



WELCOME!

Please take a moment to introduce yourself in the chat.

- Where are you joining us from?
- What is your role?
- What are your most pressing recycling challenges?

Please continue to share your questions in the chat throughout the webinar.

The Center for Sustainable Behavior & Impact

Research & Insights Into Recycling Behavior Inside the Home

October 25, 2023



We mobilize people, data, and solutions across the value chain to reduce waste and our impact on the environment while also unlocking economic benefits.

People Intend to Recycle. We Must Clear the Way for Them to Act.



This webinar is brought to you by The Center for Sustainable Behavior & Impact

Learn more at recyclingpartnership.org/behavior-change/

Today's Speakers



Host

Louise Bruce

Managing Director

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Asami Tanimoto

Senior Business Systems &
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The Recycling Partnership



Elizabeth Schussler

Senior Director of Social
Change, Behavior & Impact

The Recycling Partnership



Tom Williams

Co-Founder

Point Forward



Brandon Berry

Social Psychologist
& Managing Partner

Point Forward



Alita Kane

Community
Program Manager

The Recycling Partnership

Data on Household Recycling Generation



Asami Tanimoto

Senior Business Systems & Analytics Manager
The Recycling Partnership

**People Intend to Recycle:
But What Happens in Reality**

**Average Single Family
Capture Rates in the U.S.**

**Measurement to Help
Understand Behavior**

Household Recycling Behavior by the Numbers





10 Households



Not all participate

- 7 Households



Participants are **NOT** perfect recyclers

- 60% of materials from 7 Households or 42% of materials from 10 Households



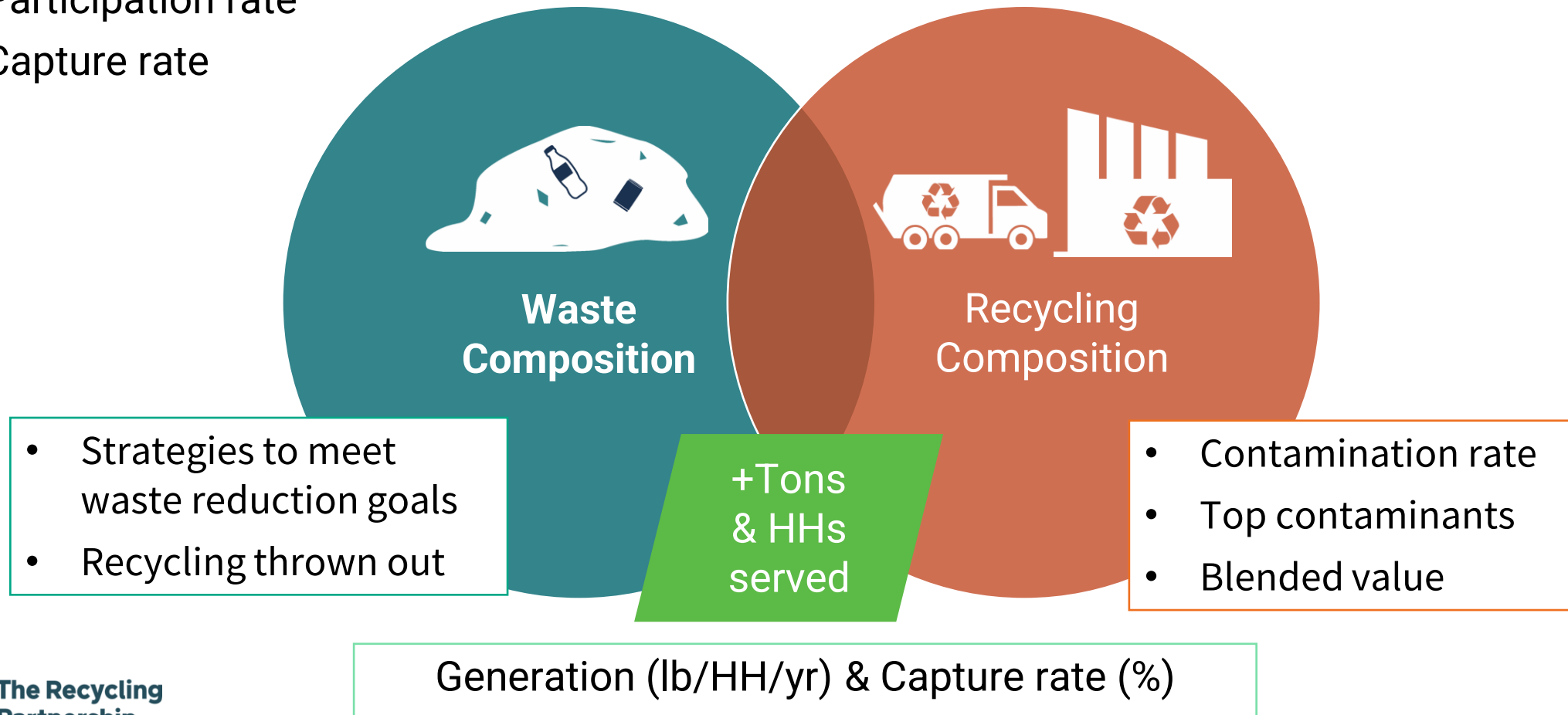
- “Participant” capture rate is higher than “Whole City” capture rate
- People behave differently with materials so capture rates are different

Participant Capture Rate



Recyclable Material Category	Whole City	Participant
Cardboard	71%	81%
Mixed Paper	53%	60%
Aseptic & Tabletop	36%	50%
PET Bottles & Jars	47%	55%
PET Non-bottles	40%	45%
HDPE Natural Bottles & Jars	56%	65%
HDPE Colored Bottles & Jars	48%	57%
PP Containers	24%	30%
Other Small Rigid	20%	34%
Bulky Rigid Plastics	26%	41%
Glass	57%	63%
Steel Cans	44%	49%
Aluminum Cans	44%	56%
Aluminum Foil & Trays	9%	18%
All Recyclable Materials	52%	61%

- Pounds collected per household
- Set out rate
- Participation rate
- Capture rate



CSBI Ethnographic Research of Recycling



Brandon Perry

Social Psychologist
& Managing Partner

Point Forward

Elizabeth Schussler

Senior Director of Social
Change, Behavior & Impact:

The Recycling Partnership

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**In-Home Studies: Highlight
& Strategic Opportunities**

Home-grown Systems

Good Flow

Drop-Off Items

In-Home Studies— Highlights & Strategic Opportunities

CSBI Ethnographic Research of Recycling



How do recyclables move through the home and what is needed to capture more?

- 16 households, San Diego and Columbus
- 2-hour home visits

How do people manage drop-off items and what is needed to route more to drop-off?

- 10 households, San Francisco Bay Area
- Home and drop-off visits



**Home-Grown
Systems**



Good Flow



**Drop-Off
Items**

Is “Twinning the Bin” the answer?

KEY FINDING:

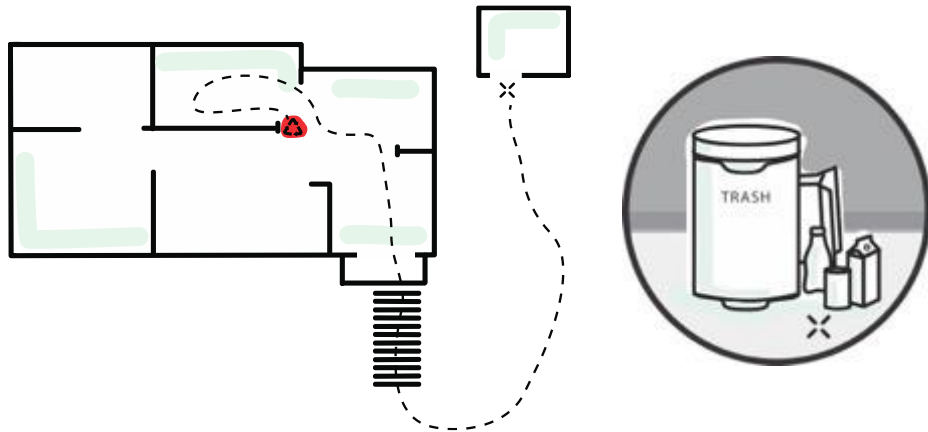
Households use home-grown recycling systems

Households develop their own home-grown systems for recycling—a set of routines including the configuration of bins and gathering spots, efficiency approaches, and logistical execution.





Home-grown Systems



1 CENTRALIZED, BIN-FREE

Recyclables gather on floor or counter without a bin. Taken to cart after meals or when leaving the home.

Advantages

- Always shows how much is there
- Messy appearance encourages frequent movement to cart
- Don't have to fill scarce space with another bin
- A sink-adjacent spot makes rinsing convenient

Disadvantages

- Area can look unsightly
- No visual cue to prompt household stragglers
- May require extra step of placing into a container to transport to cart



2 CENTRALIZED, CONTAINED

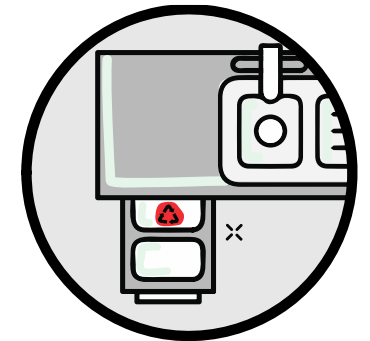
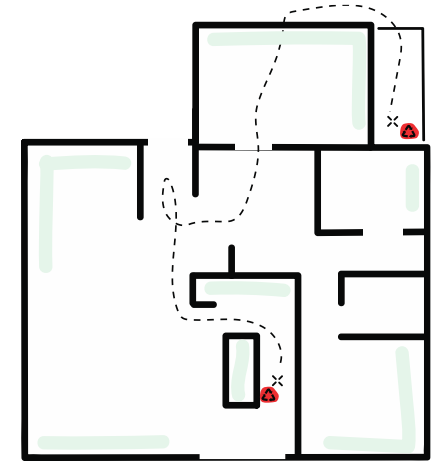
Recycling bin mirrors trash bin in a central location—they are thought of as a set.

Advantages

- Creates a pleasing visual symmetry that feels orderly
- The icky-ness of recyclables and trash is hidden
- Modern look, aesthetically elevates the kitchen

Disadvantages

- Looks just like trash bin, which might confuse family members or guests
- Doesn't show its fill level – a full bin can catch people off guard
- Recycling is more out-of-sight and out-of-mind





3 DISTRIBUTED GATHERING

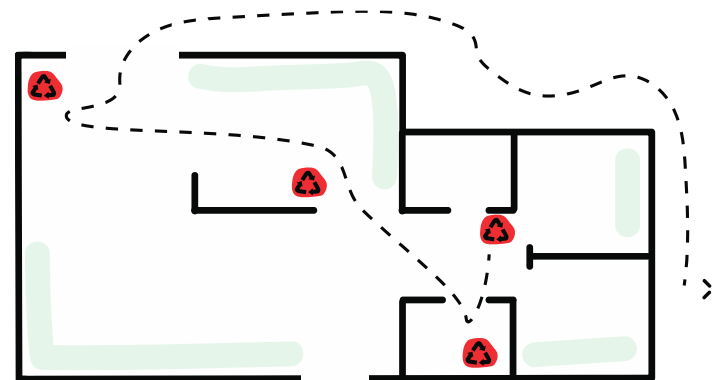
Multiple bins placed around the home for easy access and visibility

Advantages

- Many back-up containers if one fills up
- Multiple recycling cues around the house to prompt behavior
- Easy access anywhere in the house – less interruption to the flow of daily life

Disadvantages

- More bins to monitor from can feel like a bigger chore
- More containers take up scarce space around the home
- Visible recyclables can look unsightly and create a messy feeling





4 OUT-OF-SIGHT, ISOLATED

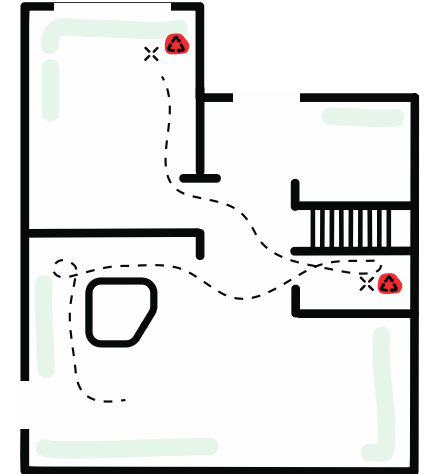
Recycling container in a location set apart from central living areas and away from trash bin, often in a laundry room

Advantages

- Saves scarce space in the kitchen area
- More acceptable if the bin is dirty and messy-looking
- Bins spaced well apart helps prevent placement errors

Disadvantages

- Less convenient, requires a special trip
- Can lead to an untidy build-up of recyclables before a trip to the bin
- Its fill level is more hidden and less top of mind



POLL: WHICH STYLE IS YOUR HOUSEHOLD?

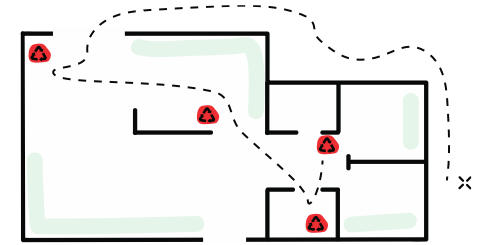
1 CENTRALIZED, BIN-FREE

Recyclables gathered without a bin. Taken to the cart frequently.



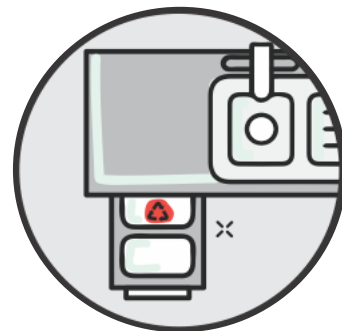
3 DISTRIBUTED GATHERING

Multiple bins or gathering spots for access and visibility.



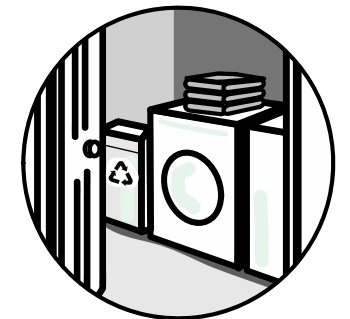
2 CENTRALIZED, CONTAINED

Recycling bin mirrors trash bin in central location.



4 OUT-OF-SIGHT, ISOLATED

Recycling container is out-of-sight & isolated from central living areas.

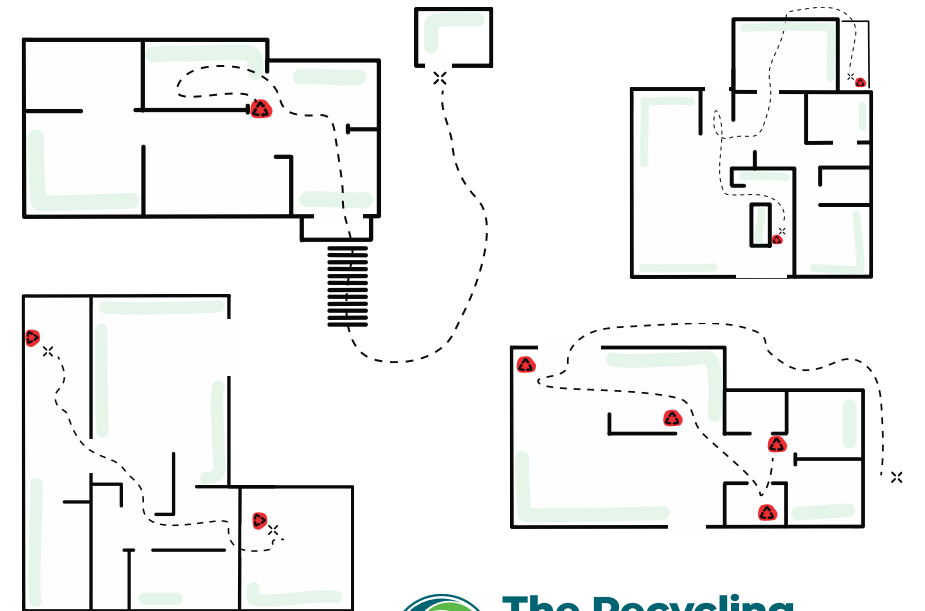


How do materials move through the home?

KEY FINDING:

Strong recyclers keep materials moving through their homes frequently and efficiently, creating a steady “flow” of recyclables to the cart.

Recycling isn't a dedicated once-a-week chore, but a fluid activity that weaves itself into other aspects of domestic life. Good flow minimizes build-up, log jams, and disorder.





Good Flow



Strong recyclers have **routines** that keep materials moving **through homes** and **toward the cart**, creating a **steady flow** of recyclables

Good flow households tend to:

- “Piggyback” recycling onto other routines
- Do ongoing monitoring of build-up
- Make frequent trips to the recycling cart
- Use labor-saving tools
- Have multiple family members who participate
- Feel a strong satisfaction from clearing recyclables out
- Choose containers that fit aesthetically and functionally
- Use containers that don’t look like trash bins



“This is going to sound crazy but why I like having recycling on the counter is because when you get rid of it, it's gone. It disappears. We don't have a big can sitting there. So, you see it, and you want to get rid of it.”

– Family in San Diego



Other households **don't** have good flow—there are more **build-ups** and **log-jams** of recycling materials.

Households with more stagnant flow tend to:

- Deal with recyclables at the last moment, just before pick-up
- Carts located out-of-the-way, behind locked gates or far from the home
- Have only one family member managing the process
- Lack work-simplifying tools
- Give-up on their recycling convictions and practices when overwhelmed
 - More recyclables ending up in the trash
 - More trash ending up in recycling
 - Dirty packages not sufficiently cleaned before being recycled



“Yeah, I would definitely say if things are starting to pile up in our house, I'll personally just throw things in the trash. Or if we have a lot and it doesn't all fit in the recycling, we'll throw things in the trash sometimes.”

- Family in San Diego



Drop-off

What problems do people face with drop-off?

KEY FINDINGS:

1 KNOWLEDGE GAPS

Which items are recyclable through drop-off programs?



2 LACK CONFIDENCE IN BINS

Where are the bins? Are the items really collected and recycled?



3 WEAK HABITS

Where should I collect these in my home? How can I remember to take them?





1



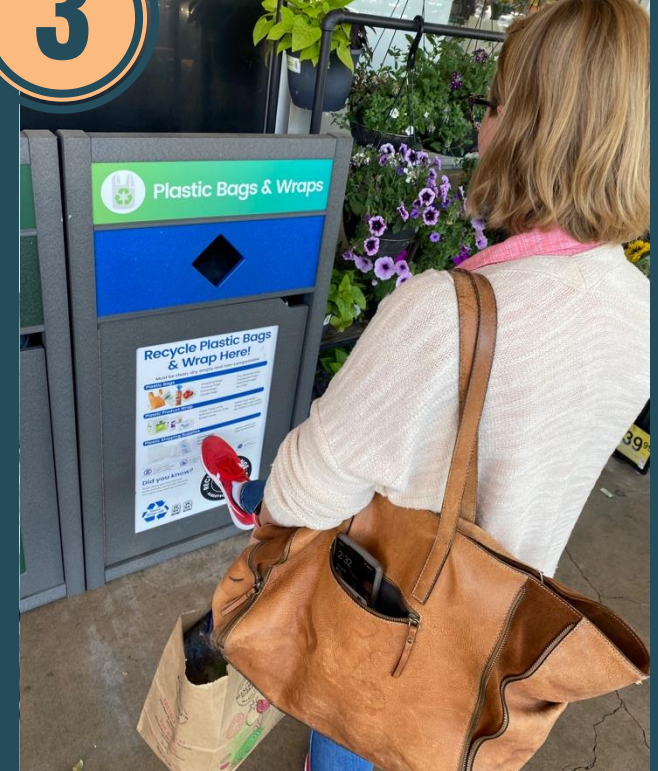
Honor but improve home-grown systems

2



Promote better flow out of the home

3



Support new habits for drop-off



Understand and validate what your community members are already doing:

1. Start asking people to walk you through their process.
2. Use the kinds of systems we discussed to guide conversations at events and help people feel like they're not doing it wrong.
3. Add a question about the number of bins or gathering spots in a home to your surveys.

Understanding the Impact of In Home Bins on-the-ground



Alita Kane

Community Program Manager
The Recycling Partnership

People Intend to Recycle: We Must Clear the Way for Them to Act

Cincinnati, OH in-field pilot






In-Field Pilots in Baldwin Park, CA and Elgin, IL

Understanding the Impact of In Home Bins on-the-ground





Improving Access Improves Capture, *and* Improving Education, Engagement, Behaviors Is Needed for Maximum Capture

	 Drop-Off Only	 Curbside Opt-In	 Curbside in Bins	 Curbside in Carts, No Education	 Curbside in Carts, Good Education
Avg Pounds per HH Captured Annually	Minimal	100	200	375	400+
Stepped Behavior Change	Add Access or Drop-Off	Universal Access	Cart Access	Basic Education	Evidence-Based Tailored Engagement

On average, single-family households generate ~750-800lbs of recyclables each year.

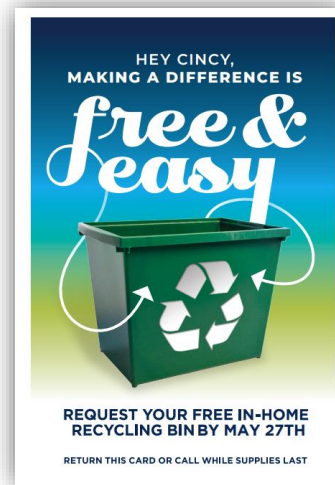


Community Snapshot

- Universal recycling in carts
- Every other week recycling service

Study Overview

- Cost Per Household
 - \$20.45/HH – requested a bin
 - \$3.80/HH- did not request a bin
- 9,000 HH
 - One intervention group (5,000 HH)
 - Motivational Mailers
 - Option of in-home bin
 - Control group (4,000 HH)
- Baseline and post measurement of recycling cart set out



WE'VE MADE IT EASIER TO RECYCLE
AND EASIER TO MAKE A DIFFERENCE FOR CINCY!



IN-HOME RECYCLING KIT BENEFITS:

- ✓ RECYCLE WITH FEWER TRIPS OUTSIDE
- ✓ BAG-FREE RECYCLING
- ✓ KEEPS RECYCLING OFF YOUR COUNTER

Use this small bin inside your home to help collect the right recyclables.

Transfer loose recyclables (no bags) into your big green Cincinnati Recycling cart.

Roll your big green recycling cart to the curb on collection day (every other week on trash day).



YOUR RECYCLING ADDS UP.
ACT TODAY FOR TOMORROW.

3 EASY WAYS TO REQUEST YOUR FREE IN-HOME RECYCLING KIT
(choose one)

- ✉ Return the attached card. No stamp needed!
- ☎ Call at (513) 352-3200.
- 📱 Visit CincyRecyclesProject.org



Scan this code with your smartphone.

Allow 3-5 weeks for your request to be processed and our team to deliver your kit contactless to your home.

Request by May 13th.



DID YOU KNOW?
Recycled bottles and tubs become new bottles, clothing, carpet, and more.

city of CINCINNATI RECYCLES

This project funded in part by grants from The Recycling Partnership SOLVING FOR CIRCULARITY





Pilot

- 5 Mailers For All Intervention Group Households
 - Free in-home recycling bin by request
 - 20% of residents requested a bin
 - 62% from the BRM
 - Two Recycling Calendars – Reminder to act
 - Two Motivational Messages – Empathetic and Logical



1st



2nd & 3rd



4th

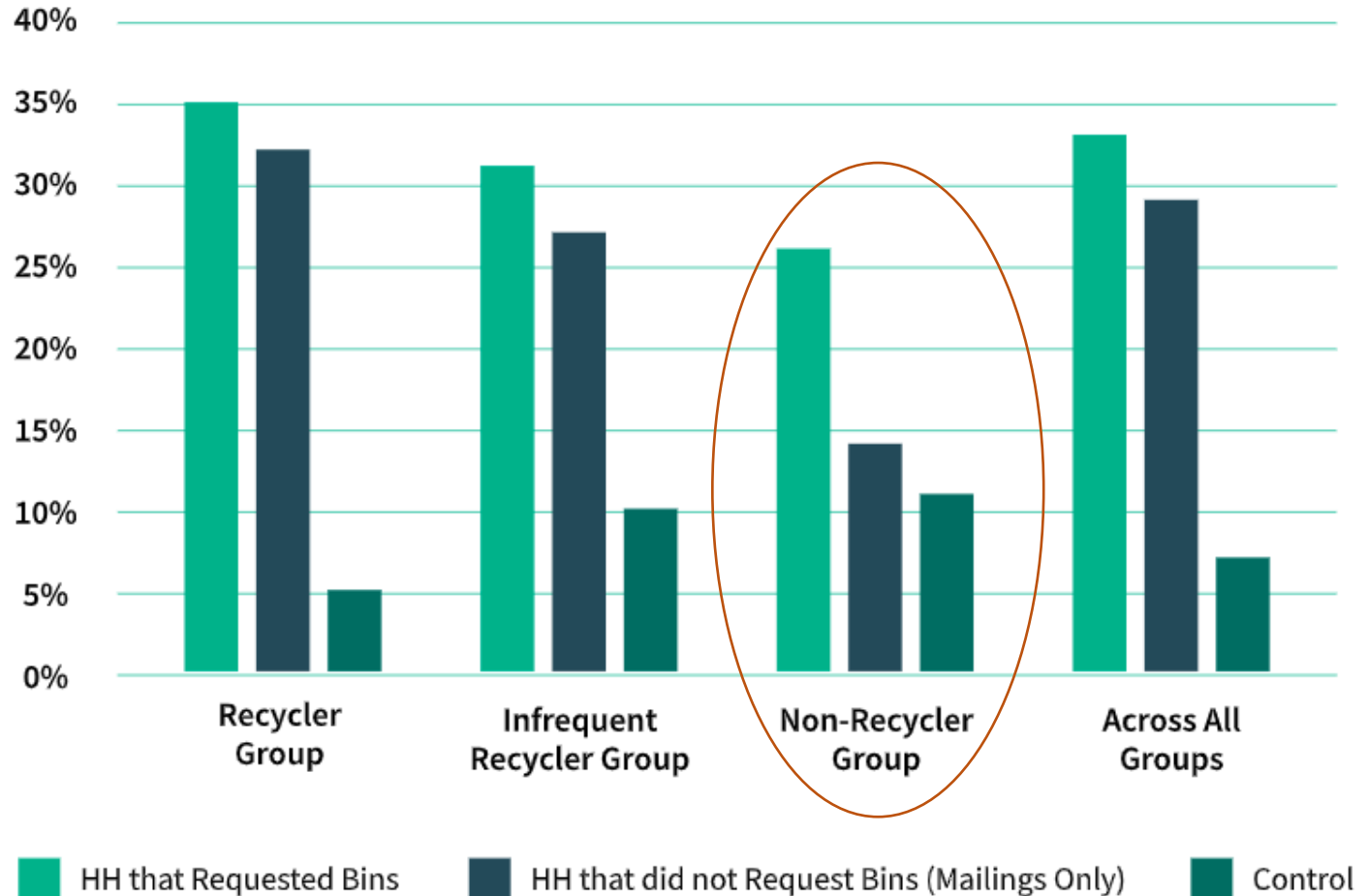


5th



Average Increase in Recycling Set Out

Difference Between the Average Collection Set Out in Baseline and Post Intervention Phase



Findings

- **Recycling Households**
 - Mailers significantly increased recycling participation
 - The in-home bins contributed to a small increase in set out beyond the mailers only.
- **Non-Recycling Households**
 - Mailers alone was not enough to change behavior
 - Households that opted to receive an in-home bin helped some non-recyclers start recycling.

- Most residents were excited about in home bins
- Some residents prefer their own system
- Residents that universally received a recycling bin in 2021, reported they still use the bin to collect recycling over a year later.



*"I got the postcard and ordered it, and I was really excited about getting it, because it had replaced this giant cardboard box that I had. So, it takes up a little bit less room, and I don't have to keep taping it back together."
Focus Group Participant*

*"That would not work in my house, because I just don't have room... but I have something similar, where I just have a little tote box sitting on my kitchen counter... I have no space for an inside bin, although I think it's a good idea."
Focus Group Participant*



Community Snapshot

- Universal recycling in carts
- Weekly recycling service
- Collection of over 500 pounds/household of recyclables

Study Overview

- Cost Per Household
 - Elgin - \$.31/HH, \$6.20/HH
 - Baldwin Park - \$.44/HH , \$18.61/HH
- 35,000 HH
- Intervention Groups (23,000 HH)
 - 1: In home bin with motivational messaging
 - 2: Motivational messaging only by mail
 - Control group (12,000 HH)
- Baseline and post measurement of recycling route tons, MRF audits and community survey





Pilot

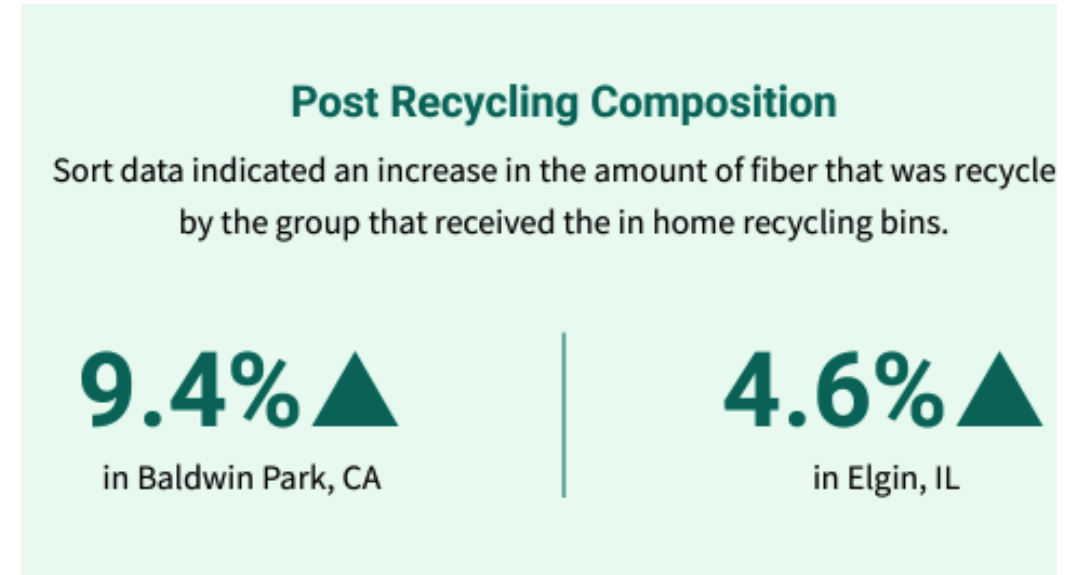
- In-Home Recycling Bin and Mailer vs. Mailer Only Intervention Groups – Focus on Plastic Capture
 - In-Home Recycling Bin and Mailer
 - Automatic delivery of an in-home recycling bin with FAQ
 - Delivery of an info card mailer to households that received an in-home bin
 - Mailer Only
 - Same info card mailer to households that did not receive a bin
- Used AppSheet to create an app that tracked the delivery of all in-home bins

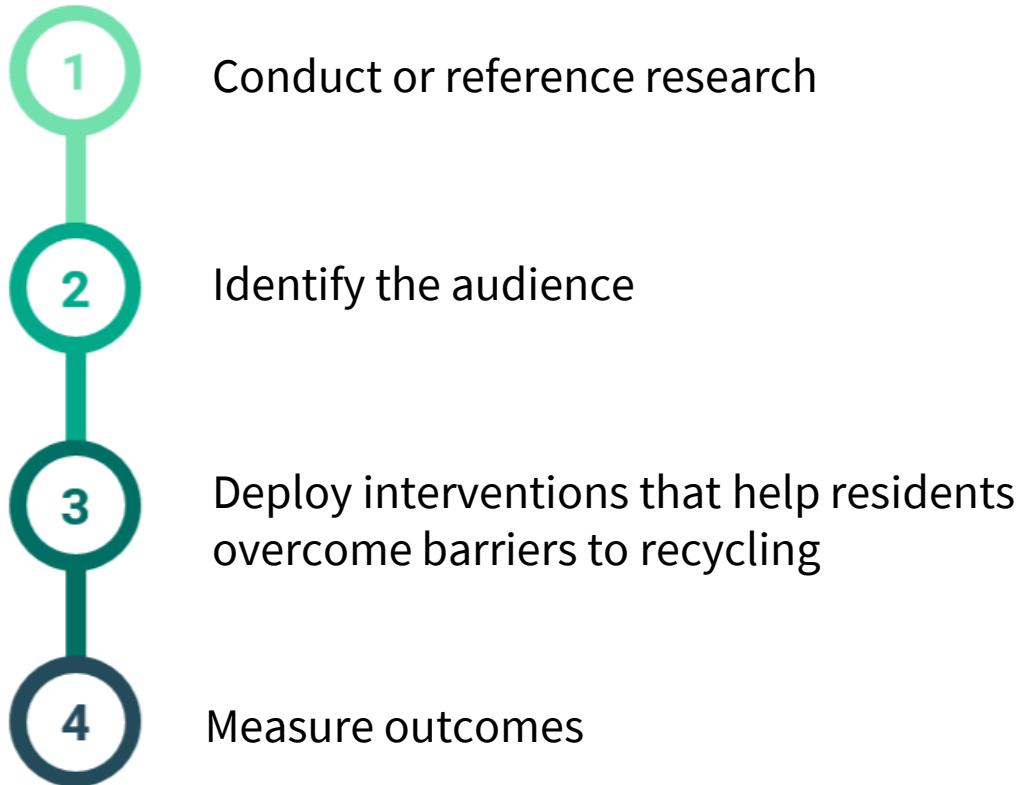




Findings

- **Composition studies and Tonnage Analysis**
 - No increase in the focus material
 - There was an increase in fiber
 - No increase in tonnage
- **Community Survey**
 - Residents who received a bin:
 - Feel more confident in their recycling program
 - Had the greatest recall for campaign materials
 - Reported recycling plastic bottles, containers, and jugs more than any other group





Role of In-Home Bins with Motivational Messaging

- Supporting non-recycling households with in home bins may increase participation.
- For residents that are already recycling, frequent delivery of motivational messaging and information could be the most cost-effective way to increase participation and capture.



Key Insights





Scan here to get involved and download our research.

<https://recyclingpartnership.org/recycling-behavior-home-webinar>

