

The Politics of Extension Water Programming: Determining if Affiliation Impacts Participation

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Abstract

Research has found levels of engagement in environmental behaviors and participation in Extension programming around environmental issues are directly associated with political affiliation. Democrat and Independent parties encourage members to vote for stricter environmental regulations, such as water conservation efforts, while Republicans resist. These divergent political behaviors imply that individuals' political affiliation affects their water conservation habits and their attitudes towards environmental issues. Hence, this can be used as a basis for creating appropriate water conservation-focused Extension programs targeting specific populations. However, research on the level of individual engagement in water conservation efforts and participation in Extension programming by political affiliation is lacking. The purpose of this study was to identify how engagement in water conservation behaviors and interest in water-focused Extension programs differ by political affiliation. The results show that Democrats are more interested in water-based education when compared to Republicans. These findings have important implications for the development of effective Extension programs designed to assist in water conservation efforts. By understanding the diverse political influences on water conservation behaviors, Extension educators can create appropriate and effective water-based education programs that resonates with all audiences.

Keywords: Environmental behaviors, Extension program participation, Political affiliation, Water conservation

Introduction

The United States Environmental Protection Agency (2013a) predicted that by 2030 the demand for fresh water will increase by approximately 28% when compared to 2005 levels. The abundance and quality of water for everyday consumption continues to face challenges for upcoming years (Corral-Verdugo, Bechtel, & Fraijo-Sing, 2003).

Many states, Florida in particular, are going through an intense population boom and existing water sources will be unable to meet increasing demands (Delorme, Hagen, & Stout, 2010; United States Environmental Protection Agency, 2013a). As water sources continue to become depleted, the general public is largely unaware of the urgency to conserve water and the amount of water wasted per day continues to add up at alarming rates (Delorme et al., 2010; Leal, Rumble, & Lamm, 2015).

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While consumers are able to consider the possible factors that contribute to a depleted water supply, they have been reluctant to acknowledge their own connection to the problem (Huang & Lamm, 2015a). In a study focused on understanding engagement in water management efforts with homeowners, Delorme et al., (2010) found respondents did not “mention homeowner involvement in water management efforts in neighborhood, community, or county environmental activities” (p. 31). Delorme et al. (2010) also found that while many of their respondents understood what a water crisis was, they had a tendency to depersonalize and dissociate themselves, attributing the fault to others (i.e. neighbors).

Even though individuals dissociate themselves as contributors to the problem, they have supported educational campaigns that get communities engaged in water conservation practices (Delorme et al., 2010). Therefore, Extension educators can play a significant role in combating the growing water crisis by developing educational programs focused on teaching communities innovative water conservation practices (Huang & Lamm, 2015b). Research has shown the level of engagement in water conservation behaviors can be increased by targeting specific groups with the appropriate information (Andreasen, 2006). This is because social groups approach topics associated with environmental protection (like water conservation) differently. Historically, political affiliation has been a delineator in approaches to environmental protection efforts.

Members of the Democratic Party are conscious of the need to protect the environment. The Democratic Party has made significant efforts to preserve and protect the environment and emphasizes that understanding the importance of America’s natural resources, including the quality of our air, water, and land, is imperative for future generations (DNC Services Corporation, 2013). The Democratic Party has continually expressed support for environmental spending, where members of the Republican Party have suggested too much money is being spent on environmental issues (Dunlap et al., 2001).

Members of the Independent Party also acknowledge natural resources are important and protection of the environment should be a state, local, and individual responsibility (Independent American Party, 2013). Independents believe a dynamic balance must occur between energy development and conservation (Independent American Party, 2013). They would like a pollution-free alternative for energy and believe safe and inexpensive alternative energy sources should be developed (Independent American Party, 2013).

Members of the Republican Party have differed from members of the Democratic and Independent parties when it comes to environmental protection. The Republican Party emphasizes that natural resource regulations harm the U.S. economy and may even threaten millions of jobs over the next quarter century (Republican National Committee, 2013). Republicans’ opposition to environmental protection efforts have stemmed from the belief that introducing unwarranted governmental restrictions may cause harm to “business and economic prosperity” at multiple levels including “business and industry and individual citizens” (Dunlap, Xiao, & McCright, 2001, p. 30). The Republican Party has also stated that environmental policy is a liberty and must remain in the hands of the people of the United States (Republican National Committee, 2013).

Previous literature implies that Democrats are more interested in adopting water conservation behaviors than Republicans (Pew Research, 2013). In fact, recent research has shown some of the largest differences in prioritization of issues are over the environment (Pew Research, 2013) and members of each political party are expected to step into these roles when entering the voting box. Pew Research (2013) determined U.S. voters tend to perform the role their political party expects when they found: About seven-in-ten Democrats (69%) mentioned protecting the environment should be a highest importance, compared with 32% of Republicans, a gap of 37

percentage points. Overall, 52% of Americans say the environment should be a top priority for the President and Congress.

Putting political affiliation aside, if water conservation is not enforced or mandated, shortages will continue to impact U. S. residents negatively (Barnett, 2007). As groundwater levels continue to be depleted, a sense of urgency has been placed on the development of new water conservation programs, the distribution of informational fact sheets, and increased media coverage designed to share information about the future water shortage issues the U.S. will be facing (United States Environmental Protection Agency, 2013b).

The diverse environmental protection behaviors driven by party affiliation mean that Extension programs focused on water conservation need to be customized to the communities they are tailored to address. Developing Extension education programs that will meet the academic, career, and developmental needs of diverse learners in all settings and at all levels is part of the National Research Agenda (Roberts, Harder, & Brashears, 2016). Therefore, a study exploring how political affiliation can be used to assist in addressing the needs of Extension clientele as it relates to water-focused educational programming can yield valuable insights providing direction for future practice.

Theoretical Framework

The theoretical framework used for this study was the Theory of Diffusion (Rogers, 2003). Using this theoretical framework, an innovation is defined as “an idea, practice, or object that is perceived as new by an individual” (Rogers, 2003, p. 12). By definition, diffusion is “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 2003, p. 11). Therefore, it is expected that water conservation behaviors would be diffused differently by members of separate social systems, such as affiliation with political parties. The innovation-decision process is one where an individual passes from knowledge, to forming an attitude, to making a decision to adopt or reject the new innovation, to implementation and finally confirmation (Rogers, 2003).

While individuals have a tendency to follow the innovation-decision process outlined by Rogers (2003), organizations have been shown to follow different patterns (Bowen, Stephens, Childers, Avery & Stripling, 2013; Frambach & Schillewaert, 2002). The majority of the general public characterizes themselves with a political party, an organization, thereby influencing the characteristics they perceive of the innovation of interest, in this case water conservation behaviors. Rogers (2003) attributes the differences associated with organizational adoption to “the degree to which an organization emphasizes following rules and procedures in the role performance of its members” (p. 377).

Political affiliation can provide a useful tool for comparing how political ideology contributes to attitudes regarding water conservation and other environmental behaviors. Historically, studies have confirmed that Democrats and individuals who are more politically liberal tend to express stronger environmental attitudes than do Republicans and ideological conservatives (Carman, 1998; Guber, 2003; Kanagy et al., 2001; Uyeki and Holland, 2000; Klineberg, McKeever, and Rothenbach, 1998; 2003; Van Liere and Dunlap, 1980). Past scholars have found that Liberals are more supportive of environmental regulations and are also more likely to encourage more attention be paid to environmental issues in general (Buttel & Flinn, 1978; Samdahl & Robertson, 1989). Furthermore, in addition to the research that shows political affiliation is closely aligned with environmental concerns, there are numerous studies that have found differences in behaviors between the various political groups (Barnett, 2007; Dunlap et al.,

2001; Van Liere & Dulap, 1980). There is also foundational evidence that Republicans and Democrats differ on their level of support for efforts to achieve environmental quality (Dunlap & Gale, 1975). Building off this foundational research, it seems likely that political affiliation is an important predictor of differences in attitudes about environmental issues and would influence the choice to engage in an Extension program focused on water conservation efforts resulting in the adoption of water conservation behaviors.

Based on the literature, it is expected that members of opposing political parties would diffuse water conservation behaviors differently and may even go through the innovation-decision process contrarily based on the social norms of the group for which they affiliate (Rogers, 2003). This indicates that Extension education programming should be focused on the audience of interest (Harder, Lamm & Strong, 2009). In this case the needs of the intended audience could be determined by whether a targeted individual or community affiliates with a political party since the innovation-decision process may be influenced by the characteristics of the organization in which they affiliate (Murphrey & Dooley, 2000).

Purpose & Objectives

The purpose of this study was to identify how engagement in water conservation behaviors and interest in water-focused Extension programming differs between individuals that identify with specific political affiliations. The research was guided by the following objectives:

1. Identify level of engagement in water conservation behaviors by political affiliation.
2. Identify interest in water-focused Extension programming by political affiliation.
3. Determine preferences for Extension program delivery by political affiliation.

Methods

This descriptive study used an online survey design. The population of interest was residents of the state of Florida, age 18 or older. The study was limited to Florida because water has been recurrently identified as the number one issue facing the state (University of Florida, 2011). Florida is currently undergoing a strategic restructuring of their Extension system, and within this enhancing and protecting water quality, quantity and supply has emerged as one of the high-priority initiatives. This study was part of a series of public opinion questionnaires that are repeated annually to monitor trends in public opinion.

The survey instrument was based on the 2012 Royal Bank of Canada Water Attitudes Study (Patterson, 2012). For this study, the original instrument was adapted to fit a Florida audience and researcher-developed questions specific to Extension programming interest and preferences were added. Given this research was part of a larger study, four sections of the survey instrument were germane to the findings in this study: engagement in water conservation behaviors, interest in water focused Extension programming, preferences for Extension program delivery, and demographics.

An expert panel with expertise in water quality and quantity issues, public opinion research, and Extension programming reviewed the instrument for content, face validity, and survey design. The panel of experts included the director of the Center for Landscape Conservation and Ecology, the director UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources (PIE Center), and an Extension evaluation specialist. In addition, the survey was pilot tested on an initial set of 50 respondents to ensure face content and validity.

To measure respondents' engagement in water conservation behaviors, respondents were provided two sets of questions. First, respondents were asked to respond by indicating whether or not they had engaged in four specific water conservation behaviors. Second, respondents were asked to indicate how often they engaged in specific positive and negative water use behaviors by rating their level of engagement in seven activities on a Likert-type scale. The scale ranged from 1 – *Never*, 2 – *Almost never*, 3 – *Sometimes*, 4 – *Almost every time*, 5 – *Always*.

Next, respondents were asked to indicate whether or not they were interested in learning about fourteen specific water-related topics. Respondents were presented with 14 options and allowed to indicate all that were applicable. Lastly, respondents were asked to indicate the types of learning opportunities they would most likely take advantage of to learn more about water topics if they were made available. Respondents were presented with 11 options and were allowed to indicate any they would be interested in taking advantage of in the future. Finally, participants were asked to identify their sex, race, ethnicity, age, residential zip code, and political affiliation. Residential zip codes were assigned rural-urban continuum (RUC) codes to indicate community size (United States Department of Agriculture Economic Research Service, 2013).

A non-probability opt in sample was obtained from a public opinion survey research company. Non-probability samples are often used in public opinion research to make population estimates (Baker et al., 2013). While non-probability samples require adjustments for nonrandom selection and nonresponse, previous literature has shown that non-probability samples have yielded results that are as good as or even better than probability-based samples (Abate, 2008; Twyman, 2008; Vavreck & Rivers, 2008).

The public opinion survey research company sent the developed survey link to a sample of 516 Florida residents representative of the state population based on the 2010 Census data. A response rate of 90.9% ($N = 469$) was obtained. To compensate for potential exclusion, selection, and non-participation biases that tend to be limitations of using a non-probability sample, weighting procedures were implemented (Baker et al., 2013). In this case, weighting was conducted using post-stratification methods (Kalton & Flores-Cervantes, 2003) to balance demographics ensuring the composition of the sample reflected the adult Florida population and to provide results intended to approximate the population of interest. Results were weighted by gender, race, ethnicity, age, and community size (represented RUC code classification). Data was analyzed using descriptive statistics. Differences between groups were identified using chi-square test.

Detailed demographics can be seen in Table 1. Descriptive analysis of the demographic data after weighting showed there were 240 female (51.1%) and 229 male (48.9%) respondents. Majority (77.1%, $n = 362$) of respondents were Caucasian/White (Non-Hispanic), Hispanics represented 22.5% ($n = 106$) of the respondents and African Americans made up 17% ($n = 80$) of the respondents. The majority of respondents (52.7%, $n = 247$) were between the ages of 20 and 59 and 93.6% lived in metropolitan counties as defined by the RUC code system (United States Department of Agriculture Economic Research Service, 2013).

Table 1

Demographics of Respondents

Characteristic	<i>n</i>	%
Sex		
Female	240	51.1
Male	229	48.9
Race		
African American	17	17.0
Asian	14	3.0
Caucasian/White (Non-Hispanic)	362	77.1
Native American	1	0.2
Hispanic Ethnicity	106	22.5
Age		
18 - 29	66	14.1
30-39	57	12.2
40-49	67	14.2
50-59	63	13.5
60-69	52	11.1
70-79	35	7.4
80 and older	23	4.9
Rural-Urban Continuum Code Classification		
1 million or more metropolitan area	296	63.1
250,000 to 1 million metropolitan area	121	25.7
Few than 250,000 metropolitan area	23	4.8
20,000 or more, non-metro area	16	3.5
2,500 to 19,999 non-metro area	12	2.6
< 2,500 completely rural non-metro area	1	0.3
Political Affiliation		
Republican	113	24.3
Democrat	188	40.7
Independent	142	30.6
Other	20	4.3

Results

Engagement in Water Conservation Behaviors by Political Affiliation

Respondents were asked about products and infrastructure they have in their homes that conserve water, *including water efficient toilets, water efficient showerheads and rain barrels* (see Table 2). Respondents across all three political parties reported higher percentages of owning water efficient appliances. The Chi-square tests revealed there were significant difference between the political affiliation and the use of water conserving products based on a significance level of $< .05$ set *a priori*.

Table 2

Respondents' Use of Water Conserving Products

	Republican %	Democrat %	Independent %	X^2	p
I have water-efficient toilets installed in my home	54.1	53.4	55.6	25.72	.00**
I have low-flow shower heads installed in my home	54.6	52.9	53.7	15.24	.02*
I use recycled water	71.6	62.8	68.6	15.77	.02*
I use rain barrels to collect water for use in my garden/lawn	12.5	21.8	20.9	9.86	.13
I have low-water consuming plant materials in my yard	35.7	31.5	33.1	1.94	.93

Note: ** $p < .01$; * $p < .05$.

Respondents were then asked about their frequency of engagement in both negative and positive water use behaviors (see Table 3). The respondents answered the question based off the following answer choices: never, almost never, sometimes, almost every time, and every time. Responses for never and almost never were combined to produce the *Low category* and the responses for sometimes, almost every time and every time were combined to produce the *High category* to more easily compare responses across the three groups. The Chi-square tests revealed there were no significant differences based on political affiliation.

Table 3

Respondents' Engagement in Water Use Behaviors

		Republican %	Democrat %	Independent %	X^2	p
Positive Behaviors						
I shower for no more than five minutes each time I bathe	Low	8.3	12.0	9.0	17.78	.12
	High	16.0	33.0	21.3		
I avoid watering my lawn in the summer	Low	4.3	8.3	5.5	13.26	.35
	High	20.0	27.2	25.0		
I turn off the water while brushing my teeth	Low	4.3	5.1	3.8	4.73	.97
	High	20.0	35.0	26.4		
Negative Behaviors						
I hose down my driveway	Low	18.1	29.2	25.1	14.71	.26
	High	5.5	11.0	5.1		
I let my sprinklers run when rain is predicted in the forecast	Low	17.0	30.4	24.0	13.86	.31
	High	7.0	9.3	6.4		
I leave the water running in the kitchen when washing and/or rinsing the dishes	Low	9.2	16.0	13.0	12.98	.37
	High	15.0	25.0	17.0		
I let my sprinklers run when it has rained or is raining	Low	19.4	32.0	26.0	11.40	.50
	High	4.5	8.5	4.1		

Note: Scale ranged from 1 – *Never*, 2 – *Almost never*, 3 – *Sometimes*, 4 – *Almost every time*, 5 – *Always*; Never and Almost never were combined – Low; Sometimes, Almost every time and Always were combined – High.

Interest in Water Focused Extension Programming

Respondents were asked how interested they would be in water-focused Extension programming topics (see Table 4). Overall, Democrats had higher interest levels in learning about a variety of water related topics than either Independents or Republicans. The three political parties differed the most in their interest in the topic of *forest management and water issues* and *watershed restoration*. To determine if significant differences existed between the three political groups Chi-square tests were run. They revealed there were statistically significant differences between political affiliation groups when it came to *forest management and water issues* ($p > .04$) and *watershed restoration* ($p > .05$).

Table 4

Respondents' Interest in Water Focused Extension

	Republican %	Democrat %	Independent %	X ²	p
Forest management and water issues	33.8	47.5	34.3	8.31	.04*
Watershed restoration	28.1	40.3	29.9	8.00	.05*
Septic system management	28.8	37.4	29.6	6.42	.11
Watershed management	27.6	38.1	29.1	6.15	.11
Water policy and economics	42.9	50.7	41.0	5.54	.14
Community action concerning water issues	44.3	51.2	46.4	4.62	.20
Irrigation management	36.8	37.7	32.4	4.72	.20
Fertilizer and pesticide management	36.7	46.2	40.5	3.76	.29
Shoreline clean-up	37.2	47.1	46.6	3.31	.35
Fish and wildlife water needs	47.8	53.0	44.6	2.56	.46
Private well management	29.3	37.4	31.4	2.36	.50
Restoring fish and aquatic habitat	39.6	47.5	44.1	1.87	.60
Home and garden landscaping ideas for Florida yards	53.0	51.3	48.7	1.44	.70
Landscape buffers	34.1	37.7	32.3	1.35	.72

Note: *p < .05.

Preferences for Mode of Extension Program Delivery

Respondents were asked a series of questions to identify their preferences for mode of Extension program delivery (see Table 5). All three political parties held similar preferences for different styles of Extension program delivery, with *visiting a website* the most preferred mode. Democrats had a higher percentage to *watch TV coverage* (52.4%) than Republicans (49.4%) and Independents (39.7%). Independents on the other hand, had a higher percentage to *attend a fair or festival* (20.6%) than Democrats (14.2%) or Republicans (11.2%). Chi-square tests confirmed there were no statistically significant differences between the political groups in regards to their preferences for mode of program delivery.

Table 5

Respondents' Preferences for Mode of Program Delivery

	Republican %	Democrat %	Independent %	X^2	p
Watch TV coverage	49.4	52.5	39.7	5.83	.12
Look at a demonstration or display	17.5	16.3	19.4	4.92	.18
Attend a fair or festival	11.2	14.2	20.6	4.45	.22
Read printed fact sheets, bulletins, or brochures	41.4	40.7	34.2	3.56	.31
Attend a seminar or conference	5.5	8.6	11.3	3.15	.37
Get trained for a regular volunteer position	9.6	12.3	10.8	2.99	.39
Watch a video	33.7	33.3	34.2	3.03	.39
Read a newspaper article or series	30.1	27.8	24.3	2.64	.45
Attend a short course or workshop	18.9	14.4	16.4	1.22	.75
Visit a web site	61.7	66.2	65.6	1.07	.78
Take part in a one-time volunteer activity	12.7	15.3	13.5	0.58	.90

Conclusions

The purpose of this study was to identify how engagement in water conservation behaviors and interest in water focused Extension programs differed by political affiliation. It is important to address these potential differences in order to inform the development of Extension programs that directly relate to the needs of varying clientele (Harder et al., 2009). The first research objective examined the influence of political affiliation on engagement in water conservation behaviors. The

study examined current water use practices such as *turning off the water while brushing teeth and letting sprinklers run when rain is predicted in the forecast*. Analyses from these measures showed that respondents' reporting affiliation with all three political parties displayed no significant difference in behavior when it comes to *turning off water when brushing their teeth*. Respondents across all of the political affiliations also reported partaking in positive water use practices, at least part of the time. Similarly, all of the respondents across political affiliation reported partaking in negative water use practices only on rare occasions. Based on these results it is plausible that regardless of political affiliation most individuals are somewhat conscious of their water use behaviors. This finding indicates that previous literature discussing the lack of consumer awareness regarding water conservation is not necessarily accurate (Delorme et al., 2010).

The results also revealed that respondents with a specific political affiliation appear to go above and beyond that of others in regards to specific behaviors supporting the notion that organizational affiliation may influence the innovation-adoption process (Rogers, 2003). For instance, the results showed that Republicans and Independents were more likely to have *water efficient toilets, low-flow shower heads, and recycled water* when compared to Democrats. The finding of this research study differs from previous literature that supported Democrats with being more interested in water conservation behaviors than Republicans and Independents (Pew Research, 2013). Therefore, engagement in these behaviors indicated Democrats have a weaker commitment to water conservation efforts, that requires more time, which conflicts with the previous literature (Carman, 1998; Guber, 2003; Kanagy et al., 1994).

The second objective of the study was to investigate the influence of political affiliation on interest in water-focused Extension programming. Democrats were mostly interested in Extension programming focused *forest management and water issues and watershed restoration* for Florida yards. An increased interest in learning about these water topics is consistent with the Democratic party's ideology that suggests Democrats be more engaged in adopting water conservation behaviors (Pew Research, 2013). Thus, the initiative to learn about a variety of water topics may again indicate that certain groups are partaking in the diffusion process differently (Roger, 2003).

The last research question identified respondents' preferences for Extension programming about water topics. Visiting a website was the overall preference for the delivery of water information among all political affiliations by percentage. Democrats had a higher percentage preference for receiving information about water topics through television and Republicans indicated a higher percentage preference for water information to be delivered via fact sheets, bulletins, or brochures. Independents were more interested in learning about water topics by attending fairs or festivals than respondents affiliated with the other two political parties. However, the findings suggest that there is no significant differences found between the political groups in regards to preferences for program delivery. Therefore, it is critical that Extension educators delivered programs that appease various communication channels for its clientele.

Implications & Recommendations

The results of this study revealed that Florida residents that held a democrat political affiliation were participating, at some level, in water conservation practices and do have an interest in learning about water topics. These findings imply there is a need for Extension educators to deliver high quality educational programs on water conservation efforts in a way that audiences want the information relayed. One of the major implications for this study is that there is no difference in preferences for the delivery of water information based on political affiliation, Extension educators can encourage further interest in and adoption of water conservation behaviors by using various communication channels.

The results support previous research showing that Democrats and individuals who are more politically liberal tend to express stronger environmental attitudes than do Republicans and ideological conservatives (Carman, 1998; Firebaugh, Dunlap, Xiao, and McCright, 2001; Guber, 2003; Kanagy, Humphrey, and Uyeki and Holland, 2000; 1994; Klineberg, McKeever, and Rothenbach, 1998; 2003; Van Liere and Dunlap, 1980). Therefore, Extension educators should make a distinction with water education materials to target all political groups by making sure existing programs emphasize the economic importance of having strong environmental awareness while expressing the necessity of conservation behaviors. By emphasizing economic impacts of conservation efforts, Democrats, Republican and Independent audience's needs and concerns would be more readily addressed. Concurrently, Extension should focus on encouraging Democrats and individuals who are more politically liberal to use their existing attitudes about the environment to catapult their engagement in consistent positive conservation behaviors.

While respondents did align with the general expectations of their political parties, there are certain areas where it would make most sense to target the entire population rather than dividing up efforts based on political parties. For example, home and garden landscaping could be delivered to all facets of the population regardless of political affiliation because overall more people, despite affiliation, were interested in this topic. Additionally, our findings contradict previous literature showing that Democrats and Independents are similar in behaviors. The results from this study revealed Republicans and Independents are similar in learning preferences. Extension should take note of these similarities in order to fully relate to the needs of these populations.

Lastly, our findings show there are areas of water conservation that are still underutilized. Extension must highlight these areas and dedicate to focus more resources towards areas in order to have a high impact across domains. More emphasis should be made on improving behaviors that are not uniformly engaged in across all parties. The goal of Extension should be to increase the behaviors from being done *sometimes* to *almost every time* and create programs that improve behaviors that have less participation such as not leaving water running when washing dishes and not operating sprinklers when the forecast predicts rain.

Furthermore, future studies should identify barriers to water conservation as well as reasons why members of each political affiliation chose not to engage in water conservation action. These findings are valuable to Extension because educators can use this information to tailor programs to specific audiences. For example, if the residents of a county are heavily Democrat, the Extension educator may want to consider hosting a forest management and water issue training, while this would not be an effective use of resources if the area is primarily Republican. Therefore, to make Extension stronger and to value the time of the Extension educators it is better to understand what their clientele needs and what educational preferences they prefer.

To further explore this area of study, future research should examine political ideology (such as level of liberalism or conservatism) rather than just political affiliation to examine the nuances of audience segmentation by political perspective. In addition, a future study could use an experimental design to examine the effects of information delivery methods based on political affiliations as it relates to engagement in water conservation behaviors and interest in water-focused education. It would be helpful to find out which forms of delivery lead to more action on water conservation and whether these findings are good or problematic in that regard. This can help Extension deliver programs in the appropriate way, even when there are difference across all parties.

References

- Abate, T. (2008). Accuracy of online surveys may make phone polls obsolete. *The San Francisco Chronicle*, D1.
- Andreasen, A. R. (2006). *Social marketing in the 21st century*. Thousand Oaks, California: Sage Publications. doi:10.4135/9781483329192
- Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., et al. (2013). *Report of the AAPOR task force on non-probability sampling*. American Association for Public Opinion Research. Retrieved from <http://www.aapor.org/AM/Template.cfm?Section=Reports1&Template=/CM/ContentDisplay.cfm&ContentID=5963>
- Barnett, C. (2007). *Mirage: Florida and the vanishing water of the Eastern U.S.* Ann Arbor, Michigan: The University of Michigan Press.
- Bowen, R. D., Stephens, C. A., Childers, C. C., Avery, E. J., & Stripling, C. T. (2013). Diffusion of social media among county 4-H programs in Tennessee. *Journal of Agricultural Education*, 54(2), 84-99. doi: 10.5032/jae.2013.01084
- Buttel, F. G., & Flinn, W. L. (1978). The politics of environmental concern: The impacts of party identification and political ideology on environmental attitudes. *Environment and Behavior*, 10(1), 17-36. Retrieved from <http://eab.sagepub.com/content/10/1/17.full.pdf+html>
- Carman, C. (1998). Dimensions of environmental policy support in the United States. *Social Science Quarterly*, 79(4), 717-733. Retrieved from <http://search.proquest.com/docview/57427747?accountid=10920>
- Corral-Verdugo, V., Bechtel, R. B., & Fraijo-Sing, B. (2003). Environmental beliefs and water conservation: An empirical study. *Journal of Environmental Psychology*, 23(3), 247-257. doi:10.1016/S0272-4944(02)00086-5
- Delorme, D. E., Hagen, S. C., & Stout, I. J. (2010). Consumers' perspectives on water issues: Directions for educational campaigns. *The Journal of Environmental Education*, 34(2), 28-35. doi: 10.1080/00958960309603497
- DNC Services Corporation. (2013). *Issues environment*. Retrieved from <http://www.democrats.org/issues/environment#more>
- Dunlap, R. E., & Gale, R. P. (1974). Party membership and environmental politics: a legislative role-call analysis. *Social Science Quarterly*, 55(3), 670-690. Retrieved from <http://www.jstor.org/stable/42860279>
- Dunlap, R. E., Xiao, C., & McCright, A. M. (2001). Politics and environment in America: Partisan and ideological cleavages in public support for environmentalism. *Environmental Politics*, 10(4), 23-48. doi: 10.1080/714000580

- Frambach, R.T., & Schillewaert, N. (2002). Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research. *Journal of Business Research*, 55, 163-176. doi:10.1016/S0148-2963(00)00152-1
- Guber, D. L. (2003). *The grassroots of a green revolution: Polling America on the environment*. Cambridge, MA: MIT Press.
- Harder, A., Lamm, A. J., & Strong, R. (2009). An analysis of the priority needs of Cooperative Extension at the county level. *Journal of Agricultural Education*, 50(3), 11-21. doi: 10.5032/jae.2009.03011
- Huang, P., & Lamm, A. J. (2015a). Impact of experience and participation in Extension programming on perceptions of water quality issues. *Journal of International Agricultural and Extension Education*, 22(3). doi:10.5191/jiaee.2015.22303
- Huang, P., & Lamm, A. J. (2015b). Understanding public engagement in water conservation behaviors and knowledge of water policy: Promising hints for Extension. *Journal of Extension*, 53(6), 1-12. Retrieved from <http://www.joe.org/joe/2015december/rb1.php>
- Independent American Party. (2013). *Platform of the national independent American party*. Retrieved from <http://www.independentamericanparty.org/about-the-iap/platform/>
- Kalton, G., & Flores-Cervantes, I. (2003). Weighting methods. *Journal of Official Statistics*, 19(2), 81-97. Retrieved from <http://www.jos.nu/Articles/article.asp>
- Kanagy, C. L., Humphrey, C. R., & Firebaugh, G. (1994). Surging environmentalism: Changing public opinion or changing publics. *Social Science Quarterly*, 75(4), 804-819. Retrieved from <http://search.proquest.com/docview/57615006?accountid=10920>
- Klineberg, S. L., McKeever, M., & Rothenbach, B. (1998). Demographic predictors of environmental concern: It does make a difference how it's measured. *Social Science Quarterly* 79(4), 734-753. Retrieved from <http://search.proquest.com/docview/61604793?accountid=10920>
- Leal, A., Rumble, J., & Lamm, A. J. (2015). Setting the agenda: Exploring Floridian's perceptions of water quality and quantity issues. *Journal of Applied Communications*, 99(3), 53-67. Retrieved from http://journalofappliedcommunications.org/images/stories/issues/2015/jac_v99_n3_article4.pdf
- Murphrey, T. P., & Dooley, K. E. (2000). Perceived strengths, weaknesses, opportunities, and threats, impacting the diffusion of distance education technologies in a college of agriculture and life sciences. *Journal of Agricultural Education*, 41(4), 39-50. doi: 10.5032/jae.2000.04039
- Patterson, L. (2012). 2012 RBC Canadian water attitudes study. *RBC Blue Water Project*. Retrieved from <http://www.rbc.com/community-sustainability/environment/rbc-blue-water/index.html>

- Pew Research Center. (2013, February 5). *Many more democrats than republicans say protecting environment a top priority*. Retrieved from <http://www.pewresearch.org/daily-number/many-more-democrats-than-republicans-say-protecting-environment-a-top-priority/>
- Republican National Committee. (2013). *America's natural resources: Republican platform*. Retrieved from http://www.gop.com/2012-republican-platform_America/
- Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). (2016). *American Association for Agricultural Education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: The Free Press.
- Samdahl, D.M., & Robertson, R. (1989). Social determinants of environmental concern: Specification and test of the model. *Environment and Behavior, 21*, 57-81. doi: 10.1177/0013916589211004
- Twyman, J. (2008). Getting it right: Yougov and online survey research in Britain. *Journal of Elections, Public Opinions and Parties, 18*, 343-354. doi: 10.1080/17457280802305169
- United States Environmental Protection Agency. (2013a). *Saving water in Florida*. Retrieved from http://www.epa.gov/watersense/docs/Florida_state_fact_sheet_508.pdf
- United States Environmental Protection Agency. (2013b). *Watersense*. Retrieved from <http://www.epa.gov/WaterSense/pubs/fixleak.html>
- Uyeki, E. S., & Holland, L. J. (2000). Diffusion of pro-environment attitudes? *The American Behavioral Scientist, 43*(4), 646-662. doi: 10.1177/00027640021955478
- Van, L., Kent, D., & Dunlap, R. E. (1980). The social bases of environmental concern: A review of the hypotheses, explanations, and empirical evidence. *Public Opinion Quarterly, 44*(2), 181-197. doi: 10.1086/268583