

# ENCOURAGING BETTER CURBSIDE RECYCLING BEHAVIORS



#KnowWhattothrow – Recycle right, don't get bagged! © City of Ft. Worth, TX. Used with permission.

The issue of contamination in curbside recycling programs has grown in importance in recent years as its costs and safety impacts on recyclables processing at material recovery facilities (MRFs) become more widely recognized and better understood.

To address this issue, many state and local governments have implemented “recycle right” programs that provide clearer and simplified instructions to residents on what recyclables are included in their curbside programs. In addition, national organizations such as The Recycling Partnership have developed *Recycling Anti-Contamination Kits* that are made available free of charge to recycling program managers and have provided grants to numerous communities to support cart implementation and inspection programs. SWANA appreciates and supports the efforts of these organizations and governments to address the curbside recycling contamination issue.

In March 2021, the SWANA Applied Research Foundation (ARF) published a report, *Reducing Contamination in Curbside Recycling Programs*. This report showed that residents participating in curbside recycling programs can be divided into three groups: high-performers, learners, and under-performers. The majority of curbside recycling contamination in the programs analyzed was attributable to the under-performers group. It was concluded that, while education programs can positively impact the high-performers and learners groups, they are generally ineffective in changing the recycling behaviors of the under-performers group. The primary strategies that have been found to be effective in reducing recycling contamination from this group involve non-servicing and/or pulling contaminated carts, and issuing cart contamination fines.

This new report is being published as a companion to the report published in March 2021. The purpose of this report is to present the costs and effectiveness of educational program options designed to address and improve recycling behaviors of high-performers and learners groups who want to participate correctly in curbside recycling programs. Findings and conclusions of this study regarding the costs and effectiveness of curbside recycling public outreach campaign options include the following:

- The Recycling Partnership recommends communities implement four strategies to reduce curbside recycling contamination: cart inspection and tagging, contaminated cart rejection, direct mailing; and general advertising. A fifth strategy, social media outreach, is also recommended and commonly utilized. This ARF report provides summaries and findings regarding the cost effectiveness of each strategy.
- A research study published in 2020 by the Cascadia Consulting Group found that reliable data on the effectiveness of public outreach strategies is limited or non-existent. Cascadia also found that, for all of the communities in its study for which data was available, 51 percent reported having a dedicated recycling outreach budget and spending an average of \$1.16 per household per year. These costs do not include the costs of cart inspection and tagging programs, which are estimated to cost \$1.50–\$2.50 per household per year.
- In 2021, Mecklenburg County, NC spent about \$364,000 (or \$0.78 per household) on its public outreach program to address contamination of single-stream recyclables being processed at the county's MRF.
- The Recycling Partnership has concluded providing residents with direct feedback through cart tagging is a critical component of effective anti-contamination programs. The Partnership also concluded that programs relying on education alone are not effective in addressing contamination.
- In Snohomish County, WA, Waste Management employed the Cascadia Consulting Group in 2018 to test the effectiveness of two types of cart tagging: generic cart tagging (without cart inspection), and individualized cart tagging (following cart inspection). The study concluded generic cart tagging without cart inspection to be as effective in addressing contamination as individualized cart inspection and tagging.
- A cart inspection and removal program implemented in 2019 in Jackson County, OR resulted in a 21 percent decrease in contamination.
- The costs of a cart inspection program in Fort Worth, TX, which utilized six cart inspection personnel, was estimated by the city's Assistant Director for Public Services at \$500,000 in 2021. In comparison, savings from reduced contamination were estimated to be about \$475,000 per year.
- Direct mailing of contamination-related postcards to residents is recommended by The Recycling Partnership. This option is considered to be relatively inexpensive when compared to other outreach options, and can cost less than \$0.50 per postcard mailed.
- The city of Napa, CA tested the effectiveness of using postcards to address recycling contamination issues in 2019. However, it found that the postcard outreach did not result in a measurable change in recycling contamination rates.

The full report, *Encouraging Better Curbside Recycling Behaviors* is currently only available to SWANA ARF subscribers. SWANA members receive free access to ARF industry reports one year after publication.<sup>1</sup>

<sup>1</sup> For more information on the SWANA Applied Research Foundation, contact Jeremy K. O'Brien, P.E., Director of Applied Research at SWANA at [jobrien@swana.org](mailto:jobrien@swana.org), or 704-906-7269.