

Identifying Extension Agent Needs Associated with Communicating about Policies and Regulations

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Abstract

The Cooperative Extension Service has performed the role of educator and change agent for more than a century. Changes occurring during this period caused Extension to extend its influence beyond the farm and traditional roles. Today, Extension faces controversial public issues and unparalleled levels of policy and regulation impacting agriculture and natural resources. As the needs of our changing society evolve, regulation increases, and response to public opinion becomes more complex. Extension must expand its role in providing education related to public issues and acting as facilitators and change agents to ensure viable actions are taken. This study was conducted to determine the level of preparedness of Florida Extension agents in dealing with policies and regulations. An emailed survey of all Florida Extension agents utilized questions regarding frequency of addressing policies with their clientele and their knowledge of said policies. Results indicated a low frequency of agents of all types addressing most policies with their clientele and a need for increased knowledge about the policies. In particular, there is an opportunity for all agent types to improve interactions with clientele on the topic of Immigration Reform as well as knowledge of related policies.

Keywords: extension agent; needs assessment; policy; regulation

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Introduction

The Extension Service has established more than a century of unique service valued for objective and unbiased information (Beaulieu & Cordes, 2014; Comer, Campbell, Edwards, & Hillison, 2006). Functioning as a bridge between science and the real-world, Extension's history reflects constructive problem solving and progressive education on research and other university efforts (Hamilton, Chen, Pillemer, & Meador, 2013; Harder, Israel, & Lamm, 2011; Jacob, 2013; Rasmussen, 1989; Rogers, 2003). Despite success in the past, Extension today faces challenges in funding, rapidly advancing technology, changing client needs and demographics, and controversial topics including public policy (Blewett, Keim, Leser, & Jones, 2008; Ladewig & Rohs, 2000; Raison, 2014; Scheer, Harder, & Place, 2011). Recent studies agree that Extension's role related to

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public policy is key to future viability of the service (Boyle & Mulcahy, 1993; Hinkey, Ellenberg, & Kessler, 2005; Singletary et al., 2007).

The effect of public policy on agriculture escalates as society grapples with complex efforts to mesh social concerns with production needs and developing technologies (Belson, 2000; Conklin & Olexa, 2012; Cantrell, Lubben & Reese, 2013). Many agricultural regulations surround environmental issues such as limiting impacts on water quality or land erosion. Other policies involve health and safety issues, such as use of antibiotics in food animals or problems involving animal waste (Keeney & Kemp, 2002). Today, the country's agricultural industry exists in a highly regulated environment necessitating that Extension improves its understanding of the legal complexities surrounding these issues (Conklin & Olexa, 2012).

Experts in the fields of democracy and social sciences have reported that an active, participatory citizenry involved with public issues and policies is essential to maintaining liberty in a republic like the United States (Beaulieu & Cordes, 2014; Jacob, 2013). The basis of the land-grant University and Extension service involve these same principles of social involvement (Blewett et al., 2008; Jacob, 2013). Previous work has described public policy as a multi-faceted combination of legitimate information, moral standards, and fiction believed to be facts (Cantrell et al., 2013). Based on the many influences affecting regulations, struggling with policy issues must often involve scientists, subject experts, regulatory officials, and the public (Beaulieu & Cordes, 2014; Jolley, 2007; Majee & Maltsberger, 2013). Yet, the general public often fails to realize their significant role in policy formation (Majee & Maltsberger, 2013) and often lacks accurate information on agriculture and natural resources necessary to make informed decisions (Frick, Birkenholz, & Machtmes, 1995). Extension presents an effective avenue for the education and engagement of the public in the country's policy process (Hinkey et al., 2005; Jolley, 2007).

Over the years, Extension's mission has evolved to meet new challenges and needs. A 2001 restatement of this charge includes direction to empower the public and communities to improve lives and employ knowledge (Ahearn, Yee, & Bottum, 2003; Blewett et al., 2008). While those active in agriculture and natural resources continue to view Extension as support of their business and lives, many policy developers and officials, especially in developing nations, see Extension as an avenue toward policies promoting the health of both industries, security of food sources, and education of individuals and communities (Contado, 1997). If Extension agents intend to successfully perform as change agents and unbiased educators, they must be skilled in dealing with policies and other public issues (Harder, Lamm, & Strong, 2009; Harder, Mashburn, & Bengel, 2009). Yet, the level of Extension agents' preparedness to deal with policy issues remains unclear.

Determination of Extension's ability to deal with policy issues requires examination of agents' current level of applicable knowledge and skills. A broadly accepted instrument to identify such deficiencies is the needs assessment (Caravella, 2006). Once conducted, such assessments are helpful in the development and implementation of countermeasures for shortcomings (Israel & Ilvento, 1995). Prior assessments showed a high priority need to develop agents' skills to address policy-related issues (Singletary et al., 2007) and the American Association for Agricultural Education National Research Agenda emphasizes the need for agricultural educators working in both formal and non-formal settings to be prepared to deal with the complex issues the world is and will be facing (Roberts, Harder, & Brashears, 2016).

Conceptual Framework

The model from the needs resolution process comprises the theoretical framework for this study (Harder et al., 2009). The model was developed based on the work of Boyle (1981), English

and Kaufman (1975), Witkin and Altschuld (1995), and McLean (2006) which was aimed at restoration of an individual’s equilibrium through identifying and focusing on the organization’s response to meeting the needs of the individual (Harder et al., 2009). Following a needs assessment to identify an individual’s needs, an organization should respond promptly to reestablish the individual’s equilibrium. Needs not addressed will cause the individual to remain in a state of disequilibrium, which may result in the individual feeling disenfranchised. Appropriate fulfillment of the individual’s needs result in reestablished equilibrium and improvement in the individual’s view of the organization (English & Kaufman, 1975; Witkin & Altschuld, 1995). Figure 1 depicts both the individual and organizational responses throughout the process of the needs resolution model (Harder et al., 2009).

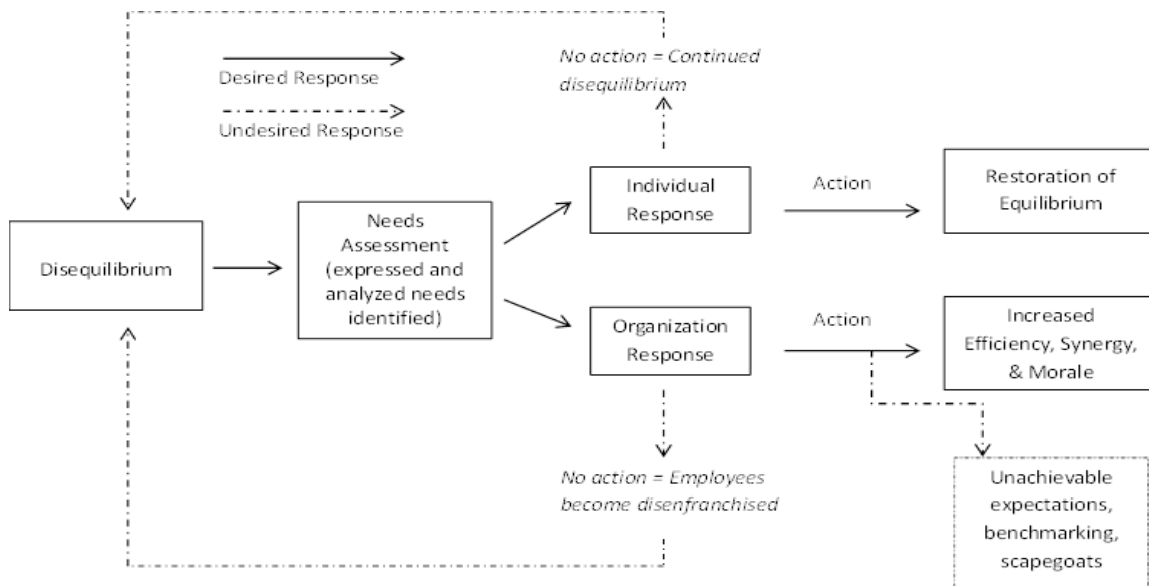


Figure 1. Needs resolution process Model (Harder et al., 2009)

Resolution of needs at the organizational level may prompt improved effectiveness, morale, and cooperation. However, these same actions may negatively impact the organization should unrealistic goals, lack of accountability, or unacceptable achievement objectives result (McLean, 2006). Inaction by the organization to address needs often results in member frustration and alienation. A study investigating the outcomes of program reviews of Florida Extension agents, showed significant benefits for the individual and organization when appropriate actions follow a needs assessment (Harder & Strong, 2010). Harder et al.’s (2009) needs resolution model successfully demonstrated the restoration of the individual’s equilibrium and organization improvement when needs assessments are followed by action. The results of this study also aligned with the conceptual model of Harder et al. (2009) in that both the individual’s needs must be evaluated to restore equilibrium and the organization’s action must be considered to improve effectiveness and morale.

Purpose and Objectives

This study was conducted to identify the needs of Extension agents to successfully address agricultural and natural resource related policy issues with their clientele. The study sought to determine:

1. Which policies are affecting clientele and how often agents address those policies with their clientele.
2. What level of policy knowledge agents currently have and if that level changes by agent type.
3. Where agents obtain knowledge of policy issues and if agent type impacts sources utilized.

Methods

The population for this study encompassed Extension agents within Florida ($N = 350$). The small population and all-inclusive Internet access allowed a census to be conducted through utilization of an online survey. Questions utilized in this study were a portion of a more comprehensive assessment of Extension's needs to effectively communicate on policies and contentious issues in agriculture and natural resources. Researchers developed the survey constructs based on a series of interviews gauging concerns involving policies and controversial issues. Extension professionals from various positions and subject-matter fields participated in these interviews.

Survey respondents identified policies affecting their clientele utilizing a check-all-that-apply inquiry. A Likert-type scale, where $1 = \text{Never}$, $2 = \text{Less Than Once A Month}$, $3 = \text{Once a Month}$, $4 = \text{Two To Three Times A Month}$, and $5 = \text{More Than Three Times A Month}$, was used. A five-item, Likert-type system where $1 = \text{No Knowledge}$, $2 = \text{A Little Knowledge}$, $3 = \text{Some Knowledge}$, $4 = \text{Moderate Knowledge}$, and $5 = \text{A Lot of Knowledge}$ allowed agents to report their knowledge level regarding the policies. A third Likert-type scale ($1 = \text{Do Not Use}$, $2 = \text{Not At All Useful}$, $3 = \text{Slightly useful}$, $4 = \text{Somewhat Useful}$, $5 = \text{Moderately Useful}$, and $6 = \text{Extremely Useful}$) allowed respondents to evaluate resources used for self-education on policy issues. Extension agents were also asked to include demographic data including program assignment, years of Extension experience, and county in addition to gender and age information. Demographic data allowed researchers to assess the impact of demographic group on responses.

Face and content validity of the study was evaluated by a panel of experts including the Associate Director of the UF/IFAS Center for Public Issues Education, the Dean of Extension, and an assistant professor, all from The University of Florida. Panel members were selected based on their expertise in survey development and content. Coverage and sampling errors prevalent in similar research were eliminated through the use of the census technique (Dillman et al., 2009).

The tailored design method (Dillman et al., 2009) was used to facilitate the survey. A series of reminders were used to solicit responses. A pre-notice letter from the Dean of Extension at The University of Florida was emailed to all Extension agents five-days prior to the survey launch. Seven days following the first contact, a reminder was emailed with a second reminder sent nine days later. Emailing of a third notice occurred 12 days after the second due to a holiday. A final reminder occurred eight days after the third and 24 hours prior to the close of the survey. The first two reminders originated by an online survey company failed to produce a satisfactory response rate. A mail-merge process from university email ensured that the third and fourth reminders avoided transfer to recipients' junk mail folders. Following the second notice, an anomaly occurred when a staff member emailed a non-official notice to potential respondents on a listserv. However, no increase in response rate resulted from the unauthorized reminder and the reminder included no survey link. Overall, 125 Extension agents completed at least 50% of the survey questions for a response rate of 35.7%. Respondent demographics are available in Table 1.

Table 1

Respondent Demographics

Characteristic	<i>n</i>	%
<i>Sex</i>		
Female	50	42.4
Male	68	57.6
<i>Age</i>		
20-29	12	10.0
30-39	22	18.3
40-49	19	15.8
50-59	48	40.0
60 -69	19	15.8
<i>Programmatic Area</i>		
Agriculture	37	29.6
Natural Resource	5	4.0
4- H Youth Development	15	12.0
Family Consumer Sciences	16	12.8
Horticulture	39	31.2
Sea-Grant	6	4.8
Unspecified	7	5.6
<i>Years in Extension</i>		
1-5	33	27.7
6-10	22	18.5
11-15	19	16.0
16-20	17	14.3
21-25	9	7.6
26 +	19	16.0

Note. *N* = 125

Upon reflection, the response rate may have been influenced by the subject matter of the question as some potential respondents indicated they felt the survey did not apply to them. Additionally, response rate may have been negatively impacted by staff member absences from work for conferences or vacation during the primary response period in June. Response rate is likely to have been further impacted by utilization of online surveys as such methods typically result in lower response rates compared to paper based surveys (Monroe & Adams, 2012; Nulty, 2008). Nulty (2008) compared online to paper based surveys in multiple studies and found that online surveys had an average of 33% response rate. Although external validity may be impacted by non-response, researchers accounted for the issue by comparing the responding group to known demographics such as years of service ($\chi^2 = 3.648, p = .60$) and program assignment areas ($\chi^2 =$

6.132, $p = .19$) (Miller & Smith, 1983). Respondent demographics matched the data for population demographics in the compared categories.

Respondents were grouped into six agent types: Agriculture (AG); Natural Resource (NR); 4-H, Family Consumer Science (FCS); Horticulture (HORT); Sea-Grant (SEA); and Agents of Unspecified Type (UN). Data frequency analysis was conducted utilizing SPSS.

Results

Policies Affecting Clientele and How Often Agents Address Policies with Clientele

Respondents were asked to identify which policies and regulations were currently affecting their clientele. Table 2 displays the number of agents identifying each policy or regulation as affecting their clientele as well as the percentage of agents of that particular type. Analysis of the results showed that clientele of AG agents were commonly affected the Farm Bill (84%), Water Regulations (84%), Farming Regulations (70%), Fertilizer Regulations (70%), and Food Safety Regulations (70%). Volunteer Screening (80%), and Wildlife Regulations (80%) were commonly affecting clientele of NR agents. The only issue commonly affecting clientele of 4-H agents was Volunteer Screening (87%). The majority of FCS agents reported their clientele were affected by Food Safety Regulations (75%). Fertilizer Regulations (92%) and Water Regulations were identified as the most common policies and regulations affecting clientele of HORT agents. Fishing Rights was reported by 83% of SEA agents as being a policy affecting their clientele. Immigration Reform (100%), Other (100%), Fertilizer Regulations (71%), Volunteer Screening (71%), and Water Regulations (71%) were the most commonly identified policies and regulations affecting clientele of UN agents. Policies identified under the Other category include: Pesticide Regulations, Energy Policies, School Regulations, Youth Regulations, Zoning Regulations, and Health Care Regulations.

Table 2

Frequency of Policies and Regulations Identified as Affecting Clientele by Agent Type

Issue	AG <i>n</i> (%)	NR <i>n</i> (%)	4-H <i>n</i> (%)	FCS <i>n</i> (%)	HORT <i>n</i> (%)	SEA <i>n</i> (%)	UN <i>n</i> (%)
Equipment Regulations	17(46)	2(40)	3(20)	2(13)	10(26)	1(17)	2(29)
Farm Bill	31(84)	2(40)	5(33)	7(44)	13(33)	0(0)	4(57)
Farming Regulations	26(70)	2(40)	6(40)	5(31)	15(39)	0(0)	4(57)
Fertilizer Regulations	26(70)	3(60)	6(40)	5(31)	36(92)	1(17)	5(71)
Fishing Rights	0(0)	2(40)	2(13)	2(13)	1(3)	5(83)	2(29)
Food Safety Regulations	26(70)	2(40)	6(40)	12(75)	12(31)	2(33)	4(57)
Immigration Reform	22(60)	1(20)	3(20)	3(19)	13(33)	1(17)	7(100)
Trucking Regulations	16(43)	2(40)	1(7)	2(13)	6(15)	1(17)	2(29)
Volunteer Screening	11(30)	4(80)	13(87)	6(38)	15(39)	2(33)	5(71)
Water Regulations	31(84)	3(60)	5(33)	7(44)	35(90)	4(67)	5(71)
Wildlife Regulations	14(38)	4(80)	3(20)	0(0)	13(33)	4(67)	4(57)
Other ^a	1(3)	1(20)	2(13)	2(13)	2(5)	1(17)	7(100)

Note. AG = Agriculture Agents, NR = Natural Resource Agents, 4-H, FCS = Family Consumer Science Agents, HORT = Horticulture Agents, SEA = Sea-Grant Agents, and UN = Unspecified

^a Other issues identified include: Pesticide Regulations, Energy Policies, School Regulations, Youth Regulations, Zoning Regulations, & Health Care Regulations

Respondents were asked to identify how often they addressed the policies and regulations affecting their clientele. Table 3 displays the number and percentage of agents of each type who address policies and regulations at least once a month. Frequencies for this question largely coincided with those from Table 2 with few exceptions. Although 60% of AG agents reported Immigration Reform as affecting their clientele, only 20% of AG agents reported dealing with the policies at least once a month. Similarly, 100% of UN agents reported Immigration Reform as affecting their clientele, however 0% addressed it at least once a month. Fishing Rights were reported by 83% of SEA agents as affecting their clientele, however only 50% dealt with the issue at least once a month.

Table 3

Frequency Agents Address Policies and Regulations at Least Once a Month by Agent Type

Issue	AG <i>n</i> (%)	NR <i>n</i> (%)	4-H <i>n</i> (%)	FCS <i>n</i> (%)	HORT <i>n</i> (%)	SEA <i>n</i> (%)	UN <i>n</i> (%)
Equipment Regulations	7(19)	1(25)	2(15)	0(0)	2(5)	1(20)	0(0)
Farm Bill	18(51)	1(25)	3(23)	2(15)	3(8)	0(0)	2(29)
Farming Regulations	22(63)	0(0)	4(27)	1(8)	6(16)	0(0)	2(29)
Fertilizer Regulations	21(60)	3(60)	5(33)	4(31)	35(92)	1(20)	4(57)
Fishing Rights	0(0)	1(25)	3(23)	1(8)	0(0)	3(50)	1(14)
Food Safety Regulations	16(44)	1(25)	3(23)	11(79)	8(21)	1(20)	4(57)
Immigration Reform	7(20)	0(0)	1(8)	1(8)	2(6)	1(20)	0(0)
Trucking Regulations	5(14)	1(25)	0(0)	0(0)	1(3)	0(0)	1(14)
Volunteer Screening	7(20)	4(80)	13(93)	5(36)	15(42)	0(0)	4(67)
Water Regulations	24(71)	3(60)	4(31)	5(36)	34(90)	4(67)	4(57)
Wildlife Regulations	8(25)	4(80)	3(23)	2(15)	10(29)	4(67)	3(43)

Note. AG = Agriculture Agents, NR = Natural Resource Agents, 4-H, FCS = Family Consumer Science Agents, HORT = Horticulture Agents, SEA = Sea-Grant Agents, and UN = Unspecified

Agent Knowledge of Policies and Regulations

Respondents were asked to identify their level of knowledge of policies and regulations. Frequencies of agents reporting to have at least some knowledge are shown in Table 4. Despite 84% of AG agents identifying the Farm Bill as affecting their clientele, only 65% identified as having at least some knowledge of the policy. Similarly, Immigration reform was reported by 60% of AG agents as affecting their clientele, but only 46% had some knowledge of the regulations. Interestingly, only 79% of AG agents reported having at least some knowledge of Farming Regulations. Despite the low occurrence of Volunteer Screening for FCS agents, 93% reported having at least some knowledge of the policies and regulations involved. Less than 50% of agents in all categories reported at least some knowledge of Immigration Reform and Trucking Regulations. AG agents reported greatest percentage of agents (54%) having at least some knowledge of Equipment Regulations.

Table 4

Frequency Agents Having at Least Some Knowledge of Policies and Regulations by Agent Type

Issue	AG <i>n</i> (%)	NR <i>n</i> (%)	4-H <i>n</i> (%)	FCS <i>n</i> (%)	HORT <i>n</i> (%)	SEA <i>n</i> (%)	UN <i>n</i> (%)
Equipment Regulations	19(54)	1(50)	3(38)	0(0)	9(23)	2(50)	1(25)
Farm Bill	24(65)	2(67)	5(50)	9(64)	17(52)	1(20)	4(80)
Farming Regulations	27(79)	2(67)	5(56)	3(25)	12(38)	1(25)	3(60)
Fertilizer Regulations	33(92)	3(75)	5(56)	5(46)	37(97)	2(40)	5(83)
Fishing Rights	6(23)	2(50)	5(63)	3(38)	2(8)	5(83)	2(40)
Food Safety Regulations	29(83)	1(50)	5(63)	13(93)	10(33)	2(40)	4(100)
Immigration Reform	15(46)	0(0)	2(22)	4(40)	7(24)	1(20)	1(33)
Trucking Regulations	15(48)	1(33)	1(13)	0(0)	3(12)	0(0)	1(33)
Volunteer Screening	14(48)	4(80)	13(93)	13(93)	20(63)	2(50)	5(71)
Water Regulations	34(97)	3(60)	6(67)	5(39)	34(92)	4(67)	3(60)
Wildlife Regulations	17(59)	3(60)	5(56)	0(0)	15(50)	5(83)	3(50)

Note. AG = Agriculture Agents, NR = Natural Resource Agents, 4-H, FCS = Family Consumer Science Agents, HORT = Horticulture Agents, SEA = Sea-Grant Agents, and UN = Unspecified

Sources of Information Used By Agents

To assess where agents learned about policies and regulations, respondents were asked to identify how useful they found various academic and non-academic sources of information when learning about regulations and policies. Table 5 presents the frequencies of agents identifying non-academic sources as at least somewhat useful in learning about policies and regulations. Most agents in AG (80%), NR (100%), SEA (83%) and UN (57%) found Word of Mouth to be at least somewhat useful in learning about policies and regulations. Social Media was identified by the majority of 4-H agents (70%) as being at least somewhat useful. The majority of agents across all types found Television to not be useful as a source of learning about policies and regulations. News was identified by the majority of agents in all categories except for HORT and UN as being at least somewhat useful in learning about policies and regulations. Community events were identified as at least somewhat useful by the majority of agents in AG (53%), 4-H (58%), FCS (57%), and SEA (67%). The majority of agents in AG (65%), NR (100%), FCS (69%), and SEA (83%) felt that

Resources not affiliated with a Land-Grant Institution were at least somewhat useful in learning about policies and regulations.

Table 5

Frequency Agents Finding Non-Academic Source At Least Somewhat Useful in Learning About Policies and Regulations by Agent Type

Source	AG <i>n</i> (%)	NR <i>n</i> (%)	4-H <i>n</i> (%)	FCS <i>n</i> (%)	HORT <i>n</i> (%)	SEA <i>n</i> (%)	UN <i>n</i> (%)
Word of Mouth	28(80)	5(100)	6(46)	6(40)	17(46)	5(83)	4(57)
Social Media	17(46)	2(50)	9(70)	7(47)	12(33)	3(50)	3(43)
Television ^a	13(35)	2(40)	6(46)	3(21)	8(22)	3(50)	0(0)
News ^b	23(62)	3(60)	9(69)	8(53)	18(49)	5(83)	1(14)
Community Events	19(53)	2(40)	7(58)	8(57)	16(44)	4(67)	3(43)
Resources not Affiliated with a Land-Grant Institution	22(65)	5(100)	4(33)	11(69)	16(44)	5(83)	2(33)

Note. AG = Agriculture Agents, NR = Natural Resource Agents, 4-H, FCS = Family Consumer Science Agents, HORT = Horticulture Agents, SEA = Sea-Grant Agents, and UN = Unspecified;
^aNot Including News; ^bPaper, TV, Internet, Radio

Table 6 displays the frequencies at which agents found academic sources to be at least somewhat useful in learning about policies and regulations. Overall, the majority of agents in all fields found academic sources to be at least somewhat useful in learning about policies and regulations. The only exception was that a lower percentage of SEA (33%) and UN (33%) agents found UF/IFAS Center for Public Issues Education resources to be at least somewhat useful in learning about policies and regulations. Experts or Specialists in a Particular Field, and In-Service trainings had the highest percentages of agents identifying them as at least somewhat useful in learning about policies and regulations.

Table 6

Frequency Agents Finding Academic Source at Least Somewhat Useful in Learning About Policies and Regulations by Agent Type

Source	AG <i>n</i> (%)	NR <i>n</i> (%)	4-H <i>n</i> (%)	FCS <i>n</i> (%)	HORT <i>n</i> (%)	SEA <i>n</i> (%)	UN <i>n</i> (%)
Experts or Specialists in a Particular Field	37(100)	5(100)	11(85)	16(100)	35(97)	5(83)	6(86)
In-Service Trainings	36(97)	5(100)	11(92)	15(94)	34(92)	4(67)	6(86)
Association Conferences	32(87)	4(80)	10(77)	12(75)	31(84)	4(67)	4(57)
Journal Articles	23(64)	5(100)	7(58)	10(67)	24(67)	4(67)	5(71)
University Published Extension Documents	34(94)	4(100)	8(67)	14(88)	28(76)	5(89)	7(100)
Resources Offered by UF/IFAS PIE Center	25(69)	4(80)	4(31)	10(67)	16(41)	2(33)	2(33)
Resources Offered by University of Florida ^a	29(81)	5(100)	7(54)	11(73)	23(64)	3(50)	6(86)

Note. AG = Agriculture Agents, NR = Natural Resource Agents, 4-H, FCS = Family Consumer Science Agents, HORT = Horticulture Agents, SEA = Sea-Grant Agents, and UN = Unspecified; ^a Excluding University of Florida Extension Documents and UF/IFAS PIE Center resources

Conclusions, Implications, and Recommendations

Results of this study found that overall Extension agents in Florida address a variety of policies and regulations. The majority of agents frequently deal with policies and issues closely related to their particular field, however this leaves gaps in coverage of some types of policies and regulations that may have significant impact on agriculture and natural resources. In most cases Extension agents reported having at least some knowledge of the policies and regulations affecting their clientele, however some discrepancies did exist. These results present needs in multiple areas, which if addressed, may yield organizational improvements by enhancing effectiveness and moral (Harder, Lamm, et al., 2009).

Policies and regulations involving Immigration Reform are a particular weakness for UF/IFAS Extension. Respondents to this study reported a low frequency of Immigration Reform policies affecting their clientele with the exceptions of AG and UN agents. Despite the majority of AG and UN agents identifying Immigration Reform as affecting their clientele, only a small percentage of these agent types addressed these policies and regulations at least once a month. Furthermore, AG agents had the largest percentage of agents reporting at least some knowledge of these policies. However, that only represented 46% of responding AG agents.

Results from this study displayed large discrepancies with the demographic makeup of Florida, and its agriculture sector. The most recent US Census data shows that Florida's foreign-born population (19.3%) is higher than the US average (12.9%). Additionally undocumented immigrants make up a large segment of Florida's agricultural workforce (Bowden, Lamm, Carter, Irani, & Galindo, 2013). The larger than average foreign-born population and large undocumented workforce would indicate that Immigration Reform should have a significant impact on Florida's population and is going largely unaddressed by Extension agents, which agrees with a trend for Extension found by Alston and Crutchfield (2009). Focusing on providing agents with increased access to information about Immigration Reform and encouraging them to utilize the sources to their benefit can help create a change at both the organizational and individual level. As Extension agents are able to gain knowledge they become prepared not only to tackle the pre-existing needs of their clientele, but are empowered to take a more proactive approach in becoming stronger change agents (Harder, Lamm, et al., 2009). Ensuring agents are prepared to deal with Immigration Reform provides Extension as an organization with the opportunity to expand their clientele base and become more efficient in dealing with these policies (Harder et al., 2009). Extension could establish programs in collaboration with local agencies to facilitate immigrant education concerning related regulations and paths to citizenship. Extension could further collaborate with local schools to increase the numbers of immigrant workers who participate in English as a second language courses. Working with producer clientele to help them to understand and comply with immigration policies when hiring agricultural laborers is also an area where extension can offer expertise related to immigration policies.

Results from this study showed that fewer than 70% AG agents addressed the Farm Bill, Farming Regulations, Fertilizer Regulations, Equipment Regulations, and Trucking Regulations at least once a month. With the exception of the Farm Bill, less than 70% of AG agents identified the aforementioned policies and regulations as affecting their clientele at all. This points to a lack of involvement on the behalf of AG agents in working with their clientele to address new and pre-existing changes to these policies and regulations which logically should impact most individuals operating within the field of agriculture. Notably with the implementation of the new Farm Bill at the time of this study, it would be expected that the majority of agents would be addressing changes with their clientele. However, only 51% of the AG agents responding indicated addressing the Farm Bill at least once a month. This lack of attention could be further compounded by a lack of knowledge about these policies as only 79% of AG agents reported at least some knowledge of Farming Regulations, 65% with at least some knowledge of the Farm Bill, and lower percentages for those reporting knowledge of Equipment and Trucking Regulations. The lack of attention to these regulations could be influenced by an avoidance of issues relating to a self-perceived lack of knowledge. This lack of knowledge could be an unmet need causing disenfranchisement that when met will enable Extension agents to more vigorously pursue opportunities to address these issues (Harder et al., 2009). Extension could work to correct these needs by developing In-Service Trainings to enhance the abilities of Extension agents to address these and related policies. Partnerships with government agencies could also be utilized to help agents work with and understand policies.

While a significant number of FCS agents reported addressing Food Safety Regulations at least once a month, fewer than 44% of FCS agents reported that related issues such as the Farm Bill, Volunteer Screening, and Water Regulations even affected their clientele. These results point to missed opportunities to address the education of the public on issues that may affect families and to work with lawmakers on important food security legislation, such as the Farm Bill. Extension could identify and prioritize forming partnerships within local communities and the state that would allow them to be more involved in policy areas including Food Safety and others.

While the policies represented in this study may have varying degrees of effect on different agent types, the results displayed in Table 4 indicated a general lack of knowledge about important policies in agriculture and natural resources. The results from this study do not indicate that individuals are experts or even highly knowledgeable about the policies only that they have some knowledge. Even so, on many of the policies in question Extension agents responded that they possessed little to no knowledge of the policies. Table 4 showed that in 61 of 77 possible agent type/policy pairings less than 70% of agents possessed at least some knowledge of the policy. Based on these results Extension should make a concerted effort to ensure that agents receive basic training on all policies related to agriculture and natural resources, especially highlighting those that are closely related to the agents' field. Proper training is paramount to ensuring that agents are prepared to address issues of any type that arise and provide support to their clientele (Harder et al., 2011; Rogers, 2003)

Overall results from this study indicate that agents found academic sources to be more useful in learning about policies and regulations than non-academic sources. Based on these findings Extension should continue to cultivate and elicit quality academic resources specifically University Published Extension Documents and In-Service Trainings. Increasing the amount of collaboration between Extension agents and Experts or Specialists appears to also be a highly beneficial avenue to increase knowledge of policies and regulations.

Results from this study demonstrate a forward path for Extension following the needs resolution process model (Harder et al., 2009). Following the identification of needs the next step is to create both individual and organizational responses. Harder et al.'s (2009) model asserts that if responses to needs are not made then the individual and organization continues in disequilibrium. Moving forward requires that individual agents work to be both more proactive in their addressing of policies with clientele and in efforts to gain more knowledge about policies and regulations that may impact their field. Extension as an organization can move forward by helping agents to find opportunities to increase knowledge and work in collaboration with other agencies to build programs and policy awareness and discourse. Should these actions be taken the organization and the individual can expect to see increased moral, efficacy, and synergy (Harder et al., 2009). Understanding and improving the role of extension surrounding public-policy is key to the future of Extension (Boyle & Mulcahy, 1993; Hinkey, Ellenberg, & Kessler, 2005; Singletary et al., 2007). This study provides a glimpse of Extension's involvement in public policy, but further research is needed.

Additional research should be conducted to assess policy issues nationally and in other regions. Such studies would be useful in establishing a direction for Extension to facilitate engagement of the public and support positive decision-making that meets both the needs of agricultural and natural resource industries and the needs of society. A more extensive study on the impact of these policies on Extension clientele and existing programs would also be beneficial. As regulations continue to evolve and in some cases grow, policies related to obesity, economic development, business practices, and other topics identified by Extension agents should be conducted.

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