

The Relationship Between Home and Nature:
What Living Locations Can Tell Us About Environmentalism

Zach Rowen

Morgan Violette

A survey of 165 residents in Saratoga County examines the link between distinct residential areas and environmental perceptions and behaviors. Residents were divided into four groups by living location: urban, suburban, rural and streams (homeowners with streams running through their property). While actions and opinions varied depending on location, the general trend is that most people in the county spend a fair amount of time recreating outdoors and are environmentally conscious.

Introduction

As humanity changes through time, we have moved from being very connected to nature, being a part of it and understanding it, to mostly being separated from it. Unfortunately throughout history humans have left an impression in the environment wherever they have gone. As we developed sophisticated technologies this impact grew while we slowly lost our connection to nature. Many people of today spend most of their time indoors, occasionally taking walks and hikes but often times using cars to get from one indoor place to another. With our advanced lifestyle, however, comes a price. After driving countless species extinct and polluting the air and seas, the biosphere will not return to how it once was. Some people ignore this fact, not wanting to give up the luxuries that this life can provide, but others fight strongly trying to save what is left. Most remain somewhere in between: constrained by responsibilities

and what they deem realistic but still making decisions with the environment in mind. Why does one person act more environmentally than another? Perhaps they played in the woods as a child or enjoy canoeing and so value nature in that regard, or maybe they saw *An Inconvenient Truth* and it struck a chord in them as an important issue. These are but a few of the myriad of influences which can influence an individual's perception of nature and therefore how green they live.

Many efforts have also been made to create a general scale of how people feel about the environment. In 1978 Dunlap and Van Liere came out with the New Environmental Paradigm (NEP). This paradigm was an emergent way of thinking about the environment in a comprehensive and sustainable manner. Dunlap and Van Liere also created a scale with which to measure people's acceptance of these ideas. The NEP scale is one of, if not the most ubiquitous scales of environmentalism and has generally been proven valid, yet in 2000 Dunlap et al. created a new scale which they coined the New Ecological Paradigm. The authors explained the changes as being due to the shift in prominent environmental issues. Nisbet et al. (2009) attempted to create another such scale which would measure connectedness to nature. They took into account time spent outdoors, affinity towards nature, environmental behavior and many other factors in an effort to create a comprehensive scale. The scale was broken into three aspects: self, or how connected one personally feels to nature, perspective concerning the overall issue of humans and the environment, and experiences outdoors. Testing against other previously established measures showed that their scale did have validity. No two scales match completely, however, and the variety of aspects included shows how multifaceted and complex of an issue this can be.

Outdoor recreation has long thought to be associated with stronger environmental views (Cordell et al. 2002). Peterson et al. (2008) examined this issue on a household and individual level, while dividing the activities between appreciative and non-appreciative forms of recreation. Appreciative forms were memberships in recreation clubs and organizations, walking, hiking and surfing, and these outdoor activities lead to appreciation of nature and environmental concern. Non-

spaces will be developed. Within this county is our research area: the Saratoga Lake Watershed. This watershed is 244 square miles and includes eleven townships, including the City of Saratoga Springs and the Village of Ballston Spa. The water included in the watershed must pass through one-third of Saratoga County and is therefore home to thousands of people in upstate New York due to its vast size (Saratoga Lake Watershed Plan, 2002). The lake, streams and parks in the area offer various outdoor recreational activities, however the watershed does face environmental issues in addition to expansion pressures. The surrounding areas are very agricultural and run-off of pesticides and fertilizers pose a problem to the ecosystem. Saratoga Springs may face a water shortage if a drought occurs and is thus considering tapping Saratoga Lake despite disagreement from other towns as well as local residents and businesses invested in Saratoga Lake. The area also consists of disparate living environments as the transition from downtown Saratoga Springs to rural countryside happens surprisingly quickly. Taking all this

for doing these two activities. For all of the outdoor activities questions, we asked respondents if they participated a few times a week, a few times a month, a few times a year, one time or less a year, or never.

The second part of our survey asked respondents to agree or disagree with certain statements, and asked if they strongly agree, agree, are neutral, disagree, or strongly disagree. These questions asked if they feel it is important for children to play outside, to live within walking or biking distance of schools, parks, playgrounds, shops and downtown areas, and natural areas. Other questions asked if respondents feel guilty about harming the environment and if they would like more information on how to be more energy efficient and environmentally friendly (see Question 2 of the survey in Appendix A).

The third part of our survey asked respondents if they always, frequently, sometimes, or never engage in certain behaviors and actions. These regarded recycling, buying locally produced foods, donating time and money to environmental causes, drinking bottled water, using compact fluorescent light bulbs, and using re-usable shopping bags (see Question 3 of the survey in Appendix).

Other questions ask about composting (Questions 4 and 5 in Appendix A), commuting to work (Question 6 in Appendix A), home temperatures in the winter (Question 7 in Appendix A), and renewable home electricity (Question 8 in Appendix A). We included a fill-in question asking about critical environmental local issues (Question 9 in Appendix A). It is the only question which allows respondents to speak freely as all the other questions have given answers

children (Question 12) and if they are under the age of 18 (Question 13), gender (Question 14), age (Question 15) and registered political party (Question 16). All political parties that appear on the New York State ballot were included.

All of the questions asked were originally written by us with the aid of advisor Professor Josh Ness, though reading through the 2009 Survey of Kentuckians' Environmental Knowledge, Attitudes and Behaviors, The Ninth Annual National Report Card on Environmental Attitudes, Knowledge, and Behaviors conducted by Roper Starch Worldwide and the Saratoga Lake Landowner Survey by Clinard et al. inspired us as well.

Results

We sent out 486 surveys to residents in the Saratoga Lake watershed and 22 of those were sent back because of wrong addresses. Of the 464 surveys sent to homes, we received 165 back, yielding a return rate of 35.5%. From the urbanite group we received 50 surveys (30.3% of return), from the suburbanite group we received 32 surveys (19.4% of return), from the ruralite group we received 41 surveys (24.8% of return) and from the streamers group we received 42 surveys (25.5% of return).

Our results are divided into several categories: outdoor activities, agreeing or disagreeing with given statements regarding environmental beliefs, environmental actions and opinions, as well as demographics to get a sense of who is answering our surveys and who is most represented in Saratoga County. Our respondents were mostly female (62%), and in their forties or older (25% of responders were in their fifties). Republicans make up 44% of respondents who declared their registered political party. The remaining 56% is a mix of Democrats, Independence voters (not Independent-leaning voters, seeing as Independence is its own political

party), members of the Conservative Party, Working Families Party, or unregistered respondents. Most respondents in all groups (63%) hold a bachelors degree or higher. Our age range of respondents is 28 to 92. The average urbanite respondent is 58; the average suburbanite respondent is 55; the average ruralite respondent is 61; the average streamer respondent is 54. In all groups most respondents had lived in the area for over 20 years and had children, though not always under the age of 18.

In terms of outdoor recreation, all respondents generally recreate in experiential environments most frequently, though that can be a result of more experiential environment choices (four in total) while a constructed environment only contains two choices. Our constructed choices, golfing and downhill skiing, are seasonal whereas many of the experiential activities can be enjoyed year-round. Hunting, boating and fishing are utilization activities and are more popular than constructed environment activities. Only one urban responder and one suburban responder hunt, and these two people hunt a few times a week. Hunting is a more

(84%), ruralites (66%), and streamers (71%). Ruralites are most likely to donate time and money to environmental causes (29% said “always” or “frequently”) and suburbanites are least likely (16% said “always” or “frequently”). All respondents sometimes drink bottled water as opposed to always or frequently drinking bottled water. Urbanites come in first place regarding the always usage of reusable shopping bags with ruralites coming in second place.

Questions four and five regard composting, and all respondents compost yard waste more than food waste (Figure 6). In the urban category, more than half (56%) do not compost at all, and 24% compost both food and yard waste while one person composts food waste only. In the suburban category, 69% do not compost at all; 9% compost both food and yard waste and 22% compost yard waste only. Streamers mostly compost yard waste (55%), but 40% of respondents do not compost at all, and 21% of respondents compost both food and yard waste. Composting is most popular in the rural category; 76% of ruralites compost yard waste and 56% compost food waste with 54% composting both. Some even compost paper, ashes, and animal waste. A mere 19.5% do not compost at all. Suburbanites and urbanites seem more interested in using a community composter than streamers and ruralites (Figure 7).

The one open-ended question gave respondents a platform for environmental issue discussion: we ask what survey takers feel is the most critical environmental issue in their area. While many responders left it blank, the responses are quite varied, though water quality, open spaces, and development are common themes. Streamers and ruralites are most concerned with land use and open spaces, and ruralites are most concerned about littering and pollution; many ruralites cited littering on the side of the road as their most critical environmental concern. Streamers were more concerned about recycling and energy than any of the other groups. Urbanites and suburbanites cited various water iss

Springs' future drinking water source and dredging in the Hudson River as common issues. One suburbanite merely stated "humans" as a critical environmental issue while a fellow suburbanite said "when environmental issues cause a tax increase". Though there were plenty of critical issues, half of the respondents stating "energy" and "recycling" as the most critical issue are streamers.

Respondents were also asked to name the park or parks most frequently visited. Only eleven parks were mentioned more than once, and the parks most visited are Saratoga Spa State Park (75 respondents), the Adirondacks (17 respondents), Congress Park (14 respondents) and Moreau Lake State Park (14 respondents).

there are exceptions. The discrepancies are generally consistent with what we expected from the four living locations.

Our first question concerns outdoor activities. Though some activities display little differences between the groups, there are a few activities which display a disparity. These largely fit with our predictions based on location. Hunting is, for the most part, restricted to the ruralites and streamers, while those same groups are much less likely to golf. One interesting result was that suburbanites were the least likely to nature watch, possibly signifying the relative separation between the suburbs and nature. One result we did not expect was the much larger percentage of the streamers who partake in utilizing recreation. This recreational category corresponds with the “non-appreciative” category that Peterson et al. (2008) uses except that we asked about boating instead of ATV use. Assuming that this substitution is not significant, their study would indicate that our streamers have weaker environmental views. ha

differently, and some may feel it is less important to live near designated natural areas since they live in the country already. An alternative explanation is that ruralites simply value attributes we did not include in our survey such as plot size.

Owing to their proximity to downtown Saratoga Springs we predicted that the urbanites would rate it important to live near shops and downtown areas and probably also schools. Our results found this to be true. In fact the urbanites valued living near all three areas, including natural areas. We did not expect urban residents to place importance on living near nature. This could be influenced by what we chose as our "urban" area. While Saratoga Springs is officially categorized as a city it hardly holds up as an urban area when compared with nearby Albany. In fact, what might make Saratoga Springs appealing to many is that the downtown area quickly transitions into suburbs and then into open space. Our data suggests that people living in downtown Saratoga Springs enjoy living near not only shops but also natural areas. In the

interest in a community composter indicating that (especially in denser areas) there would be support for and use of one should it be established.

We asked two questions about whether or not the respondent would like more information on how to be more environmentally friendly or energy efficient. A majority in each group agree that they would like information on efficiency. The urbanites are the only group in which less than half want information on being environmental and the ruralites were the only group to rated each equally; each other group rated efficiency higher. This shows that people are generally more receptive to information which not only shows a clear benefit for the environment, but for themselves as well. The streamers actually show a large difference here, with the largest percent agreeing on both questions. We are not sure if this is indicative of the streamers being more environmentally conscious, or simply less informed.

The streamers give an interesting set of results and do not simply correlate to any other group. They stand out for recreation with the highest percent of utilization which might indicate a less environmental ethic. On the other hand they are the most interested in receiving information on how to be green. They also have the second highest rate of composting and the rural group may have been larger due to their bigger properties. Though it seems that the streamers interact with the environment in unconventional ways they do seem to be on the more environmental side of the spectrum.

There are a number of possible confounds, biases and sources of error in our survey. There is a distinct age bias as the mean reported age is 57. The 2008 estimate of Saratoga County by the US census bureau puts the percentage of people 65 and over at 12.3%. Of respondents who gave their age 28.5% are 65 or older. This bias could have occurred because older people are more likely to be homeowners or perhaps older people simply have more time

behaviorally. Nevertheless, there is simply no possible way to avoid causing any harm to the environment.

Taken as a whole our respondents were on the environmental side but still showed differences. Due to the fact that the groups varied in different ways on different questions it is hard to single out a group as the most environmental. We tentatively posit the suburban the least environmental. We did not find any question on which they answered more environmentally than the other three groups, and yet were the least engaged in a few green behaviors. We speculate that the suburbanites may be the most separated from nature, even more so than the urbanites since the distinction tends to be clearer in a city while the suburbs often poorly mimic nature.

Our findings could be used to implement environmental programs to greater effect. Community composting efforts, particularly in urban and suburban areas would seemingly have a fair amount of support. The fact that respondents generally would like more information on how to be energy efficient rather than environmentally friendly could also be used; instead of environmental agencies and organizations advertising the importance of driving less or other ways to be environmentally friendly, efforts on what people can do to save money in terms of energy would be more helpful. Future studies could examine how programs with the purpose of increasing environmental behaviors within the watershed could best be implemented.

Acknowledgments

We would like to thank the following people for their help and support.

Josh Ness
Karen Kellogg
ES Capstone 2010
Robert Turner
Rik Scarce
Alex Chaucer
Andy Noone
Our Respondents

Works Cited

- Andrews, C.J. 2008. Greenhouse gas emissions along the rural-urban gradient. *Journal of Environmental Planning and Management* **51(6)**: 847-870.
- Berenguer, J., Corraliza, J.A., Martín, R. 2005. Rural-Urban Differences in Environmental Concern, Attitudes, and Actions. *European Journal of Psychological Assessment* **21(2)**: 128-138
- Clinard, A., Hubert, J. and Nesbitt, B. 2009. Examining Perceptions, Behaviors, & Opinions of Landowners along Saratoga Lake. Water Resources Initiative. < http://www.skidmore.edu/academics/wri/Clinard_Nesbitt_Hubert.pdf> Accessed November 20, 2009.
- Cordell, H., Green, G. 2002. Recreation and the Environment as Cultural Dimensions in Contemporary American Society. *Leisure Sciences* **24**:13-41.
- Dunlap, R.E., Van Liere, K.D., Mertig, A.G., Jones, R.E. 2000. Measuring Endorsement of the New Ecological Paradigm: A Revised NEP Scale. *Journal of Social Issues* **56(3)**: 425-442.
- Dunlap, R.E., Van Liere, K.D. 1978. The “New Environmental Paradigm”: A Proposed Measuring Instrument and Preliminary Results. *Journal of Environmental Education* **9**: 10-19.
- Freudenburg, W.R. 1991. Rural-Urban Differences in Environmental Concern: A Closer Look. *Sociological Inquiry* **61(2)**: 167-198
- Kaplan, S. 1995. The Resorative Benefits of Nature: Toward an Integrative Framework. *Journal of Environmental Psychology* **15**: 169-182.
- Kentucky Environmental Education Council & The University of Kentucky Survey Research Center. 2009. The 2009 Survey of Kentuckians’ Environmental Knowledge, Attitudes and Behaviors.
- National Environmental Education and Training Foundation & Roper Starch Worldwide. 2001. Lessons from the Environment: Why 95% of Adult Americans Endorse Environmental Education. The Ninth Annual National Report Card on Environmental Attitudes, Knowledge, and Behaviors
- Nisbet, E.K., Zelenski, J.M., and Murphy, S.A. 2009. The Nature Relatedness Scale: Linking Individuals’ Connection With Nature to Environmental Concern and Behavior. *Environment and Behavior* **41(5)**: 715-740
- Peterson, M.N., Hull, V., Mertig, A.G., and Liu, J. 2008. Evaluating Household-Level Relationships between Environmental Views and Outdoor Recreation: The Teton Valley Case. *Leisure Sciences* **30**: 293-305.
- Rudzitis, G. & Johnson, R. 2000. The Impact of Wilderness and Other Wildlands on Local Economies and Regional Development Trends. In McCool, S.F., Cole, D.N., Borrie, W.T., O’Loughlin, J. 1999. Wilderness science in a time of change conference—Volume 2: Wilderness within the context of larger systems Department of Agriculture, Forest Service, Rocky Mountain Research Station, Missoula, MT.
- Saratoga Lake Watershed Plan Website. 2002. < <http://www.sara-lake.org/>> Accessed November 8, 2009.
- Van den Berg, A.E., Hartig, T., Staats, H. 2007. Preference for Nature in Urbanized Societies: Stress, Restoration, and the Pursuit of Sustainability. *Journal of Social Issues* **63(1)**: 79-96.

3. When presented with the opportunity, how often do you engage in the following behaviors? (Mark an X in the box):

	Always	Frequently	Sometimes	Never
<i>Recycling household waste.</i>				
<i>Buying locally produced foods.</i>				
<i>Donating time and money to environmental causes.</i>				
<i>Drinking bottled water.</i>				
<i>Replacing light bulbs with compact fluorescent or other energy saving lights.</i>				
<i>Using re-useable shopping bags.</i>				

4. Do you compost? (Circle all that apply.)

Food waste *Yard waste* *None* *Other*_____

5. Would you use a community composter if one was available? (Circle one.) *Yes* *No*

6. If you travel to work, how do you get there? (Circle the most common way.)

Drive *Carpool* *Walk* *Bike* *Public transportation* *Other*_____

7. In the winter when you are home during the day you set your heat to: (Circle the closest approximation.)

Below 65°F *65°-68°* *69°-72°* *73°-75°* *76°+*

8. When you purchase home electricity do you choose renewable sources? (Circle one.) *Yes* *No*

9. What do you l 160]TJ /TT0 1 Tf 3.9(C)-4(i)4(r)3(cl)4(e one)-2(.)10())3(a 85(he)r)4(k)1()11t t11()1()rc. doi0 Td /TTon5(c)1

SARATOGA COUNTY: OUTDOOR INTERACTIONS SURVEY

Thank you for taking the time to complete our survey. When you are done please remember to mail it back via the self-addressed envelope.

1. How often do you participate in the following activities? (Please mark an X in the appropriate box, and for seasonal activities indicate how often during the season.)

	A few times a week	A few times a month	A few times a year	One time or less a year	Never
<i>Boating</i>	3	5	14	14	12
<i>Camping</i>	1	2	9	13	22
<i>Canoeing/kayaking</i>	1	9	8	12	18
<i>Downhill skiing/snowboarding</i>	1	5	8	5	26
<i>Fishing</i>	0	2	12	9	23
<i>Golfing</i>	4	3	6	2	31
<i>Hiking/snowshoeing/cross country skiing</i>	1	11	22	4	9
<i>Hunting</i>	1	0	0	0	45
<i>Nature watching</i>	13	12	13	3	7
<i>Walking/jogging/running outdoors</i>	28	13	5	0	1
<i>How often do you visit parks?</i>	6	19	16	4	4

3. When presented with the opportunity, how often do you engage in the following behaviors? (Mark an X in the box):

Always Frequently Sometimes Never

3. When presented with the opportunity, how often do you engage in the following behaviors? (Mark an X in the box):

Always Frequently

SARATOGA COUNTY: OUTDOOR INTERACTIONS SURVEY

Thank you for taking the time to complete our survey. When you are done please remember to mail it back via the self-addressed envelope.

3. When presented with the opportunity, how often do you engage in the following behaviors? (Mark an X in the box):

	Always	Frequently	Sometimes	Never
<i>Recycling household waste.</i>	34	6	1	0
<i>Buying locally produced foods.</i>	7	23	11	1
<i>Donating time and money to environmental causes.</i>	0	9	28	5
<i>Drinking bottled water.</i>	5	6	17	12
<i>Replacing light bulbs with compact fluorescent or other energy saving lights.</i>	8	13	16	5
<i>Using re-useable shopping bags.</i>	8	15	10	9

4. Do you compost? (Circle all that apply.)

Food waste (10) Yard waste (21) None (17) Other_____

5. Would you use a community composter if one was available? (Circle one.) Yes (15) No (25)

6. If you travel to work, how do you get there? (Circle the most common way.)

Drive Carpool Walk Bike Public transportation Other_____

7. In the winter when you have snow, how do you get to work? (Circle all that apply.)

Appendix C: Figures

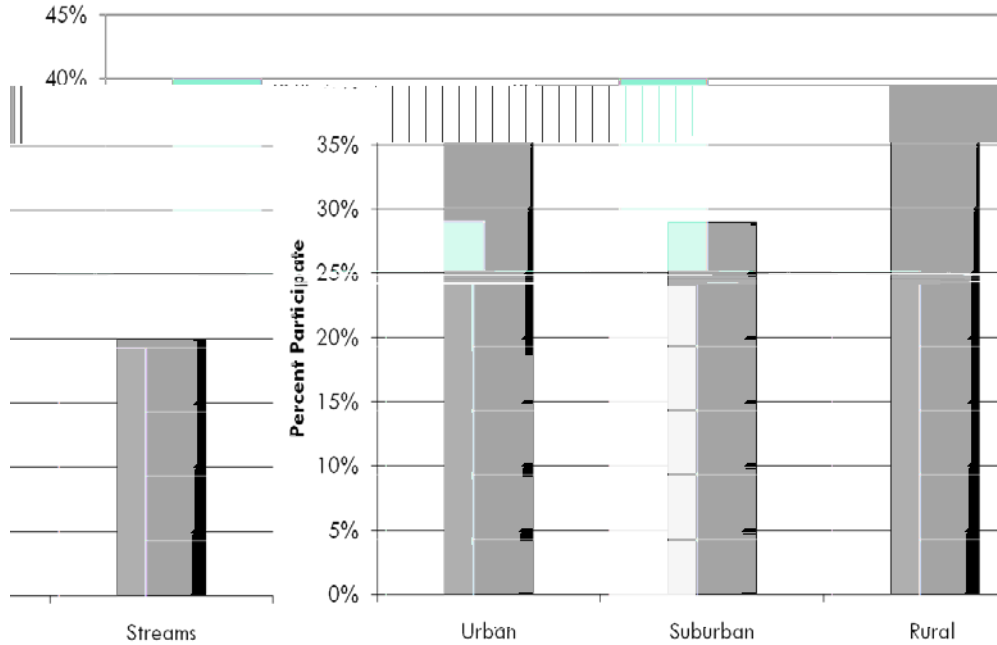


Figure 1. Percentage of respondents who partake in experiential outdoor activities. Urbanites and ruralites are tied at 40% of respondents who go camping, canoeing/kayaking, hiking/snowshoeing/cross country skiing, and nature watching.

Figure 2. Percentage of respondents who partake in constructed outdoor activities. Over 25% of urbanites and streamers golf and downhill ski/snowboard.

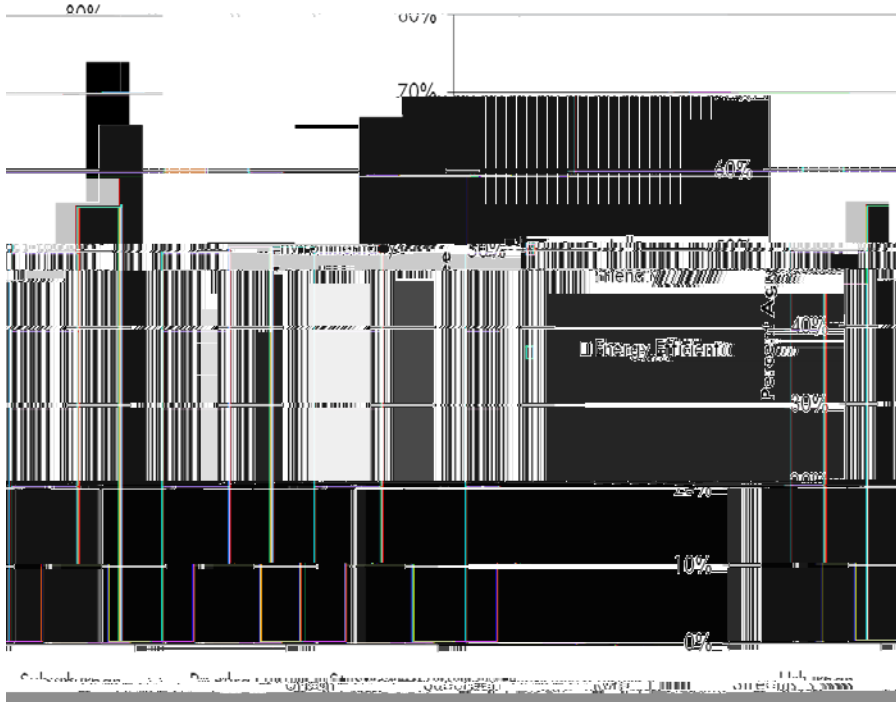


Figure 5. In almost all four groups with one exception in the urbanite group, more than half of respondents would like more information on how to be more environmentally friendly and energy efficient. All four groups would like more information on how to be more energy efficient than environmentally friendly, though ruralites want equally as much information.

Do You Compost?

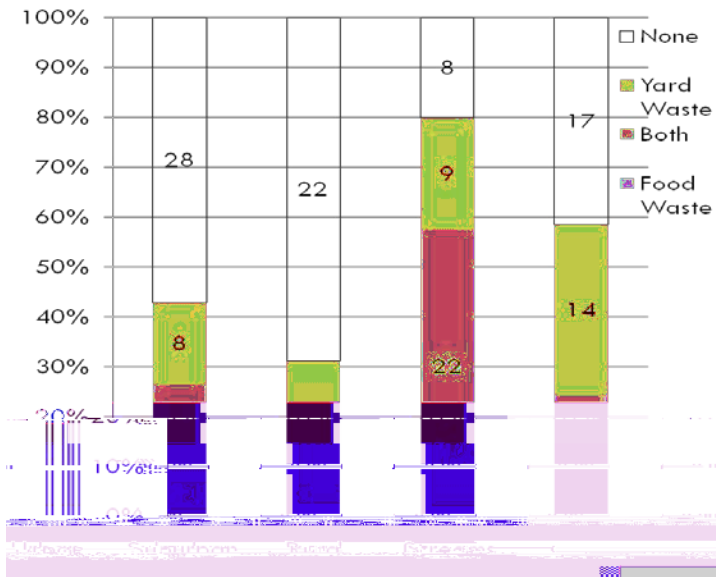


Figure 6. Ruralites and streamers compost the most because ruralites are on ten acres of land or greater, and many streamers live in rural areas as well. Only three respondents compost only food waste.

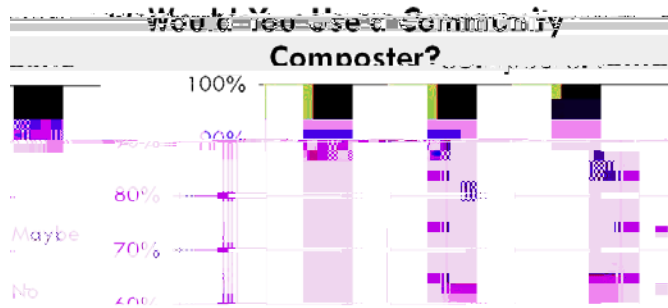


Figure 7. Urbanites and suburbanites are most likely to use a community composter because they are more likely to not own private composters, whereas ruralites and streamers are less likely to use a community composter because they tend to compost more privately.