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Why are Oops! Tags so Popular and Do They Work?

for SWANA Canadian Symposium, April 2022
Trail Maps – Navigating and Communicating

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STUDY'S FOCUS AND APPROACH

CORE QUESTIONS

- What can be done to get cleaner materials?
- What makes sense to recycle (collect & process)?
- Is there a sustainable recycling structure?

METHODS

- Literature review
- Case studies & interviews
- Nationwide community survey
- SME and stakeholder interviews
- Data & analysis
- Modeling collection & processing



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STUDY'S FOCUS AND APPROACH

40 STRATEGIES IN 7 GROUPS

Near, medium, and long-term



1. Program Design & Materials



4. Contracting



6. Government & Industry



2. Education



5. Processing



7. National / State Policy



3. Collection

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Developing Outreach

The first step in developing outreach is to determine the message the community needs. You can do this by looking at:

- What is the problem
 - Recyclable materials left in the waste stream
 - Contaminants in the recycling stream
- Trusted Messenger
- New program or material instructions- Focus Groups

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Simplify the Recycling Message

- Republic's "Recycling Simplified" for teachers
 - OCC, Paper, Metal Cans, Plastic Bottles & Jugs
 - Contamination dropped from 38% to 30%
- Monroe County, NY- "Refresh Recycling"
 - Paper, Plastic, Metal, & Glass
 - Current Recycling Rate: 40%
 - Current Contamination Rate: 10%



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Other Tips



- MRF-Shed
- Focus on the "Don'ts" instead of the "Dos"
- Ignore the "numbers"- MA Statewide Recycle Smart
 - Metal food and beverage cans
 - Plastic bottles, jars, jugs, and tubs
 - Glass bottles and jars
 - Paper and cardboard

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Case Study: Sustainability Study- 2020






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Oops!

 **Your RECYCLING needs some fixing!**

Please leave these items out.

<input type="checkbox"/>  Plastic Bags	<input type="checkbox"/>  Greasy Pizza Box
<input type="checkbox"/>  Single Use Coffee Cups or Plastic Cups	<input type="checkbox"/>  Foam Containers or Packaging
<input type="checkbox"/>  Frozen Food Boxes	<input type="checkbox"/>  Shredded Paper

☐ **BAGGED RECYCLING!!!**

- ☐ Paper Towels, receipts, tissues, clothing
- ☐ Scrap Metal, wood, home furnishings
- ☐ Tangles- hoses, cords, rope
- ☐ Food, Liquids, Trash
- ☐ Bubble Wrap & Mailers, Plastic Wrapping

Yes!

☒ You did GREAT!

Keep RECYCLING these!

 Paper, Cardboard, magazines, books	 Cartons and Containers (not frozen)
 Clean aluminum & metal cans, foil, empty spray cans	 Glass Bottles & Jars (rinsed off)
 Clamshells & Rigid Plastics	 Plastic Bottles, Tubs, Jugs & Jars (rinsed off)

For more information go to:
<https://www.spcwarr.org/sera/services/trash-recycling>

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Goals

- Can we change attitudes, knowledge, and behavior through:
- **Goal 1-** A mailed postcard/flyer
 - Energy, Water- *not presented*
 - Recycling
- **Goal 2-** Through personalized education (Oops tags)
 - Recycling Only



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Difference between 3 neighborhoods

**Sample Area 1: Yellow
Postcard
Oops! Tags (x2)**

**Sample Area 2: Blue
Postcard**

**Sample Area 3: Green
Control
(No Outreach)**

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- Web survey asked what to do with specific basic and “tricky” items – accepted and not
- Asked about some attitudes, behavior
- Focus Groups(logos, slogans)
- Outreach then focused on what is correct for basic and tricky

Which curbside cart do these materials go into in Superior?

Question Items	Correct Cart	Description
Coffee Cups (to-go type)	TRASH	They have a plastic lining / are a combo material
Plastic Packaging	TRASH	Potato Chip, Bubble wrap, vegetable types
Empty Metal Aerosol Cans	RECYCLE!	Spray paint/ air freshener - The metal is recyclable (no lid)
Fast Food cups	TRASH	paper or thin plastic- Like for Soda are often combo or low value plastic
Plastic Milk Jugs	RECYCLE!	Please don't flatten- scanners can't see them
Plastic Cups	TRASH	(Red Solo types) / low value plastic
Juice or Milk Cartons	RECYCLE!	paper/ aseptic
Pizza box (with food/ grease)	TRASH	Only CLEAN Pizza boxes are OK to recycle.
Shredded Paper	TRASH	OR take to Superior's recycling event or compost
Tubes (Toothpaste/Lotion)	TRASH	Usually combo materials

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Materials Improved by Outreach

	% Clean			Bagged Recycling			Amazon Mailers			Plastic Bags			Trash		
	Oops Tags	Postcards Only	Control	Oops Tags	Postcards Only	Control	Oops Tags	Postcards Only	Control	Oops Tags	Postcards Only	Control	Oops Tags	Postcards Only	Control
Pre	23%	39%	29%	10%	6%	n/a	11%	2%	n/a	32%	31%	29%	6%	6%	6%
Post	42%	44%	18%	8%	10%	19%	2%	13%	13%	9%	18%	13%	3%	5%	13%
Pct Diff	20%	5%	-12%	2%	-4%		8%	-11%		23%	14%	17%	3%	1%	-6%
Net Pct Diff	32%	16%								6%	-3%		9%	8%	

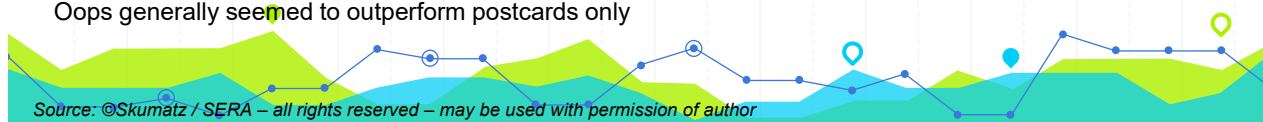
Oops tag neighborhood had best improvement in CLEAN recycling bins: 32% net increase
Postcards also improved 16% (lower effort/budget), and control area worsened.

Oops tags reduced Plastic bag contamination from about 30% to less than 10% in Oops area

Plastic bags are a problem contaminant

Other individual commodities were more difficult to tell; small sample and measurement.

Oops generally seemed to outperform postcards only



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Materials Improved by Outreach

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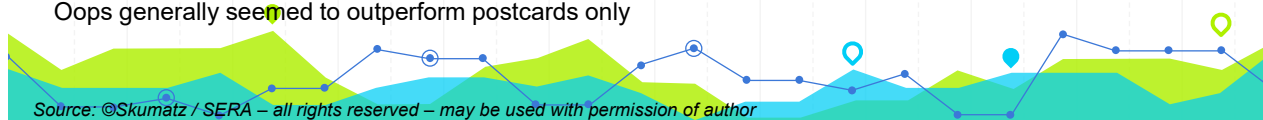
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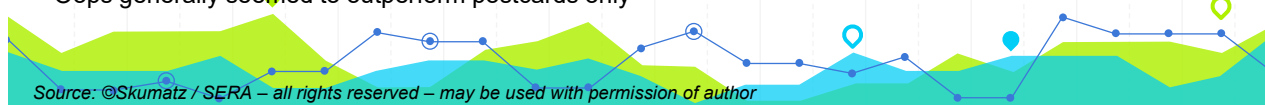
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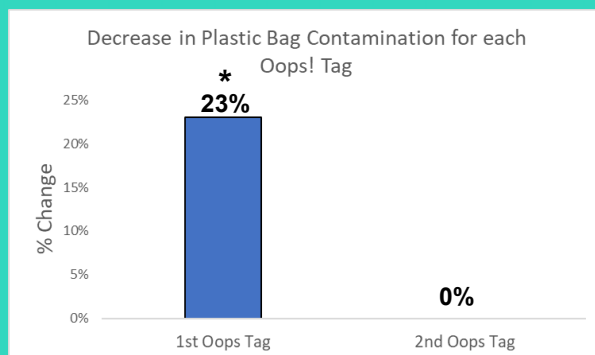
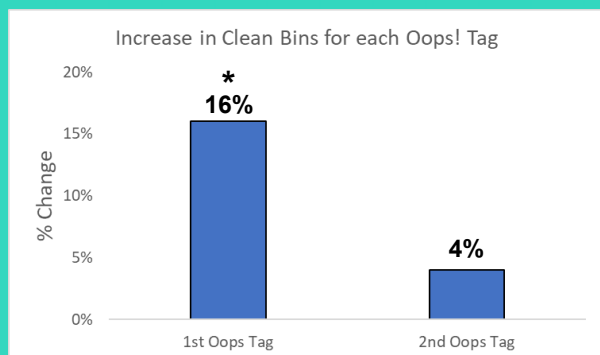
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Knowledge of Correct Recyclables (Survey) Pre/ Post Education-Correct Answers for Recyclability

Area> Survey>	(Y) Oops + PC	(Y) Oops + PC	(B) Postcards	(B) Postcards	(G) Control	(G) Control
	Pre	Post	Pre	Post	Pre	Post
No Plastic Bags	89%	97%	85%	90%	86%	90%
Clear Clamshells Allowed	66%	74%	74%	74%	81%	66%
No Single Use Coffee Cups	56%	82%	63%	71%	62%	56%
No Frozen Food Containers	54%	81%	43%	56%	45%	60%
Metal Lids Recycled Off	72%	76%	71%	77%	74%	74%
Plastic Lids Left ON	41%	66%	51%	60%	44%	50%
No Shredded Paper	60%	82%	71%	79%	70%	74%
Clean, Balled Aluminum Allowed	64%	82%	71%	75%	73%	79%
No Foam / Take-out	86%	90%	78%	81%	84%	87%

- Oops tag + Postcards (Yellow) improved the most and in more items
- Control (Green) improved in some areas, but got worse in others.

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Summary - Contamination by Material

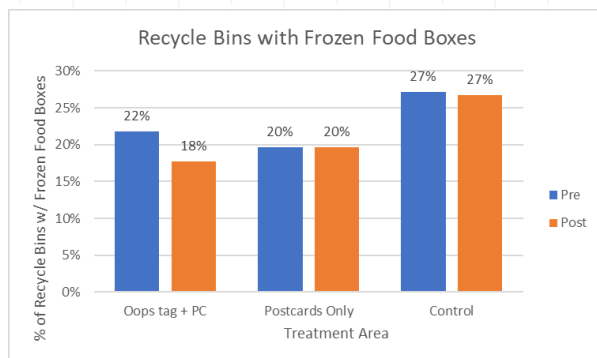
Non-Problem Materials (under 10% contamination during study)	
Coffee Cups	Shredded Paper
Greasy Pizza Boxes	Crushed Containers
Problems Fixed by Outreach (contamination dropped to less than 10% in outreach areas)	
Postcard Effect	Oops Tag Effect
Trash	Overall Contamination
Bagged Recycling	Amazon Bubble Mailers
	Plastic Bags
Problems not Fixed by Outreach (Contamination remained above 10% in outreach areas)	
Frozen Food Boxes	
Non-Recyclable Paper	
Wrappers/Film	
Foam/Take-out*	* Contamination was under 10% but increased during study
Plastic Single-Use Cups*	

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Variances in Knowledge vs. Behavior

Frozen Food Boxes



← Sort Results
(no behavior change)

Survey Results →
(Inc in knowledge)

No Frozen Food Containers	
(Y) Oop+PC Pre	54%
(Y) Oop+PC Post	81%
(B) Postcards Pre	43%
(B) Postcards Post	56%
(G) Control Pre	45%
(G) Control Post	60%

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LESSONS



- Low Budget Social Marketing can make a difference!
- Postcards alone can change behaviors
- Adding Oops Tags/Individual feedback
- Presence may have had some effect
 - Social Policing
- Knowledge won't necessarily reflect behavior
- Incentives can be important for survey response rate
- Research and outreach can be very low cost

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LESSONS - Incentives



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Why are Oops! Tags so Popular?

Oops! Tag Program Results Across the US

Community	Pre Contam. Rate	Post Contam. Rate	Amount Program Reduction	Percent Reduction	Details
Marysville, OH	91%	12%	79%	87%	3 Rounds of Oops! Tags
Bothell, WA				78%	Oops! Tags
Newport News, VA	28%	10%	18%	64%	Oops! Tags and rejection
Phoenix, AZ	70%	30%	40%	57%	Oops! Tags
Atlanta, GA	37%	16%	21%	57%	Oops! Tags
Newton, MA	18%	9%	9%	50%	Cart tagging and rejection
Medford, OR	13%	7%	6%	46%	Cart Tagging and rejection
Cincinnati, OH	19%	12%	7%	37%	5 Rounds of Oops! Tags
Chicago, IL				32%	Oops! Tags and postcards
Superior, CO				20%	2 Rounds Oops! Tags
Lowell, MA	30%	24%	6%	20%	Cart Tagging
Washington D.C.				19%	Oops! Tags
Spokane, WA				13%	Oops! Tags and postcards
Napa, CA				8%	Cart Tagging and Postcard- Plastic bag target

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Do Oops! Tags Work?

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- Post Contamination Rate?
- Retained Behavior?
- Embedded confusion?

Community	Pre Contam. Rate	Post Contam. Rate	Amount Program Reduction	Percent Reduction	Details
OH	91%	12%	79%	87%	3 Rounds of Oops! Tags
WA				78%	Oops! Tags
VA	28%	10%	18%	64%	Oops! Tags and rejection
AZ	70%	30%	40%	57%	Oops! Tags
GA	37%	16%	21%	57%	Oops! Tags
MA	18%	9%	9%	50%	Cart tagging and rejection
OR	13%	7%	6%	46%	Cart Tagging and rejection
OH	19%	12%	7%	37%	5 Rounds of Oops! Tags
IL				32%	Oops! Tags and postcards
MA	30%	24%	6%	20%	Cart Tagging
CO				20%	2 Rounds Oops! Tags
D.C.				19%	Oops! Tags
WA				13%	Oops! Tags and postcards
CA				8%	Cart Tagging and Postcard- Plastic bag target

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Resources for Oops! Tags

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WHAT YOU'LL NEED

CONTRACT
CONSIDERATIONS

MRF SURVEY

WORKSHEETS

- ☐ Your recycling hauler contract
- ☐ Your MRF contract (if separate from hauling)

- Recycling Partnership - "Anti-Contamination Recycling Kit"
 - https://recyclingpartnership.org/wp-content/uploads/2018/05/Anti-Contamination-Toolkit_EDITED.pdf
- North Carolina's DEQ- "Cart Tagging 101"
 - https://files.nc.gov/ncdeq/Environmental%20Assistance%20and%20Customer%20Service/Education%20and%20Outreach/Recycling_Outreach/Cart-Tagging-101-Handout.pdf

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THANKS!

Questions?

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