

# Recycling: Why People Participate; Why They Don't

A Barrier/Motivation Inventory: The Basis of Community-Based Social Marketing

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### Introduction

Understanding what motivates people to recycle and what discourages them from doing so is the first step towards increasing participation. Social science research on recycling behavior makes an important contribution to this understanding. In order to identify the barriers and motivations that are related to people's recycling habits, social scientists ask recyclers and non-recyclers questions about a wide variety of factors that might influence their recycling behavior. They then use statistical methods to determine which of these factors are linked to recycling participation and which are not.

If you follow the news, you know that scientific studies are not always in agreement. Is margarine good for you or bad for you? High fiber foods lower your cholesterol. Then again, maybe they don't. Estrogen supplements have valuable benefits. But, the dangers might outweigh the benefits. The sorting, sifting and weighing of sometimes contradictory, sometimes confirming evidence is part of the process by which scientists arrive at recommendations regarding health issues.

Similarly, in identifying the factors that influence participation in recycling programs, it is important to look at patterns that emerge across numerous studies, rather than relying on the results from a single study. Here are some broad patterns that emerge from social science research on recycling behavior.

### Motivations

The factors below are seen to contribute to an increase in people's participation in recycling programs.

***Perceived Effectiveness of Recycling.*** The more that people see recycling as effective, the more likely they are to participate, or to participate more fully.<sup>1</sup>

- ◆ Residents of Claremont, California were asked the question, "How effective do you think recycling can be as a means of reducing trash sent to the dump?" Frequent recyclers rated recycling as more effective than infrequent recyclers.<sup>2</sup>
- ◆ Researchers in LaVerne, California, a residential suburb of Los Angeles, explored the link between observed recycling behavior and individuals' "belief in/knowledge of the benefits of recycling." These benefits include:
  - ◆ Extension of the supply of natural resources;
  - ◆ Litter reduction;
  - ◆ Improvement of environmental quality;
  - ◆ Preservation of landfill space;
  - ◆ Energy conservation and
  - ◆ Resolution of a national problem

The researchers concluded that, "...residents who believed more strongly in the benefits of recycling were more likely to be participants in the recycling program."<sup>3</sup>

- ◆ A Massachusetts statewide phone survey revealed that people who did not consistently recycle any of four target materials examined in the study were significantly less likely to agree that recycling is good for society than were more avid recyclers.<sup>4</sup>

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- ◆ When members of focus groups in Waltham, Massachusetts were asked what would be most likely to motivate residents of the City to recycle, both recyclers and non-recyclers indicated that feedback from the City on the amount recycled and money saved would be motivational. In addition, recyclers suggested that providing people with information on what products are made from recyclables would be a good idea.<sup>5</sup>

**Concern about the Environment.** The more concerned people are about the state of the environment, the more likely they are to participate or to recycle frequently.<sup>6</sup>

- ◆ Residents of Ontario, California who denied, rather than acknowledged environmental problems, for example, were less likely to recycle.<sup>7</sup>

**Social Pressure.** People are motivated to recycle by actual pressure they receive from family and friends to do so. Furthermore, simply knowing that family, friends and neighbors recycled increases our likelihood of recycling.<sup>8</sup>

**Financial Motive.** There is general agreement among researchers that short-term monetary incentives, such as lotteries that reward a random recycler for his or her efforts, do not produce lasting behavior change.<sup>9</sup> Community recycling rates return to prior levels when the incentive is no longer available. There is, however, a substantial body of literature that documents the effectiveness of ongoing pay-as-you-throw (PAYT) programs in increasing recycling rates.<sup>10</sup> PAYT is a system, under which residents are asked to pay for waste collection directly-based on the amount of garbage they actually generate. It works on a per-container basis, where households are charged for each bag or can of waste they generate.

### Barriers

The factors below have been identified as barriers to recycling.

**Inconvenience.** A perception of recycling as inconvenient and/or difficult is related to recycling behavior.<sup>11</sup> Those with a stronger perception of recycling as inconvenient recycle less or not at all. The types of difficulties reported include:

- ◆ Lack of time for recycling;
- ◆ Lack of space to store recyclables;
- ◆ Pest concerns;
- ◆ Messiness;
- ◆ Difficulty moving recycling bin or barrel to curb and
- ◆ Too few drop-off sites in inconvenient locations.

**Lack of Knowledge.** People's knowledge of how and/or what to recycle is linked to their level of participation.<sup>12</sup> As expected, those who are less knowledgeable about how and what to recycle are less likely to participate, or tend to recycle less material.

- ◆ A study carried out in Somerset County, New Jersey found that those who were confident about their knowledge of how and what to recycle were significantly more likely to recycle than were those with less confidence, even among those who had a strong conservation ethic.<sup>13</sup>
- ◆ A synthesis of research results from 67 studies of recycling behavior in drop-off and curbside programs indicated that those individuals who were educated about

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recycling had the highest correlation with propensity to recycle of all of the variables examined.<sup>14</sup>

### Increasing Participation

“People recycle (or don’t recycle) for reasons,” remarks researcher P. Wesley Schultz.<sup>15</sup> In our search for more effective strategies for increasing participation, we will do well to focus on overcoming the barriers and strengthening the motivations for recycling. For example, many communities devote the majority of their outreach budget to overcoming the knowledge barrier by distributing information about how and what to recycle. Despite these efforts, however, the evidence suggests that residents lack knowledge about how and what to recycle. For example, a 2002 phone survey conducted in Waltham, MA revealed that despite extensive publicity around the City’s switch from every other week to weekly collection in 2000, 18% of survey respondents were still unaware of the change.<sup>16</sup>

Focus groups conducted in 2001 with Boston-area residents brought to light that most partial recyclers and non-recyclers in the groups were unaware that recyclables preparation requirements have become less stringent over the years. For example, these individuals believed that it is still necessary to flatten cans, to remove bottle neck rings and to remove labels from cans and bottles. Further, erroneous beliefs about preparation requirements loomed large in people’s perception of recycling as inconvenient.<sup>17</sup>

Clearly, while having access to recycling information is essential, it is also necessary that residents use the information in order to become more knowledgeable about recycling. How can recycling managers increase the likelihood that residents will pay attention to and use this information? Research shows that recycling information can often be communicated more effectively than it is, and that providing information alone is often not enough to change behavior.<sup>18</sup> By combining the effective communication of information with behavior change tools such as prompts, commitment techniques, incentives and the development of community norms, communities can improve the chances that recycling information will be absorbed and acted upon.

### Resources

Tools for overcoming the barriers and strengthening the motivations for recycling participation can be found at <http://www.mass.gov/dep/recycle/recycle.htm>. Click on “Motivating People to Reduce Waste.” Please direct questions about this inventory to Brooke Nash of the Massachusetts Department of Environmental Protection, Municipal Recycling Branch at 617-292-5984.

### Endnotes

<sup>1</sup>Davio, R. (2001); Gamba, R. & Oskamp, S. (1994); Oskamp, S., et.al. (1998); Oskamp, S., et. al. (1991); Simmons, D. & Widmar, R. (1990); Vining, J., et. al. (1992). (A variety of motivations explored by researchers seemed to be similar enough in meaning to “perceived effectiveness of recycling,” so that they could be grouped in this category. In addition to the examples given in section 1.1, other concepts interpreted as “perceived effectiveness of recycling” included “intrinsic motives to recycle,” “altruism” and “conservation ethic” )

<sup>2</sup>Gamba, R. & Oskamp, S. (1994).

<sup>3</sup>Oskamp, S., et.al. (1998).

<sup>4</sup> Research International. (2000). p40.

<sup>5</sup>McKenzie-Mohr Associates. (2002).

<sup>6</sup>Gamba, R. & Oskamp, S. (1994); Oskamp, S., et.al. (1991).

<sup>7</sup>Oskamp, S., et.al. (1991).

<sup>8</sup>Gamba, R. & Oskamp, S. (1994); Oskamp, S., et. al. (1991); Werner, C.M., & Makela, E. (1998);

<sup>9</sup>DeYoung, R. (2000); Gamba, R. & Oskamp, S. (1994); Oskamp, S., et. al. (1991).

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- <sup>10</sup>A sampling of such research includes: McKenzie-Mohr, D. & Smith W. (1999). pg 104; Morris, J. (2000, January). pg 37; Skumatz, L.A. (1996); Skumatz, L.A. (1999, September). pg 18; Sound Resource Management. (1999, September – December).
- <sup>11</sup>Davio, R. (2001); Gamba, R. & Oskamp, S. (1994); Ratledge, E.C. (1999); Vining, J. & Ebreo, A. (1990); Vining, J, et. al. (1992); Werner, C.M., & Makela, E. (1998).
- <sup>12</sup>Davio, R. (2001); Gamba, R. & Oskamp, S. (1994); Oskamp, S., et. al., (1998); Oskamp, S., et. al. (1991); Simmons, D. & Widmar, R. (1990); Vining, J. & Ebreo, A. (1990); Werner, C.M., & Makela, E. (1998).
- <sup>13</sup>Simmons, D. & Widmar, R. (1990).
- <sup>14</sup>Hornick, J., et. al. (1995).
- <sup>15</sup>Schultz, P.W. (2002).
- <sup>16</sup>McKenzie-Mohr Associates. (2002). p7.
- <sup>17</sup>Department of Environmental Protection. (2001); Nash, B. (2002).
- <sup>18</sup>Schultz, P.W. (2002); McKenzie-Mohr, D. & Smith W. (1999).

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**Acknowledgements:** Dr. Doug McKenzie-Mohr of McKenzie-Mohr Associates, New Brunswick, Canada, was helpful in the preparation of material for this article.

This project is funded by a grant from the Massachusetts Department of Environmental Protection.

This document was prepared by Aceti Associates of Arlington, MA. Printed on recycled paper