

MILWAUKEE (WI) 2015 WRAP CAMPAIGN EVALUATION REPORT

*Prepared by Moore Recycling Associates for
the American Chemistry Council*

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*“Recycling
Plastic Film
Beyond
Bags”*

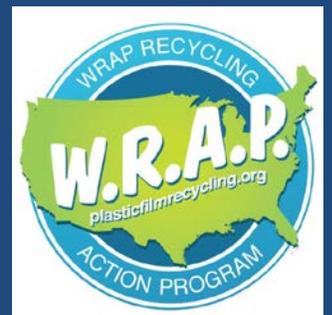


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Introduction

The state of Wisconsin identified improving recycling of plastic bags and film as a statewide goal in 2012. This Milwaukee campaign was a part of broader statewide public-private partnership between the American Chemistry Council's (ACC) Flexible Film Recycling Group (FFRG), the Wisconsin Department of Natural Resources (WI DNR), and the Sustainable Packaging Coalition (SPC) known as "Wisconsin WRAP (Wrap Recycling Action Project): Recycling Film Beyond Bags." The City of Milwaukee, Trex Company, Bemis, and SC Johnson completed the Project Team. The goal of the campaign was to test tactics to increase consumer awareness and improve opportunities to recycle plastic film packaging beyond bags in select Milwaukee area stores.

The Campaign

This campaign, supported by Moore Recycling Associates with the Project Team, was conducted with 10 Roundy's stores in the Milwaukee area in the spring of 2015. The campaign followed a prior collaboration with Roundy's in the fall of 2013, from which the "pre-campaign" survey data was collected. Additionally, the partners determined campaign methodology based on lessons learned during the initial 2013 collaboration, including direct delivery of campaign materials and coordination with store managers.

The 2015 data was collected in two parts:

1. An eight and a half week Baseline Phase¹
2. An eight-week Campaign Phase²

Key messages of the campaign:

- Plastic bags and wraps do not go in curbside recycling in the Milwaukee area—instead they should be returned to participating retailers, like Roundy's, for recycling.
- Consumers can recycle clean and dry "beyond the bag" plastic packaging material, including: bags from newspapers, produce, and bread; dry cleaning wraps; and product overwrap from bulk products (cases of water bottles, bathroom tissue, paper towels, etc.).

¹ Period of collecting bags and film before campaign materials were placed in stores.

² Period of collecting bags and film after campaign materials (new bins with signage and bag stuffers) were placed in stores.

Image 1: Bag Stuffers



Bag stuffers distributed to customers at the participating Roundy's stores.

-Photo by C. Beimborn

- Plastic film and bags are valuable material and can be recycled into products such as new grocery bags, benches, and composite decking.

The campaign sought to use easily replicable materials and tactics to increase consumer awareness of and participation in recycling bags and film with the goal of generating measurable results. The primary activities consisted of placing new collection bins in stores clearly marked with “beyond the bag” signage, shown in Image 2 and flyers, shown in Image 1, distributed directly to customers in their carryout bags (bag stuffers). Additional support came from the Project Team that issued press releases and social media promotion.

Data Collection and Methods

This report presents campaign evaluation results gathered through site visits, material audits, customer interviews conducted by C. Beimborn Consulting and the City of Milwaukee's Recycling Assistant, and bag/bale audits conducted by Trex and Bergner Associates.

WRAP representatives conducted site visits to verify proper implementation of campaign materials and guidelines, and provided feedback as appropriate. Surveys tracked customer knowledge and the effectiveness of the pilot in directing consumer behavior. The bag counts and bale/bag audits were used to track any increase in material collection and changes in material type and/or contamination. Green (pre-campaign) and blue (campaign) bags were used during the two phases of data collection to streamline this process.

Image 2: Recycling Bins



Old rectangular (l) and new (r) film recycling bin provided by Trex to stores participating in the 2015 campaign.

-Photos by W. Kratz and C. Beimborn

Methodology

Locations

Six stores in the City of Milwaukee and one each from the neighboring communities of Glendale, Wauwatosa, West Allis, and West Milwaukee were selected for the campaign. All were Roundy's stores, including Pick 'n Save and Metro Market stores.

Criteria for picking the ten stores:

1. Stores with a single main entrance or entrances within sight of each other were given priority for selection to test the use of new bins.

2. Stores that had not done significant in-store outreach to promote bag and film recycling in recent years were targeted so that results could be readily attributed to this campaign.

Site Visit Procedure

Site visits took place in two phases: baseline visits and campaign period visits. The site visits were important to verify that bin liner bags of designated colors were being used as directed, to verify that recycling bins were near trash receptacles to reduce contamination, to gauge and document any contaminants or “beyond the bag” material in the bins, and to interact with store staff to answer questions or provide feedback. Observations were recorded and Store Directors were notified when improper use of designated bag liners or placement of bins was observed.

WRAP consultants conducted twenty-three baseline visits; including two per site with additional follow-up visits to three stores where errors were observed during the second visit. Nineteen site visits were conducted during the campaign phase, with each store being visited at least once. Additional visits were conducted to follow up on suggestions given by the WRAP Project Team. Phone calls also were used to communicate with Store Directors.

Liner Bag Counts and Audits

The ten stores in this pilot were directed to use colored bin liners (provided by WRAP) so that the material collected during the two phases could be easily identified and distinguished from material collected in the storerooms or from other stores. Green bin liners were used for the baseline phase and blue bin liners were used during the campaign phase. Additionally, store staff was instructed to empty the bins when full, use a new liner when removing the old one, and to not add additional material from other bins or the back of the store.

At the end of the baseline period, unused green bags were collected and counted to determine how many bags were used. The Trex Company audited the material in the store-collected green bags for material weight, type, and any contamination at its manufacturing facility in Virginia. Stores were then given blue liner bags for the campaign phase to use in both the new WRAP recycling bins and old “plastic bags only” bins (used at Roundy’s request). At the end of the campaign, the remaining blue bags were counted to assess the quantity used and the material was sent to the Trex facility to be audited, again for weight, material type, and contamination.

As a follow-up to data collection during the Campaign Phase, two stores that best implemented the protocols for using the bag liners continued to use blue bags to gather material directly from the store bins before it was consolidated and shipped to Trex. Post-campaign data collection in these two stores lasted four weeks and was performed in order to observe direct campaign impact without handling errors.

Surveys

The baseline and post-campaign interviews represent the views of a small number of individuals and serve to indicate trends; they do not provide a statistically viable representation of customer knowledge and practices.

Customer Interview Procedure

All interviews were conducted while customers waited in checkout lines or shopped in store aisles. Out of consideration for store employees and to avoid times when customers are more hurried, the surveys were conducted between the hours of 9:00am and 4:00pm. Interviewers chose customers whose place in line or quantity of items to purchase would ensure adequate time to complete the survey and a new interview subject was approached as soon as the prior interview concluded. Participants were given a small thank you gift after the survey was completed: a WRAP shopping list pad or refrigerator magnet.

In the fall of 2013, 120 customer interviews were conducted at twelve Milwaukee Roundy's stores, including many of the same stores that eventually participated from the 2015 educational campaign, providing a general baseline of consumer awareness. This baseline data was used for comparison with the results of those interviews conducted at the close of the campaign in July 2015. The 2015 campaign customer interviews were conducted at the 10 participating stores over the course of two days. Ten customers were interviewed at each site for a total of 100 respondents.

The surveyors asked questions about customer knowledge of and participation in the store's film collection program, how they learned of the program, and invited them to identify obstacles to participation in plastic bag and film recycling. Respondents were also asked whether the presence of bag and film recycling programs at stores created a positive impression and made them more likely to choose a store for their shopping.

Both the baseline and post-campaign interviews represent the views of a small number of individuals and serve to indicate trends; they do not provide a statistically viable representation of customer knowledge and practices.

Auditing Results

As a pilot campaign, results from this Milwaukee project provide useful information for the design and execution of future retail campaigns and projects.

Liner Bag Counts

Of note, the use of colored bin liners was unique to this pilot and was done to allow the Project Team to identify customer-returned material from these ten campaign stores for bag audits. *Colored liners were used for auditing purposes only; participating stores do not intend to continue using them.*

The store's existing "Plastic Bags Only" rectangular bins were used for the baseline phase, but both the rectangular bin and the new cylindrical bins with WRAP signage (Image 2) were used in the campaign period as required by Roundy's. The reclaimer/ recycler (i.e. Trex) confirmed that the new cylindrical bins could hold an average of 40-60 percent more material than the rectangular

bins, meaning that the overall increase in volume of material collected from the campaign was likely larger than measured in bag count alone.

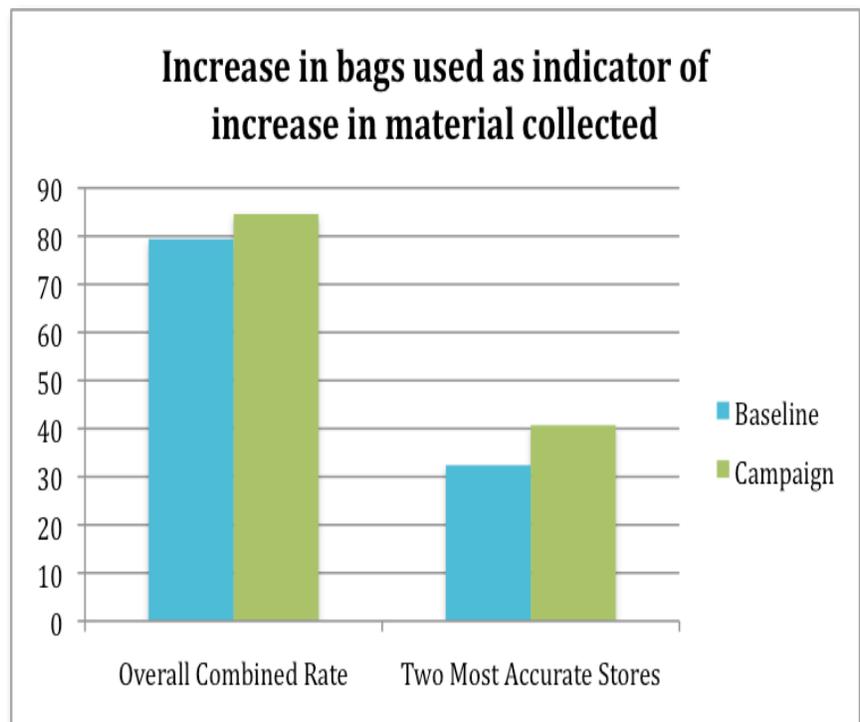
This pilot provided valuable insight about the need for clear instructions for campaign protocols. The Project Team discovered that many stores were not using the colored liner bags as desired, in part due to lack of understanding of the purpose of the liners. During the baseline period, errors were observed during 59 percent of the site visits. The error rate dropped to 38 percent during the campaign phase. As a result, bag count tallies were not used for three stores: one store failed to reorder additional liners when the supply was consumed; another was found to be using the designated liners for the back-of-store film collection; and the third store did not use the liners during the campaign period. To try and mitigate errors in the use of the liners, instructions about their use were included on shipping boxes, as seen in Image 3. Any future campaigns will provide more explicit instructions on the use of these liner bags. **Therefore, to collect as much reliable data as possible, the Project Team collected more data from the stores that followed protocols after the campaign finished elsewhere.**



Among the seven remaining stores, liner bags for the collection of front-of-store plastic bags and wrap were used at a combined rate of 79.4 per week during the baseline period. During the campaign period, these stores used 84.6 liner bags per week. This is a 6.5 percent increase, shown in Figure 1.

Further investigation of the two stores that followed standard protocol for both data collection periods showed better results—from a combined total of 32.4 bags per week during the baseline period to a combined total of 40.7 bags per week during

Figure 1: Audit Results from Bag Liners



the campaign period. This is a 25.6 percent increase, shown in Figure 1. As stated above, the amount of material collected in the bags once new bins were installed likely increased as well since the new bins can hold more material.

Bag and Bale Audit Data

The bag and bale audit data, shown in Figures 2 and 3, indicated an increase in items such as the “beyond the bag” plastic product packaging, including case wrap and newspaper bags, from 32 percent of the total during the baseline period to 39 percent after the campaign period at the two stores that followed liner bag protocols. Additionally, there was an increase of 1 to 3 percent of the total material audited of zip-top food storage bags seen in the post-campaign audits compared to the baseline data.

Figure 2: Baseline Audit Data

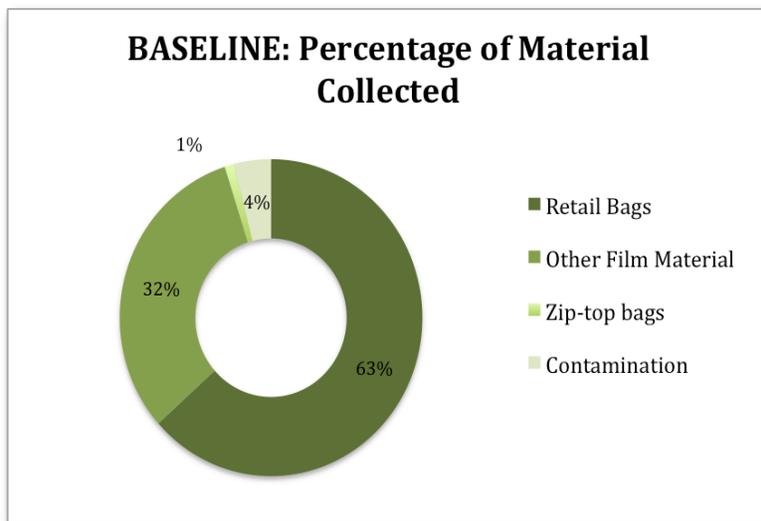


Figure 3: Breakout of Material Collected



Audit data collected and analyzed by Trex showed a small but insignificant increase in contamination, including non-polyethylene bags, other recyclables like PET bottles and store newsprint flyers, and trash like sanitizer wipes between the baseline and campaign material—an increase from 4 to 6 percent. Contaminants are a problem for buyers of collected material because they are incompatible with the processing of polyethylene bags and film. The follow-up data compiled by Bergner Associates collected directly from the two stores that had the best procedure for data collection had a contamination rate of 5.5 percent. Where frequent contamination occurred, WRAP representatives recommended repositioning the bins (for example, away from the sanitizer wipe dispenser or store flyer stands).

The conclusion from this audit data is that the increase in good material outweighs the minimal increase in contamination, as defined above.

Customer Interview Demographics

Post-campaign interviews were conducted with 100 customers—10 at each participating store. This was compared to 120 conducted in the fall of 2013, which provided the “baseline” data.

An average of 85 percent of the participants described themselves as customers who regularly shopped at the stores where they were interviewed. Residents of Milwaukee were the vast majority of the interview participants. In avoiding the busiest times at the stores, there may have been missed opportunities to survey various subsets of customers. The data from this campaign is used to indicate trends and is not intended to be statistically significant.

Figure 4: Survey Demographics

	2013 data	2015 data	All
Male	39%	34%	36.8%
Female	60%	66%	62.7%
Under 30	23%	13%	18.1%
30 - 60	58%	47%	52.7%
Over 60	19%	40%	28.6%

Survey Results

This campaign used the same survey questions and methodology to measure consumer awareness, thoughts, and practices related to recycling plastics bags and film. The baseline surveys were conducted in the fall of 2013 and the campaign surveys were conducted during the summer of 2015, following the completion of the in-store campaign. The following details a comparison of the pre- and post-campaign surveys.

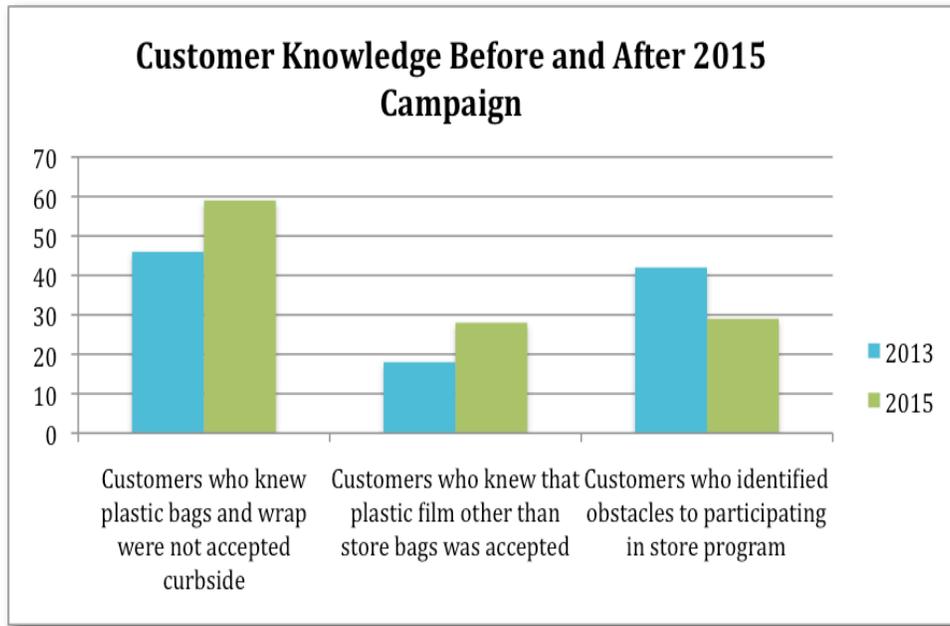
Customer Knowledge of Plastic Bag and Wrap Recycling

Figure 5 shows a representation of how customer knowledge changed over the 18-month period between the survey periods. When asked whether they knew that “beyond the bag” materials like case overwraps, dry cleaning bags, and zip-top bags could be recycled at the store, there was an increase from 18 percent to 28 percent from the baseline period to the post-campaign surveys.

This compares to 50 percent of respondents knowing that plastic bags could be brought to the store for recycling for both baseline and campaign survey periods.

Additionally, respondents from both survey sets who knew about the store recycling program were more likely to know that bags and film are not accepted in local household recycling programs. Lastly, those who actually use the store recycling program were three times more likely to know that the “beyond the bag” materials were acceptable in the bins.

Figure 5: Customer Recycling Knowledge



Customers’ Sources of Recycling Information

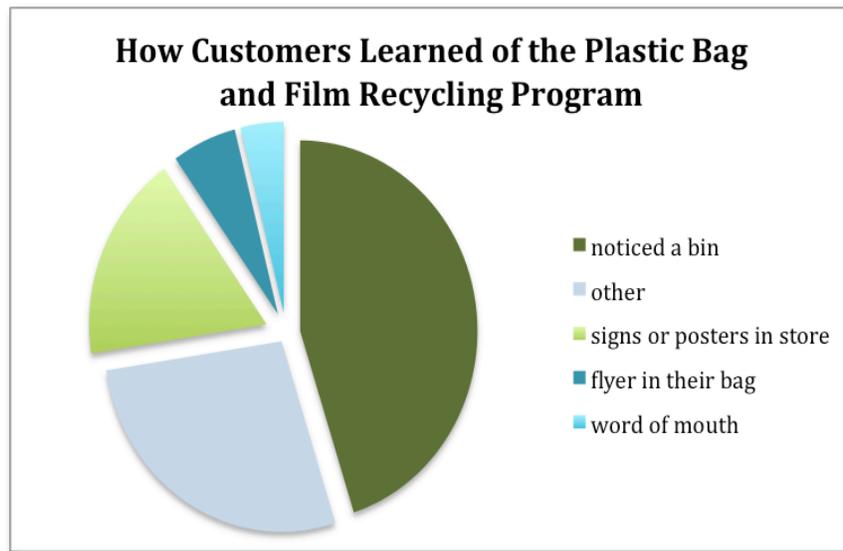
Participants who knew about the bag and film recycling program at their store were asked to recall when they learned about it. While the vast majority (86 percent) knew about the program before the campaign began, campaign information provided more and new information about recycling “beyond the bag” material at the store. Figure 6 shows responses to the question about how post-campaign survey respondents learned about the program—45 percent had learned by noticing a recycling bin in the front of the store, about 35 percent saw signs and posters in the store or a campaign flyer in their bag, and another 27 percent reported learning about it from other means, including seeing a sign in another store, seeing others recycle, or watching a TV news report.

Customer Participation Challenges

In general, respondents from both 2013 and 2015 surveys indicated that the stores are doing a good job of making the bag and wrap recycling programs easy to use. Additionally, there was a decrease in perceived obstacles from 42 percent in the baseline surveys to 29 percent in the post-campaign results. The stated obstacles included: forgetting to bring plastic bags/wraps back to the store, wanting to save carryout bags for reuse, and/or not having storage space, time, or all the knowledge they need to participate.

Even though half of respondents in both data sets knew about the store recycling program, and there was little confusion and few perceived obstacles, only 13 percent of respondents answered that they had recycled bags recently and 4 percent had recycled film and wraps recently. Thus, the question remains, *what motivates consumers to take advantage of the bag and film recycling program?*

Figure 6: Customer Survey Responses



Impressions of Participating Stores

Interview subjects were asked if the recycling program gives them a positive impression of the store—80 percent said that it did. When asked if the recycling program makes them more likely to choose the store for their shopping, 36 percent responded that it did.

Store Directors' Feedback

Before the launch of the 2015 education campaign, Store Directors wanted assurance that the new bins would hold as much material as the existing bins. They also wanted to continue using the stores' existing bins for extra collection capacity during the campaign. Lastly, they wanted approval from Roundy's corporate office to participate. Positive responses to these questions meant that stores were willing and able to participate.

80 percent of interview participants said that the bag and wrap recycling program gives them a positive impression of the store

36 percent said that the program makes them more likely to choose the store for their shopping

Store Program Challenges

The errors in liner bag use, noted in the "Liner Bag Counts" section, seemed to be linked to two causes: 1) miscommunication between Store Directors and the staff members who maintain the

bins; and/or 2) lack of knowledge of the protocol by a particular shift or a replacement staff member completing the task. Store Directors used “shift starter” communications to inform and remind staff of the tasks and recognized sources of miscommunication after WRAP representatives contacted them about errors. The Project Team also provided instruction sheets that were added to the boxes of liner bags, shown in Image 4. This pilot showed that store employee training and education is essential for effective adoption of protocols.

There were no problems with the use of bag stuffers placed in customer bags at check out, or the addition of the new bins during the campaign. Store staff members who manage the recycling bins reported that the new cylindrical bins were easy to maintain. One worker recommended outdoor bins to lessen the amount of objects filling entryways.

Conclusions and Recommendations

Key Program Enhancements for Consideration

Communications: Number and Kinds of Impressions Matter

The primary 2015 campaign tactics included the introduction of new recycling bins labeled with informational signs and program flyers. The tactics were limited to activities that: 1) could reach customers in-stores; and 2) were easily replicable. Each store distributed approximately 4,000 bag stuffers. However, since total store traffic data was unknown, this information was likely seen by a small percentage of total shoppers during the educational campaign period.

Image 4: Recycling message printed on store bag



-Photo by C. Beimborn

Information from survey respondents following the campaign indicated that it could be easy to overlook store communications about recycling bags and film. For example, of the post-campaign survey participants who did not know about the store’s recycling program, 45 percent stated that signs or posters in the store would be a useful means of informing them. However, the stores where these participants were interviewed did have signs and posters on display and the subjects would have passed them before meeting the interviewer. Additionally, one individual who did not know that store bags could be recycled stated, “It should be printed right on the bag.” Image 2.10 shows an example of a Pick ‘n Save bag, one of many Roundy’s plastic store bags that are printed with the words “PLEASE REUSE OR RECYCLE AT A PARTICIPATING STORE.” These responses indicate that many of the tactics stores used to inform customers about their bag and film recycling programs are easy to overlook. More research is needed to tease out the reasons why and to formulate better protocols to engage and educate customers.

The post-campaign survey results suggest that effective message penetration will require multiple modes of communication. The data from this campaign is promising, and suggest that increasing the number of touch points by using a greater variety of outreach techniques may achieve bigger impacts. Increasing the visibility of in-store recycling bins also may help. It is expected that broader, community-wide campaigns can achieve greater impacts through the use of additional promotional tools, methods, incentives, and outlets. Examples of tactics could include a short “how-to” video, a direct mail piece or a personal contact campaign using store greeters.

Reducing Contamination

The WRAP consultants provided several suggestions on how to improve the bin signage and to reduce contamination. This included having large images of the materials that can be recycled, providing more information about what NOT to include on the top of the bin near the collection point, and always positioning the bin near a trash can and away from contamination sources, like sanitizer wipes and store flyers.

Awareness, Knowledge & Behaviors

Of the interview participants, 50 percent knew that bags and film could be recycled at the stores, but only 13 percent reported they had recently recycled plastic bags and only 4 percent had recently recycled plastic film at the store. This result indicates that awareness and knowledge do not automatically shift behaviors. It should be noted that many respondents commented that they prefer to save their bags for reuse, but this does not address many types of film packaging and wrap materials that can be recycled.

To that point, this investigation showed that there were still many customers who did not fully understand that materials such as case wrap, plastic film packing materials, produce bags, and zip-top bags can be returned to the store for recycling.

This indicates that many people who are aware of the recycling program do not have enough knowledge about it to enable them to participate fully. Continued messages about “beyond the bag” materials (e.g., permanent bin signage) can address informational gaps among people who do know about the plastic film collection programs in stores.

Many educational experts contend that behaviors and knowledge are learned in different ways. An investigation into promising practices for instilling behavior changes would be of value to inform future efforts.

Questions about motivation and best incentives to spur more consumers to participate in return-to-retail recycling programs are yet to be answered. However, this pilot identified factors that are important to informing more customers and motivating behavior change. Some suggestions include more person-to-person outreach, similar to new product promotions, in which customers can speak to and get information from a store associate about recycling bags and other “beyond the bag” material.

Continue the “Not Curbside” Message

All tactics used to communicate to customers about the bag and wrap collection program at Roundy's included a statement that the materials should not be recycled curbside. Municipal recycling programs, private hauling companies, and statewide recycling informational programs have emphasized this message recently. The number of people who knew that the materials are not accepted curbside increased by 41 percent between the 2013 baseline interviews and the 2015 post-campaign interviews. This could be due to a number of factors in addition to the campaign, including outreach by the City of Milwaukee, radio ads that were a part of the 2013 efforts, or other educational sources like www.PlasticFilmRecycling.org (the website referenced in all campaign materials). The interview results indicate that reinforcing the "not curbside" message through varied outlets—importantly bin signage—led to an impact on public understanding. The inclusion of this message is important in future materials and programs, when appropriate.

Conclusions

The Milwaukee campaign demonstrates the potential to capture significantly more valuable material for recycling through consistent messaging, particularly the adoption of appropriate signage. Retail collection of postconsumer film can benefit both retailers and communities because it's an efficient means of recovering this material. Most large retailers generate revenue from recycling their own commercial film (i.e., pallet wrap), and other types of post-use film can add to that revenue stream.

While the level of consumer participation during the campaign remained relatively low, the impact on the early adopters/motivated recyclers was important because there was an increase in materials returned to the store and more "beyond the bag" materials were seen in the post-campaign audits.

The 2015 WRAP campaign conducted in 10 Milwaukee area Roundy's stores resulted in a positive measurable impact on customer knowledge of the stores' plastic bag and film recycling program and recycling practices. Furthermore, the campaign resulted in a net positive for Roundy's—more material with value was collected for recycling; there was an insignificant increase in contamination; and consumers had a positive impression of the stores because of the bag and film recycling opportunities.

The campaign and the methods used to evaluate it generated useful insights. Shoppers credited a variety of sources of information for their knowledge of the store's bag and film collection program, but the visible presence of the recycling bins was an important means of alerting shoppers. However, data indicates that bins alone are not enough to compel shoppers to recycle.

The results indicated that those who were aware of the program showed improved knowledge about how and where (store vs. curbside) to recycle plastic bags and wraps. With only 13 percent of respondents recycling recently, there was a 25 percent increase in the number of liner bags used during the campaign period. Furthermore, many shoppers who were not aware of the program had been exposed to campaign information without actually absorbing it, indicating that

numerous communication approaches and impressions are needed in order to effectively convey the message and help sway behavior.

Finally, stores that offer recycling programs to collect plastic bags and film have much to gain in the form of customer appreciation. An overwhelming majority of shoppers stated that the program gives them a positive impression of the store. Over a third said that the recycling program makes them more likely to choose the store for their shopping, even if they aren't using the program.