

COLORADO STATE UNIVERSITY-PUEBLO

The Garden Project

Research and Evaluation

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Abstract-From October 2009 through December 2009, using non-probability sampling tools including an online survey, a paper survey and personal interviews, data was collected from the citizens of Pueblo, Colorado to determine if there was an interest in and/or desire for curbside recycling, composting and community gardens. Results strongly indicate there is an interest in participating in and a willingness to support these programs. Recommendations as a result of this project include making any subsequent recycling program as convenient and inclusive as possible for every household. It is also recommended that those interested in creating successful recycling programs provide education and most importantly model desired recycling behavior and encourage friends and neighbors to follow suit to create the most successful outcomes.

The Garden Project Survey

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Introduction

Global warming and “going green” campaigns abound in virtually every media outlet. The increased attention placed on environmental concerns seems to have generated a heightened awareness in the general public. Implications are everywhere that an individual’s personal habits impact the overall health of the planet.

In an effort to determine if the lack of interest is the reason behind the lack of services, “The Garden Project” survey was designed in an attempt to answer the following question:

Is there sufficient interest in Pueblo to support a program to recycle paper products and other

In their article, “The Social Context of Recycling,” Linda Derksen and John Gartrell write, “concern for the environment has become almost a cultural constant or norm in western society. Pro-environmental attitudes are now socially acceptable and desirable.”

organic matter into compost for community gardens?

The absence of a convenient, community wide recycling/composting program, suggests that there is a lack of interest or concern for the environment in Pueblo, Colorado.

Null Hypothesis: There are sufficient opportunities for recycling organic products into compost for gardens in Pueblo.

Alternate 1: There are not sufficient opportunities for recycling organic products into compost for gardens in Pueblo.

Alternate 2: There is a need for curbside recycling in Pueblo.

Alternate 3: There is a substantial interest in Pueblo to recycle.

The questions related to current and potential habits in order to study of the beliefs and behaviors of the citizens of Pueblo, Colorado as they relate to recycling, composting, and gardening.

Methods

Using a combination of the non-probability sampling methods of snowball sampling and volunteer sampling, this research project surveyed citizens of Pueblo. As well as surveying fellow Colorado State University-Pueblo classmates, other students, and faculty members, personal interviews were conducted in several locations in town. In addition, a link to an online survey was e-mailed to 22 people who were asked to forward it to others. This combination yielded information about the beliefs and behaviors of 170 citizens.

Findings I

In the Garden Project Survey, the majority of respondents acknowledged they are either very concerned or somewhat concerned about the environment, and most believe that recycling could help the environment.

“The Garden Project” survey found that 99% of the respondents believed that recycling could help the environment.

Research by Raymond DeYoung shows that, “despite the prevalence of pro-environmental attitudes, adoption rates for behaviors such as sorting and separating household waste for recycling has been disappointing.”

Surprisingly then, the findings that 79.3% of the respondents of “The Garden Project” survey currently participate in recycling, and an additional 16.6% do not currently recycle, but would like to is encouraging.

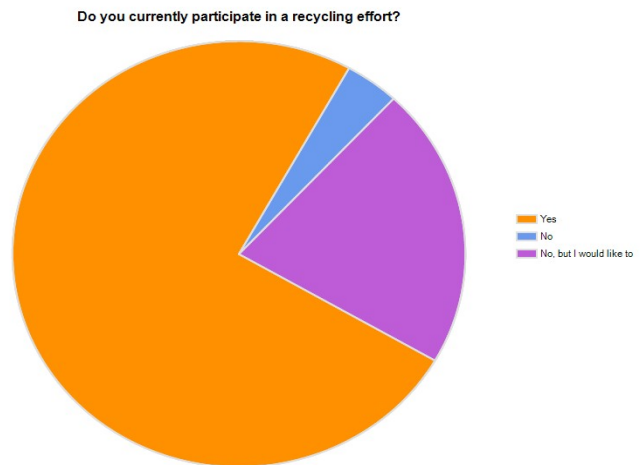


Figure 1 Current Participation in Recycling

Research shows that convenience is the greatest influence in whether or not people follow through with recycling (DeYoung 1988-1989; Humphrey, Bord, Hammond, and Mann 1977; Jacobs, Bailey and Crews 1984; Luyben and Bailey 1976; Wittmer and Geller 1976).

The inconvenience of storing and transporting recyclables, as well as confusion about what and where to recycle were mentioned as barriers to recycling by the respondents of “The Garden Project” survey, whether they stated they do or do not currently recycle.

In accordance with these findings, “The Garden Project” survey shows that 88.9% of the respondents thought they would be more likely to recycle if they had a scheduled pick-up day for their recyclables. Forty nine percent of the respondents prefer to have a pick-up

scheduled for twice a month, while 35.2% prefer every status, recycling appears to be an activity in which the whole spectrum of Pueblo citizenry is choosing to engage.

Would you be more likely to recycle if you had a scheduled pick-up day for recyclables?

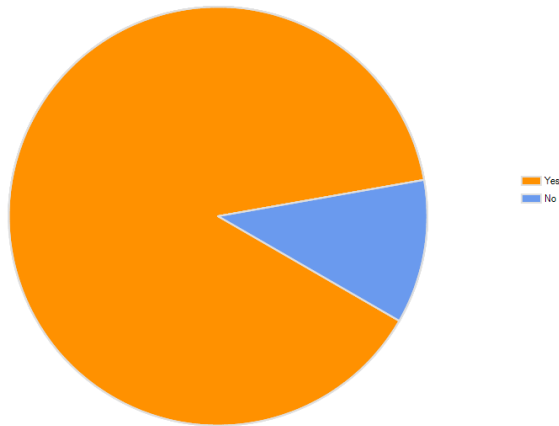


Figure 2 Interest in scheduled pick-up day

As recycling is not currently mandated in Pueblo and is not a tax-supported service of the city or county at this time, the question arises as to the willingness of the citizenry to pay a private company a fee for the convenience of scheduled pick-up service. Survey results show that 75.9% of the respondents are willing to pay a fee for this service.

Each respondent was given the opportunity to suggest an amount they deemed appropriate for this service. The respondents indicated that from one to ten dollars (\$1-\$10) per week up to thirty dollars (\$30) per month was an acceptable fee for this service.

According to Joanne Vining and Angela Ebreo there is little correlation between socio-demographic variables and recycling behavior. "The Garden Project" survey corroborates this finding.

The demographics of the survey, while not a true sample, roughly correspond with the demographics of the population of Pueblo as a whole, based on the 2000 census. Regardless of gender, age, or educational

Findings II

According to the *Harris Poll*® #97, December 8, 2004, 6% of Americans chose gardening when asked to list their favorite pastimes.

With recent food safety concerns and the addition of a vegetable garden to the White House lawn, one would expect the number of people choosing gardening as a leisure activity to be on the rise.

While they were not asked if it was their favorite pastime, "The Garden Project" survey found that a majority, 62.5%, of the respondents have garden and over 75% incorporate self-generated compost into it.

The final question of whether not individuals would be in favor of a fee-based program to collect recyclable materials curbside, turn organic waste into compost and use the proceeds of both endeavors to create a community garden was overwhelmingly supported with 95.3% responding yes.

Would you support a project that collects paper products for composting and in turn uses the composted waste to create a community garden?

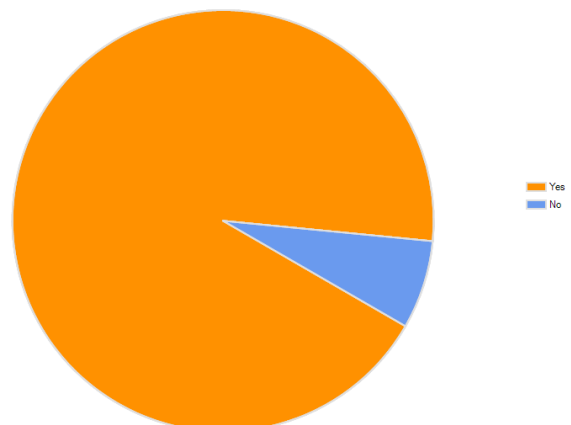


Figure 3 Support for community garden project

Conclusion

Alternate 2: There is a need for curbside recycling in Pueblo.

The findings of “The Garden Project” survey are very much in accordance with the findings of previous research on recycling with regard to the level of concern reported, the desire for convenience as a top priority, and a willingness to pay a fee for that convenience. The results do not clearly indicate a need for this service. There is a desire for this type of service and indications are that people will use the service if it is available at a reasonable cost.

Finally, Alternate 3: There is a substantial interest in Pueblo to recycle.

The current absence of a community wide recycling/composting project is in no way the result of that this is a true statement. lack of interest on the part of the citizens of Pueblo. In fact, it could be concluded that tremendous effort is being made to recycle despite the lack of convenience in so doing. **Recommendations**

Suggestions from the EPA document, *Waste Prevention, Recycling, and Composting Options, Lessons from 30*

While the majority of respondents indicated a willingness to support a more convenient method than the current drop-off bin program, they are currently recycling in numbers greater than expected based on the current level of services available. *U.S. Communities* include ways to make participation in recycling programs as convenient as possible, and thus maximize the amount of material collected. The most successful communities are providing weekly curbside collection of recyclables. In addition, if weekly curbside collection of refuse is provided;

Based on these findings, the conclusion is drawn that there is sufficient interest in Pueblo to support a program to recycle paper products and other organic matter into compost for community gardens.

The null hypothesis stated that there are sufficient opportunities for recycling paper products into compost for gardens in Pueblo.

From the responses to the survey and interviews with one of the founders of the Pueblo Recycling Coalition and the Pueblo County Health Department Liaison, it appears that the citizens are being educated, using the services available, and working toward better alternatives to the current situation. Because research shows the highest predictors of participation in recycling programs are whether or not your peers are participating in these programs, it is recommended that anyone interested in increasing interest in recycling should educate and encourage friends and neighbors to recycle by modeling recycling behavior.

As for Alternate 1: There are not sufficient opportunities for recycling organic products into compost for gardens in Pueblo.

The findings do not support this hypothesis. The people who want to recycle are finding ways, however inconvenient and participating in the available recycling efforts.

Citations

- offer service to all households
- provide adequate containers for storage and set-out of residential recyclables
- establish recycling depots or drop-off sites at disposal facilities if residents self-haul refuse.

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Appendix

The following are the findings that resulted from this study.

Responses to the following question: "Recent media has placed a tremendous amount of emphasis on environmental problems. Do you feel concern for the current state of the environment?" were:

Very Concerned	63.9%
Somewhat Concerned	30.8%
Not Really	5.3%

“Do you believe recycling could help the environment?” was answered as follows:

Yes	98.8%
No	1.2%

The response to “Do you currently participate in a recycling effort?” was as follows:

Yes	79.3%
No	4.1%
No, but I would like to	16.6%

Survey respondents indicated they recycled:

Plastic	55.5%
Glass	57.5%
Aluminum	82.9%
Tin	50.0%
Newspaper	80.1%
Junk mail	53.4%
Cardboard	54.1%
Telephone books	66.4%
Lawn/Yard Waste	30.8%
Kitchen Scraps	31.5%

Would you be more likely to recycle if you had a scheduled pick-up day for these items?

Yes	90.1%
No	9.9%

How often would you prefer for the items to be picked up?

Once a month	24.0%
Twice a month	44.5%
Every week	31.5%

Would you be willing to pay a fee for this pick-up service?

Yes 75.9%

No 24.1%

Do you have a garden of any type?

Yes 62.5%

No 37.5%

Do you use compost in your garden?

Yes 74.8%

No 25.2%

Is the compost self-generated?

Yes 75.3%

No 24.7%

The compost included the following:

Yard Waste 82.3%

Kitchen Scraps 70.9%

Paper products 29.1%

Animal manure 26.6%

Is the compost purchased from a retailer?

Yes 19.5%

No 80.5%

Would you support a project that collects paper products for composting and in turn uses the composted waste to create a community garden?

Yes 95.3%

No 4.7%

Demographic Information:

Male	26.3%
Female	73.7%

What is the highest grade-level you completed

High School Graduate	5.9%
Some College	27.8%
College Graduate	37.3%
Post Graduate	29.0%

What is your age range?

18-24	10.1%
25-34	11.8%
35-44	19.5%
45-54	22.5%
55+	36.1%