

**Communicating about Civic Engagement to Increase Public Understanding of Water
Policy and Regulation**

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Introduction

Water is a basic necessity for life and a major concern in the sustainability of natural resources, specifically in Florida where resources are threatened by the growing population (Florida Department of Environmental Protection, 2014; Young & Dhanda, 2013). When much of the public lacks agricultural literacy, or is influenced by the media agenda and not civically engaged, uninformed voting can result (Olper & Swinnen, 2013; Swinnen & Van der Zee, 1993). Public policy the public votes on plays a vital role in natural resource management and water allocation and will continue to do so for years to come (Kreye, Adams, Escobedo, & Soto, 2016).

Agricultural communicators and extension educators have been trying to get the public more familiar with water issues (Lamm, Lundy, Warner, & Lamm, 2016; Owens & Lamm, 2016) and policy and regulation impacting water but have found it challenging (Leal, Rumble, & Lamm, 2015). Enhancing “public and policy maker understanding of agriculture and natural resources” (p. 13), especially when it comes to “addressing complex problems (p. 57), is a priority identified in the national research agenda for agricultural education (Roberts, Harder, & Brashears, 2016). Therefore a study exploring how public civic engagement in the voting process relates to familiarity with water policies could assist in building agricultural communication campaigns that increase water knowledge and an informed public.

Conceptual Framework

The concept of civic engagement served as the conceptual framework this study. Civic engagement illustrates the conditions in which citizens engage in their communities in a civil society (Kim & Ball-Rokeach, 2006) and largely influences whether or not someone is making informed decisions when it comes to taking civic action, including voting for water regulation. Components of civic engagement include “neighborhood belonging, perceived collective efficacy, and the scope of civic participation” (Kim & Ball-Rokeach, 2006). Research has found individuals that are more civically engaged are also more knowledgeable when making decisions that impact their communities (Kawashima-Ginsberg & Levine, 2014). This study focused on the area of civic engagement that encompasses political participation (Parry, Moyser & Day, 1992), specifically looking at how political participation through civic engagement is related to knowledge of water policy.

Methods

An online survey was distributed to Floridians age 18 or older using a non-probability sampling method; a common sampling technique used in public opinion research (Baker et al., 2013) resulting in 454 complete responses that were weighted using the 2010 U.S. Census data to ensure representativeness. Survey respondents were asked how familiar they were with specific water-related policies and programs and also asked to indicate their level of disagreement or agreement with statements regarding how they prepared to vote on policy that impacts agriculture and natural resources (ANR). Both sets of responses asked respondents to indicate their perceptions on a five-point Likert-type scale. A familiarity with policy index ($\alpha = .94$) was created by averaging the responses to eight questions and a civic engagement when preparing to vote index ($\alpha = .90$) was created by averaging responses to five questions. Each of the indices had reliable Cronbach’s alpha coefficients. Descriptive statistics and correlations were run using SPSS.

Results

Most respondents (78.3%) agreed or strongly agreed they considered the positive and negative implications that could result from a piece of legislation when voting (Table 1). When averaged, the civic engagement when preparing to vote index had a mean score of 3.78 ($SD = .71$).

Table 1

Civic engagement when preparing to vote

	SD	D	NAD	A	SA
	%	%	%	%	%
I would seek factual information from multiple sources.	2.0	4.7	21.1	52.5	19.6
I would seek to fully understand the policy.	1.8	3.1	20.0	54.3	20.8
I would consider both the positive and negative implications that could result.	.8	3.7	17.1	57.0	21.3
I would discuss my opinion with others.	2.4	5.0	38.3	39.3	14.9
I would ask others what their opinions are.	2.6	3.9	36.7	41.9	14.8

Note. SD = *Strongly Disagree*, D = *Disagree*, NAD = *Neither Agree Nor Disagree*, A = *Agree*, SA = *Strongly Agree*

Most respondents were not at all familiar with water policies or programs (Table 2). When averaged, the familiarity with water policy index had a mean score of 2.08 ($SD = 1.00$).

Pearson’s correlation of the indices was analyzed to determine if there was a relationship between the two variables and a coefficient of .20 resulted; a significant correlation with a small strength size (Cohen, 1988).

Table 2

Familiarity with water policy

	NF	SF	SWF	MF	EF
	%	%	%	%	%
Clean Water Act	31.8	17.4	26.1	19.6	5.1
Air and Water Pollution Control Act	39.0	15.7	25.4	15.8	4.2
The Water Quality Assurance Act	41.9	21.2	19.5	13.5	3.9
Florida Safe Drinking Water Act	41.9	19.8	20.8	12.4	5.2
Total Maximum Daily Loads (TMDLs)	63.2	16.2	13.2	4.7	2.8
Basin Management Action Plans (BMAPs)	64.5	15.5	12.8	4.1	3.0
Everglades Restoration Plan	38.1	22.8	17.2	16.5	5.5
Florida Spring Initiative	56.3	16.0	15.7	7.8	4.2

Note. NF = *Not at all Familiar*, SF = *Slightly Familiar*, SWF = *Somewhat Familiar*, MF = *Moderately Familiar*, EF = *Extremely Familiar*.

Conclusions, Implications and Recommendations

Previous literature by Olper and Swinnen (2013) identified a relationship between a lack of agricultural literacy and uninformed voting. This study reinforces that idea, identifying a relationship between familiarity with policy related to ANR and civic engagement. This finding implies agricultural communicators can foster more informed voting on ANR issues by promoting civic engagement. Additional research should be conducted to determine if knowledge of ANR issues above and beyond water policy and regulation has a relationship with public civic engagement. This future study may apply research conducted by Kreye et al. (2016) to determine civic engagement’s impact on future water policy implementation in the future.

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