

SUSTAINING FLORIDA: PERCEPTIONS OF FLORIDA REGIONAL PLANNING
COUNCILS ABOUT KEY AGRICULTURAL AND NATURAL RESOURCE ISSUES

By

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To my parents, your unyielding guidance and support enabled me to become the woman I am today

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TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS.....	4
LIST OF TABLES.....	8
LIST OF FIGURES.....	11
ABSTRACT	12
CHAPTER	
1 INTRODUCTION	14
Sustainability.....	14
Agriculture and Natural Resources.....	15
Key Issues in Florida Agricultural & Natural Resource Sectors.....	16
Planning and Development in Florida.....	18
Florida Regional Planning Councils (RPCs).....	18
Statement of the Problem	19
Purpose and Objectives.....	19
Significance of the Study	20
Operational Definitions.....	22
Limitations of the Study.....	23
Basic Assumptions	24
Summary	25
2 REVIEW OF THE LITERATURE	26
Theoretical Framework	26
Conservation Behavior Change.....	26
Adaptive Management	30
Reasonable Person Model (RPM).....	31
Theories of Motivation	35
Previous Research	38
Challenges in Regional Planning	38
Knowledge Factors.....	38
Information Flows	39
Self-Interest.....	40
Confidence/Competence	41
Perceived Control.....	41
Perceived Risks.....	42
Summary	42
3 METHODOLOGY	44

Research Design	45
Population.....	47
Instrumentation	48
Data Collection	51
Data Analysis.....	52
Summary	53
4 RESULTS	55
Demographics of Respondents.....	56
Objectives.....	62
Objective One.....	62
Environmental issues.....	62
Agricultural and natural resource issues	63
Assessing the significance of various environmental issues (including agricultural and natural resource issues)	63
Sustainability principles.....	63
How to apply sustainability principles in regional planning.....	64
How to acquire new information about regional planning.....	64
How to acquire new information about incorporating sustainability into regional planning	64
Objective Two.....	69
Objective Three.....	75
Objective Four	81
Objective Five.....	94
Summary	97
5 CONCLUSIONS AND RECOMMENDATIONS	98
Purpose and Objectives.....	98
Methodology	99
Summary of Findings	99
Objective One.....	99
Objective Two.....	101
Objective Three	103
Objective Four	104
Objective Five.....	109
Conclusions	110
Objective One.....	110
Objective Two.....	110
Objective Three	111
Objective Four	112
Objective Five.....	115
Discussion and Implications.....	115
National Research Agenda	127
Recommendations	128
Recommendations for Practice	128

Recommendations for Future Research.....	129
Summary	129

APPENDIX

A INSTITUTIONAL REVIEW BOARD APPROVAL.....	131
B SURVEY COMPLETION REQUESTS.....	132
Pre-Survey Email	132
Initial Contact Email	133
Follow-Up Contact Email	134
Final Follow-Up Contact Email.....	135
C DATA COLLECTION INSTRUMENT	136
LIST OF REFERENCES	148
BIOGRAPHICAL SKETCH.....	154

LIST OF TABLES

<u>Table</u>	<u>page</u>
3-1 List of Florida Regional Planning Councils and the Counties Covered by Each Council	47
4-1 Frequencies and Percentages of Demographic Information.....	60
4-2 Percentage of Planning Background-by type (<i>n</i> =62)	61
4-3 Years Serving as a Political Representative-by type	61
4-4 Percentage Region is Considered Urban and Rural (<i>n</i> =60)	61
4-5 Participants by Regional Planning Council (RPC)	61
4-6 Frequencies and Percentages of Regional Planning Officials Knowledge Level of Factors Related to Regional Planning.....	66
4-7 Frequencies and Percentages of Regional Planning Officials Relevance Level of Factors Related to Regional Planning to Role on a Regional Planning Council.....	67
4-8 Factors Related to Regional Planning- Knowledge Level Vs. Relevance to Role on Regional Planning Council	68
4-9 One-Way Analysis of Variance Significant Relationships between Knowledge Level of Environmental Issues and Demographics.....	69
4-10 One-Way Analysis of Variance Significant Relationships between Knowledge Level of Agricultural and Natural Resource Issues and Demographics	70
4-11 One-Way Analysis of Variance Significant Relationships between Knowledge Level of Assessing the Significance of Various Environmental Issues and Demographics	71
4-12 One-Way Analysis of Variance Significant Relationships between Relevance Level of Assessing the Significance of Various Environmental Issues and Demographics	71
4-13 One-Way Analysis of Variance Significant Relationships between Knowledge Level of Sustainability Principles and Demographics	72
4-14 One-Way Analysis of Variance Significant Relationships between Knowledge Level of How to Apply Sustainability Principles in Regional Planning and Demographics	72

4-15	One-Way Analysis of Variance Significant Relationships between Knowledge Level of How to Acquire New Information about Regional Planning and Demographics	73
4-16	One-Way Analysis of Variance Significant Relationships between Relevance Level of How to Acquire New Information about Regional Planning and Demographics	73
4-17	One-Way Analysis of Variance Significant Relationships between Knowledge Level of How to Acquire New Information about Incorporating Sustainability into Regional Planning and Demographics.....	74
4-18	One-Way Analysis of Variance Significant Relationships between Relevance Level of How to Acquire New Information about Incorporating Sustainability into Regional Planning and Demographics.....	74
4-19	Regional Planning Officials Perceptions of Other Officials' Knowledge Levels (n=58).....	75
4-20	Regional Planning Official Level of Agreement with Decision Statements (n=59).....	76
4-21	Level of Agreement that Decisions as a Regional Planning Official Have the Opportunity to Make a Difference in Selected Capacities (n=58).....	76
4-22	Regional Planning Officials Perception of Power (n=53).....	77
4-23	Regional Planning Officials Degree Feeling Overwhelmed (n=55).....	77
4-24	Frequencies and Percentages of Constructs Describing Regional Planning Officials' Perceptions of Sustainability (n=58).....	78
4-25	Level of Feeling Clear-headed in Various Situations(n=57).....	79
4-26	Confidence Level of Regional Planning Officials (n=57).....	80
4-27	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Agreement with Decision Statements and Position Type	81
4-28	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Agreement that Decisions as a Regional Planning Official Have the Opportunity to Make a Difference in Selected Capacities and Demographics	83
4-29	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perception of Power and RPC	83

4-30	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Degree Feeling Overwhelmed and Demographics	83
4-31	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Demographics	85
4-32	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Planning Background: Non-Formal Education.....	85
4-33	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Gender	85
4-34	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Years as a Political Representative for Any Florida RPC.....	85
4-35	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Feeling Clear-headed in Various Situations and Type of Agricultural or Natural Resource Background.....	88
4-36	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Feeling Clear-headed in Various Situations and Demographics	89
4-37	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Feeling Clear-headed in Various Situations and Years in Worked Planning	89
4-38	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Type of Agricultural and Natural Resource Background.....	90
4-39	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Years Serving as Political Representative	93
4-40	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Demographics	93
4-41	One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Demographics	94
4-42	Percentages and Frequencies of Barriers to Incorporating Sustainability Principles into Regional Planning	95

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
2-1 Typology of Selected Behavior Change Techniques	29
2-2 The Reasonable Person Model—interrelated domains	33
2-3 Reasonable Person Model	33
2-4 Reasonable Person Model for Sustainable Agriculture and Natural Resource Planning.	37
2-5 Learning about sustainable environmental knowledge and issues management is neither straightforward nor terminal.....	40

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The primary purpose of this study was to describe and understand the perceptions, knowledge, and motivations of appointed and elected officials serving on Florida Regional Planning Councils (RPC's) about key agriculture and natural resource issues. In addition, this study analyzed the factors that influenced the likelihood of incorporating sustainability principles in planning. The conceptual framework used in this study was based on the Reasonable Person Model (RPM) and common factors from motivational theories.

This study was a quantitative research design that utilized descriptive survey methodology. The targeted population in this study was appointed and elected regional planning officials currently serving on a RPC in the state of Florida (N=302). Due to the difficulty in acquiring email addresses for all members of the population, a convenience sample of accessible officials was taken from the population (n=239). The survey instrument was researcher developed and administered on the web utilizing Qualtrics survey software. The majority of respondents were at least 55 years old, male and had a bachelor's degree or higher.

The study found that regional planning officials feel between somewhat and moderately knowledgeable in the seven factors related to regional planning that were measured. However, officials reported these factors at a higher relevance to their position, indicating a need to improve upon officials' understanding of these factors. Additionally, regional planning officials who had taken agriculture or natural resource classes in high school felt less knowledgeable in a majority of the regional planning factors than the officials who did not have the same background.

Appointed regional planning officials felt more likely that their decisions can make a difference in Florida than elected officials felt. Officials also felt their decisions could probably make a difference in their region, but less likely their decisions could have the same impact at the state level. When thinking about sustainability, officials who took agriculture or natural resource classes in college felt more clear-headed than those who took similar classes in high school or were involved with FFA. Additionally, females perceived sustainability to be more useful than males do. Regional planning officials identified funding and state level legislators as the strongest barriers to incorporating sustainability principles into regional planning.

CHAPTER 1 INTRODUCTION

There is a growing concern for the future of humanity on earth. As the global population continues to grow, so do global warming concerns, pollution levels, natural resource depletion, biodiversity loss and high-energy consumption. Society's heavy dependency on non-renewable energy resources, like fossil fuels, is creating a rippling effect of problems for the global environment, its citizens and future generations. Research has warned that "conflicts over natural resources and environmental conditions are threatening the peace and stability among nations and may do so increasingly in the near future" (Winter & Cava, 2006, as cited in Vlek & Steg, 2007). Leaders, experts and entire communities across the globe are challenging, questioning and advocating reform to society's current way of life in attempts to address these pressing concerns. Uiterkamp and Vlek (2007) have suggested that "real-life issues hardly ever match traditional disciplinary approaches in applied scientific research" (p. 175). Thus the concept of sustainability arose as a collaborative approach among disciplines to address these concerns.

Sustainability

Traditional approaches to addressing environmental problems were reactive, employing compensation and mitigation as management tactics once harmful effects were discovered (Uiterkamp & Vlek, 2007). This approach began to shift after the concept of sustainable development was presented in the 1987 Brundtland report "Our Common Future".

Sustainability is a current global theme, representing an underlying ethical philosophy to guide a range of decisions and practices (Williams & Dollisso, 1998;

Williams & Wise, 1997). Under this ethical philosophy, is the notion that as members of a global community, humans should live in a manner with a minimal impact on other beings, both living and non-living. Sustainability is generally described as a way to “meet the needs of the present without compromising the ability of future generations to meet their own needs” (Sneddon, Howarth, & Norgaard, 2006), through a multidimensional approach emphasizing the integration of “economic security, social well-being, and environmental quality” (Uiterkamp & Vlek, 2007, p. 177). This philosophy can be applied to all aspects of life, including those related to the field of agriculture and natural resources.

Agriculture and Natural Resources

The agricultural industry is an integral player in the United States economy (American Farm Bureau Federation [AFBF], 2004). The commodities produced by this \$75 billion dollar industry (United States Department of Agriculture, 2007), feed citizens nationally and globally, as well as provide employment opportunities for millions of individuals. In Florida, agriculture is the second largest industry after tourism (Park, 2005), and the state is the forerunner in citrus production, accounting for 70% of total U.S production in 2007 (United States Department of Agriculture and Consumer Services, 2008). However, many of the global concerns facing society today are also threatening the productivity and livelihood of the agricultural industry nationally and across Florida.

Concerns regarding limited and depleting natural resources are having a negative impact on the agriculture industry. As energy costs continue to rise, so do agriculture production costs, while commodity prices are expected to remain low, creating decreasingly smaller profit margins for farmers and increasing dependency on

government subsidies (Fazio, Rodriguez Baide, & Molnar, 2009). In turn, conventional agricultural practices are also threatening the environment and natural resources on which the industry depends. Controversies are growing concerning land, water and chemical practices, adding to social, economic and environmental global concerns (Roberts, 1995).

It has been suggested that the principles of sustainability have the ability to address these concerns facing global society, as well as the agricultural and natural resource industries. Hamilton (1998) stated, “if food production systems and our relation to the natural resources we use to raise food are not ground in the principles of sustainability, our future is in doubt” (p. 424). Sustainable principles have been integrated into legislative documents, such as the 1990 U.S. Farm Bill which defines sustainable agricultural as:

An integrated system of plant and animal production practices having site-specific application that will, over the long term: (a) satisfy human food and fiber needs; (b) enhance the environmental quality and natural resources base upon which the agricultural economy depends; (c) make the most efficient use of non-renewable sources and on-farm resources and integrate, where appropriate, natural biological sources and controls; (d) sustain the economic viability of farm operations; and (e) enhance the quality of life for farmers and society as a whole.

Through these integrated principles, sustainable agriculture has the ability to help agricultural production continue into the future without negatively affecting the environment (Fazio et al., 2009).

Key Issues in Florida Agricultural & Natural Resource Sectors

Florida has one of the fastest growing populations in the U.S., posing many challenges to the availability of the natural resources in the future. With a current population of about 18 million, strains on schools, roads, and water supply will continue

to grow, making it ever more important for local governments to carefully plan for the growth of communities and conservation of resources. Older communities need to be revitalized and disaster recovery efforts should be established for quick and efficient responses (Florida Department of Community Affairs, 2009).

“More than 90% of Floridians’ drinking water supplies come from the state’s aquifer system” (Florida Department of Community Affairs, 2009, p. 20). A system which is greatly impacted and threatened by the increasing development and population growth taking place throughout the state. As Florida’s population grows, water and land use changes, impacting the quality and quantity of Florida’s water supply. As of 2009, Florida Department of Community Affairs identified the following as areas of critical state concern: City of Apalachicola, City of Key West, Florida Keys Area, Green Swamp, and Big Cypress Swamp.

In a 2009 steering committee meeting which brought together 25 stakeholders to discuss the issues facing agriculture and natural resources in Florida, The Florida Center for Public Issues Education (PIE Center) in Agriculture and Natural Resources identified the most pressing issues facing Florida citizens. Listed in order of importance, the following issues were identified in the meeting’s executive summary:

“Lack of knowledge of agriculture, natural resources and connections between the two, water, financing, food safety, lack of a comprehensive land use plan, lack of civic engagement due to a complex system, profitability, fuel and energy, sustainability, regulations, population growth, and farm prosperity” (Center for Public Issues Education in Agriculture and Natural Resources, 2009).

Planning and Development in Florida

The Florida legislature began to address the interrelated issues of planning, development and sustainability in 1972 through the enactment of the Florida State Comprehensive Planning Act, declaring that:

The issues of public safety, education, health care, community and economic development and redevelopment, protection and conservation of natural and historic resources, transportation, and public facilities transcend the boundaries and responsibilities of individual units of government, and often no single unit of government can plan or implement policies to deal with these issues without affecting other units of government.

Coordination among all levels of government is necessary to ensure effective and efficient delivery of governmental services to all the citizens of the state. It is therefore necessary to establish an integrated planning system and to ensure coordinated administration of government policies that address the multitude of issues posed by the state's continued growth and development. (Florida State Comprehensive Planning Act, 1972)

Florida Regional Planning Councils (RPCs)

To address some of the issues posed by growth and development and in an effort to establish an integrated planning system, as stated in the Comprehensive Planning Act, Florida legislature enacted the Florida Regional Planning Council Act in 1980. Regional Planning Councils (RPCs) were developed under the act, and are recognized as Florida's only multipurpose regional entity.

RPCs plan and coordinate intergovernmental solutions to growth and development related issues. Florida legislature identified these problems as "transcending the boundaries of individual local general-purpose government" which often no one single unit can address. The act identified the need for these regional planning agencies to "plan for and coordinate intergovernmental solutions to growth-related problems on greater-than-local issues, provide technical assistance to local governments, and meet other needs of the communities in each region" including a means to provide input for

the development of state policy (The Florida Regional Planning Council Act, 1980). Each council's activities are guided by their own Strategic Regional Policy Plan, which influences the long-term social, physical and economic development of the region (Brody, Carrasco, & Highfield, 2006, p. 299).

Statement of the Problem

The difficulty in developing consistency in defining and incorporating sustainability principles across multiple groups of stakeholders, along with a lack of understanding about the variables which motivate and influence appointed and elected regional planning officials in Florida to incorporate sustainability principles when addressing environmental issues in planning, establishes the need for this research.

Purpose and Objectives

The purpose of this research was to describe and understand the perceptions, knowledge, and motivations of appointed and elected officials serving on Florida Regional Planning Councils about key agriculture and natural resource issues. Additionally, the factors that influenced the likelihood of regional planning officials to incorporate sustainability principles when addressing environmental issues in planning were analyzed in this study. This research will address the following objectives:

- Objective 1: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida.
- Objective 2: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.
- Objective 3: To determine regional planning officials' motivation to complete tasks associated with sustainable planning.
- Objective 4: To determine differences which exist in regional planning officials' motivation to complete tasks associated with sustainable planning when examining specific demographic variables.

- Objective 5: To determine the current barriers to incorporating sustainability principles into regional planning.

Significance of the Study

Before Florida and its communities can use sustainability to address the pressing issues facing agriculture and natural resources, the leaders involved must agree on what sustainability entails. How is it defined? What are truly sustainable practices in agriculture and natural resource management? These questions have been difficult for farmers, agriculture professionals, industry experts, political decision makers and national organizations to answer. Even among leading sources like the USDA's SARE program and the 1990 U.S. Farm Bill, agreeing upon a universal definition for sustainable agriculture has been a great challenge (Fazio et al., 2009). Vlek and Steg (2007) suggested that more research needs to be done in environmental decision making, particularly in "problem definition, multi-attribute scenario evaluation, multi-party decision making, and long-term risk judgment" (p. 14).

Recently the Agricultural Education and Communication National Research Agenda called for new efforts to "define sustainable development across local, regional, national and global situations, to identify effective teaching and learning models and approaches, and to determine how the development of these principles will influence sustainable development and the enhancement of the global community" (Osborne, p. 16). According to Hamilton (1998, p. 424), in order to meet these expressed needs, "sustainability must start from the ground up, and agriculture is the place to begin."

In working towards social change and managing Florida's natural resources in a more sustainable manner, government policies and regulations are often identified as a primary roadblock (Dietz, Ostrom, & Stern, 2003; Ostrom, Dietz, Dolsak, Stern, Stonich,

& Weber, 2002; Veeman & Politylo, 2003). Citizens identify the need for “good political will to steer [sustainable] development and solve the problems” (Saadatian, Tahir, & Dola, 2010). “In the absence of effective governance institutions...natural resources and the environment are in peril” (Dietz et al., 2003, p.1907). “To ensure environmental security and sustainability, the overall policy goal must be to reverse the trend of gradual environmental deterioration, locally as well as globally” (Vlek & Steg, 2007, p. 14)

Often cooperation and adequate dissemination of knowledge between stakeholders and political leaders is inadequate or non-existent. Also, sharp differences in power and priorities between parties make communication and collaboration that much more challenging (Dietz et al., 2003). This growing boundary between science and governance hinders the ability to institute change, which is particularly challenging in natural resource management (Fischer, Petersen, Feldkotter, & Huppert, 2007). Addressing critical problems, like pollution and non-renewable resource depletion, “requires promising strategies that include dialogue between interested parties, officials, and scientists; a real mix of institutional types” (Dietz et al., 2003, p.1907).

Through understanding the perceptions of agricultural and natural resource issues in Florida from appointed and elected regional planning officials throughout Florida, this study will contribute to developing policy and theory particularly for addressing environmental issues. It will aid in targeting specific areas of concern, identifying inconsistencies, and increasing the overall understanding of state and regional practices, knowledge, perceptions and motivations. Collectively, these understandings have the ability to influence policy makers towards developing more legislation based

on sustainability for Florida, and serve as an example to push for state regulations and cohesiveness. It is the responsibility of policy makers to address environmental concerns across various scales, from energy use and livestock farming to transportation and tourism. However, the effectiveness and conditions of their approaches fall in the hands of the social and behavioral sciences (Vlek & Steg, 2007).

Operational Definitions

- **Appointed official:** is a “representative appointed by the Governor from the geographic area covered by the regional planning council”. Every council must include one elected school board member from the region. Representatives appointed by the governor represent one-third of the voting members on a council (Florida Regional Planning Council Act).
- **Elected official:** is “member of the governing body of a municipality or county, or an elected county official chosen by the governing body” (Florida Regional Planning Council Act).
- **Key agriculture and natural resource issues:** are the most pressing issues facing Florida today according to local government officials serving on Regional Planning Councils.
- **Regional Planning Councils (RPCs):** are quasi-governmental organizations (comprised of local representatives in the geographic area) responsible for identifying problems that impact the state, planning appropriate solutions, and providing policy development input. As mandated under Florida Statutes, a RPC must be comprised two-thirds of locally elected officials and the remaining members are local representatives appointed by the Governor. Florida is divided into a total of eleven RPC’s (Florida Regional Planning Council Act).
- **Stakeholders:** the individuals, groups or organizations who have an invested interest in a particular issue or subject relating to sustaining Florida’s agricultural and natural resources. In this study, the stakeholders identified include the Center PIE Steering Committee, regional planning council officials, Sustainable Florida-Collins Center, the Century Commission for a Sustainable Florida, local and state representatives, and special interest groups in agriculture, natural resources, and regional development. They are involved in defining sustainability for Florida as it relates to the Agriculture and Natural resources industry.
- **Steering Committee:** an advisory committee comprised of stakeholders and experts who provide guidance and make decisions on key issues. In this case, the Center PIE steering committee is a “group of 25 stakeholders representing the agricultural industry and commodity groups, public sector natural resources

managers, Florida Cooperative Extension, Florida Department of Agriculture and Consumer Affairs, and University of Florida faculty (IFAS, UF water Institute, College of Journalism and Mass Communications)” (Florida Center for Public Issues Education in Agriculture and Natural Resources, 2009).

- Sustainable Florida-Collins Center: Sustainable Florida is an “independent, non-profit and non-partisan alliance and part of the Collins Center, which serves as the primary statewide collaborator on sustainability issues and aims to advance the vision of sustainability by identifying, supporting and communicating best management practices” (collinscenter.org).
- Sustainability principles: Although many versions of sustainability exist, this study utilized the following:

Harmony with nature: Land use and development activities should support ecosystems rather than modifying them (i.e. preserve biodiversity; protect/restore essential services like water quality).

Livable built environment: Characteristics of human-made surroundings should enhance the fit between people and urban form, encourage community cohesion by fostering access to land uses, and support a sense of place or community identity.

Place-based economy: A local economy should strive to operate within natural system limits and not cause deterioration to the natural resource base. Essential products of nature should not be used up more quickly than nature can renew them.

Equity: Land use patterns should recognize and improve the conditions of low-income populations; equitable access to social and economic resources is essential for eradicating poverty.

Polluters pay: Polluters that cause adverse community wide impacts should be required to bear the cost of pollution and other harms.

Responsible regionalism: Communities should not act in their own interests to the detriment of the interests of others, and they should be responsible for the consequences of their actions (Berke & Manta-Conroy, 2000, p.23).

Limitations of the Study

This study is based on a convenience sample of appointed and elected regional planning officials currently serving on one of Florida’s Eleven Regional Planning

Councils. Therefore, the results cannot be generalized beyond appointed and elected Florida regional planning officials.

Other procedural limitations of this study included the accessibility of the population. Due to time and financial constraints as well as the high profile nature of the population, the questionnaire was electronically distributed using web-based software. Since the majority of RPCs did not provide direct email addresses for their council members, the researcher primarily gathered each contact email individually from the officials' county or city website. However, some Florida county and city sites also did not provide contact emails, thus limiting the entire population from being contacted about this study. Furthermore, it is probable that a small group of officials may not have had an email address or utilized their email.

Additionally, the questionnaire was researcher developed which may have yielded error or bias. Finally, the data in this study was self-reported. Self-reported information can be a limitation if participants do not answer the questionnaire truthfully. According to Ary, Jacobs, Razavieh, and Sorenso (2006) the validity of a self-reported instrument depends partly on the respondents' ability to read and understand the questions, understand themselves, and their willingness to answer honestly.

Basic Assumptions

In order for the study to be considered valid and reliable, a variety of assumptions must be made about the participants. The researcher has assumed that all contact information received from each RPC website is up-to-date and correct. This study also assumed that elected officials serving on a RPC will: 1) have a basic knowledge of sustainability 2) have current knowledge of issues and procedures of the planning

region and the respective county or municipality they govern, and 3) respond to all survey questions honestly and thoroughly.

Summary

This chapter described the current sustainability phenomenon as it relates to global issues and concerns facing agriculture and natural resources. The chapter justified the need for stakeholders in Florida to collectively define sustainability, highlighting the need for political leaders to be particularly knowledgeable of its concepts and practices for adequate policy revision, planning and implementation. The chapter emphasized the notion that collaboration and problem solving among individuals from an array of interest groups are incredibly challenging and can hinder the momentum of positive change, particularly in governance and environmental planning. It suggested the need for a clear identification of issues and solutions among industry experts and the equal significance of effective dissemination of information to regional planning officials in order to promote positive change and growth.

CHAPTER 2 REVIEW OF THE LITERATURE

The purpose of this study was to describe and understand the perceptions, knowledge, and motivations of appointed and elected officials serving on Florida Regional Planning Councils about key agriculture and natural resource issues. Additionally, the factors that influence the likelihood of regional planning officials to incorporate sustainability principles in planning will be analyzed in this study. The Reasonable Person Model “provides a framework for the motivations that drive the process of acquiring and utilizing information” and “assists in examining the possibilities for dealing with sustainability issues” (Basu, 2009, p. 113).

In addition to the Reasonable Person Model, behavior change and motivation theories are incorporated to provide supplemental factors that influence motivations of regional planning officials to utilize sustainability principles in regional planning decision making processes. By understanding these cognitive, affective and situational factors, a better understanding for effectively incorporating sustainability into decision-making and policy development process was expected.

Theoretical Framework

Conservation Behavior Change

Human behavior is currently characterized as being highly resource consumptive and such costly behavior is creating a multitude of global challenges. The concerns for addressing “climate stress, water shortage, food insecurity, energy constraints, and waste” are challenging individuals to rethink the way we live (De Young, 1993, p. 485). In the face of many pressing environmental issues, moving towards sustainable behavior has become a major focus.

Changing human behavior is a challenging concept influenced by many factors, which can be characterized as resulting from either environmental (tangible) or internal (intangible) sources (De Young, 1993). Generally, three interrelated elements: motives, skills and cognitive abilities, are used to answer the “why, how, and what” of behavior change theories (McClelland, 1987). As a result, research has sought to understand the best behavior change techniques when attempting to solve and address environmental issues (Stern & Oskamp, 1987; Stern, 1992). According to De Young (1993), while most environmentally driven techniques (i.e. social pressure, material incentives) provide more rapid behavior change results, they tend to lack in long-term durability and require repeated interventions. One approach, conservation behavior change, includes informational knowledge about environmental problems, motivational forces/factors, and the perceived roles the individual plays (De Young, 1993), to create long-term change.

Information. Behavior change can be facilitated in two ways: by merely providing people the adequate information to understand the environmental problem or by illustrating an action they can take to reach a resolution. This notion suggests that people generally will engage in behavior change if they have an increased awareness and understand the information provided. With that, De Young (1993) suggested that acquiring information through self-discovery has been more likely to influence an individual’s understanding, beyond awareness, and impact internal value change (Gray, 1985), thus resulting in changed behavior. Also, externally acquiring environmental knowledge from a direct experience (Fazio & Zanna, 1981) or even case study involvement (Monroe & Kaplan, 1988) has been suggested to provide greater clarity and confidence in understanding the issue, than from a direct experience.

Motivational forces. There are motivational factors which make adopting a new environmental behavior more appealing to individuals (De Young, 1993). Positive motivational techniques, including monetary reinforcement, social reinforcement through recognition and support, altruism, and intrinsic satisfactions have been seen as effective in conservation behavior change (De Young, 1993). Environmental psychologists have had a tendency to disagree with the use of negative types of motivational techniques, like punishment, in facilitating conservation behavior change (Geller et al., 1982, as cited in De Young, 1993).

The source initiating the behavior change, either internal or from the outside environment, determines the behavior change technique engaged in (Figure 2-1) and related effects. For example, individuals motivated internally have a sense of competence, confidence, commitment and are intrinsically satisfied, allowing them to address more challenging problems, gather data more efficiently and logically, and “engage in more self-regulating strategies” (Lepper, 1988; Pintrich & Garcia, 1991; as cited in De Young, 1993, p. 492). They also have more in-depth information processing, enabling an increased applicability of the acquired knowledge (Nolan, 1988, as cited in De Young, 1993).

SOURCE OF CHANGE

BEHAVIOR CHANGE TECHNIQUES

	Information	Positive Motivation	Coercion
Environment/Others (Tangible)	<ul style="list-style-type: none">•Declarative knowledge•Procedural knowledge•Feedback•Modeling•Prompting	<ul style="list-style-type: none">•Material incentives•Social support	<ul style="list-style-type: none">•Material disincentives•Social pressure•Legal mandates
Internal (Intangible)	<ul style="list-style-type: none">•Direct experience•Personal insight•Self-motivated feedback	<ul style="list-style-type: none">•Commitment•Intrinsic satisfactions•Sense of competence•Sense of confidence	<ul style="list-style-type: none">•Sense of duty•Feeling of remorse

Figure 2-1. Typology of Selected Behavior Change Techniques (De Young, 1993).

Effectiveness of behavior change. Cone and Hayes (1980, as cited in De Young, 1993) addressed the diverse issues related to addressing behavior change related to environmental issues and identified five general criteria for measuring the effectiveness of behavior change techniques: reliability, speed of change, particularism, generality and durability. De Young (1993) concluded that conservation change techniques have historically elicited rapid, short-term change, and attention to durability and generality is needed. Durability is described as the ability of the change to be maintained without additional interventions, and generality deals with the “spill over” to adopting and influencing other unintentional conservation behavior changes (De Young, 1993).

Perceived role. Another important aspect is the perceived role the individual sees themselves, which is dependent upon the source of change. Kaplan (1990, as cited in De Young, 1993) has suggested that individuals maintaining a sense of challenge and

purpose, generally perceive themselves as needed and view their contribution to the change as a necessity and a responsibility. To move towards “self-sustaining change,” De Young (1993) suggested techniques become more creative, personalized, and enhances the individual discovery process, while also yielding feelings of challenge, excitement, satisfaction, and enjoyment.

Adaptive Management

Adaptive Management, a method for managing natural resources introduced by ecologist C.S Holling in the 1970s, has been used as a means to implement natural resource policies as experiments (Holling, 1978). The adaptive management process assumes that human beings do not have enough information in order to effectively manage ecosystems, thus the process “probes the responses of ecosystems as people’s behavior in them changes (this is referred to as ‘active’ adaptive management in Walters and Holling (1990))” (Lee, 1999, para 5). This iterative approach is characterized as “learning while doing” under high risk and uncertainty. Adaptive management attempts to understand the unknown environment through “trial and error” experiments, rather than waiting to proceed until enough information is known (Lee, 1999). This causes the adaptive management process to become very costly and slow in most cases (Walters, Goruk, & Radford, 1993, as cited in Lee, 1999). Additional problems with this approach include unintended costly catastrophes, management failures, inefficient short-term management, lack of communication, high conflict, and ineffective record keeping (Lee, 1999). However, when executed efficiently, adaptive management has the ability to be a useful, long-term tool for resource management agencies.

Reasonable Person Model (RPM)

For this study, the Reasonable Person Model (RPM) developed by Kaplan and Kaplan (Kaplan, 2000; Kaplan & Kaplan, 2003; Kaplan & Kaplan, 2009), provided a guiding framework for incorporating the aforementioned constructs and principles of conservation behavior change and adaptive management, to better understand and manage environmental issues. A commonly understood factor shared by most of these behavior change theories is that obtaining adequate information is a prerequisite in decision making and influences change in human behavior (De Young, 1993; Holling, 1978, Kaplan, 2000; Kaplan & Kaplan, 2003; Kaplan & Kaplan, 2009). To examine the use of sustainability when addressing, understanding and managing issues particular to the natural resource and agricultural sectors, the existence of other environmental factors which can affect this particular type of human behavior change should be recognized. In this context sustainable principles and practices are viewed as innovative ideas (or the informational pieces) that can be used as a new means to address environmental issues and influence policy decisions. However, many factors and challenges hinder the adoption of such innovative strategies.

RPM is unique in offering an “evolutionary, cognitive, and motivational approach to understanding human nature” (Kaplan, 2000) and how well the surrounding environment satisfies human informational needs. Kaplan (2000) suggested that many views of human nature are either narrowly focused or extreme. From the “economic man” perspective of human behavior, only material gains matter. Conversely, the altruistic view is ignorant of the existence of self-interest in human behavior. The Reasonable Person Model embraces the complicated tendency that people have of resisting changes that are perceived to reduce their quality of life, while acknowledging

that people are also generally concerned about the future of the environment. In this perspective, “humans can be seen as active, curious, and problem-solving” with a capacity to be reasonable as well as unreasonable depending on the circumstances of the situation (Kaplan, 2000). They are more likely to behave reasonably in a cooperative, helpful, constructive manner when their environment meets their basic informational needs (Kaplan & Kaplan, 2003). From this psychological perspective, “human information-processing mechanisms have been offered as a tool for studying subjects such as environmental decision making and environmentally responsible behavior” (Scheuer, 2007, p. 2). Therefore, RPM helps to explain how people interact with the surrounding environment and to understand the decisions they make. Creating a truly an integrative approach, RPM is based on principles across many fields, particularly research on attention restoration (Kaplan & Kaplan, 1995; Kaplan, 2001), cognitive maps (Kaplan, 1973, 1991; Kaplan & Kaplan, 1983), environmental preferences (Kaplan, 1983; Kaplan, 1992; Kaplan & Kaplan, 1995), environmental behavior change (De Young, 1993, 1996, 2000), and helplessness (Kaplan, 1983; Peterson et al., 1993; Seligman, 1998).

The framework for this approach is based on three interrelated goals: “to provide a durable source of motivation, to reduce the corrosive sense of helplessness, and to generate innovative solutions that people do not perceive as threatening their quality of life” (Kaplan, 2000, p. 491). These goals are categorized in RPM as three informational needs: model building, becoming effective, and meaningful action (Figure 2-2 & 2-3). Kaplan & Kaplan have offered two ways of conceptualizing the model, both demonstrating the three motivational components highly interrelated nature.

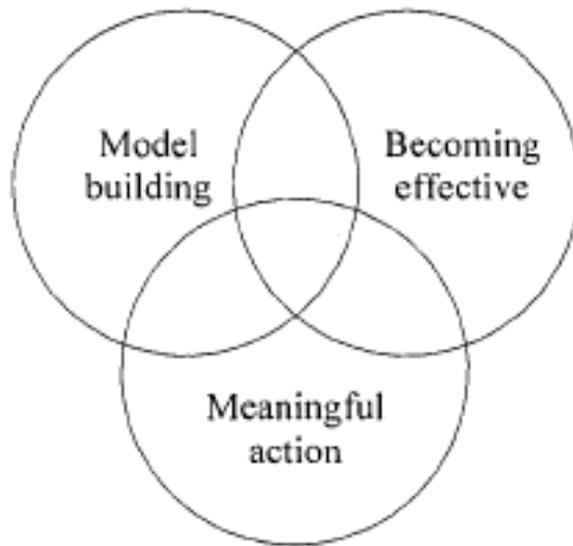


Figure 2-2. The Reasonable Person Model—interrelated domains (Kaplan & Kaplan, 2006)

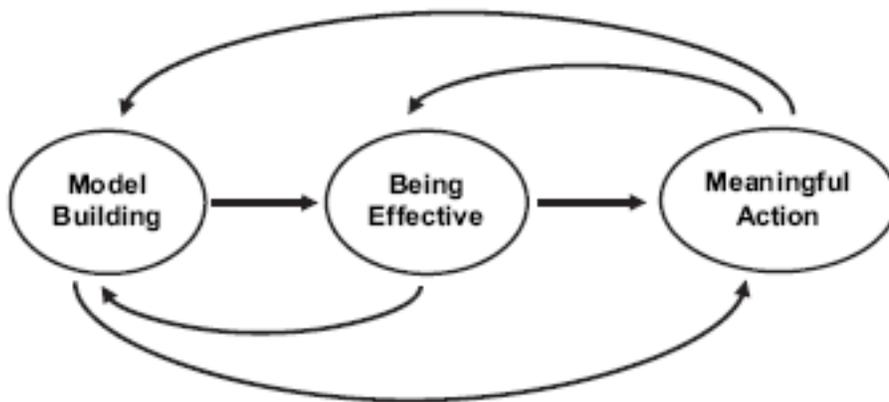


Fig. 1. The Reasonable Person Model.

Figure 2-3. Reasonable Person Model (Kaplan & Kaplan, 2009)

Model building. The first informational need in the Reasonable Person Model (RPM) involves the capacity of humans to build mental models in order to function in the surrounding world. Building mental models helps individuals to plan and evaluate information through exploration and understanding. This process involves integrating

newly acquired information, while building upon existing knowledge capacities (Kaplan & Kaplan, 2009).

“People want to make sense of what is going on around them and have a strong aversion to feeling confused” (Kaplan & Kaplan, 2003, p. 558). However, Kaplan & Kaplan (2003) also suggested that “people prefer and benefit from acquiring knowledge at their own pace and with information that is relevant to their concerns” (p. 558). There are strong emotional reactions associated with confusion, which implies a human desire to maintain orientation, suggesting a learning environment which can provide adequate exploration opportunities without the fear of becoming disorientated. Positive exploration then becomes a motivational force for exploring more (Kaplan & Kaplan, 1989) and continuously building mental models.

Becoming effective. People desire to learn and acquire new information, not simply to collect it, but so that they can apply it and make a contribution to the world. However, some environments pose situations that limit the ability to be effective. In the Reasonable Person Model, becoming effective involves two linked components: being sufficiently clear-headed and increasing feelings of competence and confidence, particularly when surrounded by an abundance of information and complexity (Kaplan & Kaplan, 2009). Often the abundance of information related to environmental concerns can challenge achieving clear-headedness, leading to feeling of being overwhelmed and suffering from mental fatigue. The second component of becoming effective -- achieving competence-- demonstrates the relationship between motivation and cognition. “Feeling competent impacts one’s state of mind every bit as much as it facilitates meeting challenges”, increasing motivation to meet those challenges (Kaplan

& Kaplan, 2009, p.332). Kaplan and Kaplan (2009) described competence “as not only knowing how to do things but also understanding the bigger picture of what is possible” and how to move forward (p. 332).

Meaningful action. Just as people have a desire to acquire information, understand, explore and feel competent, they also want to make a difference in the world. Meaningful action concerns the need to actively participate in the surrounding environment (Kaplan & Kaplan, 2006). People want opportunities to become engaged and involved. Often when dealing with an abundance of environmental issues and information, coupled with few opportunities to become engaged or involved, feelings of helplessness arise, leading to avoidance (Kaplan, 2000). “Feeling helpless can contribute to a reduced ability to solve problems or to attend to issues of concern” (Scheuer, 2007, p. 18). Thus, in this perspective feeling helpless would be one of the most negatively motivating concerns to consider in the context of behavior change.

Theories of Motivation

“The Reasonable Person Model provides a framework for the motivations that drive the process of acquiring and utilizing information” (Basu, 2009, p. 113). To fully understand behavior change, the motivating forces of building mental models, being effective, and meaningful action, and the influencing environmental factors, it is imperative to have a basic understanding of motivational theories.

The subject of motivation is based on psychological principles that aim to understand the “why” aspects of behavior, and is identified as one of three personal determinants of behavior (McClelland, 1987). Many theories of motivation exist, addressing all types of motives and influencing factors. Motives are seen as a driving force to move towards action. Some of these motive systems include the achievement

motive, power motive, affiliative motive, avoidance motive and hunger motive.

McClelland's (1987) defines a motive as "a recurrent concern for a goal state based on a natural incentive—a concern that energizes, orients, and selects behavior" (p. 590).

This emphasis on natural incentives underlies the significance of many influencing factors. For example, consistency refers to the natural human desire to live in stable and predictable environments, conform to social norms, and minimize confusion, uncertainty, stress and conflict from our lives (McClelland, 1987). Particularly central to RPM, is the importance of acquiring information. From a motivational perspective, a growth in understanding, or cognition, is an example of one such way to reach the desired human state of stability and control (McClelland, 1987). Motivational theories are the underlying framework for understanding and identifying the human and environmental factors that hinder or contribute to behavior change. The human and environmental factors influencing the human motivation needs towards understanding and engaging in sustainable environmental issues management are displayed in the conceptual model below (Figure 2-4).

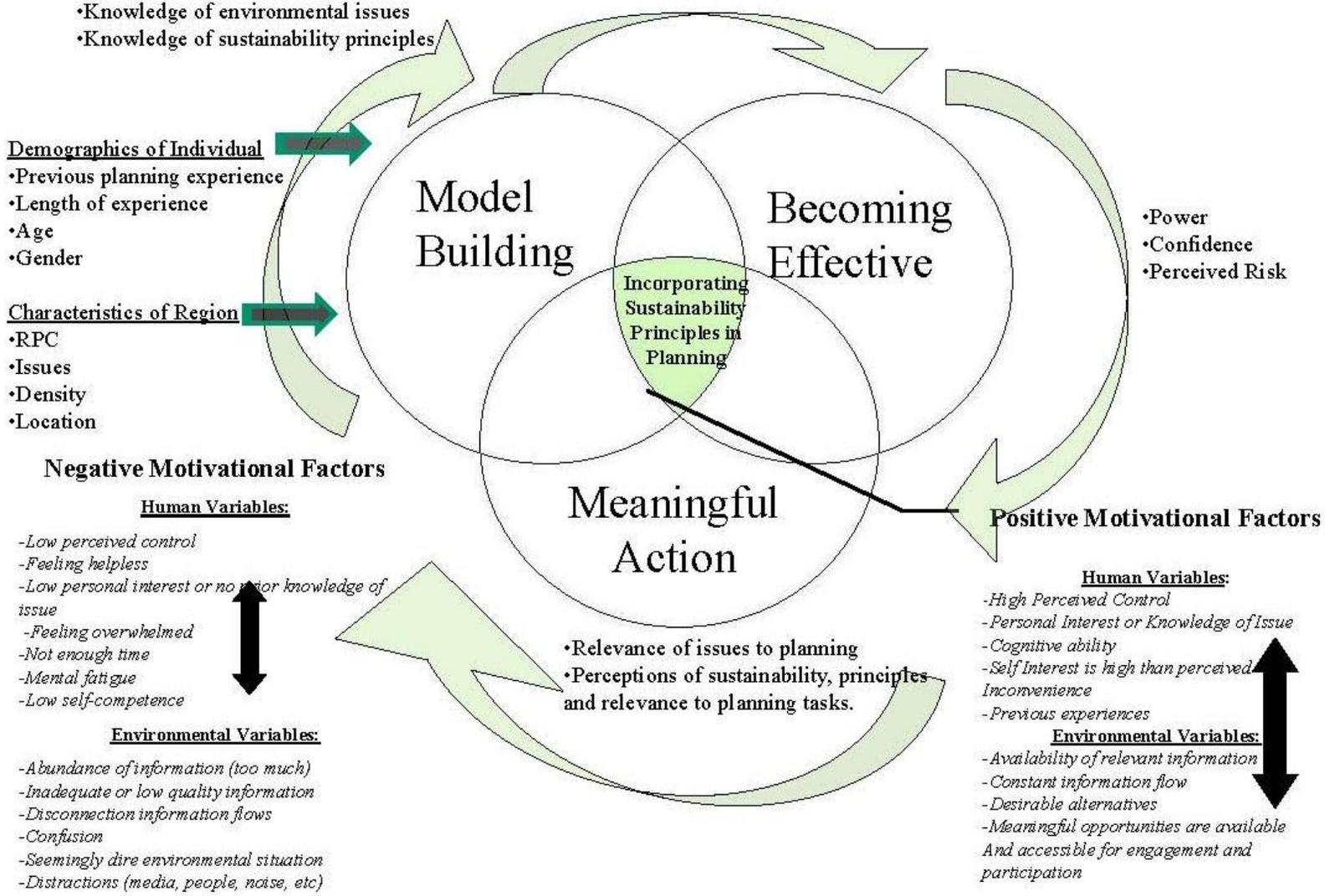


Figure 2-4. Reasonable Person Model for Sustainable Agriculture and Natural Resource Planning (Adapted from Kaplan & Kaplan Reasonable Person Model, 2006).

Previous Research

Due to the Reasonable Person Model's relatively recent development (2000), few empirical studies have examined the utility of the model in the same discipline that this study attempts. The few studies that have operationalized the RPM are in the fields of green building design (Scheuer, 2007), landscape planning (Basu, 2009), participation in ecological restoration (Phalen, 2009), and environmental behavior change in reducing automobile use (Corbett, 2005).

Challenges in Regional Planning

Brody, Carrasco, and Highfield (2006) analyzed the variables that influenced the adoption of sprawl-reduction plans by local planning agencies in southern Florida. The study found that as the number of professional planners working on a plan increased, so did the likelihood of adopting comprehensive plans and sprawl reduction policies, thus building the planning capacity of the agency. The researchers suggested that this "larger number of professional planners working on a plan can translate into increased technical expertise and training associated with sustainable growth and environmental management" (Brody et al., 2006, p. 307). It is important for local planning agencies to take proactive measures, but as Brody et al. (2006) identified, the ability of planners to anticipate future growth has been a major challenge.

Knowledge Factors

"Much of individuals perceptions of the environment are derived from external information received from the environment" (Kaplan, 1983, p. 316). Lacking adequate and accurate information, particularly related to environmental issues associated with agriculture and natural resources, can lead to frustration and avoidance behaviors thus limiting the likelihood of any action or behavior change (Kaplan, 1983).

A high level of familiarity can influence an individual's preferences to an issue or subject, although the correlation is not always guaranteed. The degree of familiarity "depends on many factors including the frequency, interestingness, vividness, and credibility of the sources of information" (Basu, 2009, p. 107). In some situations, a high familiarity with a subject can create a feeling of disinterest, leading to lower preference. Despite the paradox between familiarity and preference, studies support the positive relationship between familiarity and preference (Basu, 2009). When addressing environmental issues Basu (2009) suggested "the combination of familiarity and preference presents a significant challenge for persuading the public to adopt more sustainable forms of development that may be both less familiar and preferred" (p. 110).

Visualization methods have been seen as useful for enhancing the understanding and familiarity with complex environmental issues particularly when applying new and changing approaches like sustainability (Basu, 2009; Kaplan, Kaplan, & Austin, 2008).

Information Flows

The frequency of information flows or access to numerous sources of information is shown to influence the likelihood that people will adopt new innovations or ideas (Toole, 1998, as cited in Scheuer, 2007). However, the opposite occurs when there are gaps in information flows or missing information, causing the level of uncertainty to increase and reducing the likelihood of accepting new ideas. Under such circumstances, the "ability to reduce uncertainty is seen as directly proportional to the ability to increase information flows" (Scheuer, 2007, p. 11).

Scheuer (2007) analyzed the challenge of creating change within the homebuilding industry by focusing on how homebuilders think about green building innovations. The study identified with other sustainability problems, in that there is "no

single approach” to the adoption of its practices, not in the green building industry or sustainable environmental issues management. The “open-ended” nature of sustainability concepts impacts problem solving, learning and the adoption of its practices. The adoption of appropriate sustainable solutions in the context of managing environmental issues is a learning process that involves the transfer of knowledge from conventional solutions to sustainable ones. As suggested by Scheuer (2007), in this informational search “the commonly assumed process can turn out to be quite different from reality” (Figure 2-5).

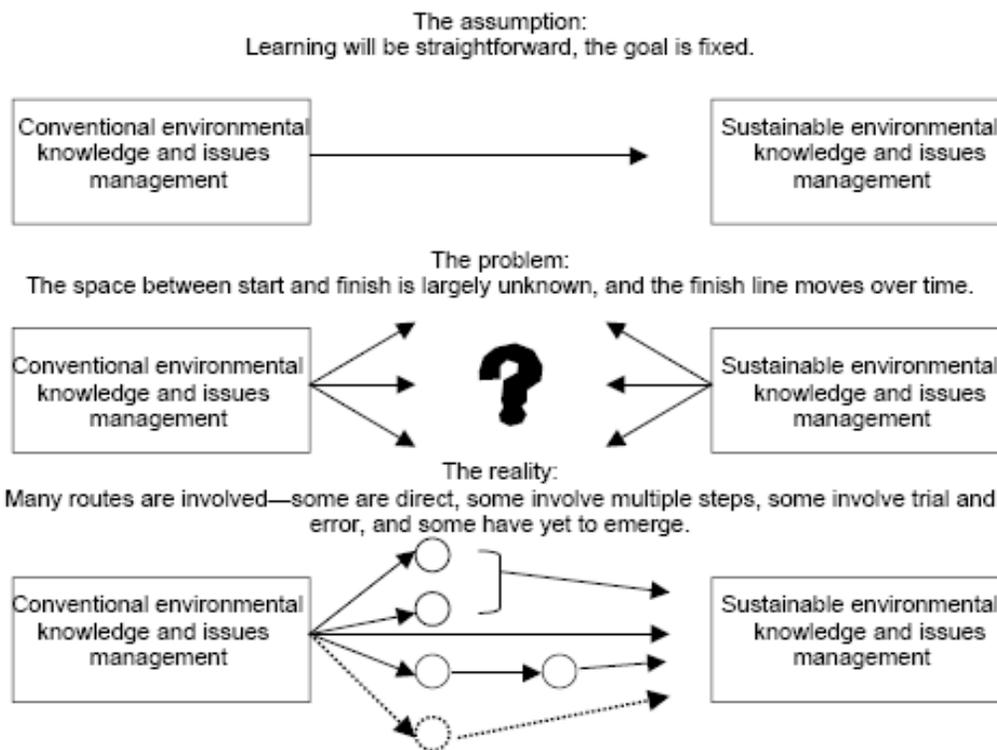


Figure 2-5. Learning about sustainable environmental knowledge and issues management is neither straightforward nor terminal (Adapted from Scheuer, Learning about green building is neither straightforward nor terminal, 2007)

Self-Interest

The RPM suggests that people are more reasonable when the environment satisfies their informational needs. “Generally, people are more comfortable with

alternative solutions or [even] activities that may compromise environmental behavior but don't heavily go against their perceived self-interest. Kaplan referred to this approach as providing "multiple desirable choices" (Kaplan, 2000). A study by Corbett (2005), used the RPM to analyze the difficulty in getting people to stop driving their vehicles as an environmentally responsible behavior. When the respondents were asked to identify the largest factor in choosing an alternative to driving, the majority (22%) of respondents answered convenience and ease (Corbett, 2005). These two factors support the notion of self-interest as a positive motivating factor towards environmental behavior change.

Confidence/Competence

Lacking information about the environment can lead to feelings of helplessness and incompetence (Kaplan, 1983). The pressing environmental concerns can be perceived as too big or impossible to solve. Confidence can also negatively impact behavior change when there are too many distractions from the external environment. Kaplan (1983) identified these distractions as outside "noises, obtrusive advertisements, clutter, and people" and referred to this as information "overload."

Perceived Control

The concept of control in an environment has received a fair amount of research attention in the fields of social and environmental psychology (Perlmutter and Monty, 1979; Barnes, 1981). Traditionally, research has suggested that individuals perceive a "sound environment" as one which they have "control" over (Kaplan, 1983). However, Kaplan (1983) suggested that individuals do not desire "having control" over the issues in their environment, but rather they desire "things being under control" (p. 324). Another distinction Kaplan (1983) identified as weak, was the relationship between

participation and control, stating that “participation implies the possibility of meaningful activity and potential influence on an outcome without implying that the outcome is under the individual’s own control” (p. 324).

Perceived Risks

In addition to storing information and individual preferences, mental models create relationships between ideas and when these relationships associate a particular cause with a negative effect a perceived risk is formed (Basu, 2009). Risks are perceived differently depending on the individual, their associations, experiences, and values. For example in the context of development, “planning practitioners often deal with the perceived risk of not being able to accommodate future growth or being able to meet local budget constraints,” while “local citizens perceived risks are related to crime, traffic and loss of property values” (Basu, 2009, p. 111) Such differences in perceived risks can lead to conflicts between interested parties.

Summary

Reasonable Person Model (RPM), developed by Kaplan and Kaplan (2003), in addition to factors common to behavior change and motivation theories, provided the basis in this study for the theoretical framework that examines the factors influencing regional planning officials perceptions of sustainability and issues related to agricultural and natural resources in Florida. The RPM framework is based on the psychological principle that humans have a natural desire to understand and have the capacity to make reasonable decisions when they have access to and understand their their surrounding environments. RPM is based on three interrelated human informational needs, model building, becoming effective and meaningful action (Kaplan & Kaplan, 2009). Using RPM as a guiding framework, additional factors were identified from

behavior change and motivation literature. The factors used in this study included knowledge, relevance, confidence, clear-headedness, power, ability, decision-making, perceptions, and barriers.

Sustainability has been proposed as a valuable way to create long-term solutions to growing concerns facing agriculture and natural resources. However, a common challenge has been actually applying sustainable principles and changing set behaviors. Previous research conducted uncovered perceptions that there is no single approach to adopting sustainability; its open-ended nature challenges the understanding, problem solving, and adoption of sustainability concepts (Scheur, 2007). Research has also identified challenges in regional planning officials ability to anticipate future growth (Brody et al., 2006), and the perceived risk associated with not being able to accommodate growth or satisfy budget limitations (Basu, 2009). This study aims to better understand the challenges and perceptions of regional planning officials in Florida regarding sustainability and agricultural and natural resource concerns.

CHAPTER 3 METHODOLOGY

This study was designed to describe and understand the perceptions, knowledge, and motivations of elected and appointed officials serving on Florida Regional Planning Councils (also referred to as ‘elected/appointed regional planning officials’) about key agriculture and natural resource issues. The researcher sought to determine the factors that influenced the likelihood of regional planning officials to incorporate sustainability principles when addressing environmental issues in planning. The purpose of this study was guided by the following research objectives:

- Objective 1: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida.
- Objective 2: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.
- Objective 3: To determine regional planning officials’ motivation to complete tasks associated with sustainable planning.
- Objective 4: To determine differences that exist in regional planning officials motivation to complete tasks associated with sustainable planning when examining specific demographic variables.
- Objective 5: To determine the current barriers to incorporating sustainability principles into regional planning.

The focus of this chapter is to outline the methodology utilized to address aforementioned research objectives. The researcher also describes the research design, population and instrumentation in full detail, as well as any validity and reliability concerns. Finally, the chapter concludes by describing the statistical analysis techniques that will be used to analyze the data.

Research Design

This study was a quantitative research design that utilized descriptive survey methodology. McMillan and Schumacher (2010) defined descriptive survey research as questionnaires or interviews which aim to describe the “attitudes, beliefs, values” as well as demographic information from a group of subjects (p. 235). This is a particularly useful method for collecting accurate data in politics and government (McMillan & Schumacher, 2010). In this study, the entire population of interest consisted of appointed and locally elected officials serving on a Regional Planning Council (RPC) in Florida as of June 2011. However, due to the difficult nature in contacting high political representatives, this study utilized a convenience sample of accessible regional planning officials. The use of a web-based questionnaire was appropriate for this study because respondents were asked about their perceptions and opinions related to issues in Florida agriculture and natural resources.

In order to collect accurate information, the survey aimed to minimize the four types of survey error. As identified by Dillman, Smyth, and Christian (2009), the four types of survey error include: measurement, coverage, sampling, and non-response. Since the study’s instrument was researcher-developed, addressing measurement error was imperative. Measurement error inhibits the ability of participants to understand the meaning and design of questions, and is often a result of poorly worded questions or questionnaire layout (Dillman et al., 2009). In this study, measurement error was addressed by having a panel experts from the University of Florida’s Agricultural Education and Communications Department review the instrument, and then conducting a pilot test with a group of 32 past serving Regional Planning Council members to establish the reliability of the instrument.

Coverage error occurs when not all members of the population have an equal opportunity to be included in the sample and when those that are included in the sample are greatly different from the remaining population not included (Dillman et. al., 2009). This study addressed coverage error by compiling the most recent list of elected planning officials serving Florida Regional Planning Councils (RPC). The researcher compiled this list by visiting each of the eleven individual RPC's websites, respective local-area government websites and assumed that this information was correct and up to date. If no list was found on a RPC website, the researcher contacted the council via telephone to acquire an updated list of council membership. According to Dillman et al. (2009), sampling error is the "extent to which the precision of the survey estimates is limited because not every person in the population is sampled" (p. 17). While generalizations cannot be made to all regional planning officials in Florida, data collected from the convenience sample of accessible regional planning officials can inform and guide future research, as well as provide an overview of the characteristics of the officials in the sample.

The final source of error addressed in this study was non-response error. This occurs when not every individual sampled in the survey responds, and non-responders should be accounted for in order to investigate the potential for bias in the results (McMillan & Schumacher, 2010). In this study, nonresponse error was addressed in two ways. First, the researcher contacted the members of the population utilizing the Dillman Tailored Design Method to minimize nonresponse error. Secondly, the researcher compared the differences between early responders and late responders (Lindner & Wingenbach, 2002). According to Lindner, Murphy, and Briers (2001) late

respondents are defined “operationally and arbitrarily as the later 50% of respondents” (p. 242). In this study, the early respondents (n=50) were defined as the first 50% who responded to the survey and late respondents (n=50) were defined as the latter 50% who responded to the survey. Early respondents were compared to late respondents on the basis of the demographic data and select variables.

Population

The population for this study was appointed and elected regional planning officials in Florida. The researcher comprised a list of the appointed and elected regional planning officials (N=302) currently serving on each of the eleven regional planning councils (RPC's) in Florida which served as the population frame. As mandated under Florida Statutes, a RPC must be comprised two-thirds of locally elected representatives (county and municipal) and the remaining one-third representatives for the region are appointed by the governor. These councils serve to as a forum for the coordination and review of federal, state, local government policies. They address private sector planning and development activities affecting their region. Each council provides a large array of services particularly benefiting its local governments. Additionally, the appointed and elected officials were selected to participate in this study because they represent the voice and interests of the citizens living in within their region.

Table 3-1. List of Florida Regional Planning Councils and the Counties Covered by Each Council

Regional Planning Council	Counties
Apalachee	Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty, Wakulla
Central Florida	DeSoto, Hardee, Highlands, Okeechobee, Polk
East Central Florida	Brevard, Lake, Orange, Osceola, Seminole, Volusia
North Central Florida	Alachua, Bradford, Columbia, Dixie, Taylor, Gilchrist, Hamilton, Lafayette, Madison,

Table 3-1. Continued

Regional Planning Council	Counties
Northeast Florida	Suwannee, Union Baker, Clay, Duval, Flagler, Nassau, Putnam, St. Johns
South Florida	Broward, Dade, Monroe
Southwest Florida	Charlotte, Collier, Glades, Hendry, Lee, Sarasota
Tampa Bay	Hillsborough, Manatee, Pasco, Pinellas
Treasure Coast	Indian River, Martin, Palm Beach, St. Lucie
West Florida	Bay, Escambia, Holmes, Okaloosa, Santa Rosa, Walton, Washington
Withlacoochee	Citrus, Hernando, Levy, Marion, Sumter

A convenience sample was taken from the population (n=247). A convenience sample is “a group of subjects selected on the basis of being accessible or expedient” (McMillan & Schumacher, 2010, p. 137). The sample was elected and appointed regional planning officials with direct email addresses made available on their respective regional planning council website or their local area government website. Eight regional planning officials declined to participate, leaving a usable population of n=239.

Instrumentation

The researcher found no existing instrument for measuring the variables that influence regional planning officials to incorporate sustainability principles when addressing environmental concerns. Therefore, the researcher developed a web-based questionnaire. The questionnaire was composed of 28 questions, divided into four sections, including Likert-type, multiple-choice and short-answer question formats. The questionnaire began by providing detailed instructions for properly filling out the survey. The first section of the instrument asked questions which assessed the respondents’ knowledge of various issues in Florida agriculture and natural resources (i.e., water

quality, soil degradation, etc.) and the relevance of those topics to regional planning. This section also acquired regional officials' perceptions of their planning responsibilities.

Then, through a series of questions the respondents were asked to identify the sustainable principles which they have incorporated into regional planning and perceptions of those approaches. Thirdly, a variety of constructs (i.e., power, confidence, ability) were used to identify the motivational influences that regional planning officials had for completing planning tasks associated with sustainable approaches.

Lastly, to obtain individual and regional demographic information, participants were required to indicate their length of planning experience, if they had previous related experience (planning or industry related), if they had an agricultural or natural resource background, the number of years as a political representative and the highest level of education they obtained. Questions also obtained individual demographics (age, gender), demographic information related to the region (urban, rural) as well as the individuals current title (elected or appointed; city or county representative). These demographics were used to describe the differences between regional planning councils and officials across the state of Florida, as detailed in objectives two and four above.

To address the concerns of instrument validity and reliability, several steps were taken. McMillan and Schumacher (2010) described validity as the "degree to which scientific explanations of phenomena match reality and refers to the truthfulness of findings and conclusions" (p. 104). Four types of validity exist within research design:

internal validity, statistical conclusion validity, construct validity, and external validity (Campbell & Stanley, 1963 as cited by McMillan & Schumacher, 2010).

According to McMillan and Schumacher (2010) the “principles of internal validity lie at the heart of designing good quantitative studies” and refer to a minimum level of impact that extraneous variables have on the relationships on between independent and dependent variables (p. 106). Eight threats to internal validity in research design have been identified as history, maturation, testing, instrumentation, statistical regression, selection, mortality and interactions among all these variables (McMillan & Schumacher, 2010). The internal threats of history, maturation, testing, and mortality were addressed by the design of the study. Since this study used a researcher-developed instrument, instrumentation was the greatest concern for achieving internal validity. As previously mentioned, the researcher addressed this threat and further ensured that all four types of validity (content, statistical, internal and external) were met by having a panel of experts analyze the instrument and pilot testing. The issues of reliability were also addressed through pilot testing the survey to a group of past Florida Regional Planning Council members. The instrument was then modified according to their suggestions. Furthermore, the researcher conducted a Cronbach’s alpha test with the pilot study data and determined the reliability of the credibility construct to be a coefficient of 0.86. According to the literature, an alpha coefficient of 0.70 has shown to be an acceptable reliability coefficient (Nunnally, 1978, as cited by Santos, 1999). To further address the difficulties in measuring abstract psychological constructs related to motivations and perceptions, related empirical studies in the literature were consulted (McMillan & Schumacher, 2010).

Data Collection

The first step in instituting this study was to receive approval from the University of Florida's Institutional Review Board for non-medical projects (IRB 02). The proposal was approved (UFIRB Protocol number 2011-U-0329 and the study proceeded (Appendix A).

After the instrument was reviewed by a panel of experts for validity and then pilot tested to a group of past Florida Regional Planning Council members to ensure reliability, the contact information (e-mail, RPC, position title) for all 302 regional planning officials (appointed and elected) was collected from the corresponding RPC websites and local area government websites. After considering the convenience, time and financial benefits, a web survey methodology was utilized. Following Dillman's Tailored Design Method, five different contacts were used to distribute the survey and to increase the likelihood of responses (Dillman et al., 2009). The five contacts included: a brief pre-notice letter, questionnaire, a thank-you postcard, a replacement questionnaire, and a final contact (Dillman et al., 2009). All the contacts made aimed to establish trust with the participants, demonstrate the benefits of participation and decrease the costs of participation (Dillman et al., 2009).

Before contacting the regional planning officials about the study, a personalized e-mail was sent on April 8, 2011 to all eleven RPC executive directors to inform them of the upcoming study. The first contact was a personalized pre-notice e-mail sent to all regional planning officials on August 8, 2011, informing them of the study and the upcoming questionnaire. Dillman et al. suggests that personalized letters aid in minimizing the likelihood of non-response (2009). The participants received a second contact on August 11, 2011, when the web-based survey links were sent to their e-mail

addresses. The third contact was made one week later on August 18, 2011. For those that had completed the survey, a thank you letter was sent, and for those who had not completed the survey received a reminder notice. By August 31, 2011, a fourth contact was made to the participants who had still not completed the survey, and the tone of the letter reinforced the importance of the survey (Dillman et al., 2009). The survey closed one week later on September 8, 2011. Then, a comparison was made between early and late respondents.

Data Analysis

The researcher used the Statistical Package for the Social Sciences (SPSS) 17.0 for Windows to analyze the data collected. A variety of descriptive statistics were used to conduct an analysis of the datasets and to determine the differences across variables of interest. To address the first objective of this study standard deviations (σ), means (μ), and frequencies (f), were calculated to determine the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida and planning. Additionally, to compare the differences between the knowledge and relevance of regional planning factors, mean weighted knowledge-relevance discrepancy scores were also calculated. The topics were ranked in order with the topic with the greatest absolute value discrepancy score assigned the highest priority. To determine regional planning officials' motivations to complete tasks associated with sustainable planning (third objective), standard deviations (σ), means (μ), and frequencies (f) were used.

The researcher utilized a one-way analysis of variance (ANOVA) in objectives two and four in order to measure potential relationships that existed among demographic

variables when looking at the knowledge, relevance and motivations that regional planning officials have about agriculture, natural resources and sustainability planning tasks in Florida. Lastly, standard deviations (σ), means (μ), and Pearson's product moment correlation coefficients (r) were used to describe the perceived barriers to incorporating sustainability into regional planning.

At the conclusion of data collection procedures, 100 (41.8%) of the regional planning officials responded. This response rate was deemed acceptable when compared with studies surveying similar populations (Kaplan, Kaplan, & Austin, 2008) that yielded a 21% response rate. Furthermore, Kittleson (1997, as cited by Cook, Heath and Thompson, 2000) noted that email surveys without any follow-up can expect to yield between a 25 and 30% response rate and surveys that utilize follow-up reminders can approximately double the response rate. Thus, a 41.8% response rate was acceptable based on prior trends and the literature.

Summary

This chapter described the methods the researcher used to achieve the research objectives described in Chapter 1. More specifically, this chapter outlined the details for the study's research design, population, survey instrumentation developed, means for collecting data and statistical analysis tests. The study utilized a quantitative perspective through a descriptive survey research design. The independent variables in this study included the characteristics specific to the individual participant, age, gender, education level, previous planning experience, type of agriculture and natural resource background, years of political experience, current position held, and the percentage the region is considered rural or urban. The dependent variables were the knowledge,

perceptions, and motivations of agricultural and natural resource issues in Florida and incorporating sustainable principles in regional planning tasks. Lastly, issues related to reliability and validity were discussed in detail.

CHAPTER 4 RESULTS

The purpose of this study was to describe the perceptions, knowledge, and motivations of appointed and elected officials serving on Florida Regional Planning Councils about key agriculture and natural resource issues, as well as the factors influencing the likelihood of incorporating sustainability principles in planning.

Chapter 1 explained the significance of sustainability for addressing local and global issues, the importance of agriculture and natural resources in Florida and the role Florida Regional Planning Councils have as leaders of the state. Furthermore, the first chapter stated the importance of Regional Planning Officials incorporating sustainability principles into their planning decisions and established this study's objectives:

- Objective 1: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida.
- Objective 2: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.
- Objective 3: To determine regional planning officials' motivation to complete tasks associated with sustainable planning.
- Objective 4: To determine differences which exist in regional planning officials motivation to complete tasks associated with sustainable planning when examining specific demographic variables.
- Objective 5: To determine the current barriers to incorporating sustainability principles into regional planning.

Chapter 2 presented an overview of the theoretical and conceptual frameworks that were utilized for studying this topic. A brief discussion of environmental behavior change theories, particularly the Reasonable Person Model (RPM) which was the foundational theory used in the development of the conceptual model for this study.

Also included in this chapter were a brief discussion of motivation and the challenges

faced in regional planning. Overall, the chapter 2 literature did not reveal any previous studies that measured the factors influencing the likelihood of incorporating sustainability into decision making, thus further establishing the need for this study.

Chapter 3 described the research methodology utilized in this study, including the research design, population, instrumentation, data collection and data analysis procedures.

This chapter presents the findings of the study. The chapter begins with description of the population and will present the findings of each of the study's objectives. The population of this study consisted of all appointed and elected officials currently serving on Florida's regional planning councils (N=302). Following the procedures described in Chapter 3, a convenience sample was taken of regional planning officials that had personal email addresses made accessible on the web. Of the 247 officials contacted, 8 declined to participate. Of the remaining 239 regional planning officials, 100 (41.8%) responded.

Demographics of Respondents

Regional planning officials were analyzed by the following demographics: age, gender, education level, agricultural or natural resource background, years in planning, council officer, elected or appointed, city or county representative, position title, planning background, years as political representative, percentage region is urban or rural, and Regional Planning Council. Results can be found in Table 4-1, 4-2, and 4-3.

Table 4-1 provides a frequency distribution of respondents' gender and ages. Of the respondents, 67.3% ($n=35$) were male and 32.7% ($n=17$) were female. In the age category, 7.7% ($n=4$) were between 26-34 years of age; 11.6% ($n=6$) were between 35-

44 years of age; 15.4% ($n=8$) were between 45-54 years of age; 44.2% ($n=23$) were between 55-64 years of age; and, 21.2% ($n=11$) were between 66-75 years of age.

In regard to respondents' educational background, 10.7% ($n=6$) indicated their highest level of education to be high school graduate; 5.4% ($n=3$) had trade school education; 39.3% ($n=22$) received a bachelor's degree; 36.3% ($n=19$) received a master's degree; and, 10.7% ($n=6$) received a doctoral degree.

Respondents were asked to report any agricultural or natural resource background. Of the 56 respondents, 35.7% ($n=20$) reported taking classes in high school; 41.1% ($n=23$) took classes in college; 12.5% ($n=7$) were involved in FFA or a similar organization; 35.7% ($n=20$) have owned a farm or agricultural property; and, 32.1% ($n=18$) reported having another type of agricultural or natural resource background. Some responses for other types of agricultural or natural resource background reported include: raised on a farm, professional involvement with the industry, involvement with 4H club, serving on natural resource committees, and workshops/seminars.

In regard to the respondents' professional planning experience, 18.4% ($n=9$) have worked in planning for less than a year; 25.6% ($n=14$) worked in planning for 1-5 years; 12.2% ($n=6$) worked in planning for 6-10 years; 8.2% ($n=4$) worked in planning for 11-15 years; and, 32.7% ($n=16$) worked in planning for 16 or more years. The average years respondents' worked in planning was 11.70, ($n= 49$, $SD=11.11$).

Respondents were also asked to describe the percentage of their educational planning background that was obtained through various means. Each type of planning background signifies a fraction or percentage of the participants' entire background in

planning (Table 4-2). Since the responses were answered on a continuous interval from 1-100, therefore means could not be calculated only the averages of percentages. Of the 62 respondents, the average percentage of planning background obtained through on the job experience was 46.98 ($SD=28.99$); the average percentage of planning background obtained through formal education (i.e. academic courses) was 12.66 ($SD=18.80$); the average percentage of planning background obtained through non-formal education (i.e. workshops/seminars) was 15.00 ($SD=16.07$); the average percentage of planning background obtained through personal research was 10.52 ($SD=10.87$); and, the average percentage of planning background obtained through other means was 1.13 ($SD=5.07$).

Respondents indicated the number of years serving as a political representative in many capacities (Table 4-3). The average number of years respondents have served on their current regional planning council was 6.23 ($n=55$, $SD=7.43$). The average number of years respondents have served on any Florida Regional Planning Council was 5.45 ($n=31$, $SD=6.42$). The average number of years respondents have served as a political representative throughout their entire career was 7.68 ($n=42$, $SD=7.12$).

As described in Chapter 3, Florida regional planning councils are comprised of locally elected officials and governor appointees. Elected officials are representatives from a city or a county within their region. Of the respondents 56.4% ($n=31$) were locally elected officials and 43.6% ($n=24$) were appointed by the governor. Of the respondents who indicated being elected officials, 60% ($n=18$) were city representatives and 40% ($n=12$) were county representatives. 23.6% ($n=13$) of respondents were serving as an

officer on their Regional Planning Council and 76.4% ($n=42$) were not serving as an officer.

In regards to the current position titles the respondents held, 16% ($n=9$) were mayors; 5% ($n=3$) were vice-mayors; 30% ($n=17$) were commissioners; 30% ($n=17$) were councilmembers; 4% ($n=2$) were attorneys; 4% ($n=2$) were school board members; and, 11% ($n=6$) indicated holding a different position title.

Finally, respondents were asked to indicate the percentage their region was considered urban and rural (Table 4-4). Similar to the responses in Table 4-2, the responses were answered on a continuous interval from 1-100, therefore means could not be calculated only the averages of percentages. The average percentage respondents considered their region to be urban was 43.92 ($SD=28.51$) and the average percentage respondents considered their region to be rural was 50.25 ($SD=28.67$).

Of the respondents ($n=100$), four respondents were officials serving on Apalachee RPC, 7 respondents were officials serving on Central Florida RPC, 12 respondents were officials serving on East Central Florida RPC, 14 respondents were officials serving on North Central Florida RPC, 12 respondents were officials serving on Northeast Florida RPC, 4 respondents were officials serving on South Florida RPC, 7 respondents were officials serving Southwest Florida RPC, 9 respondents were officials serving on Tampa Bay RPC, 21 respondents were officials serving on Treasure Coast RPC, 4 respondents were officials serving on West Florida RPC, and 6 respondents were officials serving on Withlacoochee RPC (Table 4-5).

Table 4-1. Frequencies and Percentages of Demographic Information

	<i>f</i>	<i>Percent</i>	<i>Total Answered</i>
Gender			
Male	35	67.3	52
Female	17	32.7	
Age			
26-34	4	7.7	52
35-44	6	11.6	
45-54	8	15.4	
55-64	23	44.2	
65-74	11	21.2	
Education Level			
High School graduate	6	10.7	56
Trade School	3	5.4	
Bachelors	22	39.3	
Masters	19	36.3	
Doctoral	6	10.7	
Agricultural or Natural Resource Background			
Classes in High school	20	35.7	56
Classes in College	23	41.1	
FFA or related organization	7	12.5	
Own farm or agricultural property	20	35.7	
Other	18	32.1	
Worked in Planning (years)			
Less than a year	9	18.4	49
1-5	14	25.6	
6-10	6	12.2	
11-15	4	8.2	
16 or more	16	32.7	
Currently Serving as Officer on Council			
Yes	13	23.6	55
No	42	76.4	
Position Type			
Elected Official*	31	56.4	55
Governor Appointee	24	43.6	
City representative*	18	60.0	30
County representative*	12	40.0	

Table 4-1. Continued

	<i>n</i>	<i>Percent</i>	<i>Total Answered</i>
Position Title			
Mayor	9	16	56
Vice-Mayor	3	5	
Commissioner	17	30	
Councilmember	17	30	
Attorney	2	4	
School Board member	2	4	
Other*	6	11	

Note: *Other position titles: Economic Development Official, Chair Elect & Former Chair, Mayor Commissioner Pro Tem, Vice Mayor Pro Tem, and Governor Appointee

Table 4-2 Planning Background-by type (*n*=62)

Type of Planning Background	<i>M</i>	<i>SD</i>
On the Job Experience	46.98	28.99
Formal Education (academic courses)	12.66	18.80
Non-formal Education (workshops/seminars)	15.00	16.07
Personal Research	10.52	10.87
Other	1.13	5.07

Table 4-3 Years Serving as a Political Representative-by type

Type of Political Representative	<i>n</i>	<i>M</i>	<i>SD</i>
Current Regional Planning Council	55	6.23	7.43
Any Florida Regional Planning Council	31	5.45	6.42
Through Entire Career	42	7.68	7.12

Table 4-4 Region is Considered Urban and Rural (*n*=60)

	<i>M</i>	<i>SD</i>
Urban	43.92	28.51
Rural	50.25	28.67

Table 4-5. Participants by Regional Planning Council (RPC)

RPC	<i>n</i>	<i>Percent</i>	<i>Total Answered</i>
Apalachee	4	4	100
Central Florida	7	7	
East Central Florida	12	12	
North Central Florida	14	14	
Northeast Florida	12	12	
South Florida	4	4	
Southwest Florida	7	7	
Tampa Bay	9	9	
Treasure Coast	21	21	
West Florida	4	4	
Withlacoochee	6	6	

Objectives

Objective One: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida

Respondents indicated their level of knowledge of seven factors related to regional planning on a five-point likert scale. This scale ranges from “not knowledgeable” as the lowest score (1), to “somewhat knowledgeable” as the middle score (3), to “very knowledgeable” as the highest score (5). The knowledge level frequencies, means, and standard deviations of the seven regional planning factors are presented in Table 4-6.

Using the same seven factors, respondents indicated the relevance level of the factors to their role on a regional planning council on a five-point likert scale. The scale ranges from “not important” as the lowest score (1), to “somewhat not important” as the middle score (3), to “very not important” as the highest score (5). The relevance level frequencies, means, and standard deviations of the seven regional planning factors are presented in Table 4-7.

Mean weighted discrepancy scores (MWDS) were used to compare regional planning officials’ self-perceived knowledge and relevance to their position on a Regional Planning Council of specific factors related to regional planning . The mean weight discrepancy scores for all seven factors related to regional planning are presented in Table 4-8.

Environmental issues

When asked to report their knowledge level of environmental issues, the majority of respondents (41.1%) indicated being moderately knowledgeable ($M=3.95$, $SD=0.867$). The majority of respondents indicated that environmental issues were between moderately important (36.8%) and very important (54.4%) to their role on a regional

planning council ($M=4.40$, $SD=0.821$). The mean weighted knowledge-relevance discrepancy score for environmental issues was 1.84.

Agricultural and natural resource issues

For the second factor, the majority of respondents (43.9%), stated that they were moderately knowledgeable in agricultural and natural resource issues ($M=3.84$, $SD=.902$). Respondents also indicated that agricultural and natural resource issues were between moderately important (38.6%) and very important (50.9%) to their role on a regional planning council ($M=4.33$, $SD=0.873$). The mean weighted knowledge-relevance discrepancy score for agricultural and natural resource issues was 1.82.

Assessing the significance of various environmental issues (including agricultural and natural resource issues)

For the third factor, the majority of respondents (50.9%) indicated being moderately knowledgeable in assessing the significance of various environmental issues, including agricultural and natural resource issues ($M=3.77$, $.846$). The majority (46.4%) also reported that assessing the significance of various environmental issues was moderately important to their role on a regional planning council ($M=4.13$, $SD=0.916$). The mean weighted knowledge-relevance discrepancy score for assessing the significance of various environmental issues (including agricultural and natural resource issues) was 1.26.

Sustainability principles

For the fourth factor, the majority of respondents (50.9%) reported that they were moderately knowledgeable in sustainability principles ($M=3.89$, $.772$). Respondents (42.1%) indicated that sustainability principles were moderately important to their role

on a regional planning council ($M=4.19$, $SD= 0.895$). The mean weighted knowledge-relevance discrepancy score for sustainability principles was 1.16.

How to apply sustainability principles in regional planning

For the fifth factor, the majority of respondents indicated being between somewhat knowledgeable (42.1%) and moderately knowledgeable (36.8%) about how to apply sustainability principles in regional planning ($M=3.63$, $SD=0.816$). Respondents (39.3%) reported knowing how to applying sustainability principles in regional planning as being moderately important to their role on a regional planning council ($M=4.18$, $SD=0.855$). The mean weighted knowledge-relevance discrepancy score for how to apply sustainability principles in regional planning was 1.85.

How to acquire new information about regional planning

For the sixth factor, the majority of respondents (33.9%) reported that they were moderately knowledgeable in how to acquire new information about regional planning ($M=3.82$, $SD=0.97$). Respondents (31.6%) indicated knowing how to acquire new information about regional planning as being moderately important to their role on a regional planning council ($M=4.05$, $SD=0.90$). The mean weighted knowledge-relevance discrepancy score for how to acquire new information about regional planning was 0.89.

How to acquire new information about incorporating sustainability into regional planning

When examining the final factor related to regional planning, the majority of respondents stated that they were between somewhat knowledgeable (42.1%) and moderately knowledgeable (28.1%) in how to acquire new information about incorporating sustainability into regional planning ($M=3.6$, $SD=.96$). Respondents indicated that knowing how to acquire new information about incorporating sustainability

into regional planning was moderately important to their role on a regional planning council ($M=4.07$, $SD=0.920$). The mean weighted knowledge-relevance discrepancy score for how to acquire new information about incorporating sustainability into regional planning was 1.58.

Table 4-6. Frequencies and Percentages of Regional Planning Officials Knowledge Level of Factors Related to Regional Planning

Regional Planning Factor	Likert Rank Response					<i>n</i>	<i>M</i>	<i>SD</i>
	1	2	3	4	5			
Environmental Issues	0	3	14	24	17	58	3.95	.87
	(0.0)	(5.2)	(24.1)	(41.4)	(29.3)			
Agricultural and natural resource issues	0	5	13	25	14	57	3.84	.90
	(0.0)	(8.8)	(22.8)	(43.9)	(24.6)			
Assessing the significance of various environmental issues (including agricultural and natural resource issues)	0	5	13	29	10	57	3.77	.85
	(0.0)	(8.8)	(22.8)	(50.9)	(17.5)			
Sustainability principles	0	2	14	29	12	57	3.89	.77
	(0.0)	(3.5)	(24.6)	(50.9)	(21.1)			
How to apply sustainability principles in regional planning	0	3	24	21	9	57	3.63	.82
	(0.0)	(5.3)	(42.1)	(36.8)	(15.8)			
How to acquire new information about regional planning	1	3	17	19	16	56	3.82	.97
	(1.8)	(5.4)	(30.4)	(33.9)	(28.6)			
How to acquire new information about incorporating sustainability into regional planning	1	4	24	16	12	57	3.60	.96
	(1.8)	(7.0)	(42.1)	(28.1)	(21.1)			

Note: 1= Not knowledgeable, 2=Slightly knowledgeable, 3=Somewhat knowledgeable, 4=Moderately knowledgeable, 5=Very knowledgeable. Bolded means and standard deviations are the highest coefficients within each factor.

Table 4-7. Frequencies and Percentages of Regional Planning Officials Relevance Level of Factors Related to Regional Planning to Role on a Regional Planning Council

Regional Planning Factor	Likert Rank Response					<i>n</i>	<i>M</i>	<i>SD</i>
	1	2	3	4	5			
Environmental Issues	1 (1.8)	1 (1.8)	3 (5.3)	21 (36.8)	31 (54.4)	57	4.40	.82
Agricultural and natural resource issues	1 (1.8)	2 (3.5)	3 (5.3)	22 (38.6)	29 (50.9)	57	4.33	.87
Assessing the significance of various environmental issues (including agricultural and natural resource issues)	1 (1.8)	3 (5.4)	5 (8.9)	26 (46.4)	21 (37.5)	56	4.13	.92
Sustainability principles	1 (1.8)	2 (3.5)	6 (10.5)	24 (42.1)	24 (42.1)	57	4.19	.90
How to apply sustainability principles in regional planning	1 (1.8)	0 (0.0)	10 (17.9)	22 (39.3)	23 (41.1)	56	4.18	.86
How to acquire new information about regional planning	0 (0.0)	2 (3.5)	15 (26.3)	18 (31.6)	22 (38.6)	57	4.05	.90
How to acquire new information about incorporating sustainability into regional planning	1 (1.8)	0 (0.0)	15 (27.3)	17 (30.9)	22 (40.0)	55	4.07	.92

Note: 1=Not important, 2=Slightly important, 3=No opinion, 4=Moderately important, 5=Very important. Bolded means and standard deviations are the highest coefficients within each factor.

Table 4-8. Factors Related to Regional Planning- Knowledge Level Vs. Relevance to Role on Regional Planning Council

Regional Planning Factor	Mean weighted discrepancy score (MWDS)
How to apply sustainability principles in regional planning	-1.85
Environmental issues	-1.84
Agricultural and natural resource issues	-1.82
How to acquire new information about incorporating sustainability into regional planning	-1.58
Assessing the significance of various environmental issues	-1.26
Sustainability principles	-1.16
How to acquire new information about regional planning	-0.89

Objective Two: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.

An analysis of variance (ANOVA) was utilized to determine if significant relationships existed in mean regional planning factors and demographics of the respondents. After analyses were conducted, significant relationships were found between select regional planning factors and respondents planning background obtained through on the job experience, formal and non-formal education; agricultural or natural resource background from classes in high school or owning a farm or agricultural property; and, the percentage a region is considered urban and rural. Partial eta squared was used to show effect sizes for planning background and the percentage a region is considered urban and rural.

Statistically significant relationships existed between the knowledge level of environmental issues and the percentage of planning background a regional planning official obtained through on the job experience ($F=2.146$, $p<.05$). These scores are presented in Table 4-9. The partial eta squared was .45, indicating a large effect size, showing that planning background obtained from on the job experience accounted for 45% of the variance in the knowledge level of environmental issues.

Table 4-9. One-Way Analysis of Variance Significant Relationships between Knowledge Level of Environmental Issues and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Planning Background: On the job Experience	Between	15	2.146	.028
	Within	40		

Significant relationships also existed between the knowledge level of agricultural and natural resource issues and the percentage a region is considered urban ($F=2.176$, $p<.05$), the percentage a region is considered rural ($F=2.553$, $p<.05$); having an

agricultural and natural resource background from owning a farm or agricultural property ($F=5.982, p<.05$); and having agricultural or natural resource background from taking classes in high school ($F=10.037, p<.05$). These scores are presented in Table 4-10.

By percentage the region was urban, the partial eta squared was .48, indicating a large effect size, showing that the percentage a region was urban accounted for 48% of the variance in the knowledge level of agricultural and natural resource issues. By, percentage the region was rural; the partial eta squared was 0.53, indicating a large effect size, showing that the percentage a region was rural accounted for 53% of the variance in the knowledge level of agricultural and natural resource issues.

Table 4-10. One-Way Analysis of Variance Significant Relationships between Knowledge Level of Agricultural and Natural Resource Issues and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Percentage Urban	Between	16	2.176	.025
	Within	38		
Percentage Rural	Between	16	2.553	.009
	Within	37		
AG/NR Background: Classes in High school	Between	1	10.037	.003
	Within	53		
AG/NR Background: Own farm or agricultural property	Between	1	5.982	.018
	Within	53		

Another statistically significant relationship was found between regional planning officials' knowledge level of assessing the significance of various environmental issues and the percentage of planning background obtained through non-formal education ($F=2.181, p<.05$) as well as the having agricultural or natural resource background from taking classes in high school ($F=10.399, p<.05$). (Table 4-11). The partial eta squared for planning background obtained through non-formal education was 0.38, indicating a medium effect size, showing that planning background obtained from non-

formal education accounted for 38% of the variance in the knowledge level of assessing the significance of various environmental issues.

Table 4-11. One-Way Analysis of Variance Significant Relationships between Knowledge Level of Assessing the Significance of Various Environmental Issues and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Planning Background: Non-formal education	Between	12	2.181	.031
	Within	42		
AG/NR Background: Classes in High school	Between	1	10.399	.002
	Within	53		

Moreover, Table 4-12 highlights the relationship in the relevance level to the role on a regional planning council of assessing the significance of various environmental issues (including agricultural and natural resource issues) compared to the percentage of planning background obtained through formal education ($F=2.181, p<.05$).

Additionally, the partial eta squared for planning background obtained through formal education was 0.40, indicating a large effect size, showing that planning background obtained from formal education accounted for 40% of the variance in the relevance level of assessing the significance of various environmental issues.

Table 4-12: One-Way Analysis of Variance Significant Relationships between Relevance Level of Assessing the Significance of Various Environmental Issues and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Planning Background: Formal Education	Between	11	2.518	.016
	Within	42		

Table 4-13 highlights the significant relationship between the knowledge level of sustainability principles and having an agricultural or natural resource background from taking classes in high school ($F=6.520, p<.05$). Furthermore, Table 4-14 highlights the significant relationship between the knowledge level of how to apply sustainability

principles in regional planning and having an agricultural or natural resource background from taking classes in high school ($F=8.711$, $p<.05$).

Table 4-13. One-Way Analysis of Variance Significant Relationships between Knowledge Level of Sustainability Principles and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
AG/NR Background: Classes in High school	Between	1	6.520	.014
	Within	53		

Table 4-14. One-Way Analysis of Variance Significant Relationships between Knowledge Level of How to Apply Sustainability Principles in Regional Planning and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
AG/NR Background: Classes in High school	Between	1	8.711	.005
	Within	53		

Another significant relationship existed between the knowledge level of how to acquire new information about regional planning and a regional planning officials' percentage of planning background obtained through formal education ($F=2.575$, $p<.05$). (Table 4-15). The partial eta squared for planning background obtained through formal education was 0.40, indicating a large effect size, showing that planning background obtained from formal education accounted for 40% of the variance in the knowledge level of how to acquire new information about regional planning. Additionally, Table 4-16 displays the significant relationship in the relevance level to the role on a regional planning council of how to acquire new information about regional planning compared to the percentage of planning background obtained through on the job experience ($F=2.126$, $p<.05$). The partial eta squared for planning background obtained through on the job experience was 0.45, indicating a large effect size, showing that planning background obtained from on the job experience accounted for 45% of the variance in the relevance level of how to acquire new information about regional planning.

Table 4-15. One-Way Analysis of Variance Significant Relationships between Knowledge Level of How to Acquire New Information about Regional Planning and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Planning Background:	Between	11	2.575	.014
Formal Education	Within	32		

Table 4-16. One-Way Analysis of Variance Significant Relationships between Relevance Level of How to Acquire New Information about Regional Planning and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Planning Background:	Between	15	2.126	.030
On the Job Experience	Within	39		

In Table 4-17, ANOVAs revealed statistically significant relationships between the knowledge level of how to acquire new information about incorporating sustainability into regional planning and the percentage the region is considered urban ($F=2.758$, $p<.05$), percentage the region is considered rural ($F=2.529$, $p<.05$), and the percentage of planning background obtained through formal education ($F=2.032$, $p<.05$). By percentage the region was urban, the partial eta squared was 0.54, indicating a large effect size, and showing that the percentage a region was urban accounted for 54% of the variance in the knowledge level of how to acquire new information about incorporating sustainability into regional planning. By percentage the region was rural, the partial eta squared was 0.52, indicating a large effect size, and showing that the percentage a region was rural accounted for 52% of the variance in the knowledge level of how to acquire new information about incorporating sustainability into regional planning. The partial eta squared for planning background obtained through formal education was 0.34, indicating a medium effect size, showing that planning background obtained from formal education accounted for 34% of the variance

in the knowledge level of how to acquire new information about incorporating sustainability into regional planning.

Finally, Table 4-18 highlights the relationship in the relevance level to the role on a regional planning council of how to acquire new information about incorporating sustainability into regional planning compared to the percentage of planning background obtained through on the job experience ($F=2.151, p<.05$). The partial eta squared was also calculated for the planning background obtained through on the job experience and was 0.44. This indicated a large effect size and showed that 44% of the variance in the relevance level of how to acquire new information about incorporating sustainability into regional planning was from planning background obtained through on the job experience.

Table 4-17. One-Way Analysis of Variance Significant Relationships between Knowledge Level of How to Acquire New Information about Incorporating Sustainability into Regional Planning and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Percentage Urban	Between	38	2.758	.005
	Within	54		
Percentage Rural	Between	16	2.529	.010
	Within	37		
AG/NR Background: Classes in High school	Between	1	6.404	.014
	Within	53		
Planning Background: Formal Education	Between	11	2.032	.049
	Within	43		

Table 4-18. One-Way Analysis of Variance Significant Relationships between Relevance Level of How to Acquire New Information about Incorporating Sustainability into Regional Planning and Demographics

Demographic		<i>df</i>	<i>F</i>	Sig.
Planning Background: On the job experience	Between	14	2.151	.031
	Within	38		

Objective Three: To determine regional planning officials’ motivation to complete tasks associated with sustainable planning.

To determine regional planning officials’ motivation to complete tasks associated with sustainable planning, several behavioral questions utilizing likert five-point scales were used. Scales included level of agreement or disagreement, level of likelihood, confidence level, level feeling clearheaded, and level feeling overwhelmed. The frequencies, percentages, means and standard deviations of these statements are included in the tables below.

In Table 4-19 respondents ($n=58$) indicated between neither agreeing nor disagreeing and agreeing with the statement “other planning officials in my regional seem to have adequate knowledge of sustainability principles in regional planning” ($M=3.62$, $SD=.75$).

Table 4-19. Regional Planning Officials Perceptions of Other Officials’ Knowledge Levels ($n=58$)

	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
Other planning officials in my region seem to have adequate knowledge of sustainability principles in regional planning	1 (1.7)	3 (5.2)	16 (27.6)	35 (60.3)	3 (5.2)	3.62	.75

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree. Bolded coefficients represent the highest frequencies and percentages.

When asked about making decisions as a regional planning official, respondents ($n=59$) reported between maybe and probably yes that “my decisions as a regional planning official can improve agricultural and natural resource conditions in Florida” ($M=3.76$, $SD=1.10$) and “my decisions as a regional planning official can make a difference in the future of Florida” ($M=3.64$, $SD=1.05$). The results are shown in Table 4-20.

Table 4-20. Regional Planning Official Level of Agreement with Decision Statements
(*n*=59)

Decision statement	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
My decisions as a regional planning official can improve agricultural and natural resource conditions in Florida	2 (3.4)	4 (6.9)	19 (32.8)	14 (24.1)	19 (32.8)	3.76	1.10
My decisions as a regional planning official can make a difference in the future of Florida.	1 (1.7)	8 (13.6)	16 (27.1)	20 (33.9)	14 (23.7)	3.64	1.05

Note: 1=Definitely not, 2=Probably not, 3=Maybe, 4=Probably yes, 5=Definitely yes. Bolded coefficients represent the highest frequencies and percentages within each decision statement

Regional planning officials were asked to report whether their decisions as a regional planning official had the opportunity to make a difference (Table 4-21). Respondents (*n*=58) indicated between maybe and probably that their decisions have the opportunity to make a difference in their city or municipality (*M*=3.76, *SD*=1.10). Respondents felt their decisions probably have the opportunity to make a difference in their region (*M*=3.95, *SD*=.93) and maybe in Florida (*M*=2.93, *SD*=1.02).

Table 4-21. Level of Agreement that Decisions as a Regional Planning Official Have the Opportunity to Make a Difference in Selected Capacities (*n*=58)

	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
My city or municipality	2 (3.4)	4 (6.9)	19 (32.8)	14 (24.1)	19 (32.8)	3.76	1.10
My region	0 (0.0)	5 (8.6)	11 (19.0)	24 (41.4)	18 (31.0)	3.95	0.93
Florida	4 (6.9)	16 (27.6)	22 (37.9)	12 (20.7)	4 (6.9)	2.93	1.02

Note: 1=Definitely not, 2=Probably not, 3=Maybe, 4=Probably yes, 5=Definitely yes. Note: Bolded coefficients represent the highest frequencies and percentages within each variable.

Generally, respondents ($n=53$) feel more likely that they have the power to make a difference ($M=3.79$, $SD=.91$). Respondents ($n=55$) feel between slightly and somewhat overwhelmed when thinking about environmental pressures ($M=2.51$, $SD=1.22$). These results are shown in Table 4-22 and 4-23.

Table 4-22. Regional Planning Officials Perception of Power ($n=53$)

	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
Generally, I feel I have the power to make a difference	1 (1.9)	3 (5.7)	13 (24.5)	25 (47.2)	11 (20.8)	3.79	.91

Note: 1=No, not at all, 5=Yes, very much. Bolded coefficients represent the highest frequencies and percentages.

Table 4-23. Regional Planning Officials Degree Feeling Overwhelmed ($n=55$)

	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
When thinking about environmental pressures	16 (29.1)	10 (18.2)	16 (29.1)	11 (20.0)	2 (3.6)	2.51	1.22

Note: 1=Not overwhelmed, 2=Slightly overwhelmed, 3=Somewhat overwhelmed, 4=Moderately overwhelmed, 5=Extremely overwhelmed. Bolded coefficients represent the highest frequencies and percentages.

Respondents were asked to describe sustainability based on a five-point likert scale for five dichotomous constructs. Constructs included the level to which sustainability is: confusing or clear, easy or difficult to enforce, useful or useless, simple or complex, and impractical or practical. Regional planning officials ($n=58$) reported sustainability is more clear than confusing ($M=3.64$, $SD=0.89$), more difficult than easy to enforce ($M=3.97$, $SD=0.90$), more useful than useless ($M=1.66$, $SD=0.97$), more complex than simple ($M=3.98$, $SD=0.83$), and more practical than impractical ($M=4.12$, $SD=0.77$). The constructs that received the highest and lowest mean score indicated strong tendencies to support the statements: “sustainability is practical” ($M=4.12$, $SD=0.77$) and “sustainability is useful” ($M=1.66$, $SD=0.97$). Table 4-24 exhibits the

constructs, frequencies, means, and standard deviations describing regional planning officials' perceptions of sustainability.

Table 4-24. Frequencies and Percentages of Constructs Describing Regional Planning Officials' Perceptions of Sustainability ($n=58$)

Sustainability is...	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
Confusing : Clear	1 (1.7)	4 (6.9)	19 (32.8)	25 (43.1)	9 (15.5)	3.64	.89
Easy to enforce : Difficult to enforce	1 (1.7)	1 (1.7)	15 (25.9)	23 (39.7)	18 (31.0)	3.97	.90
Useful : Useless	35 (60.3)	12 (20.7)	8 (13.8)	2 (3.4)	1 (1.7)	1.66	.97
Simple : Complex	0 (0.0)	2 (3.4)	14 (24.1)	25 (43.1)	17 (29.3)	3.98	.83
Impractical : Practical	0 (0.0)	1 (1.7)	11 (19.0)	26 (44.8)	20 (34.5)	4.12	.77

Note: Likert Rank of 1 represents of the left construct and a Likert rank of 5 represents the right construct (i.e. 1=Confusing, 5=Clear). Bolded coefficients represent the highest frequencies and percentages.

Respondents were asked to indicate on a five-point likert scale the degree they felt clear-headed when in various situations. Being clear-headed refers to feeling aware, alert, astute and/or lucid. The scale ranged from “not clear-headed” as the lowest score (1), to “somewhat clear-headed” as the middle score (3), to “extremely clear-headed” as the highest score (5). The frequencies, means, and standard deviations of respondents' level feeling clear-headed across the six situations are presented in Table 4-25. The majority of respondents reported feeling between moderately to extremely clear-headed across all six situations: when addressing individual planning tasks ($M=4.26$, $SD=0.84$), thinking about sustainability ($M=3.98$, $SD=0.74$), working with other regional planners ($M=3.90$, $SD=1.00$), addressing regional planning issues ($M=4.07$, $SD=0.94$), addressing regional planning issues related to agriculture and natural resources

($M=3.96$, $SD=0.93$), and applying sustainability principles to regional planning efforts ($M=3.84$, $SD=1.01$).

Table 4-25. Level of Feeling Clear-headed in Various Situations ($n=57$)

Situation	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
Addressing individual planning tasks	1 (1.8)	1 (1.8)	5 (8.8)	25 (43.9)	25 (43.9)	4.26	.84
Thinking about sustainability	0 (0.0)	2 (3.5)	10 (17.5)	32 (56.1)	13 (22.8)	3.98	.74
Working with other regional planners	1 (1.7)	5 (8.6)	11 (19.0)	23 (39.7)	18 (31.0)	3.90	1.00
Addressing regional planning issues	0 (0.0)	5 (8.8)	8 (14.0)	22 (38.6)	22 (38.6)	4.07	.94
Addressing regional planning issues related to ag/nr	0 (0.0)	4 (7.0)	13 (22.8)	21 (36.8)	19 (33.3)	3.96	.93
Applying sustainability principles to regional planning efforts	1 (1.8)	4 (7.0)	16 (28.1)	18 (31.6)	18 (31.6)	3.84	1.01

Note: 1=Not clear-headed, 2=Slightly clear-headed, 3=Somewhat clear-headed, 4=Moderately clear-headed, 5=Extremely clear-headed. Bolded coefficients represent the highest frequencies and percentages for each situation.

Regional planning officials' indicated their level of confidence for seven situational statements, on a five-point likert scale. The scale ranged from "not confident" as the lowest score (1), to "somewhat confident" as the middle score (3), to "extremely confident" as the highest score (5). The confidence level frequencies, means, and standard deviations of the seven situational statements are presented in Table 4-26. Respondents reported feeling between moderately and extremely confident in his/her ability to solve complex problems ($M=4.37$, $SD=0.67$) and in his/her ability to address the concerns of the region ($M=4.19$, $SD=0.85$). Respondents also indicated being moderately confident in his/her ability to address the environmental concerns of the region ($M=3.98$, $SD=.83$).

Table 4-26. Confidence Level of Regional Planning Officials (*n*=57)

Situational Statement	Likert Rank Response					<i>M</i>	<i>SD</i>
	1	2	3	4	5		
My ability to solve complex problems	0	1	3	27	26	4.37	.67
	(0.0)	(1.8)	(5.3)	(47.4)	(45.6)		
My ability to address concerns in my region	0	2	10	20	25	4.19	.85
	(0.0)	(3.5)	(17.5)	(35.1)	(43.9)		
My ability to address the environmental concerns of my region	0	2	14	24	17	3.98	.83
	(0.0)	(3.5)	(24.6)	(42.1)	(29.8)		
My power to make a difference through my planning decisions	3	5	7	28	14	3.79	1.08
	(5.3)	(8.8)	(12.3)	(49.1)	(24.6)		
My current knowledge of sustainability principles	0	3	16	27	11	3.81	.81
	(0.0)	(5.3)	(28.1)	(47.4)	(19.3)		
My current knowledge of how to apply sustainability principles in planning decisions	0	3	22	20	12	3.72	.86
	(0.0)	(5.3)	(38.6)	(35.1)	(21.1)		
My regional planning decisions have the ability to improve the environmental conditions of my region	1	5	12	21	18	3.88	1.02
	(1.8)	(8.8)	(21.1)	(36.8)	(31.6)		

Note: 1=Not confident, 2=Slightly confident, 3=Somewhat confident, 4=Moderately confident, 5=Extremely confident. Bolded coefficients represent the highest frequencies and percentages for each statement

Objective Four: To determine differences which exist in regional planning officials motivation to complete tasks associated with sustainable planning.

An analysis of variance (ANOVA) was utilized to determine if statistically significant relationships existed in regional planning officials' mean motivation to complete tasks associate with sustainable planning and demographics of the respondents. There were no significant relationships discovered between the mean level of agreement with the statement “other planning officials in my region seem to have adequate knowledge of sustainability principles in regional planning” and any of the demographic variables.

Statistically significant relationships existed between the mean level of agreement with the decision statement “my decisions as a regional planning official can improve agricultural and natural resource conditions in Florida” and respondents' position type being elected or appointed ($F=7.286, p<.05$) as well as an elected official being a city or county representative ($F=6.265, p<.05$). Also, there was a statistically significant relationship between the level of agreement with the decision statement “my decisions as a regional planning official can make a difference in the future of Florida” and respondents' position type being elected or appointed ($F=5.393, p<.05$) as well as an elected official being a city or county representative ($F=2.382, p>.05$). These scores are presented in Table 4-27.

Table 4-27. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Agreement with Decision Statements and Position Type

Decision Statement		Elected or Appointed			City or County		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig</i>
My decisions as a regional planning official can improve agricultural and natural resource conditions in Florida	Between	1	7.286	.009	1	6.265	.018
	Within	53		*	28		*

Table 4-27.Continued

Decision Statement		Elected or Appointed			City or County		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig</i>
My decisions as a regional planning official can make a difference in the future of Florida.	Between	1	5.393	.024*	1	2.382	.134
	Within	53					

Note: *Relationship is significant at the $p < .05$ levels

Table 4-28 highlights the significant relationships between the level of agreement that decisions as a regional planning official have the opportunity to make a difference in selected capacities and planning background obtained through non-formal education as well as being an elected or appointed representative. A significant relationship was found between the level of agreement that decisions as a regional planning official have the opportunity to make difference in their region and the percentage of planning background obtained through non-formal education ($F=2.784$, $p < .05$). The partial eta squared for planning background obtained through non-formal education was 0.44, indicating a large effect size, showing that planning background obtained from non-formal education accounted for 44% of the variance in the degree regional planning officials feel their decisions have the opportunity to make a difference in their region.

Also, there was a relationship between the level of agreement that decisions as a regional planning official have the opportunity to make a difference in Florida and the percentage of planning background obtained through non-formal education ($F=2.366$, $p < .05$) as well as being an elected or appointed representative ($F=11.241$, $p < .05$). The partial eta squared was 0.40, indicating a large effect size, and showing that the percentage of planning background obtained from non-formal education accounted for 40% of the variance in the degree regional planning officials feel their decisions have the opportunity to make a difference in Florida.

Table 4-28. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Agreement that Decisions as a Regional Planning Official Have the Opportunity to Make a Difference in Selected Capacities and Demographics

		Planning Background: Non-Formal Education			Elected or Appointed		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig</i>
My city or municipality	Between	12	1.502	.162	1	.012	.913
	Within	42			52		
My region	Between	12	2.784	.007*	1	3.995	.051
	Within	42			52		
Florida	Between	12	2.366	.020*	1	11.241	.001*
	Within	42			52		

Note: *Relationship is significant at the $p < .05$ levels

Analysis of Variance also determined a significant relationship between level of agreement with the statement “generally, I feel I have the power to make a difference” and regional planning council (RPC) ($F=2.779$, $p < .05$). (Table 4-29). Another significant relationship existed between regional planning officials degree feeling overwhelmed when thinking about environmental pressures (Table 4-30) and having an agriculture or natural resource background from involvement in FFA or a related organization ($F=6.832$, $p < .05$) as well as being an elected or appointed representative ($F=4.648$, $p < .05$).

Table 4-29. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials’ Perception of Power and RPC

		<i>df</i>	<i>F</i>	<i>Sig.</i>
Generally, I feel I have the power to make a difference	Between	10	2.779	.010*
	Within	42		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-30. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Degree Feeling Overwhelmed and Demographics

		AG/NR Background: FFA or related organization			Elected or Appointed		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig</i>
When thinking about environmental pressures	Between	1	6.832	.012*	1	4.648	.036*
	Within	52			51		

Note: *Relationship is significant at the $p < .05$ levels

Significant relationships were found between the perception of sustainability being “confusing or clear” (Table 4-31) and regional planning council ($F=2.386, p < .05$), as well as number of years serving as a political representative for their current RPC ($F=2.317, p < .05$). The partial eta squared for years serving as a political representative for their current RPC was 0.56, indicating a large effect size, showing that the number of years serving as a political representative for their current RPC accounted for 56% of the variance in the level sustainability was perceived as confusing or clear.

Another significant relationship was found between the perception of sustainability being “easy or difficult to enforce” (Table 4-32) and the percentage of planning background obtained through non-formal education ($F=2.009, p < .05$). The partial eta squared for planning background obtained through non-formal education was 0.36, indicating a medium effect size, showing that planning background obtained from non-formal education accounted for 36% of the variance in the level sustainability was perceived as easy or difficult to enforce.

A statistically significant relationship existed between the perception of sustainability being “useful or useless” (Table 4-33) and gender ($F=5.220, p < .05$). Another statistically significant relationship was found between the perception of sustainability being “simple or complex” (Table 4-34) and the number of years as a political representative for any Florida RPC ($F=2.462, p < .05$). Additionally, the partial eta squared for years serving as a political representative for any Florida RPC was 0.71, indicating a large effect size, showing that years serving as a political representative for

any Florida RPC accounted for 71% of the variance in the level sustainability was perceived as simple or complex.

Table 4-31. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Demographics

Sustainability is...		RPC			Years Serving as Political Representative: Current RPC		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig.</i>
Confusing : Clear	Between	10	2.386	.022*	19	2.317	.015*
	Within	47			35		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-32. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Planning Background: Non-Formal Education

Sustainability is...		<i>df</i>	<i>F</i>	<i>Sig.</i>
Easy to enforce : Difficult to enforce	Between	12	2.009	.047*
	Within	43		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-33. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Gender

Sustainability is...		<i>df</i>	<i>F</i>	<i>Sig.</i>
Useful : Useless	Between	1	5.220	.027*
	Within	50		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-34. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials' Perceptions of Sustainability and Years as a Political Representative for Any Florida RPC

Sustainability is...		<i>df</i>	<i>F</i>	<i>Sig.</i>
Simple : Complex	Between	15	2.462	.046*
	Within	15		

Note: *Relationship is significant at the $p < .05$ levels

Tables 4-35, 4-36, and 4-37 highlights the significant relationships between respondents' level of feeling clear-headed in various situations and select demographic variables. Significant relationships existed between the level of feeling clear-headed when addressing individual planning tasks and having an agricultural or natural resource background from classes in college ($F=9.371$, $p < .05$), and from involvement

with FFA or related organization ($F=5.969$, $p<.05$), as well as regional planning council ($F=2.386$, $p<.05$), percentage of planning background obtained through non-formal education ($F=2.174$, $p<.05$), and number of years serving as a political representative for their current RPC ($F=2.615$, $p<.05$). By planning background obtained through non-formal education, the partial eta squared was 0.38, indicating a medium effect size, showing that planning background obtained through non-formal education accounted for 38% of the variance in the level feeling clear-headed when addressing individual planning tasks. By years serving as a political representative for their current RPC, the partial eta squared was 0.59, indicating a large effect size, showing that years serving as a political representative for their current RPC accounted for 59% of the variance in the level feeling clear-headed when addressing individual planning tasks.

Another statistically significant relationship existed between level feeling clear-headed when thinking about sustainability and having an agriculture or natural resource background from classes in high school ($F=4.228$, $p<.05$), classes in college ($F=12.818$, $p<.05$), and involvement with FFA or another related organization ($F=4.487$, $p<.05$). A relationship was found between the level feeling clear-headed when working with other regional planners and having an agriculture or natural resource background from classes in college ($F=5.493$, $p<.05$). There were no statistically significant relationships discovered between the level feeling clear-headed when addressing regional planning issues and any of the demographic variables. Two significant relationships were discovered between the level feeling clear-headed when addressing regional planning issues related to agriculture and natural resources and having an agriculture or natural resource background from owning a farm or agricultural

property ($F=6.550$, $p<.05$) as well as the number of years worked in planning ($F=2.656$, $p<.05$). Additionally, the partial eta squared for the number of years working in planning was 0.64, indicating a large effect size, showing that the number of years worked in planning accounted for 64% of the variance in the level feeling clear-headed when addressing regional planning issues related to agriculture and natural resources.

Finally, a relationship was found between the level feeling clear-headed when applying sustainability principles to regional planning efforts and having an agricultural or natural resource background from taking classes in college ($F=5.098$, $p<.05$).

Table 4-35. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Feeling Clear-headed in Various Situations and Type of Agricultural or Natural Resource Background

Statement		Classes in High school			Classes in College			FFA or Related Organization			Own Farm or Agricultural Property		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig.</i>
Addressing individual planning tasks	Between	1	1.242	.270	1	9.371	.003*	1	5.969	.018*	1	.605	.440
	Within	54			54			54			54		
Thinking about sustainability	Between	1	4.228	.045*	1	12.818	.001*	1	4.487	.039*	1	1.559	.217
	Within	54			54			54			54		
Working with other regional planners	Between	1	1.347	.251	1	5.493	.023*	1	.651	.423	1	.632	.430
	Within	54			54			54			54		
Addressing regional planning issues	Between	1	1.464	.232	1	2.858	.097	1	.343	.560	1	3.202	.079
	Within	54			54			54			54		
Addressing regional planning issues related to ag/nr	Between	1	2.270	.138	1	.427	.516	1	1.329	.254	1	6.550	.013*
	Within	54			54			54			54		
Applying sustainability principles to regional planning efforts	Between	1	.893	.349	1	5.098	.028*	1	1.213	.276	1	.014	.907
	Within	54			54			54			54		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-36. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Feeling Clear-headed in Various Situations and Demographics

Statement	RPC			Planning Background: Non-Formal Education			Years Serving as Political Representative: Current RPC			
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig.</i>
Addressing individual planning tasks	Between	10	2.386	.006*	12	2.174	.031*	19	2.615	.007*
	Within	46			43			35		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-37. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Feeling Clear-headed in Various Situations and Years in Worked Planning

Statement		<i>df</i>	<i>F</i>	<i>Sig.</i>
Addressing regional planning issues related to agriculture and natural resources	Between	19	2.656	.009*
	Within	29		

Note: *Relationship is significant at the $p < .05$ levels

Regarding the confidence level of respondents, ANOVAs showed significant relationships between situational statements and demographics in Tables 4- 38, 4-37, 4-40, and 4-41. A statistically significant relationship was found between respondents' level of confidence in their ability to solve complex problems and having agricultural and natural resource background from involvement with FFA or related organization ($F=5.042, p < .05$). (Table 4-38).

Two significant relationships were identified between respondents' level of confidence in their ability to address the concerns of their region and having an agricultural and natural resource background from involvement with FFA or related organization ($F=4.237, p < .05$), as well as the number of years serving as a political representative throughout their entire career ($F=2.143, p < .05$). The partial eta squared for years serving as a political representative throughout their entire career was 0.69, indicating a large effect size, showing that the number of years served as a political

representative throughout their entire career accounted for 69% of the variance in the confidence level in their ability to address the concerns of their region.

Note: *Relationship is significant at the $p < .05$ levels

Table 4-38. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Type of Agricultural and Natural Resource Background

Situational Statement		Classes in High school			FFA or Related Organization		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig.</i>
My ability to solve complex problems	Between	1	3.611	.063	1	5.042	.029*
	Within	54			54		
My ability to address concerns in my region	Between	1	3.449	.069	1	4.273	.044*
	Within	54			54		
My current knowledge of sustainability principles	Between	1	5.260	.026*	1	6.115	.017*
	Within	54			54		

Also, significant relationships were found between respondents' level of confidence in their current knowledge of sustainability principles and having an agricultural and natural resource background from classes in high school ($F=5.260$, $p < .05$) and involvement with FFA or related organization ($F=6.115$, $p < .05$), as well as the number of years serving as a political representative throughout their entire career ($F=2.850$, $p < .05$). The partial eta squared for the years serving as a political representative throughout their entire career was 0.75, indicating a large effect size, showing that the number of years serving as a political representative throughout their entire career accounted for 75% of the variance in the confidence level in their current knowledge of sustainability principles.

Additional statistical relationships were found between respondents' level of confidence in their ability to address the environmental concerns of their region and the number of years serving as a political representative for their current RPC ($F=1.923$, $p < .05$) as well as throughout their entire career ($F=2.795$, $p < .05$). By years serving as

a political representative throughout their entire career, the partial eta squared was 0.75, indicating a large effect size, showing that the number of years serving as a political representative throughout their entire career accounted for 75% of the variance in the confidence level in their ability to address the environmental concerns of their region. By years serving as a political representative for their current RPC, the partial eta squared was 0.51, indicating a large effect size, showing that the number of years serving as a political representative for their current RPC accounted for 51% of the variance in the confidence level in their ability to address the environmental concerns of their region.

Also, significant relationships existed between respondents' level of confidence in their power to make a difference through their planning decisions and the number of years serving as a political representative for their current RPC ($F=2.030$, $p<.05$), percentage of planning background obtained through non-formal education ($F=2.090$, $p<.05$), and being an elected or appointed representative ($F=7.296$, $p<.05$). The partial eta squared for years serving as a political representative for their current RPC was 0.52, indicating a large effect size, showing that the number of years serving as a political representative for their current RPC accounted for 52% of the variance in the confidence level in their power to make a difference through their planning decisions. Additionally the partial eta squared for planning background obtained through non-formal education was 0.37, indicating a medium effect size, showing that the percentage of planning background obtained through non-formal education accounted for 37% of the variance in the confidence level in their power to make a difference through their planning decisions.

Finally, when analyzing respondents level of confidence that their regional planning decisions have the ability to improve the environmental conditions of their region, significant relationships were found when compared to number of years serving as a political representative for their current RPC ($F=2.394, p<.05$), percentage of planning background obtained through non-formal education ($F=2.345, p<.05$), being an elected or appointed representative ($F=8.004, p<.05$), RPC ($F=2.347, p<.05$) and education ($F=3.415, p<.05$). By years serving as a political representative for their current RPC, the partial eta squared was 0.57, indicating a large effect size, showing that the number of years serving as a political representative for their current RPC accounted for 57% of the variance in the confidence level that regional planning decisions have the ability to improve the environmental conditions of their region. By, planning background obtained through non-formal education, the partial eta squared was 0.40, indicating a large effect size, showing that the percentage of planning background obtained through non-formal education accounted for 40% of the variance in the confidence level that regional planning decisions have the ability to improve the environmental conditions of their region.

Table 4-39. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Years Serving as Political Representative

Situational Statement		Throughout Entire Career			Current RPC		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig</i>
My ability to address concerns in my region	Between	21	2.143	.047*	19	1.680	.090
	Within	20			35		
My ability to address the environmental concerns of my region	Between	21	2.795	.013*	19	1.923	.046*
	Within	20			35		
My power to make a difference through my planning decisions	Between	21	1.494	.187	19	2.030	.034*
	Within	20			35		
My current knowledge of sustainability principles	Between	21	2.850	.011*	19	1.470	.158
	Within	20			35		
My regional planning decisions have the ability to improve the environmental conditions of my region	Between	21	1.562	.162	19	2.394	.012*
	Within	20			35		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-40. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Demographics

Situational Statement		Planning Background: Non-Formal Education			Elected or Appointed		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig</i>
My power to make a difference through my planning decisions	Between	12	2.090	.039*	1	7.296	.009
	Within	43			53		
My regional planning decisions have the ability to improve the environmental conditions of my region	Between	12	2.345	.020*	1	8.004	.007*
	Within	43			53		

Note: *Relationship is significant at the $p < .05$ levels

Table 4-41. One-Way Analysis of Variance Significant Relationships between Regional Planning Officials Level of Confidence and Demographics

Situational Statement		RPC			Education		
		<i>df</i>	<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Sig</i>
My regional planning decisions have the ability to improve the environmental conditions of my region	Between	10	2.347	.025*	4	3.415	.015*
	Within	46			51		

Note: *Relationship is significant at the $p < .05$ levels

Objective Five: To determine the current barriers to incorporating sustainability principles into regional planning

This study measured 24 factors believed be potential barriers to incorporating sustainability into regional planning. These factors were based on input from experts in the field and the literature. Respondents indicated on a five-point likert scale the degree they perceived each factor to be a barrier. This scale ranges from “not a barrier” as the lowest score (1), to “not sure” as the middle score (3), to “an extreme barrier” as the highest score (5). Funding was the factor that received the highest mean score indicating a strong tendency to be a barrier ($M=4.04$, $SD=1.20$). The factor receiving the lowest mean score indicating weaker tendency to be a barrier was “your level of comfort with your abilities” ($M=1.57$, $SD=0.85$). The knowledge level frequencies, means, and standard deviations of the 24 potential barriers to incorporating sustainability principles into regional planning are presented in Table 4-42.

Table 4-42. Percentages and Frequencies of Barriers to Incorporating Sustainability Principles into Regional Planning

Barrier	Likert Rank Response					N	M	SD
	1	2	3	4	5			
Funding	3 (5.3)	6 (10.5)	3 (5.3)	19 (33.3)	26 (45.6)	57	4.04	1.20
Time	5 (8.9)	10 (17.9)	11 (19.6)	23 (41.1)	7 (12.5)	56	3.30	1.17
Community support	7 (12.5)	15 (26.8)	11 (19.6)	19 (33.9)	4 (7.1)	56	2.96	1.19
Resources	3 (5.3)	12 (21.1)	11 (19.3)	22 (38.6)	9 (15.8)	57	3.39	1.15
Complexity of environmental issues	2 (3.5)	12 (21.1)	7 (12.3)	24 (42.1)	12 (21.1)	57	3.56	1.15
Complexity of sustainability	4 (7.0)	10 (17.5)	7 (12.3)	25 (43.9)	11 (19.3)	57	3.51	1.20
Resources available	6 (10.5)	9 (26.3)	11 (19.3)	19 (33.3)	12 (21.1)	57	3.39	1.28
Availability of incentives	5 (8.8)	8 (14.0)	15 (26.3)	17 (29.8)	12 (21.1)	57	3.40	1.23
Lack of coordination between planning regions	8 (14.0)	13 (22.8)	17 (29.8)	12 (21.1)	7 (12.3)	57	2.95	1.23
Lack of a clear statewide plan or vision for regional planning	7 (12.3)	9 (15.8)	11 (19.3)	10 (17.5)	20 (35.1)	57	3.47	1.43
Lack of partnerships	9 (15.8)	11 (19.3)	18 (31.6)	9 (15.8)	10 (17.5)	57	3.00	1.31
Planning officials in your RPC	29 (50.9)	11 (19.3)	10 (17.5)	5 (8.8)	2 (3.5)	57	3.00	1.31
Planning officials in other RPC's	14 (24.6)	7 (12.3)	32 (56.1)	2 (3.5)	2 (3.5)	57	2.49	1.02
Non-planning legislators in your county or municipality	9 (15.8)	9 (15.8)	10 (17.5)	19 (33.3)	10 (17.5)	57	3.21	1.35

Note: 1=Not a barrier 2=Slightly a barrier, 3=Not sure, 4=Moderately a barrier, 5=An extreme barrier. Bolded coefficients represent the highest frequencies and percentages within each barrier.

Table 4-42. Continued.

Barrier	Likert Rank Response					<i>n</i>	<i>M</i>	<i>SD</i>
	1	2	3	4	5			
Non-planning legislators in other counties or municipality	4	9	17	16	11	57	3.37	1.18
	(7.0)	(15.8)	(29.8)	(28.1)	(19.3)			
State level legislators	0	8	8	19	22	57	3.96	1.05
	(0.0)	(14.0)	(14.0)	(33.3)	(38.6)			
Your level of knowledge of the issues	21	23	6	7	0	57	1.98	.99
	(36.8)	(40.4)	(10.5)	(12.3)	(0.0)			
Your level of knowledge of sustainability principles	22	22	5	7	0	56	1.95	1.00
	(39.3)	(39.3)	(8.9)	(12.5)	(0.0)			
Your level of comfort with your abilities	34	15	4	3	0	56	1.57	.85
	(60.7)	(26.8)	(7.1)	(5.4)	(0.0)			
Your level of comfort with the issues	31	16	5	4	0	56	1.68	.92
	(55.4)	(28.6)	(8.9)	(7.1)	(0.0)			
The clarity of information available	18	20	8	9	1	56	2.20	1.12
	(32.1)	(35.7)	(14.3)	(16.1)	(1.8)			
The diversity of needs to be met	12	10	8	19	6	55	2.95	1.37
	(21.8)	(18.2)	(14.5)	(34.5)	(10.9)			
The number of needs to be met	10	8	7	22	9	56	3.21	1.38
	(17.9)	(14.3)	(12.5)	(39.3)	(16.1)			
Level of public involvement	8	11	8	21	8	56	3.18	1.31
	(14.3)	(19.6)	(14.3)	(37.5)	(14.3)			

Note: 1=Not a barrier 2=Slightly a barrier, 3=Not sure, 4=Moderately a barrier, 5=An extreme barrier. Bolded coefficients represent the highest frequencies and percentages within each barrier.

Summary

This chapter presented the findings of the study. The findings were organized and presented around the study's objectives. The objectives were:

- Objective 1: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida.
- Objective 2: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.
- Objective 3: To determine regional planning officials' motivation to complete tasks associated with sustainable planning.
- Objective 4: To determine differences which exist in regional planning officials' motivation to complete tasks associated with sustainable planning when examining specific demographic variables.
- Objective 5: To determine the current barriers to incorporating sustainability principles into regional planning.

Chapter 5 will summarize the study and discuss the conclusions, implications and recommendations of this study.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the study and presents a discussion of the findings, conclusions, implications and recommendations from this research study.

The problem that was addressed by this study was the challenge of incorporating sustainability principles across multiple stakeholders and a lack of understanding about the variables, which motivate and influence regional planning officials in Florida to incorporate sustainability principles in planning. A review of literature showed an absence of research in these areas.

Purpose and Objectives

The purpose of this study was to describe the perceptions, knowledge, and motivations of Florida Regional Planning officials about key agriculture and natural resource issues, and the factors influencing the incorporation of sustainability principles in regional planning. The objectives for this study are as follows:

- Objective 1: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida.
- Objective 2: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.
- Objective 3: To determine regional planning officials' motivation to complete tasks associated with sustainable planning.
- Objective 4: To determine differences which exist in regional planning officials' motivation to complete tasks associated with sustainable planning when examining specific demographic variables.
- Objective 5: To determine the current barriers to incorporating sustainability principles into regional planning.

Methodology

The population for this study was all appointed and elected officials currently serving on Florida Regional Planning Councils. A convenience sample was taken of 247 regional planning officials with direct email addresses made available on their respective regional planning council website or their local area government websites. Of the convenience sample, 8 declined to participate, leaving a usable sample of 239 regional planning officials. At the conclusion of the study, there were 100 respondents which yielded a 41.8% response rate.

Summary of Findings

Objective One: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida.

The first objective was able to describe the sample population's knowledge and relevance to their role on a regional planning council of seven factors related to regional planning. The seven regional planning factors measured were environmental issues, agricultural and natural resource issues, assessing the significance of various environmental issues (including agricultural and natural resource issues), sustainability principles, how to apply sustainability principles in regional planning, how to acquire new information about regional planning, and how to acquire new information about incorporating sustainability into regional planning. Respondents indicated their knowledge level and relevance level on two five-point likert scales as described in Chapter 4. Finally, Mean weighted discrepancy scores (MWDS) were used to compare regional planning officials' knowledge and relevance to their position on a Regional Planning Council of the seven factors related to regional planning .

Of the seven regional planning factors, the factor that received the highest mean score was “environmental issues”, indicating a stronger knowledge level ($M=3.95$, $SD=.867$). The factor that received the lowest mean score was “how to acquire new information about incorporating sustainability into regional planning”, indicating a weaker knowledge level of all the planning factors ($M=3.60$, $SD=.961$). The two regional planning factors that received the highest frequency were “assessing the significance of various environmental issues (including agricultural and natural resource issues)” and “sustainability principles” with 50.9% ($n=29$) being moderately knowledgeable.

Additionally, respondents indicated the relevance level the seven regional planning factors were to their role on a regional planning council. Of all the factors, “environmental issues” received the highest mean score, indicating a stronger relevance level of environmental issues to respondents’ role on a regional planning council ($M=4.40$, $SD=.821$). The factor that received the lowest mean score was “how to acquire new information about regional planning”, indicating a weaker relevance level ($M=4.07$, $SD=.920$). All seven regional planning factors had mean scores that were 4 or above, indicating the factors were between moderately to very important to their role on a regional planning council. The factor that received the highest frequency was “environmental issues” with 54.4% ($n=31$) of the respondents indicating that environmental issues are very important to their role on a regional planning council.

Mean weighted discrepancy scores were calculated in order to compare the knowledge and importance of regional planning factors to respondents’ role on a regional planning council. The factor with the greatest difference in mean knowledge and relevance was “how to apply sustainability principles in regional planning” ($MWDS=$

-1.85). The factors “environmental issues” (MWDS= -1.84) and “agricultural and natural resource issues” (MWDS= -1.82) relatively large mean weighted discrepancy scores as well. The factor that received the smallest difference in mean knowledge and relevance was “how to acquire new information about regional planning” (MWDS= -0.89).

Objective Two: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.

The second objective utilized ANOVAs to identify the statistically significant relationships that existed between respondents’ knowledge and relevance of seven regional planning factors and demographic variables. As identified in Chapter 4, demographic variables that revealed significant relationships included: planning background obtained through on the job experience, formal and non-formal education; agricultural or natural resource background from classes in high school or owning a farm or agricultural property; and, the percentage a region is considered urban and rural. In addition to ANOVAs, partial eta squared was used to show effect sizes for planning background and the percentage a region is considered urban and rural.

The percentage of planning background obtained through on the job experience, indicated the largest effect sizes for knowledge of environmental issues, relevance of how to acquire new information about regional planning and the relevance of how to acquire new information about incorporating sustainability in regional planning, with partial eta squared scores from 0.44-0.45. The percentage of planning background obtained from formal education indicated medium to large effect sizes for relevance level of assessing the significance of various environmental issues, knowledge level of how to acquire new information about regional planning, knowledge level of how to acquire new information about incorporating sustainability into regional planning, with

partial eta squared scores from 0.34-0.40. The percentage of planning background obtained through non-formal education indicated a medium effect size of 0.38 for the knowledge level of assessing the significance of various environmental issues.

In terms of whether a respondent had agricultural or natural resource background, significant relationships were found between whether or not a respondent took agricultural or natural resource classes in high school and knowledge level of five regional planning factors. Respondents who had taken classes in high school ($n=20$) had a slightly lower knowledge level in all five significant regional planning factors including: agricultural and natural resource issues ($M=3.40$, $SD=.88$), assessing the significance of various environmental issues ($M=3.35$; $SD=.93$), sustainability principles ($M=3.55$; $SD=.83$), how to apply sustainability principles in regional planning ($M=3.25$, $SD=.786$), and how to acquire new information about incorporating sustainability into regional planning ($M=3.20$, $SD=.95$), than those respondents who had not taken classes in high school ($M=4.14$, $SD=.81$; $M=4.06$, $SD=3.35$; $M=4.09$; $SD=3.55$; $M=3.89$, $SD=.76$; $M=3.86$, $SD=.91$). However, respondents who owned a farm or agricultural property had a greater mean knowledge level ($M=4.25$; $SD=.72$) of agricultural and natural resource issues than respondents that did not own a farm or other property ($M=3.66$, $SD=.94$).

The percentage a region was considered urban and rural indicated large effect sizes for both the knowledge level of agricultural and natural resource issues and the knowledge level of how to acquire new information about incorporating sustainability into regional planning, with partial eta squared scores from 0.48-0.54. The percentage a region was considered urban had a larger effect size in the knowledge level of how to acquire new information about incorporating sustainability into regional planning than

the percentage rural. While the percentage a region was considered rural had a larger effect size in the knowledge level of agricultural and natural resource issues than the percentage urban.

Objective Three: To determine regional planning officials' motivation to complete tasks associated with sustainable planning.

The third objective sought to determine the motivating factors affecting the likelihood a regional planning official would complete tasks associated with sustainability. Data was collected from several behavioral questions that utilized likert five-point scales. Scales included level of agreement or disagreement, level of likelihood, confidence level, level feeling clearheaded, and level feeling overwhelmed.

Respondents were asked to describe their perceptions of other regional planning officials' knowledge, 60.3% ($n=35$) agreed that other planning officials within their region seemed to have adequate knowledge of sustainability principles in regional planning. Also, respondents felt that their decisions as a regional planning official probably ($M=3.95$, $SD=.926$) have the opportunity to make a difference in their region, receiving the highest mean score of three factors. The factor receiving the lowest mean score was "Florida" ($M=2.93$, $SD=1.024$), indicating a lesser tendency for respondents to feel that their decisions have the opportunity to make a difference in the state. Of respondents, 47.2% ($n=25$) felt they have the power to make a difference.

Of all the constructs describing sustainability, the factor receiving the highest rating was "sustainability is...practical" ($M=4.12$, $SD=.77$). The factor that received the highest frequency was "sustainability is useful" indicated by 60.3% ($n=35$) of the respondents.

In regard to the level respondents felt clear-headed in various situations, the situation receiving the highest mean score, indicating a strong tendency to feel clear-headed, was “addressing individual planning tasks” ($M=4.26$, $SD=.84$). The situation receiving the lowest mean score, indicating a weaker tendency to feel clear-headed, was “applying sustainability principles to regional planning efforts” ($M=3.84$, $SD=1.01$). Overall, respondents’ felt between somewhat clear-headed and moderately clear-headed for all seven situations.

Additionally, respondents indicated their confidence level in seven situations. Of all the situations, “my ability to solve complex problems” received the highest mean score, indicating a strong tendency to feel confident ($M=4.37$, $SD=0.67$). The situation that received the lowest mean score, indicating a weaker tendency to feel confident, was “my current knowledge of how to apply sustainability principles in planning decisions” ($M=3.72$, $SD=0.86$). For this statement, the majority of respondents (38.6%, $n=22$) indicated feeling somewhat confident.

Objective Four: To determine differences which exist in regional planning officials’ motivation to complete tasks associated with sustainable planning when examining specific demographic variables.

The fourth objective utilized ANOVAs to identify the statistically significant relationships that existed between respondents’ motivation to complete tasks associated with sustainability and demographic variables. In addition to ANOVAs, partial eta squared was used to show effect sizes for planning background, years in planning, years served as a political representative and the percentage a region is considered urban and rural.

Many significant relationships were discovered between types of representatives and level of agreement with decision statements. Respondents who were appointed

representatives felt more likely that their decisions as a regional planning official could: improve agricultural and natural resource conditions in Florida ($M=4.08$, $SD=0.78$), make a difference in the future of Florida ($M=3.96$, $SD=0.91$), and have the opportunity to make a difference in Florida ($M=3.33$, $SD=0.92$), than respondents who were elected representatives ($M=3.42$, $SD=0.99$; $M=3.32$, $SD=1.08$; $M=2.50$, $SD=0.90$). Respondents who were appointed representatives ($M=2.09$, $SD=0.95$) felt less overwhelmed when thinking about environmental pressures than elected representatives ($M=2.80$, $SD=1.35$). Moreover, county representatives ($M=3.92$, $SD=0.79$) felt more likely that their decisions as a regional planning official could improve agricultural and natural resource conditions in Florida than city representatives ($M=3.06$, $SD=1.00$). In regard to RPC, respondents from East Central Florida RPC ($M=4.50$, $SD=0.58$) felt the most like they have the power to make a difference, while respondents from Withlacoochee ($M=2.67$, $SD=1.53$) felt the least likely.

Additionally, respondents who had agricultural or natural resource background through involvement with FFA or a related organization ($M=3.57$, $SD=1.27$) had a stronger tendency to feel overwhelmed when thinking about environmental pressures than those who did not have the experience ($M=2.34$, $SD=1.15$). The percentage of planning background obtained through non-formal education indicated large effect sizes for the level regional planning officials feel their decisions have the opportunity to make a difference in their region as well as Florida, with partial eta squared scores from 0.40-0.44.

There were also significant relationships between perceptions of sustainability and demographic data. Respondents serving on the East Central Florida RPC ($M=4.40$,

$SD=.55$) were more likely to perceive sustainability as clear rather than confusing, while those on Withlacoochee RPC were more likely to perceive sustainability as confusing rather than clear ($M=2.33$, $SD=1.528$). Also, years serving as a political representative for their current RPC indicated a large effect size of 0.56 for sustainability perceived as confusing or clear. In regard to gender, female respondents ($M=1.18$, $SD=0.53$) were more likely to perceive sustainability as useful rather than useless compared to males ($M=1.74$, $SD=0.95$). The percentage of planning background obtained through non-formal education indicated a medium effect size of 0.36 for the perception of sustainability as easy or difficult to enforce. The number of years serving as a political representative for any Florida RPC indicated a large effect size of 0.71 for perceiving sustainability as simple or complex.

Many significant relationships were found between demographic data and the levels regional planning officials feel clear-headed in their tasks and when addressing issues related to sustainability in regional planning. In addressing individual planning tasks, respondents who had taken agricultural or natural resource class in college ($M=4.65$, $SD=0.49$) felt more clear-headed than those who did not ($M=4.00$, $SD=0.94$), and respondents who were involved with FFA or a related organization ($M=3.57$, $SD=0.98$) felt less clear-headed than those who did not have the same involvement ($M=4.37$, $SD=0.78$). Among RPCs there were significant relationships that indicated respondents from Apalachee ($M=5.00$, $SD=0.0$) felt the most clear-headed in addressing individual planning tasks and West Florida ($M=2.50$, $SD=2.12$) felt the least clear-headed. The percentage of planning background obtained through non-formal education had medium effect size of 0.38 and the years serving as a political

representative for their current RPC had a large effect size of 0.59 on the level clear-headed in planning tasks.

When thinking about sustainability, respondents who had taken agricultural or natural resource classes in high school ($M=3.70$, $SD=0.80$) felt less clear-headed thinking about sustainability than those who did not take classes ($M=4.11$, $SD=0.67$); individuals who were involved with FFA or a related organizations ($M=3.43$, $SD=1.13$) felt less clear-headed than those who were not involved ($M=4.04$, $SD=0.64$); and, those who took the similar classes in college ($M=4.35$, $SD=0.57$) felt more clear-headed than those who had not taken the classes ($M=3.70$, $SD=0.73$). Additionally, officials who had taken agricultural or natural resource classes in college ($M=4.17$, $SD=0.94$; $M=4.22$, $SD=1.04$) felt more clear-headed applying sustainability principles to regional planning efforts and working with other regional planners than those who did not take classes ($M=3.58$, $SD=1.00$; $M=3.61$, $SD=0.90$).

Respondents who reported owning a farm or other agricultural property ($M=4.35$, $SD=0.75$) were more clear-headed addressing planning issues related to agriculture or natural resources than those who did not ($M=3.72$, $SD=0.94$). The number of years worked in planning also had a large effect size of 0.64 on the level feeling clear-headed when addressing planning issues related to agriculture or natural resources.

Finally, significant relationships were identified between demographic data and regional planning officials' level of confidence in their abilities, power, knowledge and decisions in situations related to sustainability in regional planning. Respondents who were involved with FFA ($M=3.86$, $SD=1.07$; $M=3.57$, $SD=0.98$) reported feeling less confident in their abilities to solve complex problems and to address concerns in their

region than individuals who had not been involved ($M=4.45$, $SD=0.58$; $M=4.27$, $SD=0.81$). The number of years an official had served as a political representative throughout their entire career had a large effect size on an officials' confidence level in their ability to address concerns in their region, including environmental concerns, with partial eta squared scores from 0.69-0.75. The number of years as a political representative for their current RPC also had a large effect size of 0.51 on the confidence level in their ability to address concerns of their region.

Appointed officials ($M=3.92$, $SD=0.78$) felt more confident in their power to make a difference through their planning decisions than elected officials did ($M=3.71$, $SD=0.82$). The number of years as a political representative for their current RPC also had a large effect size of 0.52, and planning background from non-formal education had a medium effect size of 0.37 on the confidence level in an officials' power to make a difference through their planning decisions

Respondents who had taken agricultural or natural resource classes in high school ($M=3.50$, $SD=0.76$) and those who were involved with FFA ($M=3.14$, $SD=0.69$) felt less confident in their knowledge of sustainability principles than individuals who did not have the same agricultural backgrounds ($M=4.00$, $SD=0.79$; $M=3.92$, $SD=0.79$). The number of years serving as a political representative throughout their entire career had a large effect size of 0.75 on an officials' confidence in their knowledge of sustainability principles.

Appointed officials ($M=4.25$, $SD=0.74$) indicated feeling more confident that their regional planning decisions have the ability to improve the environmental conditions of their region than elected officials felt ($M=3.52$, $SD=1.09$). Respondents serving on the

East Central Florida RPC ($M=4.60$, $SD=0.55$) were the most confident in their planning decisions ability to improve on environmental conditions, while those on Withlacoochee RPC felt the least confident in their decisions ($M=2.00$, $SD=1.00$). Based on the highest level of education regional planning officials' have, those with a Master's degree ($M=4.37$, $SD=0.76$) reported feeling the most confident that their planning decisions have the ability to improve on environmental conditions, followed by those with a high school degree ($M=4.33$, $SD=0.52$), doctoral ($M=3.67$, $SD=1.21$) or trade degree ($M=3.67$, $SD=1.53$), and finally individuals with a bachelor's degree ($M=3.36$, $SD=1.00$) were the least confident. The percentage of planning background obtained through non-formal education and number of years serving as a political representative for their current RPC had large effect sizes from 0.40-0.57 on the confidence level officials' feel their decisions have the ability to improve the environmental conditions of their region.

Objective Five: To determine the current barriers to incorporating sustainability principles into regional planning.

The final objective sought determine the barriers that regional planning officials perceived to be most limiting for incorporating sustainability principles into regional planning. Of the twenty-four barriers measured, funding indicated the strongest tendency to be a barrier to incorporating sustainability principles into regional planning ($M=4.04$, $SD=1.20$). State level legislators also indicated a strong tendency to be a barrier ($M=3.96$, $SD=1.05$).

Conclusions

Objective One: To describe and compare the knowledge and relevance regional planning officials have about factors related to regional planning in Florida.

Regional planning officials feel between somewhat and moderately knowledgeable in all factors related to regional planning. Officials feel the same factors related to regional planning are between moderately and very important to their role on a regional planning council. Thus, regional planning officials are less knowledgeable in all seven regional planning factors than they should be for the reported relevance level. The three regional planning factors with the largest discrepancies in knowledge level are how to apply sustainability principles in regional planning, environmental issues, and agricultural and natural resource issues.

Objective Two: To determine differences in the knowledge and relevance that regional planning officials have about agriculture and natural resources in Florida when examining specific demographic variables.

Planning background from on the job experience, formal education and non-formal education accounted for medium and large variances in an official's reported knowledge and relevance of specific regional planning factors. The variance in regional planning officials' knowledge of environmental issues is largely affected by the percentage of planning background obtained from on the job experience. On the job experience also accounts for a large amount of the variance in the relevance of how to acquire new information about regional planning and about incorporating sustainability into regional planning.

The percentage of planning background obtained from formal education accounts for a large amount of the variance in the knowledge of how to acquire new information about regional planning and accounts for a medium amount of the variance of acquiring

information about incorporating sustainability into regional planning. The percentage of planning background obtained from formal education also accounts for a large amount of the variance in the relevance of assessing the significance of environmental issues. Furthermore, the percentage of planning background obtained from non-formal education accounts for a medium amount of the variance in the knowledge of assessing the significance of environmental issues.

Regional planning officials who had taken agriculture or natural resource classes in high school feel less knowledgeable in five of the seven regional planning factors, while those who had not taken classes in high school feel more knowledgeable in the same factors. Regional planning officials who own a farm or agricultural property feel more knowledgeable in agricultural and natural resource issues than officials who do not.

The percentage a region is considered urban or rural accounts for a large amount of the variance in regional planning officials' knowledge of agricultural and natural resource issues as well as acquiring new information about incorporating sustainability into regional planning.

Objective Three: To determine regional planning officials' motivation to complete tasks associated with sustainable planning.

Generally, regional planning officials feel they have the power to make a difference. Regional planning officials feel that their decisions can probably make a difference in the future of Florida as well as improve agricultural and natural resource conditions in Florida. Furthermore, officials feel that their decisions probably have the opportunity to make a difference in their city or municipality as well as their region, while

feeling less likely that their decisions might have the opportunity to make a difference in Florida.

Regional planning officials feel between slightly and somewhat overwhelmed when thinking about environmental pressures. In regards to sustainability, regional planning officials feel that other planning officials within their region have an adequate knowledge of sustainability principles and they perceive sustainability to be moderately clear, difficult to enforce, useful, complex and practical. Regional planning officials feel moderately clear-headed in their tasks and when addressing issues related to sustainability in regional planning, as well as moderately confident in their abilities, power, knowledge and decisions in situations related to sustainability in regional planning.

Objective Four: To determine differences which exist in regional planning officials' motivation to complete tasks associated with sustainable planning when examining specific demographic variables.

Appointed regional planning officials are more likely to feel that their decisions can make a difference in Florida, the future of Florida, Florida's agricultural and natural resource conditions, and feel less overwhelmed than elected officials. Additionally, appointed officials feel more confident in their power to make a difference and that their decisions can improve environmental conditions, than elected officials. Of the elected officials, county representatives are more likely to feel that their decisions as a regional planning official can improve agricultural and natural resource conditions in Florida than elected city representatives.

The percentage of planning background obtained from non-formal education accounts for a large amount of the variance in the degree regional planning officials feel their decisions have the opportunity to make a difference in Florida and in their region,

as well as their confidence that decisions can improve environmental conditions. Non-formal education also accounts for a medium amount of the variance in the degree regional planning officials feel clear-headed when addressing individual planning tasks and feel confident in their power to making a difference. Also, for a medium amount of the variance in the in the degree regional planning officials' perceive sustainability as easy or difficult to enforce.

Of all eleven RPCs in Florida, officials from East central Florida feel the most like they have the power to make a difference, perceive sustainability as moderately clear and are more confident that their decisions can improve environmental conditions. While officials from Withlacoochee feel the least like they have the power to make a difference, perceive sustainability as moderately confusing, and are less confident that their decisions can improve environmental conditions. Furthermore, Apalachee officials feel the most clearheaded when addressing individual planning tasks; while West Florida officials feel the least clear-headed when addressing individual planning tasks.

In regard to agricultural or natural resource background, regional planning officials who were involved with FFA or a related organization feel more overwhelmed when thinking about environmental pressures; feel less clear-headed in planning tasks and thinking about sustainability; and, feel less confident in their abilities and knowledge of sustainability than officials who were not involved. Similarly, regional planning officials who had taken agriculture or natural resource classes in high school also feel less clear-headed when thinking about sustainability and feel less confident in their knowledge of sustainability principles than officials had not.

The years regional planning officials have served for their current RPC accounts for a large amount of the variance in the degree regional planning officials' perceive sustainability as confusing or clear. The years regional planning officials have served for their any Florida RPC accounts for a large amount of the variance in the degree regional planning officials' perceive sustainability as simple or complex. In regard to gender, females perceive sustainability to be more useful than males do.

When thinking about sustainability, regional planning officials who took agricultural or natural resource classes in college feel more clear-headed than those who took classes high school or were involved with FFA or a related organization. They also feel more clear-headed in four of the six tasks related to sustainability in regional planning, while those who had not taken classes in college feel less clear-headed. Furthermore, regional planning officials who own a farm or other agricultural property feel more clear-headed addressing regional planning issues related to agriculture and natural resources than those who do not.

Look at experience level, the number of years regional planning officials have served for their current RPC accounts for a large amount of the variance in the degree regional planning officials feels clear-headed when addressing individual planning tasks and feel confident in their abilities, power, and decisions related to sustainability in regional planning. The total number of years worked in planning accounts for a large amount of the variance in the degree regional planning officials feels clear-headed when addressing regional planning issues related to agriculture and natural resources. The number of years served as a political representative throughout their entire career

accounts for a large amount of the variance in the degree regional planning officials feels confident in their abilities and knowledge of sustainability principles.

In regards to education level, of the highest education regional planning officials received, those with a high school or master's degree are the most confident that their planning decisions have the ability to improve environmental conditions of their region, while individuals with a trade, bachelors or doctoral degree feel less confident.

Objective Five: To determine the current barriers to incorporating sustainability principles into regional planning.

Out of twenty-five potential barriers, regional planning officials felt that funding and state level legislators are the strongest barriers to incorporating sustainability principles into regional planning.

Discussion and Implications

In order to address concerns facing the sustainability of agriculture and natural resources in Florida, political leaders are needed to guide development and aid in solving the problems (Saadatian, Tahir, & Dola, 2010). Unfortunately, government policies and regulations are often identified as the primary barrier and without effective governance institutions natural resources and the environment are danger (Dietz et al., 2003). Oftentimes cooperation, knowledge dissemination, power, communication, and varying priorities between stakeholders make addressing such complex subjects very challenging. It is important that local planning agencies take proactive measures in addressing issues, but the ability of planners to anticipate future growth has been identified as a major challenge (Brody et al., 2006). This research is aimed to describe the perceptions, knowledge, and motivations of Florida's regional planning officials

about key agriculture and natural resource issues, as well as the factors that influence the incorporating sustainability principles in planning.

The Reasonable Person Model (RPM) along with other behavior change and motivational theories were utilized in this research. RPM suggests that people are more reasonable when their environment satisfies their human informational needs. This model is particularly useful in examining the use of sustainability principles for addressing issues in the natural resource and agricultural sectors.

This study measured regional planning officials' knowledge level of seven factors related to addressing agricultural and natural resource issues sustainably in regional planning. For all seven factors measured, regional planning officials felt knowledgeable. According to Kaplan (1983) not having adequate and accurate information, especially when dealing with environmental issues related to agriculture and natural resources, can cause frustration and avoidance that limits any action from taking place. Behavior change research asserts that obtaining an adequate amount of information is a prerequisite to decision making and behavior changes (De Young, 1993; Holling, 1978, Kaplan, 2000; Kaplan & Kaplan, 2003; Kaplan & Kaplan, 2009).

Moreover, regional planning officials felt that all seven factors related to regional planning are very important to their role on a regional planning council. This finding supports Kaplan & Kaplan's (2003) claim that "people prefer and benefit from acquiring knowledge at their own pace and with information that is relevant to their concerns" (p. 558). It appears that factors related to addressing agricultural and natural resource issues sustainably in regional planning are relevant and important to regional planning officials.

Although regional planning officials reported having knowledge of all regional planning factors, there were widespread discrepancies in their level of knowledge and the importance to their roles on a planning council. With a lack of knowledge in the factors related to addressing agricultural and natural resource issues sustainably, it is imperative to create educational opportunities (i.e. workshops or training seminars) for regional planning officials to increase their understanding of topics related to these regional planning factors. Providing such opportunities would enhance the ability of regional planning officials to better address regional planning tasks and devise more sustainable solutions to environmental issues. De Young (1993) suggests that such behavior change is possible if people have an increased awareness and understand the information provided. He recommends acquiring information through self-discovery, as the process has been more likely to influence an individual's understanding, beyond mere awareness, and can impact changes in internal values (Gray, 1985).

The three regional planning factors with the largest discrepancies in knowledge level were how to apply sustainability principles in regional planning, environmental issues, and agricultural and natural resource issues. This finding indicates that regional planning officials would benefit most from an increased understanding in these three topics areas. It is interesting that regional planning officials reported being moderately knowledgeable in sustainability principles, but need more information about "how to apply" sustainability principles in regional planning, thus furthering the need for educational training that enables learning through self-discovery. Fazio and Zanna (1981) recommend acquiring environmental knowledge externally from a direct experience or through involvement with a case study (Monroe & Kaplan, 1988), which is

suggested to provide greater clarity and confidence in understanding, than from an indirect experience.

When broken down by demographics, it can be seen that regional planning officials knowledge and relevance of specific regional planning factors are influenced by the type of planning and/or agricultural or natural resource background they have, as well as the region's percentage urban and rural. Three types of planning background, on the job experience, formal and non-formal education, indicated significant relationships in the knowledge levels of regional planning factors. Knowledge of environmental issues was largely affected by individuals planning background from on the job experience, while knowledge of assessing environmental issues was largely affected by non-formal education. This finding could indicate that while having professional experiences in planning may increase an awareness of environmental issues, non-formal educational methods (i.e. workshops/trainings) are needed to go a step further in order to help assess the issues. Formal education in planning accounted for a large variance in respondents' knowledge of how to acquire new information about regional planning and accounted for a medium variance in how to acquire information about incorporating sustainability into regional planning. This could indicate that traditional courses in planning help to teach the skills needed to know how to find up-to-date information about new subjects (i.e. sustainability). Formal education in planning also had a large effect on the relevance of assessing environmental issues, while on the job experience in planning had large effects on the relevance of how to acquire new information. It would appear that having professional experiences in planning would

increase the significance for acquiring new information related to planning and sustainability.

Different types of agricultural and natural resource backgrounds resulted in varying knowledge levels for respondents. Not surprisingly, regional planning officials who had once owned a farm or agricultural property reported feeling more knowledgeable in agricultural and natural resource issues than officials who did not have the same farm background. This tendency can be linked back to Fazio and Zanna (1981) who found acquiring environmental knowledge externally from a direct experience to bring greater understanding. On the other hand, regional planning officials who had taken agricultural or natural resource classes in high school feel less knowledgeable in five of the seven regional planning factors, while those who had not taken classes in high school feel more knowledgeable. Most likely, this finding highlights the inconsistency between actual knowledge and self-reported knowledge. Individuals who have more information on a subject tend to more accurately rate their knowledge level than those who have less knowledge and may exaggerate.

Furthermore, the findings indicated that the percentage a region was considered urban had a larger effect size in the knowledge level of how to acquire new information about incorporating sustainability into regional planning than the percentage rural. While the percentage a region was considered rural had a larger effect size in the knowledge level of agricultural and natural resource issues than the percentage urban. It would appear that a characteristically rural region would have a greater need for understanding agricultural and natural resource issues and in a more urban region it

may be more characteristic to know how to find information about sustainability due to greater growth related issues.

Motivation is based on psychological principles that aspire to understand the “why” component of behavior. Motives are identified as determinant of behavior and seen as a driving force for action (McClelland, 1987). There were some factors in this study that supported previous literature findings about the motivational factors that influence behavior change in complex situations. Overall, regional planning officials felt that other officials within their planning council have an adequate knowledge of sustainability principles in regional planning. In a study on sustainability in landscape planning, Basu (2009) supports the notion that a high level of familiarity can influence an individual’s preferences to an issue or subject. Thus, for regional planning councils to develop sustainable solutions to regional problems, it is imperative for regional planning officials to have an adequate knowledge of sustainability principles.

In terms of “making a difference”, regional planning officials felt their decisions could make a difference in many aspects, including improving agricultural and natural resource conditions in Florida and in Florida’s future. Regional planning officials are also positively influenced by the power motive (McClelland, 1987), feeling that they have the power to make a difference. These findings support the notion put forth by Kaplan and Kaplan (2006) that in addition to human beings desire to gain information, understand, explore, and feel competent, they also aspire to make a difference in the world. Additionally, this study found that regional planning officials feel they have the opportunities to make a difference in their city or municipality as well as their region. Although, feeling slightly less likely that their decisions would have the same opportunity

to make a difference statewide. According to Kaplan & Kaplan's Reasonable Person Model, people desire opportunities to become engaged and actively participate in the surrounding environment. It is greatly beneficial that regional planning officials feel they have opportunities for meaningful action within their region and would be even more beneficial if the same sentiment existed for the state.

Of the three constructs in Kaplan and Kaplan's Reasonable Person Model, becoming effective involves two linked components: being sufficiently clear-headed and feeling competent and confident, especially when surrounded by an abundance of information and complexity. Of all the planning tasks and issues related to sustainability in regional planning, officials felt moderately clear-headed. Moreover, they felt moderately confident in their abilities, power, knowledge and decisions in situations related to sustainability in regional planning.

However, this study found regional planning officials feel slightly and somewhat overwhelmed when thinking about environmental pressures. As seen in the conceptual model, feeling overwhelmed is a negative motivational factor, particularly harmful when addressing highly complicated issues like environmental issues. According to Kaplan and Kaplan (2009) feeling overwhelmed is a result of an abundance of information which limits an individual's ability to feel clear-headed and causes mental fatigue. McClelland (1987) suggests that a growth in understanding, or cognition, is one way to reach a desired state of stability and control. It is important to do more than share information about environmental pressures, but rather focus on increasing regional planning officials understanding of environmental issues as well as the big picture which can reduce feeling overwhelmed and increase confidence.

In terms of regional planning officials' perceptions of sustainability, it can be derived that officials feel the concept is moderately useful, practical and clear. However, planning officials also feel sustainability is complex and difficult to enforce. Similarly, Scheuer's (2007) study on green building design identified with common sustainability problems, concluding that there is no single approach to the adoption of sustainable practices, particularly due to the open-ended nature of its concepts.

When looking at motivational factors according to demographic variables, it can be seen that many significant relationships exist among regional planning officials' position type, RPC, years as a political representative, planning and agricultural background, education and gender. According to position type, this study found that appointed regional planning officials feel that their decisions are more likely to make a difference throughout Florida, feel less overwhelmed thinking about environmental pressures, are more confident in their power to make a difference and that their decisions can improve environmental conditions, than elected officials. Additionally, of the elected officials, county representatives felt more strongly that their decisions could improve agricultural and natural resource conditions in Florida than city representatives did. These findings could be attributed to the difference in how officials are selected to serve on a council and the size of the region they represent. Since appointed officials are selected by the governor of Florida, rather than being locally elected from a particular region, they may have an increased confidence in the power of their decisions and scope of impact. The same notion could be attributed to county officials, who represent a large population than a city representative may.

Another factor related to position type was the regional planning council officials served on. Of all eleven RPCs in Florida, officials from East Central Florida feel the most like they have the power to make a difference, perceive sustainability as moderately clear and are more confident that their decisions can improve environmental conditions. While officials from Withlacoochee feel the least like they have the power to make a difference, perceive sustainability as moderately confusing, and are less confident that their decisions can improve environmental conditions. Kaplan (1983) revealed that lacking information about the environment can lead to feelings of helplessness and incompetence, developing perceptions that pressing environmental concerns are too big or impossible to solve. This finding could indicate that the characteristics of a region (i.e. population, density, urban/rural) influence the likelihood that some regional planning councils have more information about environmental issues and sustainability than other councils have. This notion could also be applied to the finding that officials from Apalachee feel the most clearheaded when addressing individual planning tasks; while officials from West Florida feel the least clear-headed when addressing individual planning tasks.

In this study, direct experience was measure by the number of years as a political representative and years working in planning. The number of years serving as a political representative in any capacity accounted for a large amount of the variance in regional planning officials' confidence level, level feeling clear-headed in their tasks, and in their perceptions of sustainability. Similarly, the number of years worked in planning accounted for a large amount of the variance in the degree regional planning officials felt clear-headed when addressing regional planning issues related to agriculture and

natural resources. These variances could be attributed to Fazio & Zanna (1981) that suggested the more an individual externally acquires knowledge from a direct experience, than from an indirect experience, it can provide greater clarity and confidence in understanding the issue.

Non-formal education in planning accounted for a large variance in the officials' feeling they have opportunities to make a difference in their region as well as throughout Florida and their confidence in improving environmental conditions. Moreover, non-formal education in planning also accounted for a medium variance in officials' perception of their power to make a difference, level feeling clear-headed in planning tasks and perceptions of sustainability being easy or difficult to enforce. These findings can be related back to a previous finding in this study that non-formal education in planning largely affects the knowledge of assessing environmental issues. Together these findings further promote the benefits of providing opportunities for non-formal education to regional planners on topics related to planning, sustainability and environmental issues.

This study found interesting relationships among regional planning officials with different types of agricultural or natural resource backgrounds. Not surprisingly, individuals had taken agriculture or natural resource classes in college indicated feeling more clear-headed in tasks related to sustainability in regional planning than those who did not have college classes. Additionally, those who reported owning a farm or other agricultural property felt more clear-headed addressing issues related to agriculture and natural resources than those who do not. This tendency to feel more clear-headed could be attributed to acquiring a greater knowledgebase from coursework and/or direct

experiences. However the opposite was found among individuals who had involvement with FFA or reported taking agricultural or natural resource classes in high school. Overall, involvement with FFA resulted in feeling more overwhelmed, less clear-headed and less confident. Furthermore, those who took classes in high school were found to feel less clear-headed and less confident related to sustainability. Specifically, when thinking about sustainability, officials who took agricultural or natural resource classes in college felt the most clear-headed when compared to those who took classes in high school or were involved with FFA.

These findings may suggest that taking agriculture and natural resource classes in college is one of the better ways to achieve confidence and clear-headedness in regional planning tasks related to agricultural and natural resource sustainability. This finding is particularly interesting because literature typically supports the relationship between involvement with direct experiences and positive motivation. However, this finding suggests a different relationship with officials' involvement with FFA or a related organization. It might be hypothesized that FFA involvement does not address sustainability or focus on solutions to environmental problems, but rather may only introduce complex issues causing greater confusion. Scheuer (2007) a similar type of disconnect when there are gaps in information flows or missing information, causing the level of uncertainty to increase rather than decrease. Another potential explanation could be attributed to the age when officials' gained knowledge or background on complex topics like environmental issues and sustainability. Obtaining information from classes or club involvement could have a less of a positive influence on confidence levels and understanding when an individual is at a younger age.

Gender was identified having a significant relationship only once in this study. Regarding regional planning officials perceptions of sustainability, females perceived sustainability as more useful than males did. It would appear that female officials would be the most likely to incorporate sustainability principles into their regional planning decisions given they had an adequate understanding.

The final demographic variable to have a significant relationship with motivational factors was a planning officials' education level. This study found that individuals with a high school or master's degree are the most confident that their planning decisions can improve environmental conditions of their region, while individuals with a trade, bachelors or doctoral degree feel less confident. Furthermore, individuals with a high school degree felt almost as confident as those with a master's degree and officials with a bachelor's degree felt the least confident of all. It could be possible that an individuals' confidence in improving environmental conditions is very sensitive to the amount of information received. Perhaps, individuals with a high school degree do not have much, if any information related to environmental issues thus they are able to remain confident in their decisions. The high confidence level of individuals with a high school degree could also be attributed to the existence of another demographic relationship (i.e. having non-formal education in planning, being an appointed representative, or their RPC). Individuals with a doctorate degree could be experiencing information overload and thus be less confident in their ability to improve environmental conditions.

In terms of the barriers to incorporating sustainability principles into regional planning, it can be derived that funding and state level legislators are the strongest barriers to actually implementing sustainability. These findings are supported by Basu

(2009) who notes that “planning practitioners often deal with the perceived risk of not...being able to meet local budget constraints” (p.111). Moreover, Brody, Carrasco, and Highfield (2006) analyzed the variables influencing the adoption of sprawl-reduction plans by local planning agencies in southern Florida and found that the number of planners involved increased the likelihood of adopting plans associated with sustainability and improving environmental management. This notion supports the finding that if state level legislators are perceived as barriers, it is less likely that sustainable principles will be adopted by regional planning councils.

National Research Agenda

The previous conclusions, discussion and implications can all be linked back to Agriculture Education and Communication National Research Agenda 2007-2010.

Specifically this study aids in the following research priority areas (RPA):

RPA 1: Enhance decision making within the agricultural sectors of society (p. 9).

- Discovering information that various stakeholders need in order to make informed decisions.

RPA 4: Engage citizens in community action through leadership education and development (p. 12-13).

- Determining the competencies used by community leaders for improving communities, interacting with constituents and solving community issues.
- Identifying educational strategies and programs that develop and enhance local leadership.

RPA 5: Identity and use evaluation systems to assess program impact (p. 15).

- Understanding how the principles of teaching and learning in a non-formal educational setting influence sustainable development and enhancement of the global community.

Recommendations

Based on the results and conclusions of this study, the researcher has made recommendations for practitioners and researchers.

Recommendations for Practice

- The Florida Regional Planning Councils Association (FRCA) and/or related organizations should provide educational opportunities for regional planning officials to gain greater knowledge of and understanding in factors related to regional planning, including sustainability and issues related to agriculture, natural resources and the environment. Teaching strategies should incorporate self-discovery techniques, direct learning, case studies
- Traditional courses in planning should be offered to help to educate regional planning officials the skills needed to understand how to find up-to-date information about new subjects that related to planning, including sustainability.
- Organizations should reach out to planning councils in urban regions and provide educational opportunities to learn about agriculture and natural resources issues in Florida.
- Sustainable Florida and other related organizations should offer workshops for regional planning officials in order to educate them about sustainability and how to incorporate into regional planning. Particular attention should be given to regional planning councils located in rural regions.
- Florida legislators need to identify or create opportunities for regional planning officials to become involved in discussions and in developing solutions to statewide concerns alongside state government.
- Regional planning councils should participate in hands-on exploration to learn more about the environmental issues of their region and in Florida. Opportunities should promote exploration of the natural environment rather than just receiving information. Examples could include taking a tour of a landfill, natural preserve, or river guided led by an expert or researcher.
- A unified framework for the state of Florida needs to be developed for how to incorporate sustainability into regional planning. The framework should be jointly developed by stakeholders in planning, government, sustainability, and agriculture and natural resources.
- Create opportunities for regional planning councils to work together on various issues, develop partnerships and communicate more directly with each other. One way to achieve this would be to create a list-serve or online community for regional

planning councils to communicate with each other, exchange information and resources, as well as maintain discussion boards.

- State legislators need to improve and/or increase communication with local regional planning officials. Examples include: legislator(s) attending RPC meetings once a year or video conferencing into meetings for guided question and answer sessions.
- Regional planning councils should keep their websites up-to-date and provide contact emails for all council members directly on the RPC website.

Recommendations for Future Research

- A qualitative study should be done with leaders in sustainability to uncover the best approaches for applying sustainability principles and methods for developing and enforcing sustainable solutions.
- A quantitative study should be done with regional planning councils in other states to better understand regional planning officials' perceptions of sustainability in planning, and to identify states which may have successfully implemented sustainability into regional planning.
- Research should be done to understand the motivational differences (i.e. confidence, power, perceived knowledge and abilities) between different types of political representatives. Types of representatives should include appointed and elected representatives, city and county representatives, and by their region's characteristics.
- Research should be done to understand the differences in understanding complex issues between individuals who had taken agricultural or natural resource classes in high school, were involved with FFA or had taken agricultural or natural resource classes in college.
- Research should be done to further investigate the actual cost associated with implementing various sustainable practices/principles, particularly related to agricultural and natural resource issues.
- A qualitative study should be conducted with regional planning councils to identify how state legislators are creating barriers, particularly when addressing agricultural or natural resource issues and to incorporating sustainability principles.

Summary

Chapter 5 began by reviewing this study's purpose and objectives. Then a summary of the methodology used in this study was presented, followed by summaries

of the findings for each of the five objectives. Next, conclusions were drawn from the data presented in Chapter 4 and presented based on each objective. These conclusions were discussed in further detail and compared to previous literature. Additionally, this chapter outlined how this research coincided with the National Research Agenda for Agriculture Education and Communication. Finally, Chapter 5 concluded with recommendations for practice and further research.

APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL

UF Institutional Review Board
UNIVERSITY of FLORIDA

PO Box 112250
Gainesville, FL32611-2250
352-392-0433 (Phone)
352-392-9234 (Fax)
irb2@ufl.edu

DATE: March 24, 2011

TO: Lauren Hrcirik
PO Box 110540
Campus

FROM: Ira S. Fischler, PhD, Chair *ISF*
University of Florida
Institutional Review Board 02

SUBJECT: Approval of Protocol #2011-U-0329

TITLE: Sustaining Florida: Perceptions of Florida Regional Planning Councils about Key Agricultural and Natural Resource Issues

SPONSOR: None

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants, and based on 45 CFR 46.117(c), An IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either: (1) *That the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or (2) That the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.*

The IRB authorizes you to administer the informed consent process as specified in the protocol. If you wish to make any changes to this protocol, **including the need to increase the number of participants authorized**, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

This approval is valid through **March 23, 2012**. If you have not completed the study by this date, please telephone our office (392-0433), and we will discuss the renewal process with you. It is important that you keep your Department Chair informed about the status of this research protocol.

ISF:dl

APPENDIX B
SURVEY COMPLETION REQUESTS

Pre-Survey Email

Monday, August 8, 2011

Good afternoon _____,

My name is Lauren Hrnccirik and I am a University of Florida graduate student in the Department of Agricultural Education and Communication. I am writing to ask for your help with an important research project being conducted by the University of Florida, with support from the Collins Center for Public Policy, Century Commission for a Sustainable Florida, and Center for Public Issues Education in Agriculture and Natural Resources.

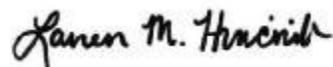
This study will aid in the understanding of current issues facing agriculture and natural resources in Florida, as well as the perceptions of Florida's Regional Planning Councils (RPCs) in addressing these issues and the sustainability of Florida. As a current member of _____ Regional Planning Council, your participation in this study is greatly valued.

I wanted to touch base with you personally and inform you of this upcoming research opportunity because in a few days from now you will receive an email request to fill out the online questionnaire associated with this study. This study is an important one that will assist Florida's leaders in tackling pressing agricultural and natural resource issues and in working together for the growth of our state.

Thank you so much for your time and consideration. It is only with the generous help of people like you that our research can be successful.

For any further questions or comments please contact me at hrnccirik@ufl.edu or (xxx) xxx-xxxx.

Sincerely,



Lauren Marie Hrnccirik

Graduate Student | University of Florida
Agricultural Education & Communications
UF IFAS | Office of the Dean for Research
hrnccirik@ufl.edu



Initial Contact Email

Thursday, August 11, 2011

Good morning _____,

This past Monday an email was sent to you inviting you to participate in an important research project being conducted by the University of Florida, with support from the Collins Center for Public Policy, Century Commission for Sustainable Florida, and Center for Public Issues Education in Agriculture and Natural Resources.

As previously mentioned, this study will be critical in assisting Florida's leaders in tackling issues in agriculture and natural resources. Your participation in this study is greatly appreciated.

Please click on the following link to access the survey:

[\\${!://SurveyLink?d=Take the Survey}](#)

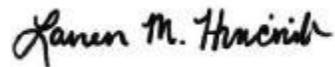
Or you may copy and paste the URL below into your internet browser:

[\\${!://SurveyURL}](#)

Your participation in this survey is **strictly confidential**. If you have further questions please contact me at hrcirik@ufl.edu or (xxx) xxx-xxxx.

Thank you again for your time.

Sincerely,



Lauren Marie Hrcirik

Graduate Student | University of Florida
Agricultural Education & Communications
UF IFAS | Office of the Dean for Research
hrcirik@ufl.edu



Follow-Up Contact Email

Thursday, August 18, 2011

Dear _____,

I recently sent an invitation asking for your assistance with a research study being conducted here at the University of Florida. My name is Lauren Hrcirik, and I am a graduate student in the Department of Agricultural Education and Communication. Your responses to this survey will be vital to understanding and addressing sustainability issues in Florida.

This study is being conducted by the University of Florida with support from the Collins Center for Public Policy, Century Commission for Sustainable Florida, and Center for Public Issues Education in Agriculture and Natural Resources. Your participation in this survey is strictly confidential.

Please click on the link below to begin this survey:

[\\${!://SurveyLink?d=Take the Survey}](#)

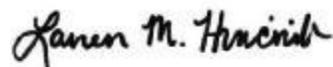
Or you can copy and paste the URL below into your internet browser:

[\\${!://SurveyURL}](#)

Should you have any other questions or comments please contact me at hrcirik@ufl.edu or call me at (xxx) xxx-xxxx.

Your response is important. Thank you in advance for helping by completing this survey.

Many Thanks,



Lauren Marie Hrcirik

Graduate Student | University of Florida
Agricultural Education & Communications
UF IFAS | Office of the Dean for Research
hrcirik@ufl.edu



Final Follow-Up Contact Email

Wednesday, August 31, 2011

Dear _____

The University of Florida study you have been asked to help with will be ending next week. I understand how valuable your time is and your participation in this survey is vital. We highly value your leadership experiences serving on _____ Regional Planning Council and the knowledge you are able to share about pressing agricultural and natural resource issues in Florida.

The results of this study will be shared with the Collins Center for Public Policy, Century Commission for Sustainable Florida, Center for Public Issues Education in Agriculture and Natural Resources and other interested constituents that might **benefit** from this research, including **your Regional Planning Council**. Please remember your participation in this survey is strictly confidential.

Please click on the link below to begin this survey:

[\\${!://SurveyLink?d=Take the Survey}](#)

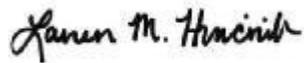
Or you can copy and paste the URL below into your internet browser:

[\\${!://SurveyURL}](#)

Should you have any questions or comments please contact me at hrcirik@ufl.edu or (xxx) xxx-xxxx.

Thank you in advance for completing this survey. Your responses are very important to this study and for guiding sustainability in Florida.

Respectfully,



Graduate Student | University of Florida
Agricultural Education & Communications
UF IFAS | Office of the Dean for Research
hrcirik@ufl.edu



APPENDIX C DATA COLLECTION INSTRUMENT



Informed Consent

Protocol Title: Sustaining Florida: Perceptions of Florida Regional Planning Councils about Key Agricultural and Natural Resource Issues

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:

The purpose of which is to understand the perceptions of officials serving on Florida Regional Planning Councils about sustainability, as well as agricultural and natural resource issues in Florida.

What you will be asked to do in the study:

Officials will be asked to complete a short online survey to gauge perceptions about sustainability in Florida regional planning.

Time Required:

30 minutes

Risks and Benefits:

The study has no known risks: only an investment of your time to complete the survey. There are no direct benefits from participating in this study. There is no monetary compensation for participating in this study.

Confidentiality:

Participation will be confidential to the extent provided by law and there will be no identifiers recorded on questionnaires.

Voluntary participation:

Participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Researcher: Lauren Hrncoirik, Graduate Student, Department of Agricultural Education and Communication, 408 Rolfs Hall, PO Box 110540, Gainesville, FL 32611; (352) 273-2095; hrncoirik@ufl.edu

Graduate Advisor: Dr. Nicole Stedman, Department of Agricultural Education and Communication, 217B Rolfs Hall, P.O. Box 110540, Gainesville, FL 32611; (352) 273-2585; nstedman@ufl.edu

Whom to contact about your rights as a research participant in the study:

IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 352-392-0433.

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have a printed copy of this description for my records.

By selecting to continue you provide your consent for participation in this study.

Approved, UFIRB #2011-U-0329

0% 100%

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Please answer the following questions regarding your current position serving on a Florida Regional Planning Council.



Sustainability is a term that is often challenging to define. The following statements are various definitions for sustainability. In an effort to build a common understanding, please take a few moments to read through the following definitions and select the definition which best represents what sustainability means to you.

Sustainability is...

- Maintaining the quality of life for one generation without compromising a future generation's quality of life.
- Ensuring that funds will be available in future years to maintain the investments made in infrastructure.
- The ability of future generations to access the quality of life that we enjoy today.
- The process of building equitable, productive and participatory structures to increase the economic empowerment of communities and their surrounding regions.
- Having limits to the use of resources such that they remain in a healthy, viable condition and can be used and enjoyed by future generations.
- The process through which an existing and/or future human endeavor (building, travelling, living, resource usage, land use, product consumption, etc.) may continue by following a method, process, or consumption of a resource which allows that activity to continue for the foreseeable future in such manner as not to deplete the required resources needed for that endeavor beyond a renewable, or replaceable level.
- The continuing existence of an environment, region, or sense of place. It is intermixed and intertwined with many aspects of life and activities.
- Meeting the needs of the present without compromising the ability of future generations to meet their own needs.
- Our responsibility to proceed in a way that will sustain life that will allow our children, grandchildren and great-grandchildren to live comfortably in a friendly, clean, and healthy world.
- Improving the quality of human life while living within the carrying capacity of supporting eco-systems.
- Meeting the needs of all humans, being able to do so on a finite planet for generations to come while ensuring some degree of openness and flexibility to adapt to changing circumstances.
- A chosen lifestyle or belief that people should use resources and allow for replenishment of those resources for future generations.
- The simultaneous pursuit of economic prosperity, environmental quality and social equity.



To what degree are the following topics a priority in your region?

	Not a priority	Low priority	Medium priority	High Priority	Essential
Sustainability	<input type="radio"/>				
Agriculture	<input type="radio"/>				
Agricultural issues	<input type="radio"/>				
Natural resources	<input type="radio"/>				
Natural resource issues	<input type="radio"/>				

Which form(s) of sustainability are an issue in your region? Please select all that apply.

- Social (i.e. human capacity, education, community participation, human rights)
- Environmental (i.e. land, water, food, energy, natural resources)
- Economic (i.e. the economy, money, jobs, consumption, income, services)
- Other
- Sustainability is not an issue in my region

0% 100%



In the following questions, the phrase "sustainability principles" is used to represent any guidelines or concepts for addressing issues and making decisions sustainably.

Some principles include:

- *Harmony with nature*: Land use and development activities should support ecosystems rather than modifying them (i.e. preserve biodiversity, protect/restore essential services like water quality).
- *Livable built environment*: Characteristics of human-made surroundings should enhance the fit between people and urban form, encourage community cohesion by fostering access to land uses, and support a sense of place or community identity.
- *Place-based economy*: A local economy should strive to operate within natural system limits and not cause deterioration to the natural resource base. Essential products of nature should not be used up more quickly than nature can renew them.
- *Equity*: Land use patterns should recognize and improve the conditions of low-income populations; equitable access to social and economic resources is essential for eradicating poverty.
- *Polluters pay*: Polluters that cause adverse community wide impacts should be required to bear the cost of pollution and other harms.
- *Responsible regionalism*: Communities should not act in their own interests to the detriment of the interests of others, and they should be responsible for the consequences of their actions.

(Berke & Manta-Conroy, 2000, p.23)

0% 100%





Of the following key agricultural and natural resource issues in Florida, please rank (click and drag) the issues in order of importance to planning in your region. 1 represents the issue of least importance, 13 represents the most important issue.

Water	1
Financing	2
Population growth	3
Food safety	4
Lack of comprehensive land use plan	5
Lack of civic engagement due to complexity of system	6
Profitability	7
Lack of knowledge about agriculture, natural resources and the connections between the two	8
Fuel/energy	9
Sustainability	10
Regulations	11
Farm prosperity	12
Other <input type="text"/>	13





Of the following, which are current key issues in planning for your region?

	Not an issue	Slightly an issue	Somewhat an issue	Moderately an issue	An extreme issue
Lack of agreement on a "big picture" between local, regional and state officials	<input type="radio"/>				
Lack of a state-level vision for the future development of Florida	<input type="radio"/>				
Lack of state developed sustainability principles for planning	<input type="radio"/>				
Lack of enforcement from state of sustainability principles for planning	<input type="radio"/>				
Lack of intergovernmental interaction	<input type="radio"/>				
Lack of commonality between regulatory agencies and political bodies at all levels	<input type="radio"/>				
Lack of incentives to incorporate sustainability principles	<input type="radio"/>				
Limited state budget	<input type="radio"/>				
Lacking a common understanding of long term environmental and social costs tied to present decisions	<input type="radio"/>				
Political bodies view sustainability in development as being "too big" or "too out there"	<input type="radio"/>				





How much do you utilize the following sources to learn about new information or techniques related to regional planning?

	Never	Rarely	Occasionally	A moderate amount	A great deal
Conferences	<input type="radio"/>				
Internet searches (i.e. Google, Yahoo, Bing)	<input type="radio"/>				
Scholarly publications (i.e. Journal of Agriculture and Natural Resources, Journal of Planning Literature)	<input type="radio"/>				
Other regional planners	<input type="radio"/>				
Representatives within your RPC	<input type="radio"/>				
Representatives in other RPCs	<input type="radio"/>				
Outside consultants	<input type="radio"/>				
Seminars/Workshops	<input type="radio"/>				



Other planning officials *in my region* seem to have adequate knowledge of sustainability principles in regional planning.

Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

To what degree do your decisions as a regional planning official have the opportunity to make a difference in the following areas?

	Definitely not	Probably not	Maybe	Probably yes	Definitely yes
In your city or municipality	<input type="radio"/>				
In your region	<input type="radio"/>				
In Florida	<input type="radio"/>				

To what degree do you think your decisions as a regional planning official can make a difference in the future of Florida?

Definitely not Probably not Maybe Probably yes Definitely yes

To what degree do you think your decisions as a regional planning official can improve agricultural and natural resource conditions in Florida?

Definitely not Probably not Maybe Probably yes Definitely yes





Please describe your knowledge in the following and their relevance to your role on a regional planning council.

Level of Knowledge						Relevance to my role on a Regional Planning Council				
Not knowledgeable	Slightly knowledgeable	Somewhat knowledgeable	Moderately knowledgeable	Very knowledgeable		Not important	Slightly important	No Opinion	Moderately important	Very important
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Environmental issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agricultural and natural resource issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Assessing the significance of various environmental issues (including agricultural and natural resource issues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Sustainability principles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to apply sustainability principles in regional planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to acquire new information about regional planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to acquire new information about incorporating sustainability into regional planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Sustainability is...

Confusing	<input type="radio"/>	Clear				
Easy to enforce	<input type="radio"/>	Difficult to Enforce				
Useful	<input type="radio"/>	Useless				
Simple	<input type="radio"/>	Complex				
Impractical	<input type="radio"/>	Practical				





Generally, to what degree do you feel overwhelmed when thinking about environmental pressures?

Not overwhelmed
 Slightly overwhelmed
 Neutral
 Moderately overwhelmed
 Extremely overwhelmed

Generally, do you feel you have the power to make a difference?

No, not at all

 Yes, very much



To what degree do you feel clear-headed when in the following situations? (*being clear-headed refers to feeling aware, alert, astute, lucid, etc...*)

If you have not been in one of the following situations, please respond hypothetically.

	Not clear-headed	Slightly clear-headed	Somewhat clear-headed	Moderately clear-headed	Extremely clear-headed
Addressing individual planning tasks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking about sustainability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working with other regional planners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Addressing regional planning issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Addressing regional planning issues related to agriculture and natural resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Applying sustainability principles to regional planning efforts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



How confident are you in the following?

	Not confident	Slightly confident	Somewhat confident	Moderately confident	Extremely confident
My ability to solve complex problems	<input type="radio"/>				
My ability to address concerns in my region	<input type="radio"/>				
My ability to address the environmental concerns of my region	<input type="radio"/>				
My power to make a difference through my planning decisions	<input type="radio"/>				
My current knowledge of sustainability principles	<input type="radio"/>				
My current knowledge of how to apply sustainability principles in planning decisions	<input type="radio"/>				
My regional planning decisions have the ability to improve the environmental conditions in my region	<input type="radio"/>				



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To what degree are the following barrier(s) to incorporating sustainability principles into regional planning?

	Not a barrier	Slightly a barrier	Not sure	Moderately a barrier	An extreme barrier
Funding	<input type="radio"/>				
Time	<input type="radio"/>				
Community support	<input type="radio"/>				
Resources	<input type="radio"/>				
Complexity of environmental issues	<input type="radio"/>				
Complexity of sustainability	<input type="radio"/>				
Resources available	<input type="radio"/>				
Availability of incentives	<input type="radio"/>				
Lack of coordination between planning regions	<input type="radio"/>				
Lack of a clear statewide plan or vision for regional planning	<input type="radio"/>				
Lack of partnerships	<input type="radio"/>				
Planning officials within your RPC	<input type="radio"/>				
	Not a barrier	Slightly a barrier	Not sure	Moderately a barrier	An extreme barrier
Planning officials in other RPC's	<input type="radio"/>				
Non-planning legislators in your county or municipality	<input type="radio"/>				
Non-planning legislators in other counties or municipalities	<input type="radio"/>				
State level legislators	<input type="radio"/>				
Your level of knowledge of the issues	<input type="radio"/>				
Your level of knowledge of sustainability principles	<input type="radio"/>				
Your level of comfort with your abilities	<input type="radio"/>				
Your level of comfort with the issues	<input type="radio"/>				
The clarity of information available	<input type="radio"/>				
The diversity of needs to be met	<input type="radio"/>				
The number of needs to be met	<input type="radio"/>				
Level of public involvement	<input type="radio"/>				





Please describe yourself

Gender:

Age:

Please indicate the highest level of education you have received

- High School
- Trade School
- Bachelors
- Masters
- Doctoral

Please indicate any agricultural or natural resource background you have. Select all that apply.

- Classes in High school
- Classes in college
- FFA or related organization
- Own farm or agricultural property
- Other

How many total years have you served as a political representative (appointed and/or elected)

for your current RPC?

for any Florida RPC?

throughout your entire career?

How many years have you worked in planning?

What percentage of your educational background in planning was obtained by the following means? **Responses must total 100.**

(For example: 60% on the job experience, 0% formal education, 10% non-formal education, 30% personal research)

On the job experience	<input type="text"/>
Formal education (academic courses)	<input type="text"/>
Non-formal education (workshops/seminars)	<input type="text"/>
Personal Research	<input type="text"/>
Other <input type="text"/>	<input type="text"/>
Total	<input type="text"/>

Are you currently serving as an officer on your council? (i.e. Chairman, Secretary)

- Yes
- No

Are you an elected or appointed representative for your region?

- Elected representative
- Appointed

0% 100%

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Please indicate your current title

- Mayor
 - Vice-Mayor
 - Commissioner
 - Council member
 - Attorney
 - School Board member
 - Other
-

To what extent is your region considered urban or rural? ***Responses must total 100.***

Urban	<input type="text" value="0"/>
Rural	<input type="text" value="0"/>
Total	<input type="text" value="0"/>



The survey is now complete and your responses have been securely recorded. Thank you for taking the time to contribute your opinions to this study. Your participation is greatly appreciated.

Thank you!!



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BIOGRAPHICAL SKETCH

Lauren Marie Hrcirik was born in Tulsa, Oklahoma. She is the oldest of four girls. She and her family moved to Orlando, Florida in 1990. Ms. Hrcirik graduated from Winter Park High School in May 2005.

The summer following graduation, Ms. Hrcirik moved to Gainesville, Florida to attend the University of Florida. In May, 2009, Ms. Hrcirik received her Bachelor of Arts degree in Business Administration with a specialization in International Studies. She received two minors, Spanish and International Humanitarian Assistance. Upon graduation, Ms. Hrcirik moved to Russellville, Arkansas to visit with her father. During her time in Arkansas, she was employed by Russellville School District as a K-12 Substitute Teacher.

In January, 2010, Ms. Hrcirik returned to the University of Florida and entered the graduate program in the Department of Agricultural Education and Communication, specializing in leadership development. While completing her master's degree, she served as a graduate teaching assistant as well as a Grant Resource Team (GRT) Trainer and Communications Coordinator for IFAS Office of the Dean for Research.