Like residential and commercial recycling, public space recycling (PSR) programs have been around for decades in various forms. While significant progress has been made building out the collection infrastructure and motivating participation in the residential and commercial realms, PSR has been slow to expand in the U.S. until recently. Only in the past five years or so have full scale programs begun to sprout in real numbers as cities, venues and other jurisdictions look for new opportunities to achieve diversion and zero waste goals.

This go-slow approach is not without good reason. Recycling managers and facility planners face a number of challenges with PSR, including high costs for recycling bins, persistent contamination and the need to adapt or create entirely new collection systems. Public spaces, which can include locations as diverse as county fairs, beaches, commercial food courts, airports, parks and street corners, typically represent a small percentage of a municipality’s waste stream and generate a dirtier, lower value mix of recyclables than what is found in residential or workplace settings. However, arguably the greatest challenge to increased PSR is getting the public to notice and then use the bins properly.

PSR initiatives at Keep America Beautiful (KAB) focus on this last point and aim to build programs that anticipate user behavior. In many cases, unsuccessful PSR efforts have less to do with the “unwillingness” of the public to use recycling bins properly and more to do with poorly designed programs that ignore predictable human behavior patterns. Bin aesthetics, placement in relation to architectural features and other considerations too often dominate the design and placement process. These issues may be important, but recycling efforts risk chronic problems if user behavior is treated as a secondary concern in this design phase. Choosing a non-intuitive recycling bin color to match the setting or spacing bins apart from trash containers for a symmetrical appearance can result in contaminated, underutilized bins, and leave the mistaken perception that PSR is simply not viable.

A growing body of research has documented many of the behavior patterns that affect recycling participation. The research has also highlighted steps that can be taken to design public space bins for success. While even the most well-drafted program will experience contamination and other problems, recent efforts in cities including Portland, Oregon; Largo, Florida; and Atlanta have demonstrated that PSR is in fact a viable option with the potential to grow recovery rates in the U.S. as a whole.

Understanding user behavior
There is a reflexive assumption by many non-recycling professionals...
that recycling, like trash, simply requires setting out bins and making sure they get emptied regularly. The thinking goes that most people are rational and literate and therefore will use a bin correctly since recycling is a “good” and wholesome activity. Of course, that’s not how it works in the real world where trash and recycling bins are often treated as interchangeable.

To understand why, let’s review some basic insights of human behavior starting with attitudes toward environmental issues. Research conducted by OgilvyEarth in 2011 bore conclusions that mirrored earlier findings showing a majority of Americans are inclined to support environmental practices. A closer look, though, reveals only 16 percent of Americans can be considered “super greens,” meaning they reliably act based on environmental considerations. On the opposite end, roughly 18 percent view environmental issues skeptically, leaving 66 percent in the middle with attitudes ranging between ambivalence and sympathetic. It’s this majority in the middle that has the capability to push rates forward if behavior can be affected.

Making public space recycling a habit

Whether at home, at work or walking down the street, the key to encouraging ongoing recycling behavior within the middle group is getting them to develop a habit that can take the place of the intrinsic motivation super greens already have. Like flossing, once recycling is established as a habit, the action happens regularly because it is part of the person’s daily rhythm. It matters
Research in recent decades has documented two primary barriers to recycling: lack of convenience [Humphrey, Bord, Hammond and Mann, 1977] and confusion about how to recycle [De Young, 1989]. Anecdotal experience shows that recycling opportunities in public spaces are rare in much of the U.S., a point that is underlined by a recent national survey that KAB in partnership with the Ad Council commissioned as part of its “I Want to be Recycled” public service recycling campaign.

Among active recyclers, 41 percent indicated they recycle in public places and 19 percent reported recycling in public parks as compared to 92 percent indicating they recycle at home. While people have consistent exposure to the same recycling bins and list of acceptable items at their home or work, as they move through their day outside these settings they must constantly familiarize themselves with where recycling bins are located, what the bins look like and what materials are accepted. Under these circumstances, a PSR bin must utilize instantly recognizable visual cues to influence and inform people passing by. A number of studies have documented the effectiveness of simple bin design elements to provide these cues and improve recycling participation, including: restrictive lids [Duffy et al. 2008], number and location of bins [O’Connor et al. 2010] and bin color [Montazeri et al. 2012] to cite a few. These and other design elements are covered in the new “Ten Tips for Designing Successful Public Space Recycling Programs” guide produced by KAB.

A well-designed program will increase the likelihood of proper recycling practices, but developing an ongoing habit in many cases requires giving people a reason to engage and pay attention in the first place. In other words, it’s not just important to communicate the “what” and “how,” but also the “why.” Research has shown how people can be motivated to participate in an activity even when the intended benefit does not resonate personally. In a 1995 research paper, P. Wesley Schultz, Stuart Oskamp and Tina Mainieri reviewed personal and situational factors demonstrated through observational studies to effectively drive recycling behavior. These include personal commitments, rewards, personal and written prompts and personal feedback. But perhaps the strongest influence is communicating the normative behavior one is trying to establish. Humans are social creatures, and seeing the people around us modeling a particular activity creates a strong impulse to conform to that community norm. The ultimate purpose with any of these techniques is to generate an emotional connection with the recycling activity that will encourage users to pause for that additional second needed to see and react to the visual cues.

Instilling this connection requires educational outreach. As Eureka Recycling of St Paul, Minnesota points out in its 2011 PSR case study guide, “If proper and comprehensive education for its users is missing, the presence of public space recycling programs alone will not change behavior.” Beyond communicating the immediate details of what and where to recycle, educational outreach can reinforce the emotional connection as well. Focus group research conducted by the Ad Council in support of the “I Want to Be Recycled” campaign found that people responded to messaging that explained what happens to recyclable items after they are recycled. Understanding the potential for the plastic bottle they recycled to be turned into a park bench provides a tangible link between their action and an outcome that engaged their curiosity. The same focus group found alternate messages focused on environmental benefits or implying an obligation to recycle did not have the same impact.

Educational outreach can be difficult to do in situations like a street corner where the bins themselves may be the only opportunity to communicate a message. Different settings, however, can provide opportunities for creative outreach that conveys both the “why” and the “what,” as well as the “how” message. The City of Largo, Florida, to cite one example, increased recycling participation by enlisting local athletic leagues as the messenger to reach users at city play fields. Marissa Segundo, the city’s recycling coordinator, said, “Working with the coaches was valuable for launching recycling at the sports fields. Their input about the design and placement of the bins along with their help sharing recycling information with the kids.
had a big impact on increasing participation.”

In another example of creative outreach, the City of Asheville, North Carolina combined the addition of new recycling bins at a local performing arts center with a fun, interactive kiosk that allowed people to take a recycling quiz and have their photo taken.

Finally, Ohio State University; the University of California, Davis; and other colleges have each achieved 90 percent or more recovery of recyclables and food organics at football games and special events by using attendants at zero waste stations to explain proper sorting practices so people know what to do when attendants aren’t present.

## Communities see rates on rise

Contamination and spotty participation are issues that cannot be eliminated altogether, and some situations are problematic to the point of not warranting the investment.

San Francisco, a city with one of the most sophisticated recovery programs in the nation, has made recycling infrastructure for streets and many park locations a low priority. Instead, they’ve targeted to-go restaurants and other establishments that generate recyclables and food organics to promote collection bins on the premises, where they are easier to control.

Still, many communities have found success increasing recycling rates in public spaces. The Asheville Civic Center increased its recycling collections by a ton per month following its 2011 expansion and projected an annual increase of 62 percent going forward.

The city of Sarnia, Ontario relaunched recycling in three pilot park locations in 2010, achieving beverage container recovery rates as high as 75 percent. In a separate phase of the same project, recycling was introduced at local arenas and convenience stores, supported with signage and PSA announcements during events at the arenas. The project resulted in beverage container recovery rates of 73 percent and 84 percent, respectively. In these and a growing number of other communities, collection bins and outreach efforts designed to anticipate and influence user behavior has been key to success.

Over the past few generations, individuals in professions such as police work, traffic management, marketing and economics, to name a few, have improved results in their respective fields by embracing a more sophisticated understanding of human behavior. The recycling field has been slower to follow this trend, but the body of research and first-hand experience of many communities is increasingly providing the behavioral knowledge required to design viable PSR programs. With wider adoption of the resulting best practices, recycling in public spaces will continue to grow and help increase national recycling rates.

Alec Cooley is a director of recycling programs for Keep America Beautiful. He can be reached at (843) 278-7686 or acooley@kab.org.

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