

# By The Numbers: Unpacking the Data Behind Plastics Recycling

Wednesday, October 26, 2022



*We mobilize people, data, and solutions across the value chain to unlock the environmental and economic benefits of recycling and a circular economy.*

# Why a data webinar?





# Data is a powerful force for change.





Introduction



Driving Improvements  
at the Industry Level



Sources of Plastic  
Recycling Rate  
Information



Driving Improvements  
at the Community/  
Household Level



What Recycling Rates  
Tell Us



Outlook



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+ Business*  
World Wildlife Fund



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*The VP of Data & Analytics*  
The Recycling Partnership



**Poll:** What items does the EPA data include (in the denominator) when calculating the plastic recycling rate?

**A**

**Washing machines**



**B**

**Just bottles**



**C**

**All plastic packaging and disposables**



**D**

**All of the above and more**





# Recycling Rates Reflect Historical Outcomes of An Evolving System



## All Residential Materials are Under-recycled



**3/5**

Cardboard  
Boxes



**7/10**

Glass Bottles  
& Jars



**1/2**

Aluminum &  
Steel Cans



**2/3**

Mixed  
Paper



**2/3**

HDPE  
Containers



**3/4**

PET  
Bottles

**...end up in a landfill\***



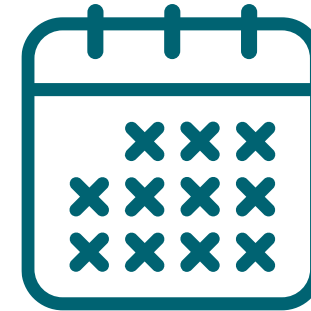
# Sources of Recycling Rate Data



# EPA Data Provides One Perspective on Recycling Rates



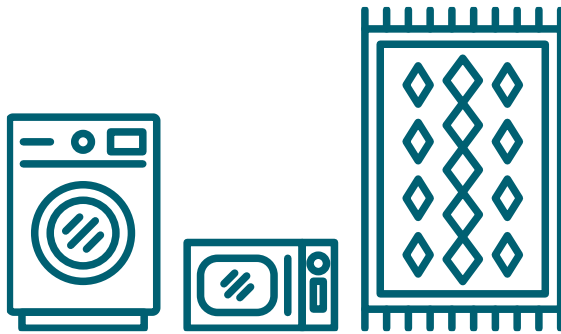
The EPA remains **the only** comprehensive national source of recycling data for all materials.



However, the statistics are dated. The last report was issued in **November 2020**, and used data for **2018**.



## Plastics Categories Included in EPA Rates



### **Durable Goods**

*Appliances, Carpet, Electronics, etc.*



### **Non-durable Goods**

*Trash Bags, Plastic Cups & Plates, etc.*



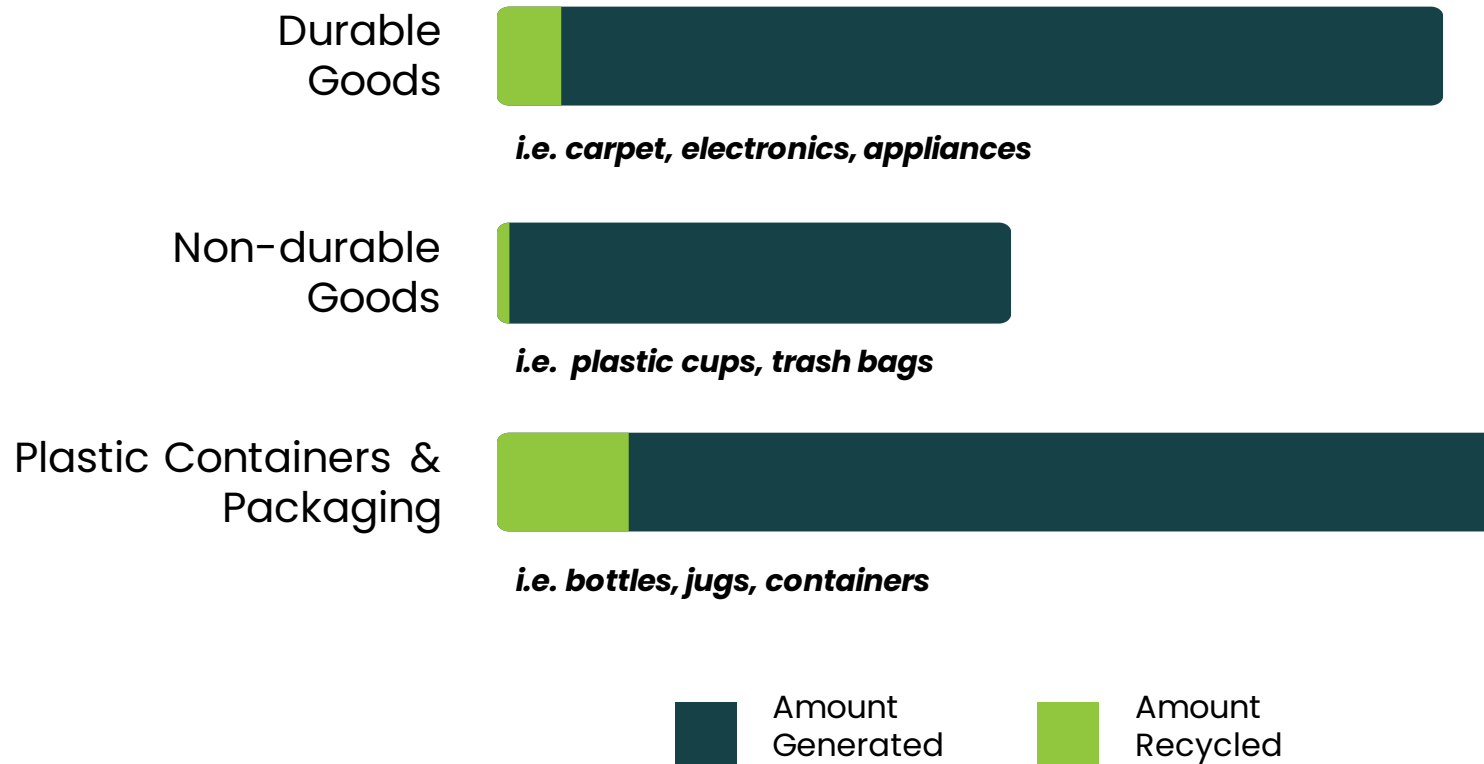
### **Plastic Containers & Packaging**

*Bottles, Jugs, Containers, etc.*





## Plastics Categories and Recycling Rates



### Recycling Rate

6.8%

2.4%

13.1%

**Average 8.5%**



### Industry Sources

### U.S. Plastics Pact

Tracking recycling rates specifically for plastics packaging



### U.S. Plastics Pact Data

	<b>Tons Generated</b> (thousands of tons)	<b>Tons Recycled</b> (thousands of tons)	<b>Recycling Rate</b>
LDPE/HDPE/PP/PS Bags, Sacks, & Wraps	4,200	420	10.0%
PET Bottles and Containers**	3,995	938	23.5%
HDPE Bottles and Containers*	3,170	604	19.1%
PP Bottles and Containers*	1,263	70	5.5%
LDPE/PP/PS/PLA Plastic Plates & Cups	1,030	0	0.0%
Other LDPE Packaging	910	0	0.0%
PS and Other Packaging	790	25	3.1%
Other Bottles and Containers	360	1	0.2%
<b>TOTAL - All Materials</b>	<b>15,718</b>	<b>2,057</b>	<b>13.1%</b>

\*Data source: APR

\*\* Data source: NAPCOR

Data source for all others: EPA





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# Drilling Down on Plastics in Packaging



### All Plastic Packaging

Recycling Rate

**13.1%**



### HDPE Bottles

Recycling Rate

**29%**



### PET Bottles

Recycling Rate

**27%**

# Driving Improvements at the Industry Level





# No Plastic in Nature by 2030



Cities



Companies



Policy

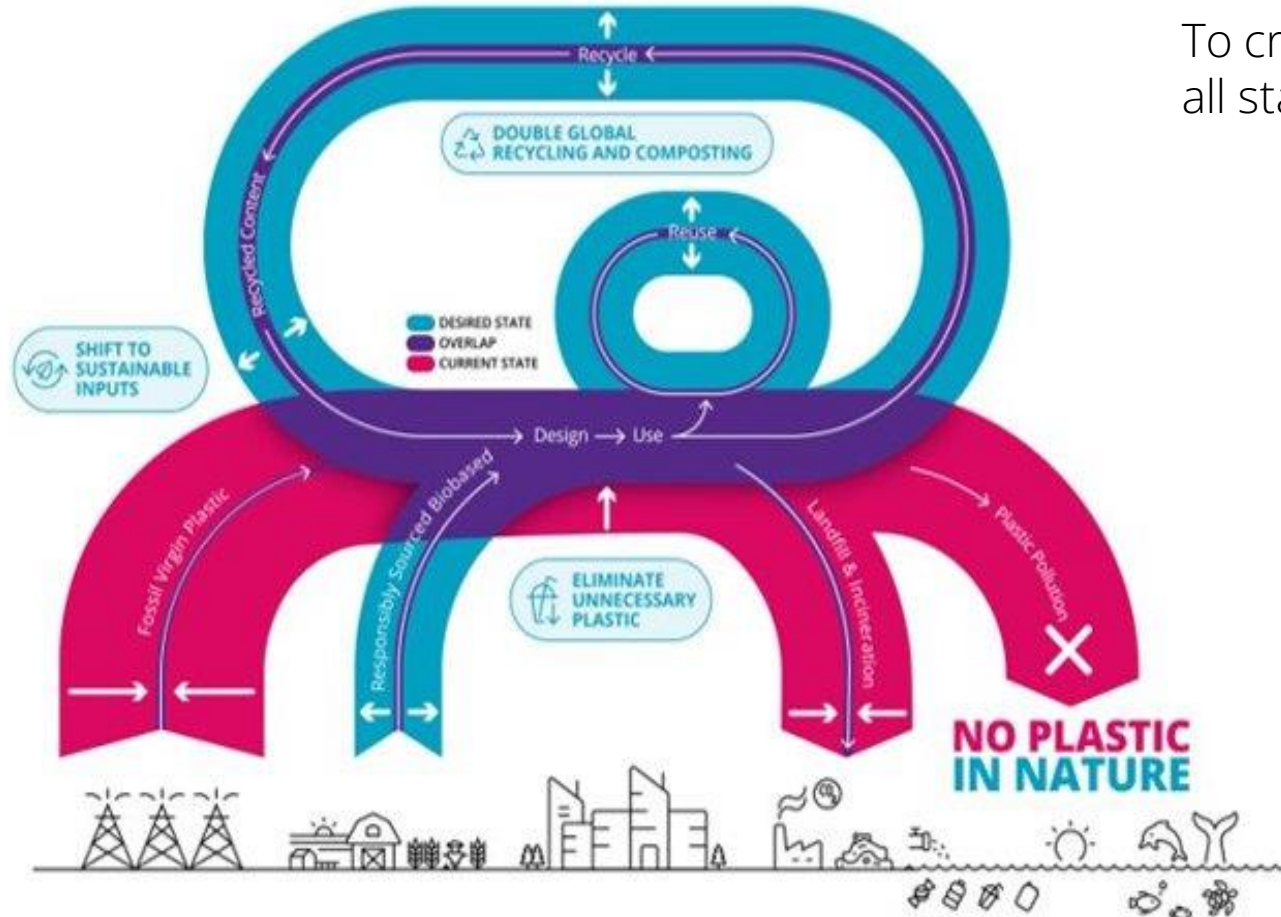


Public

# W W F Theory of Change

To create lasting, holistic change, we must engage all stakeholders with a common vision to:

- **Eliminate** the single-use plastics that we do not need.
- **Shift** to sustainable sources for the plastic that we do need.
- **Improve** our material systems to collect, reuse, recycle, and compost all plastic that is produced.





# ReSource

Plastic



## 2020-2021 Key Findings

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- Principle Members **eliminated 57% of their problematic plastic** between 2018 and 2020, amounting to 71,000 metric tons
- The **use of recycled content increased** from 7.8% to 9.6% (+124,000 metric tons) between 2018 and 2020
- Members made commitments to **invest in and advocate for solutions** that can help solve the many systemic issues that hamper the recycling progress



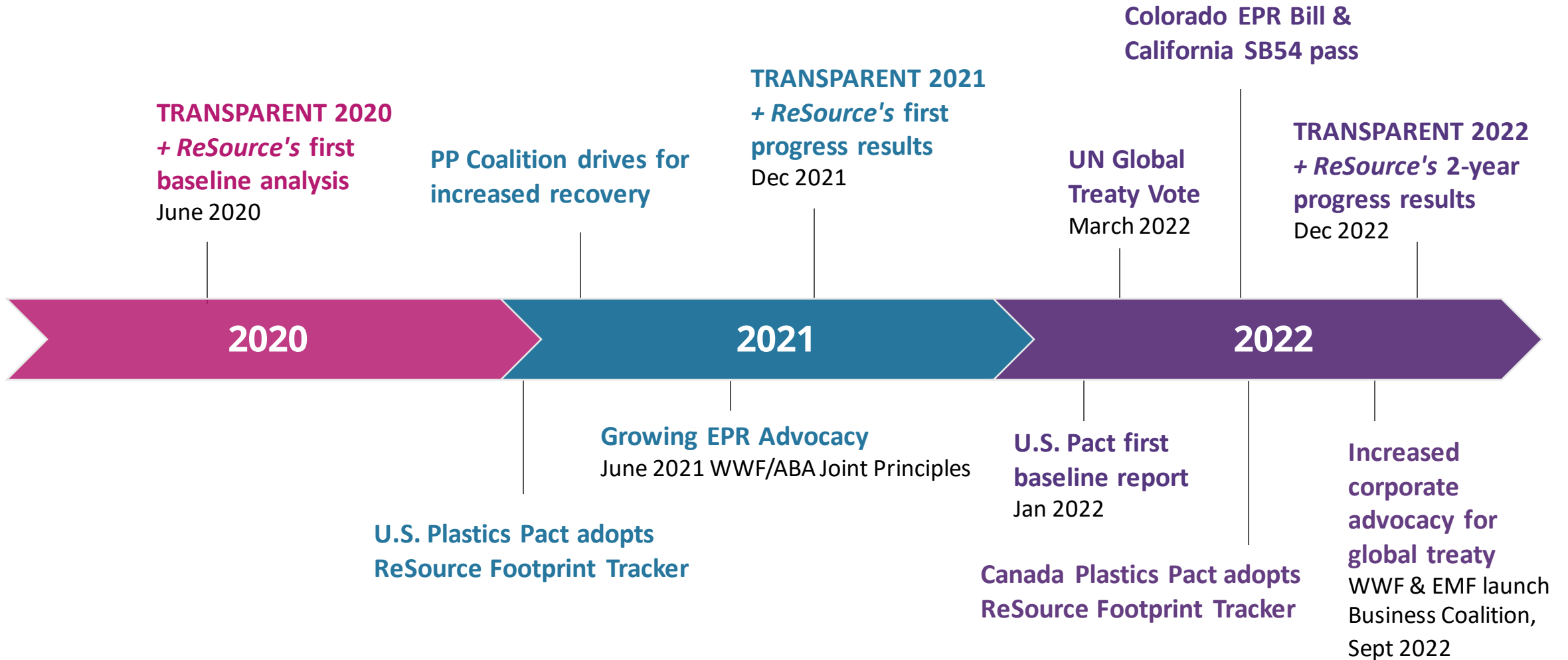
## Looking Ahead

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- **Leading voluntary initiatives** offer learnings for emerging standards
- By engaging early, leading businesses build learnings, test, and influence methods and tools, **positioning for success long-term**.
- Now, we must **translate insights of these leading initiatives into broadly applied standards** that drive large-scale change.

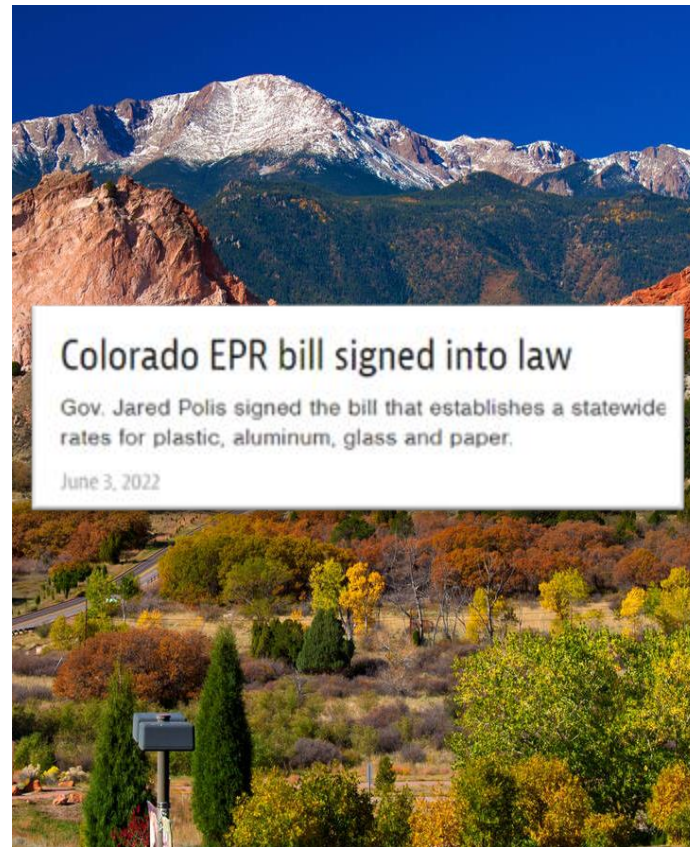






# Plastic Policy Progress

- Extended Producer Responsibility on the National Level
- UN Global Treaty to Address Plastic Pollution





# What Happens Now?

**SAVE OUR PLANET**



# Driving Improvements at the Community & Household Level



# Major Plastic Resins



## **PET:**

Water/ketchup/salad +



## **HDPE:**

Shampoo/detergent/milk +



## **Polypropylene:**

Yogurt/butter +



## **LDPE:**

Bags/sacks/wraps



## **Polystyrene:**

Plates/to-go containers



## **PVC/Other plastics**



## Household Perspective



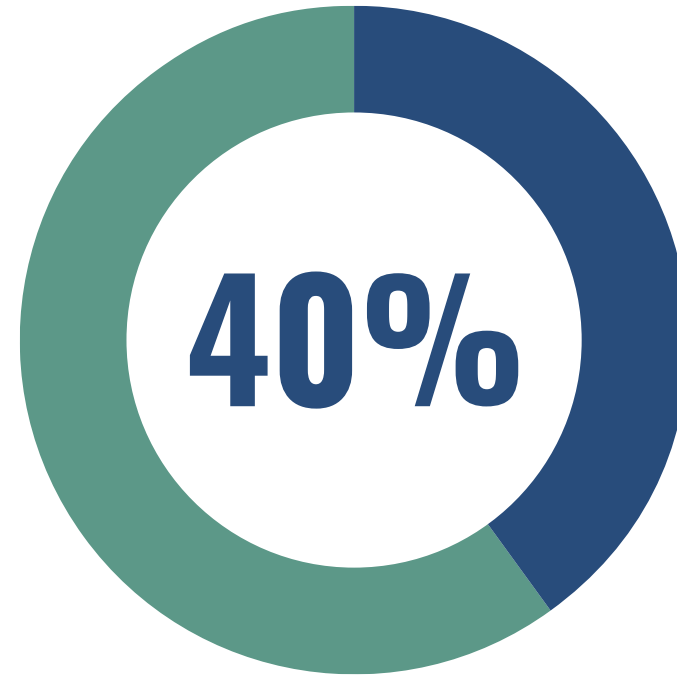
# Households with Carts Have Fairly High Numbers

Material	Household Capture Rate
PET Bottles	48%
Non-bottle PET	39%
“Natural” HDPE bottles	60%
Colored HDPE bottles	51%
Polypropylene packaging	27%





40% of households  
**do not have  
recycling access  
that is equivalent  
to trash access.**



Percentage of households  
with no or non-equitable  
access to recycling

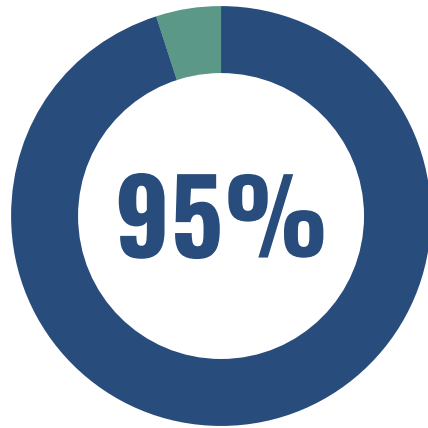


Of the households that have access, **72% participate** and of those that participate – **not everyone** is recycling all that they can.

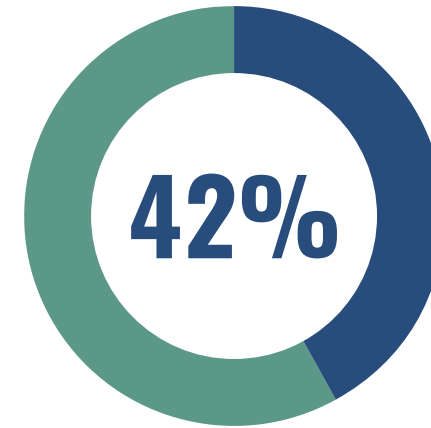




# Recycling Carts Alone Aren't Enough: Case In Point California



95% of people in California  
have recycling carts



Overall  
recycling rate  
in California



## Addressing Education and Motivation



The Recycling Partnership has implemented **interventions in over 70 communities**



An average **increase of 27% in overall capture** of quality recyclables



As much as **57% decrease of nonrecyclables in recycling carts**

**RECYCLE** THANK YOU FOR RECYCLING THESE:  
**RECICLE** GRACIAS POR RECICLAR ESTOS MATERIALES:

<b>Cans</b> Latas	<b>Cartons</b> Cartones	<b>Glass</b> Vidrio	<b>Paper</b> Papel	<b>Plastic</b> Plástico
<b>Aluminum and Steel Cans and Foil</b> (empty and dry) <i>Latas de metal y aluminio</i> (vacíos y secos)	<b>Cartons</b> (empty and clean) <i>Cartones</i> (vacíos y limpios)	<b>Bottles and Jars</b> (empty and dry) <i>Botellas y frascos</i> (vacíos y secos)	<b>Paper and Cardboard</b> (flatten boxes) <i>Papel y cartón</i> (cajas aplanadas)	<b>Bottles, Jars and Jugs</b> (empty and dry) <i>Jarras, frascos y botellas</i> (vacíos y secos)
<b>NO!</b> <b>No Bagged Recyclables</b> (no garbage) <i>No embolsar los reciclables</i>	 <b>No Plastic Bags or Plastic Wrap</b> <i>No usar bolsas o envoltorios de plástico</i>	 <b>No Food or Liquid</b> <i>No incluir comida y líquidos</i>	 <b>No Scrap Metal</b> <i>No reciclar chatarras</i>	 <b>No Hoses, Cords or Wires</b> <i>No incluir cosas que se enredan</i>
		<a href="https://recyclebycity.com/chicago">recyclebycity.com/chicago</a> (312) 744-2413	Scan to ask a question Escanee para hacer una pregunta	Funded in part by <b>The Recycling Partnership</b> SOLVING FOR CIRCULARITY



# Outlook



**The Recycling  
Partnership**  
SOLVING FOR CIRCULARITY







# Demand for Recycled Plastics is Growing



Demand for new PET in packaging alone is expected to be **1.5B lbs in the next 3 years.**



We need to **double the recycling rate** to reach it.



# Polypropylene



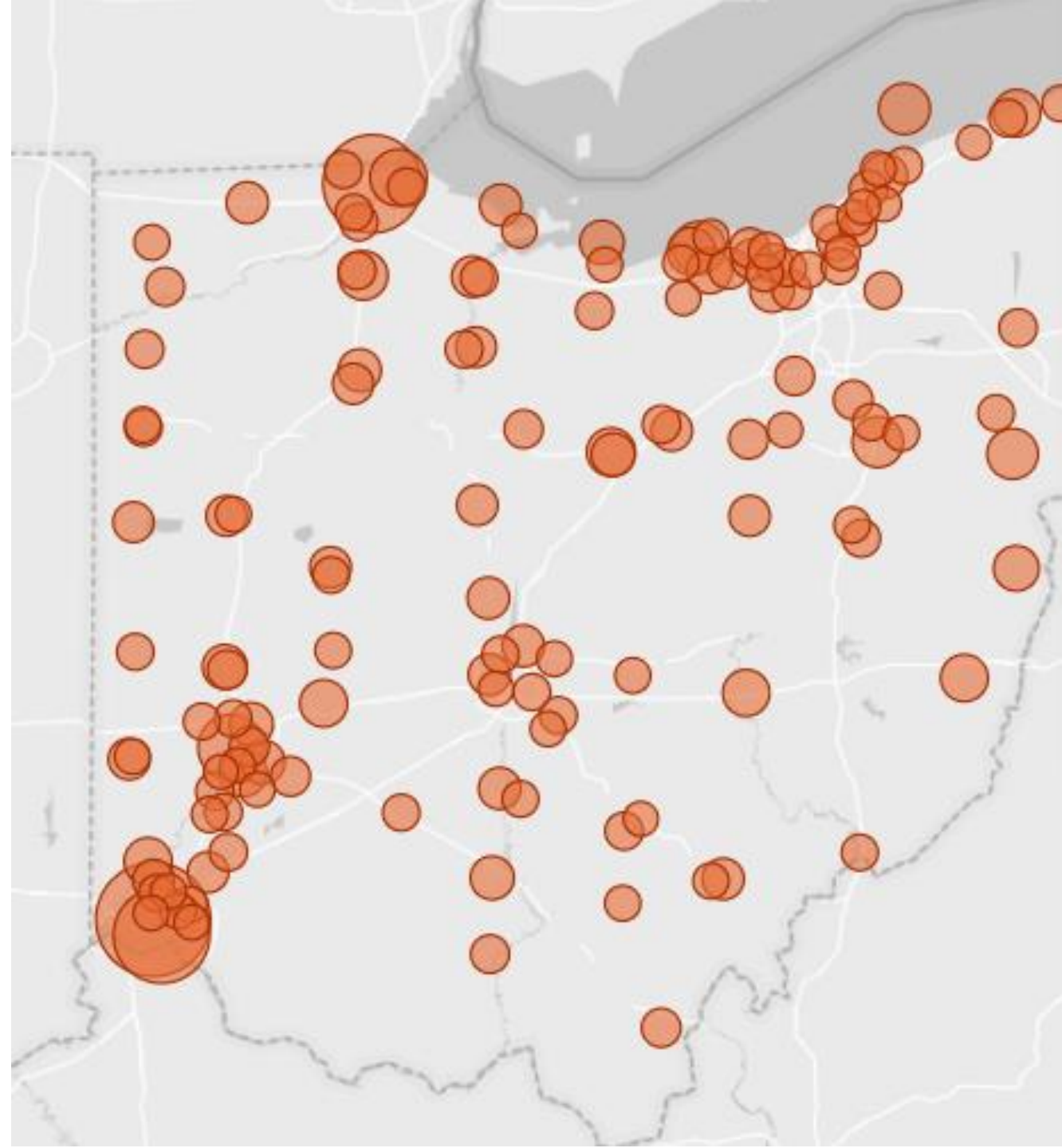
## Expanded Access to Recycling in Ohio



**1 Million households** gained access to recycling polypropylene

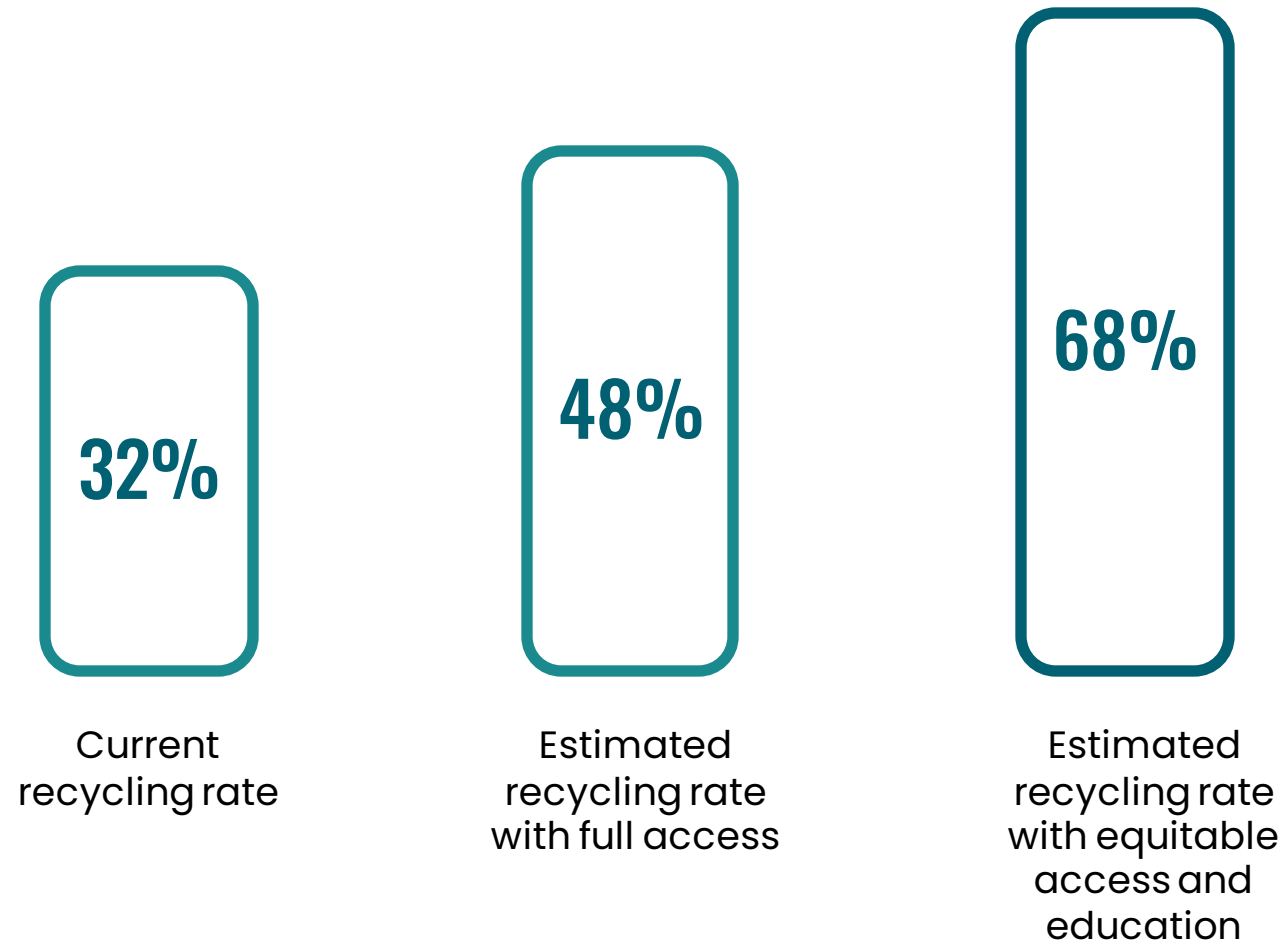


**\$1.4 Million in grant funds** to 2 MRFs





## Recycling Rates with Access and Education





How do we drive **national recycling rates** to levels on par with household recycling rates?

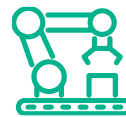
## Solutions



**Access:** Increasing access to recycling services



**Education:** Build public trust & confidence



**Industry:** Insist companies focus on packaging



**Policy:** Improve, advance and support implementation of policy at all levels of government



**Funding:** Investment in the Future





# Impacts of Policy in Colorado

Rigid Plastic recycling rate  
expected to increase from 13% to  
32% just from improved access.

### Expected to provide



**1.5 Million** households  
access to recycling services



**9,000** new jobs

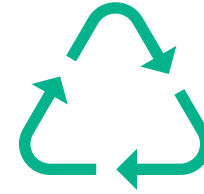


**250,000** tons of plastics currently  
landfilled will be recovered

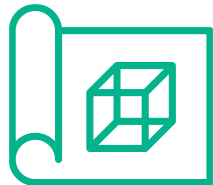




Plastic packaging rates can be improved and can be **expected** to improve, in particular because of policy



Consumers can be confident that what they put in their bin is **recycled** in the full sense



Non-recyclable plastics will decline; recyclables will increase



We have a domestic industry that is hungry for more plastics



Data has enabled states to set clearly defined targets and goals to drive meaningful progress towards a higher performing system



While we could always use better data – we know what it takes to improve the system

For more information:

## Contact us at:

✉ [bythenumbers@recyclingpartnership.org](mailto:bythenumbers@recyclingpartnership.org)

🖱 [recyclingpartnership.org](https://recyclingpartnership.org)



We mobilize people, data, and solutions across the value chain to unlock the environmental and economic benefits of recycling and a circular economy.