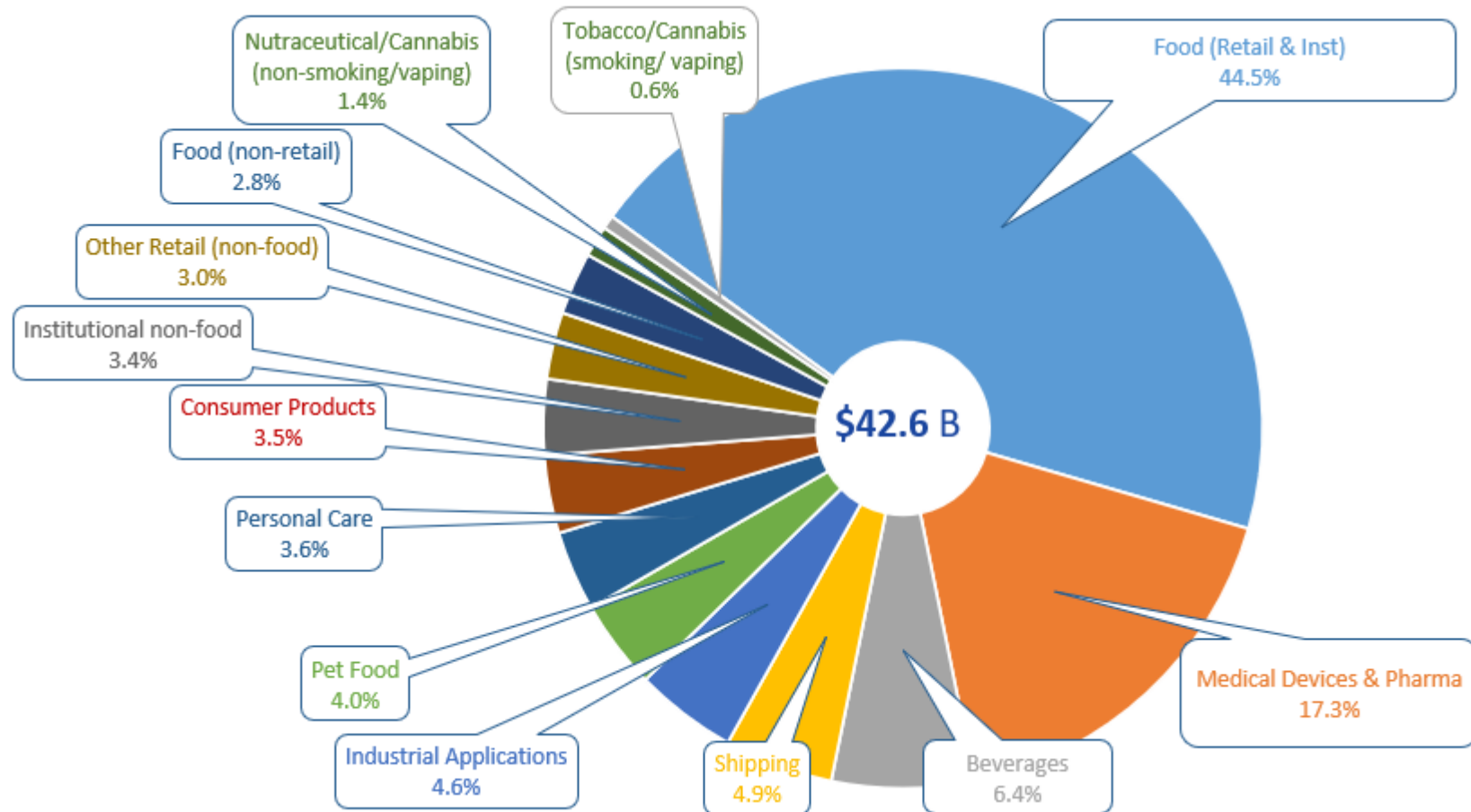


Source:
FPA 2025 State of the U.S. Flexible Packaging Industry Report

About the U.S. Flexible Packaging Industry



Breakdown by End-Use – 2024

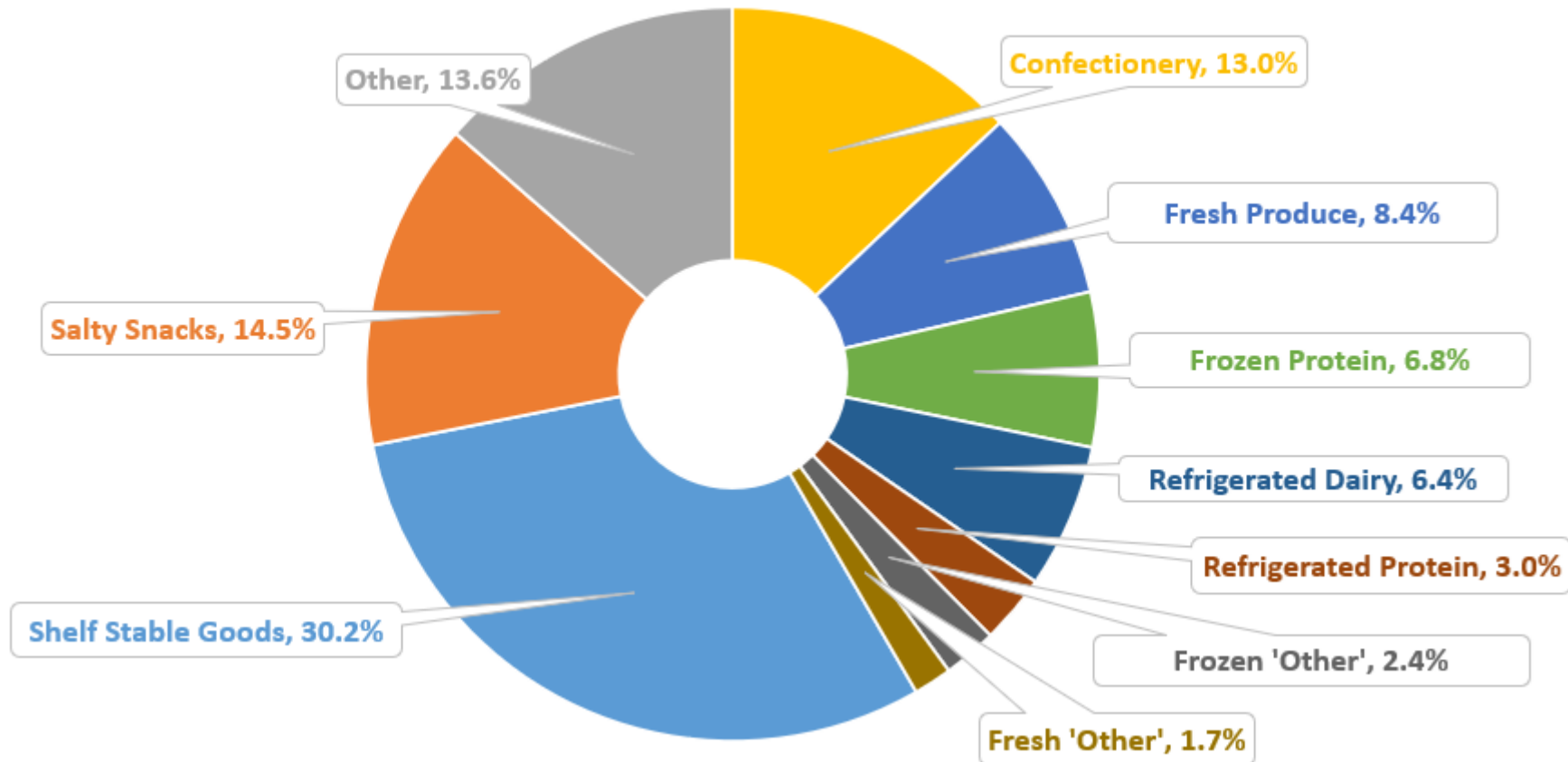


Source:
FPA 2025 State of the U.S. Flexible Packaging Industry Report

About the U.S. Flexible Packaging Industry



Breakdown for Food – 2024



Source:
FPA 2025 State of the U.S. Flexible Packaging Industry Report

The Future is Flexible!



Industry continues to grow despite packaging and plastic backlash.

Need to continue to work on closing the circularity loop while promoting and protecting the value of sustainable flexible packaging.

Today we are sharing data we've been working on to advocate for flexible packaging in response to public policy.

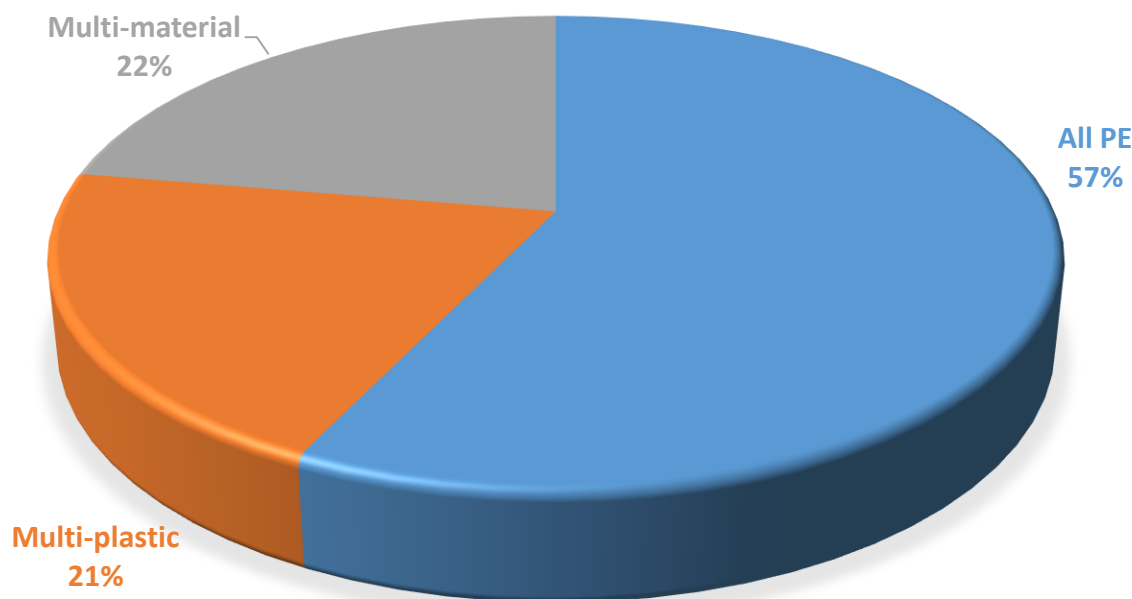


Packaging second only to
nature's original
www.perfectpackaging.com

Flexible Market Segmentation: Packaging “Resins”

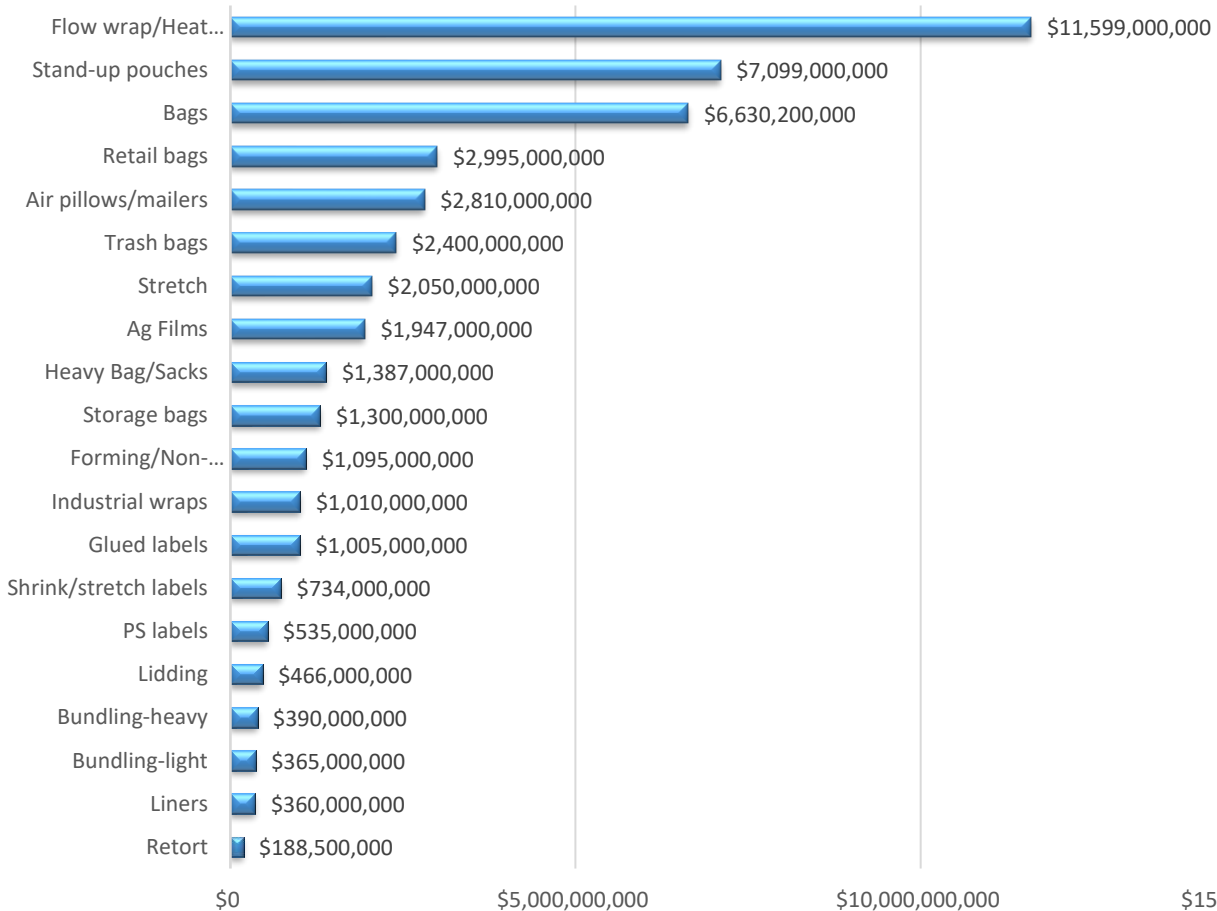


Material Composition By Weight (National)



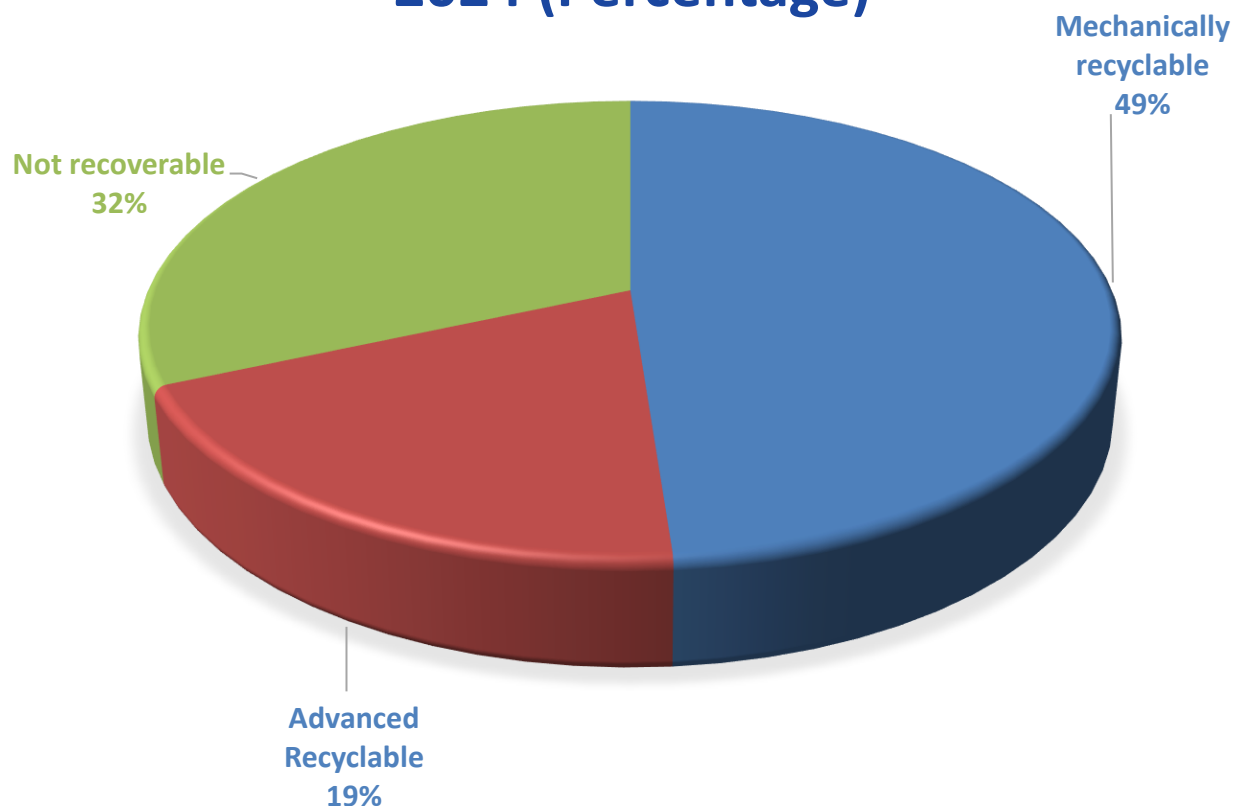
An estimated 43% of flexibles put on market today have a difficult pathway to recycling. With SB 54 setting 65% recycling rate and polyethylene (PE) films being our best opportunity, we are already struggling to meet that goal without even looking at supply and capacity.

Flexible Market Segmentation: Packaging Formats



Segment	Mech. Recyclable (MM lbs.)	Segment	Chem. Recyclable (MM lbs.)	Segment	Not Recoverable (MM lbs.)
Bags (PE)	2545	FFS (MP)	2415	Trash bags (PE)	3200
Stretch film (PE)	2440	Stand-up pouch (MP)	1502	FFS (MM)	2080
Air pillows+mailers (PE)	2345	Ag films (PE – 90% of total)	855	Stand-up pouch (MM)	1177
Retail carry bags (paper)	1920	Ind wraps (PE + PP)	363	Medical bags (PE, MM, MP)	1098
Retail carry bags (PE)	1660	Forming films (MP)	283	Heavy duty shipping sacks (MM)	535
Storage bags (PE)	1330	Pres Sensitive labels (MP)	190	Industrial wraps (PVC + MM)	333
Shrink bundling (light + heavy)	673	Glue labels (MP)	168	Cup Lidding (MP + MM)	290
Flow wrap/ heat sealable (PE)	423	Liners (PE)	130	Stretch/shrink label (MP)	284
Glued labels (paper)	340	Retort pouch (MP)	17	Ag film (MP)	145
Mailers (paper)	315			Heavy duty shipping sacks (PE)	115
Stand-up pouch (PE)	245			Stretch/shrink label (PE)	110
Liners (PE)	130			Pres sensitive labels (MM)	105
Ag films (PE) (10% of total)	95			Forming films (MM)	66
Forming films (PE)	80			Retort pouch (MM)	25
Shipping sacks (PE)	75				
Pres sensitive (in mold labels)	25				
TOTAL	14,640		5,924		9,562

Recyclability by Recovery Pathway 2024 (Percentage)

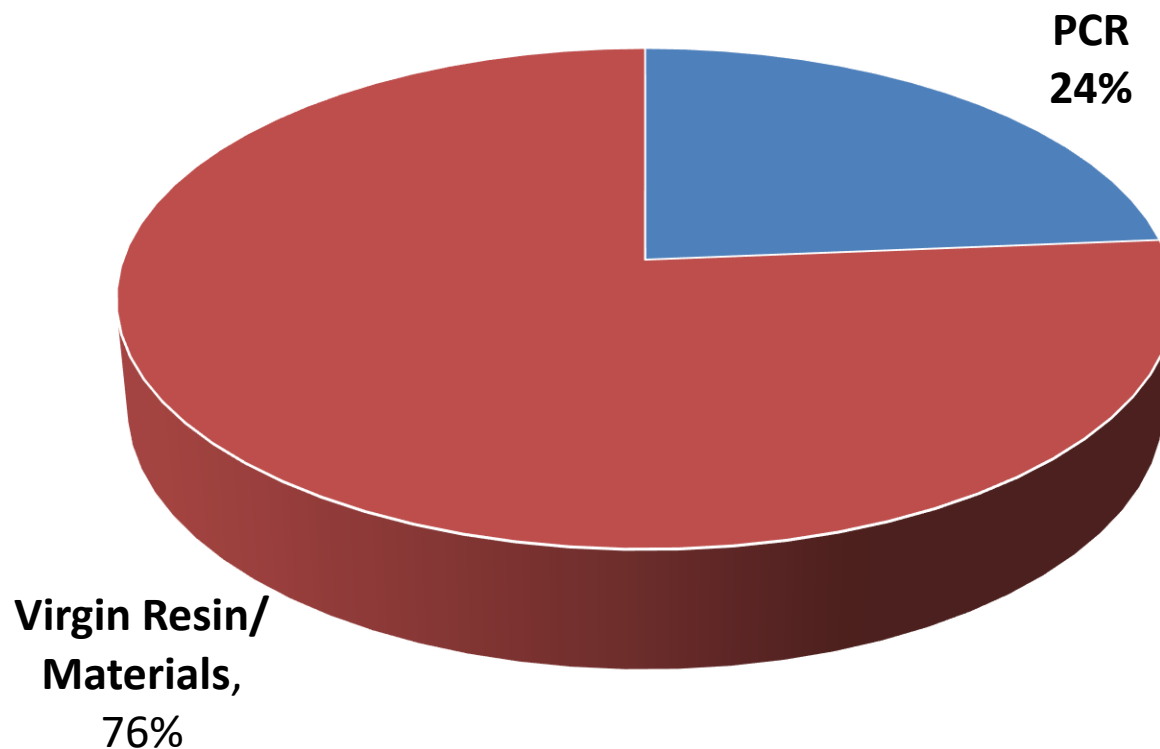


In a best case scenario, flexibles will still fall under SB 54 goals if the state won't accept advanced recycling. Even with advanced recycling, flexibles likely will not be able to meet curbside 65% recycling rate goal, presuming yield loss.

Flexible Market Segmentation: Potential PCR Use



**Overall PCR Inclusion Potential
(2024 – percentage)**



Flexible Market Segmentation: State Goals



Our Data Indicates	Max 68% of all Flexibles on Market (assumes advanced recycling accepted)	Max 25% of all Flexibles on Market	2024
State	Recycling/Recyclable Goal	PCR Goal	Key Date
California	65% recycling rate 100% recyclable	Up to 8% of a 25% source reduction goal can be through use of PCR	2032
Colorado	> 50% recycling rate (double existing 25% rate)	5% PCR for flexibles	2035
Maine	50% recyclable 100% recyclable	No goal but eco-modulation anticipated	2039 2050
Maryland	Not set yet	No goal but eco-modulation anticipated	
Minnesota	75% recyclable	No goal but eco-modulation anticipated	2038
Oregon	50% recycling rate 70% recycling rate	No goal but eco-modulation incentive	2040 2050
Washington	To be set by PRO	Not applicable to flexibles	2036

Flexible Market Segmentation: Next Steps



Research report expected to be released in October.

We plan to give early data to CAA to help with their program plan.

We intend to promote data with EPR stakeholders across the U.S.

- Informs state goals and what is realistic.
- Informs the need for advanced recycling.
- Can help drive strategies for flexible film and packaging recovery.

Mono-Material Flexible Packaging



Transition from multi-material to mono-material flexible packaging (predominantly PE or PP), when feasible/possible, has emerged as critical pathway toward improving recyclability and creating viable supply of post-consumer recycled (PCR) flexible film resin.

Working with Canada Plastics Pact (CPP) and several others to research and report an economic and cost-benefit analysis on transition from multi-material to mono-material flexible packaging in North America for food and non-food consumer applications.

Anticipate research to begin this Fall, with report completed and released in first half of 2027.

Flexible Packaging Format Changes – Not so Simple



THE ROAD FROM CONCEPT TO SHELF: UNDERSTANDING PACKAGING CHANGE TIMELINES

THE STEPS INVOLVED IN CHANGING PACKAGING DESIGNS

Packaging plays a critical role in maintaining product integrity and safety. Even minor changes require rigorous testing, careful evaluation, and regulatory review to protect both the product and the consumer. The full process can take years, often up to a decade, and involves multiple organizations and regulatory agencies across the value chain.



**STEP 1:
Market Need
Identified**
(Supply Chain Impacted:
CPG Company
Estimated Timeline:
1-5 years)

Companies assess consumer demand, safety requirements, and feasibility before, or sometimes alongside, development.



**STEP 2:
New Package
Development: Lab
Testing**
(Supply Chain Impacted:
Raw Materials Supplier
Estimated Timeline:
1-2+ years)

New materials must be tested for:

- Safety
- Performance
- Consistency
- Regulatory compliance

This requires multiple tests, and when regulatory approvals are needed, can add several years.



**STEP 3:
Packaging
Development &
Regulatory Review:
Lab Testing**
(Supply Chain Impacted:
Packaging Supplier/
Converter
Estimated Timeline:
~1 year)

Packaging is documented for regulatory use and tested for:

- Durability
- Shelf life
- Distribution

There are established standards for testing packaging integrity. Results must be completed before regulatory filing, and additional testing may be required.

Some products require regulatory authorization. Approvals for consumer use may involve federal and state agencies, depending on the product and its intended use.



**STEP 4:
Equipment &
Performance
Testing: Lab
Testing**
(Supply Chain Impacted:
Packaging Supplier
and/or Contract Packager
Estimated Timeline:
6 months-2 years)

- Packaging must run safely and efficiently on manufacturing equipment.
- New materials often require equipment modifications or capital investment.



**STEP 5:
Product & Shelf-Life
Testing: Large Scale
Commercial Testing**
(Supply Chain Impacted:
Back to the CPG
Estimated Timeline:
1-2 years)

Finished packages undergo:

- Shelf-life testing
- Quality validation
- Safety verification
- Consumer testing

If packaging changes use existing, already-approved materials (such as PCR or compostable formats), companies may begin the design process at this stage; however, full testing, equipment validation, regulatory documentation, and supply chain adjustments still typically require 18-24 months before commercialization.



**STEP 6:
Commercialization**
(Supply Chain Impacted:
CPG to Retailer
Estimated Timeline:
9-18 months)

Once validated, production scales and products enter distribution.



THE ROAD AHEAD

Policy decisions should account for development timelines, regulatory review, capital investment cycles, and supply chain coordination

THANK YOU!



Dan Felton
President & CEO
Flexible Packaging Association
dfelton@flexpack.org