PERCEPTIONS OF TEXAS COUNTY EXTENSION AGENTS ON VOLUNTEERS WHO ASSIST WITH PLANNING AND IMPLEMETATION OF EXTENSION EDUCATIONAL PROGRAMS

A Dissertation

by

ALLEN ZAN MATTHIES

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2009

Major Subject: Agricultural Leadership, Education, and Communications

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Approved by:

Chair of Committee,	Scott Cummings
Committee Members,	Gary Briers
	Chester Fehlis
	William Nash
Head of Department,	John Elliot

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ABSTRACT

Perceptions of Texas County Extension Agents on Volunteers Who Assist with Planning and Implementation of Extension Educational Programs.

(December 2009)

Allen Zan Matthies, B.S., Sul Ross State University;

M.S., Sul Ross State University

Chair of Advisory Committee: Dr. Scott Cummings

The objective of the study was to determine and evaluate county extension agents' perceptions on volunteer management competencies related to their county program. General perceptions related to volunteer management were also assessed.

The research was conducted on Texas county extension agents working in the fields of agriculture and natural resources and family and consumer sciences.

The purpose of this study was to make inferences concerning volunteer management based on self assessment data gained from study participants. The secondary purpose was to identify concerns and provide solutions for the Texas AgriLife Extension Service to enhance this organization. Five research questions were examined by the researcher: 1) What are the demographics of county extension agents working for the Texas AgriLife Extension Service, 2) What are the county characteristics of extension volunteers and volunteer programs in Texas, 3) What are the differences in volunteer management based on location factors such as population size and staff size, 4) Is the ISOTURE model for volunteer management utilized by county extension agents working

for the Texas AgriLife Extension Service, and 5) How do county extension agents perceive their volunteer programs are viewed by the clientele they serve?

The population of county extension agents was 451 at the time of data collection. Two hundred seventeen (217) responses were collected. The instrument for this study was in electronic format and was divided into three sections; general volunteerism, specified volunteerism as it relates to "Your Volunteer Group," and demographic data. The participant was asked to select a specified volunteer group which had eight predefined groups and one blank for "Other." The results of this study identified seven significant findings with seven recommendations for Texas AgriLife Extension Service regarding professional development, volunteer utilization, and volunteer structure. Conclusions reached from this research show county extension agents utilize the volunteer management model adopted by the Texas AgriLife Extension Service. Furthermore, differences in environment such as population, staffing pattern, and volunteer utilization have influence on how volunteers are utilized in different counties. Finally, the researcher identified seven areas of further research.

DEDICATION

This dissertation is the result of over eight years of work in pursuit of a doctoral degree. Because of the dedication required of this pursuit, my family has made numerous sacrifices for me, none of which has gone unnoticed. This work is dedicated to my family.

My wife Kristy – I love you. Thank you for standing beside me during the late nights and times when I needed to have peace and quiet to work on this study. Your unending list of sacrifices has made this possible. You also were my biggest cheerleader as we both share the same philosophy: if you start it, then finish it. I know this is a positive trait we will pass on to our children.

Unlike many who have taken this path, my children are young. They are only aware that Daddy spends a lot of time in front of the computer. I am happy to have this work completed so I can concentrate on the other important factor of my life, my children. I love each of you so much.

My father and mother have always been champions of furthering my education. They instilled a value in me which is that you can never stop learning. I have taken this with me all the way through this process. Mom and Dad, thank you! My in-laws, Jack and Carolyn have been there as well. They have provided me a place to stay when I had to go to College Station for on-campus work, and they have been inspirational when discussing the challenges of this pursuit. I would be remiss if I didn't say thank you to each of you (Mom, Dad, Jack, and Carolyn), for helping with Rhyder when I really needed to work on my study. To everyone, we have all been impacted by this pursuit, and I am glad you stayed the course with me; that is what family is about.

ACKNOWLEDGEMENTS

A large number of people have been supporters and mentors to me throughout this process. Most important are my chair and committee members. It seems like just yesterday I was at a meeting at the Hays County Extension Office where I asked Dr. Cummings about the possibility of starting work on a doctoral degree. He made a phone call to Dr. Briers which started this whole process.

Dr. Scott Cummings, thank you for your guidance over the years; it has been well used. Your assistance to me since I was an off-campus student was instrumental in my progress. Dr. Briers, thank you for the meetings and correspondence regarding my statistical analyses. Your input was highly regarded and necessary for me to "knock the rust off" my use of statistics. Dr. Fehlis, thank you for sharing your visions, they have made a huge impression upon me. Dr. Nash, thank you for serving on my committee. I have enjoyed every class I took from you and they have greatly impacted me in both work and education.

During my study, I had the close support of Dr. Chris Boleman and Dr. Jeff Ripley. I would like to thank each of you for the support, advice, and direction you have given me as we have corresponded during this time. During the latter portion of this process, it was nice to know I had friends with similar experiences whom I could talk to.

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I would like to acknowledge Judge Dan Gattis, County Judge for Williamson County. During my tenure in Williamson County, Judge Gattis and I had several

conversations regarding his experiences with volunteers. His knowledge, stemming from years of work at the Houston Livestock Show and Rodeo, gave me needed insight during the literature review process. Thank you, Judge Gattis.

To the county extension agents who participated in this study, thank you for your time and candid answers. The objective of this research was to help our organization.

Finally, I would like to thank Mr. Kyle Smith and the rest of the Texas AgriLife Extension Service administrative team for supporting this study. I believe it will provide information useful for the Texas AgriLife Extension Service.

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CHAPTER I

INTRODUCTION

Texas AgriLife Extension Service (AgriLife Extension) serves all 254 counties in the State of Texas through 250 county offices. AgriLife Extension employs 613 county extension agents who provide outreach and continuing education to the citizens of Texas through the state's land-grant university, Texas A&M University (D. Bogart, personal communication, August 29, 2007). County extension agents are charged with providing educational programs in the areas of agriculture, natural resources, family and consumer sciences, 4-H and youth development, integrated pest management, marine resources, urban development, and community development (Texas Cooperative Extension, 2002).

To facilitate this expansive outreach educational effort, AgriLife Extension operational level employees must have a strong support base of volunteers. Volunteers are utilized in a wide variety of circumstances such as: support roles, planning, implementation, evaluation, and interpretation of programs. Key interactions of volunteers during the program development process can include working with other volunteers, providing program leadership and serving on policy or decision-making boards (Snider, 1985).

Historically, studies have been conducted to evaluate the relationship between county extension agents and their volunteers (Snider, 1985; King & Safrit, 1998).

This dissertation follows the style of *Journal of Extension.*

However, reviewed studies have targeted the youth development program and not volunteers who operate within other program areas. Barnett et al. (1999) studied advisory boards, but did not address county extension agent and volunteer interactions outside of the planning phase of program development.

As stated in a job description for county extension agent with the Texas AgriLife Extension Service (Texas AgriLife Extension Service, 2009d), agents are responsible for conducting outcome-based educational programs for the citizens living in their respective counties. However it does not address the use of volunteers, which are addressed by Boleman and Burkham (2005b) as an integral part of a successful county AgriLife Extension program. Therefore, it is unknown how county extension agents working in the State of Texas perceive their volunteers. Do volunteers truly help with planning and implementation of effective extension programs? Do volunteers slow the program development process? What value do county extension agents place on volunteers who serve other areas of the program? We sought the answers to these questions by conducting this study.

Purpose and Objectives

The purpose of this study was to measure self-assessed differences in perceptions of county extension agents regarding their volunteer management competencies. County extension agents working in the disciplines of Agriculture, Agriculture/Natural Resources, Natural Resources, and Family and Consumer Sciences were selected to participate in this study. The primary focus of this study was to identify differences between county extension agent demographics as they relate to the location

characteristics of each county. The secondary purpose of this study is to determine correlations between volunteer management perceptions. The researcher addressed the following research questions:

1. What are the demographics of county extension agents working for the Texas AgriLife Extension Service? How do county extension agents view themselves and their roles when working with volunteers?
2. What are the county characteristics of extension volunteers and volunteer programs in Texas? What are the volunteer management competencies utilized by county extension agents to develop, implement, and maintain a county-based extension program?
3. What are the differences in volunteer management based on location factors such as population size and staff size? What are the similarities in volunteer management based on location factors such as population size, and staff size?
4. Is the ISOTURE model for volunteer management utilized by county extension agents working for the Texas AgriLife Extension Service? Are extension

volunteers utilized in correct roles to assist with bringing relevant and research based information to the people of Texas? If so, are there areas where extension can improve employee development to augment this situation? Is the recruitment process for extension volunteers successful? Is volunteer service for extension volunteers retained too long?

5. How do county extension agents perceive their volunteer programs are viewed by the clientele they serve? Are their volunteer programs viewed as important by their clientele? What benefits are county extension agents, communities, and counties receiving from extension volunteer programs?

Definition of Terms

Texas AgriLife Extension Service – The agency authorized by the Smith-Lever Act of 1914 which is charged with providing outreach educational efforts to the citizens of Texas through the state's 1862 land-grant university, Texas A&M University (Texas AgriLife Extension Service, 2009d).

County Extension Agent – County-level educators employed by Texas AgriLife Extension Service who provide education programs to the citizens of their county.

Subject matter areas are divided into agriculture, natural resources, family and consumer sciences, 4-H and youth development, urban development, marine resources, and community development (Texas AgriLife Extension Service, 2009f).

Community Resource/Economic Development (CRED) – Extension subject matter area focusing on development of both individual and community attributes for increased quality of life (Texas AgriLife Extension Service, 2009b).

Volunteer – Individuals who assist county extension agents with program development of outreach educational programs (Boleman & Burkham, 2005b). The Merriam-Webster Online Dictionary (Volunteer, 2009) defines volunteer as someone who performs a service with no legal concern or interest.

Stakeholder – One who has a stake in an enterprise (Stakeholder, 2009).

Program Development – AgriLife Extension's process where effective educational programs are developed. This process has three phases which are planning, implementation, and results. This process is defined as having volunteer involvement in all phases (Boleman et al., 2005).

ISOTURE – Volunteer management model developed by Robert Dolan of North Carolina State University. Acronym stands for Identification, Selection, Orientation, Training, Utilization, Recognition, and Evaluation (Dodd & Boleman, 2007)

CEA - Agriculture/Natural Resources – County extension agent who provides outreach educational efforts on the county level in the areas of agriculture and natural resources. Depending on the county, major foci for this job are cropping technologies, range and natural resource management, small acreage landowners, horticulture (Texas AgriLife Extension Service, 2009a).

CEA - Family & Consumer Sciences – County extension agent who provides outreach educational efforts on the county level in areas of family and consumer sciences. Depending on the county, major foci for this position are nutrition education, wellness education, and family issues (Texas AgriLife Extension Service, 2009c).

Result Demonstration – an educational tool for CEA to provide on-site, location sensitive demonstrations for clientele. Historically, result demonstrations have been conducted on farms and ranches as a tool during the educational delivery process (Boleman & Dromgoole, 2007).

Result Demonstration Cooperator – volunteer who provides site and other needs to the CEA for implementation of the demonstration (Boleman & Dromgoole, 2007).

Volunteer Manager – individual who, by position, manages volunteers or an organized volunteer group and has specific competencies in planning and organization (Boleman & Burkham, 2005b).

Significance of This Study

The results of this study offer Texas AgriLife Extension Service information regarding the importance volunteer management which will increase the size, scope, and efficacy of county based extension programs. In turn, this information should be utilized as a benchmark for refining development of county-based faculty through the following means:

1. Training for county-based faculty at the district and/or regional levels as needed, and to be further supplemented with web based resources.
2. Development of further curriculum for extension volunteers in efforts to raise position as a stakeholder with Texas AgriLife Extension Service programs.
3. Development of curriculum which takes into account the fundamental differences in county extension offices throughout the State of Texas.
4. Increase the awareness of county-based faculty on those programs, already utilized, which increase the visibility and marketability of the Texas AgriLife Extension Service.
5. Increase the perception of county based faculty regarding extension volunteers as partners and not employees.

Limitations of This Study

This study was conducted as a self-assessment of each county extension agent. Agents were asked to evaluate their perceptions of their county programs regarding volunteer management and involvement. Additionally, this study was conducted utilizing county agents with only the titles of agriculture and natural resources, agriculture, natural

resources, and family and consumer sciences. Finally, this study was conducted on agents in Texas, and therefore cannot be generalized beyond Texas.

CHAPTER II

REVIEW OF LITERATURE

Cooperative Extension Systems and Their Inception

The cooperative extension systems of each state can trace their inception to two important pieces of legislation, the Morrill Act of 1862 and Smith-Lever Act of 1914. The Morrill Act of 1862 was signed into legislation by President Abraham Lincoln on July 2, 1862 (Hamilton, 2004). This piece of legislation provided for each state to have a land-grant university which focused on agriculture and mechanical arts (Hamilton, 2004; University of Kentucky, 2008). The original concept of the land-grant university system is credited to Johnathan Baldwin Turner, a professor at Illinois College. He drafted a resolution which the Illinois legislature passed.

After the resolution was passed in Illinois, Justin Smith Morrill became involved with this legislation on the federal level. One source (Hamilton, 2004) wrote that Morrill was heavily influenced by Turner's view, due to his own lack of formal education, which is why he sponsored the bill. The result of Justin Smith Morrill's legislation was the land-grant university.

From the Morrill Act of 1862, each state was to receive 30,000 acres of land for each representative in the U. S. Congress (Hamilton, 2004). Another interesting point of the Morrill Act was where the land was located. The most populous states, which were in the east, were given land in the west (Hamilton, 2004). Post Civil War, the Morrill Act encompassed the southern states which had seceded from the Union.

On May 8, 1914, President Woodrow Wilson signed the Smith-Lever Act which brought the Cooperative Extension Service into existence. Extension work was focused

on agriculture and home economics. Primary delivery methods included demonstrations and publications. Paying for the Extension Service was creatively funded by implementing a cost share between federal, state, and local funding sources (Rasmussen, 1989). In May of 2008, the Smith-Lever Act was modified and below is an excerpt of Section 2 which outlines the general educational responsibilities of each cooperative extension system (Smith-Lever, 2008, p. 13-1):

> SEC. 2. [7 U.S.C. 342] Cooperative agricultural extension work shall consist of the development of practical applications of research knowledge and giving of instruction and practical demonstrations of existing or improved practices or technologies in agriculture, uses of solar energy with respect to agriculture, home economics, and rural energy, and subjects relating thereto to persons not attending or resident in said colleges in the several communities, and imparting information on said subjects through demonstrations, publications, and otherwise and for the necessary printing and distribution of information in connection with the foregoing; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges or Territory or possession receiving the benefits of this Act.

Since 1914, extension has become an educational entity which has taken research-based information to the people not attending an educational institution (Rasmussen, 1989). Primary historical markers of establishing extension as an educational entity can be identified dating back to World War I (U. S. Department of Agriculture, 2009). Cooperative State Research Education and Extension Service (CSREES), a part of the United States Department of Agriculture (U. S. Department of Agriculture, 2009, History section, para. 5), stated in 2009:

> More generally, extension's role in WWI helped it expand its reputation as an educational entity to one that also emphasized service for individuals, organizations, and the Federal Government.
>
> During the Great Depression, state colleges and the USDA emphasized farm management for individual farmers. Extension agents taught farmers about marketing and helped farm groups organize both buying and selling cooperatives. At the same time, extension home economists taught farm women—who traditionally maintained the household—good nutrition, canning surplus foods, house gardening, home poultry production, home nursing, furniture refinishing,

> and sewing—skills that helped many farm families survive the years of economic depression and drought.
>
> During World War II, the extension service again worked with farmers and their families, along with 4-H club members, to secure the production increases essential to the war effort. Each year for 5 years, total food production increased. In 1944, food production was 38 percent above the 1935-1939 average.
>
> The Victory Garden Program was one of the most popular programs in the war period, and extension agents developed programs to provide seed, fertilizer, and simple gardening tools for victory gardeners. An estimated 15 million families planted victory gardens in 1942, and in 1943 some 20 million victory gardens produced more than 40 percent of the vegetables grown for that year's fresh consumption.
>
> Between 1950 and 1997, the number of farms in the U.S. declined dramatically—from 5.4 million to 1.9 million. Because the amount of farmland did not decrease as much as the number of farms, the remaining farms have a larger average acreage. During the same period, farm production increased from one farmer supporting the food needs of 15.5 persons in 1950 to one farmer supporting 100 persons in 1990. By 1997, one farmer supported the food needs of almost 140 U.S. citizens. That increased productivity, despite the decline in farm numbers, resulted from increased mechanization, commercial fertilizers, new hybrid seeds, and other technologies. Extension played an important role in extending these new technologies to U.S. farmers and ranchers.

In summary, the cooperative extension system has developed from a fledgling partnership between the federal, state, and local governments to a large outreach educational system. This system is utilized by men, women, and children through a variety of programs based on grassroots issue identification (Rasmussen, 1989).

The Texas AgriLife Extension Service

The Texas AgriLife Extension Service serves all 254 counties in the State of Texas through 250 county offices. Currently, AgriLife Extension employs 613 county extension agents who provide outreach and continuing education to the citizens of Texas through the state's 1962 land-grant university, Texas A&M University (D. Bogart, personal communication, August 29, 2007). They are charged with providing educational programs in the areas of agriculture, natural resources, family and consumer sciences, 4-H and youth development, integrated pest management, marine resources, urban development, and community development (Texas AgriLife Extension Service, 2009f).

Currently, the Texas AgriLife Extension Service has 430 county extension agents working in the areas of agriculture/natural resources and family and consumer sciences (D. Bogart, personal communication, September 22, 2009). Distribution of the agents shows that 50.93% of the CEA have less than 13 years of experience (YOE). The remaining percentage of CEA were divided into two other tenure categories, 13-20 YOE (24.65%) and greater than 20 YOE (24.42%). Also, a majority of CEA were ranked as Level II or less (73.95%) under the current professional career ladder system. Current CEA demographics are illustrated in Table 1.

Table 1.

County Extension Agents Currently Employed by the Texas AgriLife Extension Service Working in the Areas of Agriculture/Natural Resources and Family & Consumer Sciences.

Distribution	AGNR	FCS	Total
Tenure			
< 13 YOE[a]	115	104	219
13 - 20 YOE[a]	63	43	106
> 20 YOE[a]	55	50	105
Total	233	197	430
Career Ladder			
I	102	98	200
II	71	47	118
III	43	27	70
IV	16	24	40
Exempt	1	1	2
Total	233	197	430

[a] YOE = Years of Experience

Today's Texas AgriLife Extension Service only slightly differs from the original idea of what extension should be as stated in the Smith-Lever Act. Programs focus on agriculture technologies, home and family, and youth development (Texas AgriLife Extension Service, 2009g). Evolution of the extension program has occurred as local issues have changed. County extension agents, or county-based faculty, still utilize a committee system to identify educational needs within their communities. Current goals are listed in the 2007 – 2012 Strategic Plan and are summarized as (AgriLife Extension, 2009g, Strategic Plan section, para. 1):

> Texas AgriLife Extension Service has a mission to provide quality, relevant outreach and continuing education programs and services to the people of Texas. Extension education encompasses the broad areas of agriculture and

natural resources, community economic development, family and consumer sciences, and 4-H and youth development. In the context of this broad mission, the priorities for Extension education are:

Ensure a sustainable, profitable, and competitive food and fiber system in Texas.

1. Enhance natural resource conservation and management.
2. Build local capacity for economic development in Texas communities.
3. Improve the health, nutrition, safety, and economic security of Texas families.
4. Prepare Texas youth to be productive, positive, and equipped with life skills for the future.
5. Expand access to Extension education and knowledge resources.

To pursue these priorities, the agency will follow a strategic plan through 2012 comprised of the programmatic goals and objectives presented herein. In addition, this strategic plan addresses organizational excellence - the alignment of every facet of the organization to support effective program delivery. Organizational goals and objectives are set forth in the following areas:

1. Accountability
2. Delivery System for Urban Audiences
3. Diversity
4. Employee Recognition and Rewards
5. Financial and Resource Management
6. Information Technology
7. Internal Communication
8. Marketing and External Communication
9. Professional Development
10. Quality Assurance
11. Risk Management
12. Volunteerism

The Texas AgriLife Extension Service offers as diversity of programs for all people in the state of Texas. These range from increasing the efficiency of Texas' food and fiber system, to working with diabetes, to developing our future leaders through youth development programs (Texas AgriLife Extension Service, 2009f).

General Volunteerism

Volunteerism has grown as a result of government cuts to programs and services (Brudney, 1990; Fisher & Cole, 1993; MacLeod & Hogarth, 1995), and it continues to grow in the nonprofit sector. Volunteer programs tender a diverse set of opportunities for those who wish to offer their time and skill. This has both negative and positive impacts.

Volunteers are regarded as an unpaid source of labor and knowledge (Brudney & Gazley, 2002). They are also categorized as a labor force which brings knowledge, skills, and enhancement to those tasks to which they are assigned. However, when observed from the perspective of a paid employee who has a similar purpose as the volunteer, they may be viewed negatively. Brudney and Gazley (2002) wrote there is reservation from the point of view of the paid employee when perceiving the use of volunteers in the same or similar capacity. Additionally, this study discusses the possibility of a competition which arises when these two labor types are commingled in a service or production environment. An example of the conflictive interaction of paid employees and volunteers concerns the Houston Livestock Show and Rodeo committee system (D. A. Gattis, personal communication, August 13, 2007).

Paid employees working in the non-profit sector have conflicts with volunteers concerning recognition for a completed task (D. A. Gattis, personal communication, August 13, 2007). This dissension was primarily observed when volunteers were recognized and awarded for their outstanding service related to Houston Livestock Show and Rodeo Committees. He further elaborated some of the successful ideas credited to the volunteers originated from the paid staff. This observation led him to adapt his

personal management style and staff operation. The philosophy of 'plant the seed' was initiated to confer ownership of the program to the volunteers.

Fisher and Cole (1993) identify increased specialization of services provided by volunteers as one organizational benefit produced from a volunteer program. As these services become more visible, other organizations sponsoring the same or similar efforts are created. This evolution creates competition which increases quality as mirrored in the business sector. The same reasons lead to positives related to volunteerism also lead to negative impacts. As volunteer organizations increase in size and variety, resources available to these groups become fractioned, leaving each with less. Resources include funds and issues identified through needs assessment techniques.

Shmotkin et al. (2003) studied volunteer age and the activity level senior citizens exercise in volunteer programs. They found volunteering later in life (> 75 years of age) leads to a prospective increase in lifespan. These elder volunteers also demonstrated more activity, elevated social standing, and regarded themselves as healthier people. Comparatively, Connors (1995) states volunteers are found in all walks of life regardless of age, socio-economic level, religion, etc. As she further states this profile is contrary to popular belief volunteerism generally originates with the older sector of the American population, as previously indicated by Shmotkin et al. (2003). One factor supporting this statement are schools and universities have implemented programs to increase community service of their student body. These programs promote experiential learning which is considered a valuable portion of education; hence schools and universities have increased programs to facilitate this need, and indirectly have diversified the American volunteer pool.

Personal communication has proven to be an effective means of recruiting volunteers (Connors, 1995). However, this method may possibly restrict diversification of the volunteer pool. It is suggested an advisory board be organized to assist the volunteer manager. Advisory boards should be composed of citizens who live and work within the area, both geographically and socially, and are identified through the needs process. The use of these citizens, who are in fact another type of volunteer, will ensure the diversification of the volunteer pool and increase the reach and efficacy of the organization.

According to Brudney and Gazley (2002), there are three assumptions which are realized when volunteerism is utilized by a business, agency, organization, etc. First they elaborate on the assumption of cost savings. By the very nature of the word volunteer, individuals assume people operating under the veil of volunteerism are free labor. Cnaan et al. (1996) discussed remuneration as one dimension of the volunteer definition, which includes equal or less cost when comparing volunteers to paid employees. However, compensation or remuneration is not the only cost which can be associated with volunteers. Human resource departments must also take into account the individual training costs also associated with volunteers (Brudney & Gazley, 2002). They indicate through review of government surveys that cost savings is the primary objective associated with the use of volunteers. However, costs of recruitment and administration of the program are commonly overlooked when assessing the need of a volunteer program for an additional labor source.

The second assumption regarding volunteerism is expanded service (Brudney & Gazley, 2002). They suggest most groups who explore the use of volunteers feel they

will be able to grow in size and scope while operating within the confines of their budget. They also suggest while the program size and scope may increase, quality may decline. This may be deemed as a contrast to organization objectives; however the gain in "social capital" from the use of volunteers may increase civic support. Brudney and Gazley (2002) summarize this assumption by stating the use of volunteers is "not so much to stretch a thin budget, but to improve an organization's efficiency." When analyzing this statement, proper administration of volunteers greatly affects the potential for success. Managers must understand volunteer programs will have to be managed professionally, or they will suffer comparatively as a paid workforce which has poor supervision.

The third assumption concerning utilization of a volunteer program is the impact on the paid staff (Brudney & Gazley, 2002). Their study indicates a negative impact concerning paid staff due to negative perceptions toward volunteers. The individual perception listed in this study was "volunteers will replace paid positions." Brudney and Gazely (2002) wrote some paid employees indicated during poor fiscal durations, volunteers fill positions which were previously held by paid employees. This was true in the 1970s and 1980s, but today the practice of replacing paid employees with volunteer labor has been outlawed.

Are volunteers consumers or is a volunteer a giver of services? Fisher and Cole (1993) discuss the view of volunteers as consumers rather than givers. They equate the purchase of a product to act of volunteering with an organization which has something to offer prospective volunteers. In short, they propose volunteer programs should market their program using standard business marketing strategies when recruiting and utilizing volunteers. This perspective regarding a volunteer program as a product ties closely with

the philosophy utilized by the Houston Livestock Show and Rodeo (D. A. Gattis, personal communication, August 13, 2007). In his reference concerning the reputation of the Houston Livestock Show and Rodeo, he stated they turned out a "good product" which incited excitement within a group of prospective volunteers who joined. They provided successful volunteer service which revolved to a new group of prospective volunteers. He stated this successful "snowball effect" built the positive reputation over approximately 65 years which has led to a perpetual pool of highly motivated, prominent, and reputable volunteers.

The view of volunteers as consumers directs managers to market the program to prospective volunteers. Volunteer motivations have been discussed as affiliation, achievement, and power (Connors, 1995). Once these motivations are understood, then it is paramount they be used when recruiting. Therefore, use of this technique indeed places the volunteer in the role of a consumer rather than a benefactor (Fisher & Cole, 1993).

As one studies a volunteer program, the shift from recipient to benefactor is clearly identified as the program is implemented to target the need. At this point the volunteers have become part of the organization and the traditional view of volunteers as givers is again a truism.

Cnaan and Goldberg-Glen (1991) reported volunteers are motivated in different manners. Their findings stated that an individual volunteers based on a rewarding and satisfying experience. Differentiations within their list of twenty-eight motivations proved to be inconclusive when categorized by rank. Numerically, their results indicate the "opportunity to do something worthwhile" was the highest ranking motivation.

Another study (Clary et al., 1998) suggests volunteers are motivated by performing services for others. Continuation of a family tradition (Cnaan & Goldberg-Glen, 1991) ranked sixteenth based on statistical mean ranking. As stated in their discussion, Cnaan and Goldberg-Glen (1991) found while there are 28 motivations, each is similar when analyzed. Therefore, each of the motivations does not weigh heavier than any other.

Prospective volunteers must view the volunteer program as one which has something to offer them personally (D. A. Gattis, personal communication, August 13, 2007). In the case of the Houston Livestock Show and Rodeo, prestige in affiliation with the event is one the motivations for volunteerism. Benefits associated with volunteering, such as a gold badge is considered another motivation which encourages individuals to volunteer. Finally, accessibility to activities at the Houston Livestock Show and Rodeo is another advantage perceived by prospective volunteers.

Identification of 4-H volunteer opportunities, recruitment, selection, orientation, training, utilization, supervision, and recognition were the competencies tested by King & Safrit (1998). Supervision, utilization, and recognition were identified as the most important competencies by the respondents. It could be argued that the highest ranked competencies (King & Safrit, 1998) correlate with the highest numerical ranked motivations tested by Cnaan and Goldberg-Glen (1991).

Volunteers who are managed effectively (Brudney & Gazley, 2002) are motivated to perform a task of service (Cnaan & Goldberg-Glen, 1991). Motivation may be inspired by the task performed; therefore it is imperative for a volunteer manager to have a high degree of competency regarding supervision (King & Safrit, 1998).

Successful volunteer programs require structure for success (D. A. Gattis, personal communication, August 13, 2007). Simple rules such as term limits for committee chairs, committee advancement, and meeting attendance requirements offer volunteers the opportunity to advance. These structural guidelines enhance professionalism among volunteers and also offer other benefits to the program. These benefits include rules for removing unsatisfactory volunteers from service. Perception of the program is based on the conduct of the staff, whether paid or volunteer. Therefore maintaining a positive image increases value to those involved in the program and also draws new people to the program.

Furthermore, volunteer recognition is an important aspect of management. Cnaan et al. (1996) state the categories of remuneration are none at all; expenses reimbursed, or stipend/low pay. When studying this aspect of volunteerism, it is important to remember small acts of recognition for their support are subtleties which assist with the retention of volunteers.

Utilization (King & Safrit, 1998) of volunteers correlates directly with supervision. Volunteer managers must correctly use volunteers in a situation where they provide a worthwhile service (Cnaan et al., 1996) which will keep their motivation vigorous (Cnaan & Goldberg-Glen, 1991). Brudney and Gazley (2002) stated volunteers serve because the task in which they are charged is satisfying on a whole.

Why volunteer for a certain program? That is a simple question volunteer managers must ask when seeking new volunteers. MacLeod and Hogarth (1999) identified three themes volunteer managers must consider when recruiting new volunteers

to their program. These themes include worthwhile and interesting work, a role within the organization, satisfaction of personal needs, and accomplishment of personal goals.

McLeod and Hogarth (1999) defined preparation for volunteer recruitment as a primary facet for success of the recruitment process. They compared the volunteer recruitment to that of an employer hiring an employee. This includes detailed job descriptions, necessary forms, policy for volunteer and organizational performance, plans for hiring, etc. Additionally organizations planning to use a volunteer resource should have a strong and viable mission statement in place (Connors, 1995). This should be developed as a result of intensive and inclusive needs assessment. In summary, studies and literature agreed that strong, effective, and targeted mission statements attract motivated volunteers.

Volunteer selection is categorized into three categories: in-house recruiting, selective recruiting, and general advertising (McLeod & Hogarth, 1999). In-house recruiting involves selecting volunteers from the current volunteer pool. Generally, a program or task is presented to the pool and then volunteers are accepted. Selective recruiting is utilized when a volunteer source is recognized for a specific program. Research states this technique is used when the current volunteer pool and managers lack the expertise to implement the program or task. General advertising is defined as using local media to recruit new volunteers to the organization. Additionally, Connors (1995) discussed success rates of volunteer recruitment. He recognized people are more likely to volunteer if they are asked by the volunteer manager.

Volunteerism in the Texas AgriLife Extension Service

It is imperative that volunteers are correctly utilized to facilitate the mission of the Texas AgriLife Extension Service. Currently, the Texas AgriLife Extension Service has the largest volunteer group of any state agency in Texas (Boleman & Burkham, 2005b). This has attributed to the success of extension in bringing quality and relevant outreach education to Extension's clientele. Boleman and Burkham (2005b) listed several factors from which they attribute to the validity of a well-managed volunteer program. They include increased size and scope of the program, volunteers who have both internal and external views, and volunteers increase the credibility of the program because they are not paid employees.

Extension utilizes different volunteers for programs, which correlates to different volunteer groups utilized. Leadership advisory boards are composed of volunteers with intricate knowledge of mission and program related information. Typically, they are volunteers who have worked with county extension agents for lengthy tenure and have worked in specific program areas such as agriculture and natural resources, family and consumer sciences, and youth development. Their primary responsibilities are strategic and long-term planning, interpretation, and advocacy (Boleman & Burkham, 2005a). Program area committees are composed of volunteers in specific programmatic areas such as agriculture, family and consumer sciences, etc. They are typically involved with short-term or annual planning and program implementation. Further reaching responsibilities may be required of these committees which reach into the roles of the leadership advisory board (Burkham & Boleman, 2005b). Additionally, they may be

utilized on a more limited basis than traditional program area committees where they are titled as task forces or coalitions.

Master volunteer groups are specialized groups which require the volunteers to maintain a certain amount of volunteer service hours as well as advanced education hours to retain membership. These groups are brought together under central themes in which the volunteers have motivations to learn about specific topics (Burkham & Boleman, 2005a). Additionally, they are required to perform an exchange for the knowledge and skills they have gained in which they provide service to extension clientele.

In 2007, Dodd and Boleman presented the ISOTURE model for volunteer management to Texas AgriLife Extension Service employees through a new publication. Below is an excerpt from that publication (Dodd & Boleman, 2007, p. 1):

> Mobilizing and organizing a strong volunteer base is essential to Extension's mission. Because volunteers are used in every program area of the agency, every county Extension agent is a manager or administrator of volunteers.
>
> ISOTURE model. The ISOTURE model is a set of seven steps that a manager can use to help volunteers become more involved and effective. The steps are Identification, Selection, Orientation, Training, Utilization, Recognition and Evaluation. ISOTURE was first developed as a leadership model by Robert Dolan, a professor at North Carolina State University. In 1971, it was introduced as a strategy for managing volunteers by Milton Boyce, the national program leader for 4-H Youth Development. Boyce said that the most effective way to increase the impact of Cooperative Extension's youth development efforts is to increase the number of volunteers in the 4-H program. To do this, county Extension agents must be committed volunteer administrators. The ISOTURE model can help county Extension agents lead volunteers more effectively, Boyce said.

The ISOTURE model utilizes a seven step approach to volunteer management. These include identification, selection, orientation, training, utilization, recognition, and evaluation (ISOTURE). Utilization of this model helps to decrease inefficiency of

volunteer organizations by tasking volunteers with tasks they are suited to completing. This is accomplished through an issue identification process followed by a volunteer selection process. The program is then implemented with the assistance of volunteers and those volunteers are recognized for their participation (Dodd & Boleman, 2007).

Program Development in Extension

As stated by Rasmussen (1989), each state's cooperative extension system is an educational organization targeted at providing relevant outreach educational programs to citizens. In order to facilitate this process, the Texas AgriLife Extension Service has an adopted program development model which is the result of a committee effort initiated in 2002 (Boleman et al., 2005).

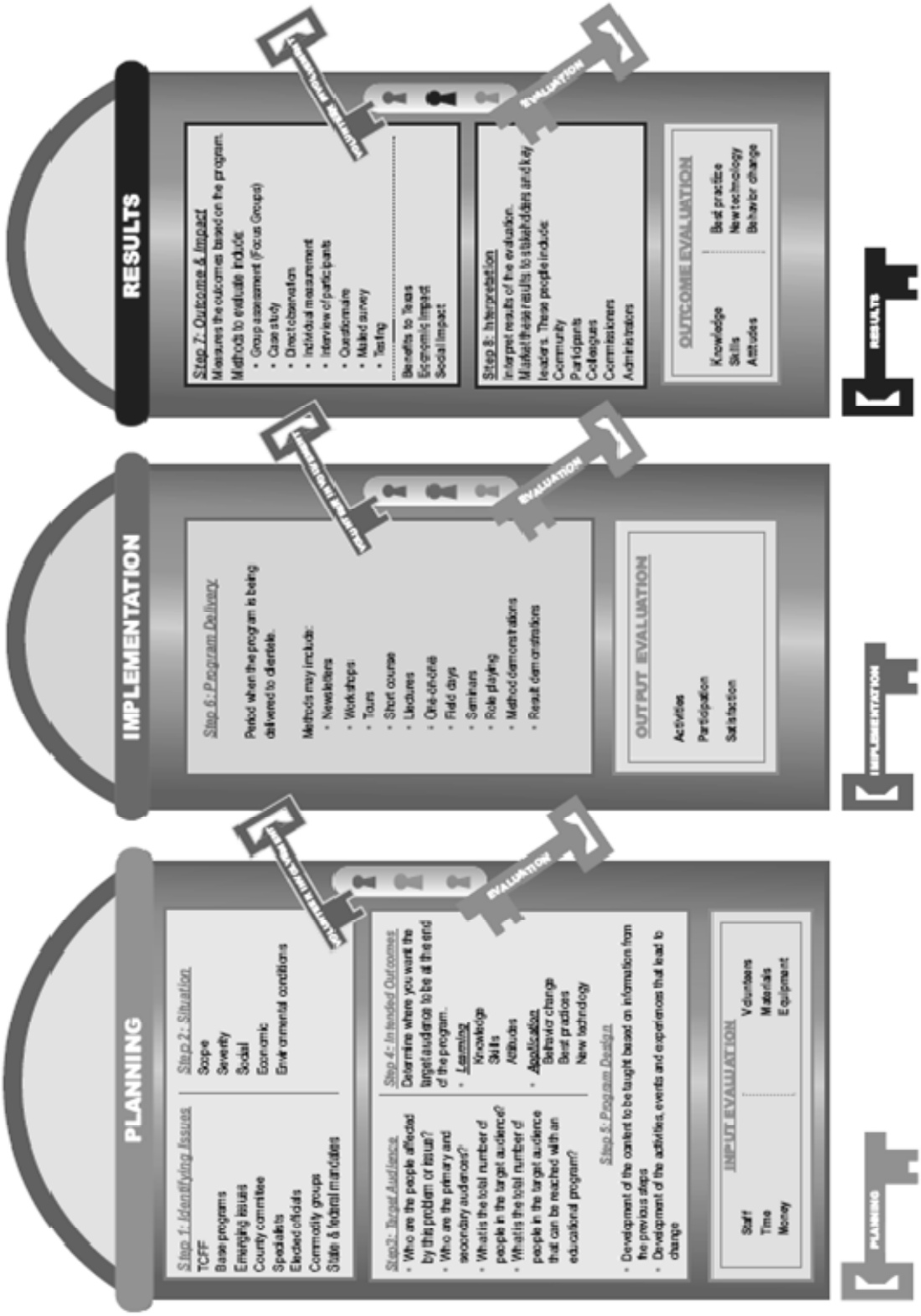
Texas AgriLife Extension Service's program development model encompasses three broad areas which include planning, implementation, and results. Each area is further sectioned into steps to address specific needs in order to provide county extension agents with framework necessary for success (Boleman et al., 2005).

The planning phase of this model includes five steps which are, "Step 1 – Identifying Issues, Step 2 – Describing the Situation, Step 3 – Identifying the Target Audience, Step 4 – Specifying Intended Outcomes, and Step 5 – Developing and Educational Design." The implementation phase of this program development model is program delivery with the results phase including evaluation and interpretation (Boleman et al., 2005). While this program development model is simple and straightforward, it is effective in producing change in society.

Supplementation of this program development model is conducted by volunteers working with county extension agents to implement outreach educational programs. First and foremost, volunteers are utilized in program planning, specifically through a committee system which helps with issue identification, utilizing and outside-in planning (Lockett et al., 2009). Texas AgriLife Extension Service's program development model is illustrated in Figure 1 (Boleman et al., 2005):

Figure 1.

Texas AgriLife Extension Service Program Development Model (Boleman et al., 2005).



CHAPTER III

METHODOLOGY

Purpose of This Study

As stated in Chapter I, the purpose of this study was to measure self-assessed differences in perceptions of county extension agents regarding their volunteer management competencies. County extension agents working in the disciplines of Agriculture, Agriculture/Natural Resources, Natural Resources, and Family and Consumer Sciences were selected to participate in this study. The primary focus of this study was to identify differences between agent demographics as they relate to the location characteristics of each county. The secondary purpose of this study was to determine correlations between volunteer management perceptions.

Research Design

This study was conducted as a self-assessment of county extension agents working for the Texas AgriLife Extension Service. Potential respondents were notified of the study and scheduled data collection duration. At the beginning of data collection, respondents were directed, via electronic notification using the AgriLife Extension electronic mail directory, to the questionnaire. Responses were recorded on a daily basis. Two following notices were sent to non-responders, one as a reminder notice and the second as a final reminder. Post data collection, responses were formatted to SPSS and data were analyzed using descriptive and inferential statistics.

The researcher developed an instrument which was completed by county extension agents working in the subject matter areas of agriculture and family and

consumer sciences. The county extension agents addressed the following research questions:

1. What are the demographics of county extension agents working for the Texas AgriLife Extension Service? How do county extension agents view themselves and their roles when working with volunteers?
2. What are the county characteristics of Extension volunteers and volunteer programs in Texas? What are the volunteer management competencies utilized by county extension agents to develop, implement, and maintain a county-based extension program?
3. What are the differences in volunteer management based on location factors such as population size, staff size, etc.? What are the similarities in volunteer management based on location factors such as population size, staff size, etc.?
4. Is the ISOTURE model for volunteer management utilized by county extension agents working for the Texas AgriLife Extension Service? Are extension volunteers utilized in correct roles to assist with bringing relevant and research-based information to the people of Texas? If so, are there areas where extension can improve employee development to augment this situation? Is the recruitment process for extension volunteers successful? Are extension volunteers retained too long?
5. How do county extension agents perceive their volunteer programs are viewed by the clientele they serve? Are their volunteer programs viewed as important by their clientele? What benefits are county extension agents, communities, and counties receiving from extension volunteer programs?

The researcher developed a questionnaire which addressed the research questions. Content validity (Tuckman, 1999) was assessed by a panel of experts which will include Regional Program Directors and Organizational Development faculty and professionals employed by Texas AgriLife Extension Service and the Texas A&M University System. The panel had expertise in the areas of volunteer management and recruitment located throughout the diverse demographic and population density variations within the State of Texas.

The instrument was accessible through ZipSurvey™ (ZipSurvey, 2009). County extension agents who voluntarily participated in this study accessed the survey through an internet hyperlink embedded in the electronic notification. Completed questionnaires were saved in an Excel document after data collection was completed.

Limitations of This Study

The sampling method used yielded a response rate lower than 50%. Even with calculation of Cronbach's Alpha coefficient, there is a threat to external validity of this research. Also, the perceptions are a self-assessment of county extension agents working in the fields of agriculture, natural resources, and family and consumer sciences. Because of the self-assessment, the results could be distorted because they come from the respondent's point of view. Finally, there were CEAs working in different areas such as 4-H and youth development, urban development, etc. which were not included in this study.

Population and Sample

The target population of county extension agents employed by the Texas AgriLife Extension Service was included in this research project. At the time of the study, there were 613 county extension agents working in the State of Texas. These were divided into agriculture/natural resource (231), natural resource (7), family and consumer science (194), 4-H and youth development (75), integrated pest management (21), marine (5), urban youth development (3), horticulture (21), expanded nutrition (11), military program agents (32), and other (13) according to AgriLife Extension County Programs Human Resources (D. Bogart, personal communication, August 29, 2007).

The sample was developed using the current distribution list of the Texas AgriLife Extension Service electronic mail service. All county extension agents with the title of Agriculture, Agriculture/Natural Resources, Natural Resources, and Family and Consumer Sciences were notified of the study. Distribution lists of the Texas AgriLife Extension Service Information Technology electronic message system titled "CeaAg" and "CeaFCS" were used to identify the sample. County extension agents in all two hundred fifty-four counties who were working in the afore mentioned subject matter areas were notified.

Data Collection

The researcher notified each county extension agent currently serving in the disciplines of Agriculture, Agriculture/Natural Resources, Natural Resources, and Family and Consumer Sciences of their selection to voluntarily participate in this study. They were made aware of the objectives of this study and projected timeline for data collection

on October 3, 2008. On October 13, ten days later, an electronic message was sent to the participants notifying them the survey was open for participants to complete. A reminder notice was sent via electronic message on October 20, 2008, seven days after the first announcement. On October 24, 2008, eleven days after the opening of data collection, a final reminder notice was sent to the participants reminding them of the survey.

The survey was closed on October 24, 2008, at 10:00 pm. Respondents were given ten working days to complete this survey. In total, 451 county extension agents were asked to participate in this study, with 217 completing the survey. Response rate was 48.12%.

Instrumentation

The instrument for this study was in electronic format and was divided into three sections, general volunteerism, specified volunteerism as it relates to "Your Volunteer Group," and demographic data. It contained fifty-two statements regarding volunteerism. Of those fifty-two statements, 23 were general questions (section 1) about the respondent's perceptions of volunteerism. The following 29 statements (section 2), were related to a specific volunteer group which was identified by the respondent, and called "Your Volunteer Group" during the remainder of the survey. The participant was asked

to select a specified volunteer group which had eight predefined groups and one blank for "Other."

Section 3 of the instrument requested demographic data of the respondent. This included information relating to tenure, location, office staffing, career ladder level, and previous employment history with the Texas AgriLife Extesion Service. In total, there were seventeen questions concerning the respondent.

Section 1 and 2 statements were in Likert-type scales ranging from 1 (strongly disagree) to 5 (strongly agree). Internal consistency for each scale was determined by calculating Cronbach's Alpha for each scale within the instrument (Santos, 1999). Alpha scores for the statements ranged from 0.771 to 0.929 for the six scales in the instrument. A composite measurement for internal consistency for all 52 Likert-type statements was taken, yielding a Cronbach Alpha score of 0.898. This result indicates a high probability of the instrument eliciting the same responses if used by a different researcher (Santos, 1999). Table 2 indicates the alpha scores for the Likert-type scales utilized in this instrument.

Table 2.

Internal Scales of Reliability Coefficients.

Scale	Statement	n	Alpha[a]
General Extension Volunteer Program Perceptions		214	0.775
	Volunteer programs benefit your county/community. Extension volunteer programs set the standard for volunteer activities in your county. Your responsibility with Texas AgriLife Extension Service volunteer groups is aligning local goals with state goals. Volunteer programs are emphasized by your immediate supervisor. Volunteer programs are emphasized by your County Commissioners' Court. Extension volunteer programs are necessary to your county. Volunteer programs are used in collaboration with cooperating agencies/businesses/organizations.		
Volunteer Management Competencies		214	0.929
	Identification Selection Orientation Training Utilization Recognition Evaluation		
Extension Program Aspect Priorities		210	0.921
	Leadership Visibility Influence Marketability Interest		
Volunteer Roles		210	0.820
	Service Educator Leader Manager		

Table 2, Continued.

Scale	Statement	n	Alpha[a]
Impacts Of Your Volunteer Group On County Extension Programs		196	0.771
	Your Volunteer Group is effective in producing outcomes in your county.		
	In addition to education, Your Volunteer Group accomplishes more in terms of community service and/or citizenship than other volunteer groups in your county.		
	You are a very good recruiter of the right people for a specific role/job.		
	Time availability is an important selection criteria for volunteers.		
	You are very good at retaining volunteers.		
	An application process is utilized to recruit volunteers for Your Volunteer Group.		
	Recruitment for Your Volunteer Group is conducted by the County Extension Agent.		
	Recruitment for Your Volunteer Group is conducted by the other volunteers.		
	Volunteers are retained too long in Your Volunteer Group.		
	Your Volunteer Group leadership takes proactive approaches in program development.		
	The chair/president of Your Volunteer Group is recognized as the volunteer leader of the program.		
	Your Volunteer Group recognizes the chair/president as leader of Your Volunteer Group and the County Extension Agent as leader of the program.		
	Community groups contact you concerning utilization of Your Volunteer Group.		
	Business groups contact you to support Your Volunteer Group.		
	Interpretation efforts for Your Volunteer Group are conducted as a joint effort between the volunteer leadership and yourself.		

Table 2, Continued.

Scale	Statement	n	Alpha[a]
Impacts Of Your Volunteer Group On County Extension Programs		196	0.771
	Your Volunteer Group is active in your county. Your Volunteer Group is larger in number than surrounding counties with the same program. You feel confident having a volunteer management component in your Plan of Work. You feel confident when reporting your Master Volunteer activities. You feel confident when reporting volunteer activities. Volunteer management is integral to your success as a County Extension Agent. Your Volunteer Group hinders your ability to perform your job duties.		
Extension Programs - Activities/Results		200	0.757
	Single Informational Meetings Sequential Programs/Meetings Result Demonstrations Volunteer Development Organizational Development County Program Visibility Marketability of the Texas AgriLife Extension Service		

[a] Cronbach's alpha used

Data Analysis

SPSS 16.0 for Windows was utilized for calculating differences between variables collected through this study (SPSS, 2007). First, descriptive statistics were analyzed to provide summary data. Respondent's perceptions were described using crosstabulation, frequencies, and rankings.

Differences were measured utilizing two statistical tests. Independent samples *t*-tests were used to find differences between dependent variables relating to county

extension agent's location, tenure, office staffing patterns, time in county, gender, etc. Responses relating to perceptions of their volunteer programs were calculated to determine correlations. Analysis of variance (ANOVA) tests were utilized to perform multiple comparisons. The Tukey HSD analysis was conducted as a post hoc analysis to find further separations between means. Confidence interval for the Independent Samples T-Test, ANOVA, and Tukey HSD was at 0.05 level. In addition to the previous statitistical tests, effect sizes were also calculated. Cohen's d (Cohen, 1988) was used to determine small ($d<=0.2$), medium ($0.2<d<0.8$), and large ($d>=0.8$) effect sizes. Calculation of effect sizes were conducted utilizing Becker's (2000) calculator.

CHAPTER IV

MAJOR FINDINGS

The purpose of this study was to examine the perceptions held by county extension agents (CEA) regarding their volunteer management competencies. The composition of this research identified the diversity of county extension programs across the State of Texas in effort to determine relationships and differences. Additional examinations identified areas of differences based on county office structure, county population, and experience levels. The questions addressed in this research were:

1. What are the demographics of county extension agents working for the Texas AgriLife Extension Service? How do county extension agents view themselves and their roles when working with volunteers?
2. What are the county characteristics of extension volunteers and volunteer programs in Texas? What are the volunteer management competencies utilized by county extension agents to develop, implement, and maintain a county-based extension program?
3. What are the differences in volunteer management based on location factors such as population size, staff size, etc.? What are the similarities in volunteer management based on location factors such as population size, staff size, etc.?
4. Is the ISOTURE model for volunteer management utilized by county extension agents working for the Texas AgriLife Extension Service? Are extension volunteers utilized in correct roles to assist with bringing relevant and research-based information to the people of Texas? If so, are there areas where extension can improve employee development to augment this situation? Is the recruitment

process for extension volunteers successful? Are extension volunteers retained too long?

5. How do county extension agents perceive their volunteer programs are viewed by the clientele they serve? Are their volunteer programs viewed as important by their clientele? What benefits are county extension agents, communities, and counties receiving from extension volunteer programs?

For this study, the researcher developed a questionnaire which was distributed to 451 County Extension Agents (CEA) employed by the Texas AgriLife Extension Service. County extension agents operating in the subject matter areas of Agriculture / Natural Resources and Family and Consumer Sciences were utilized as respondents in this study. A total of 216 individual questionnaires were received to compile the data set.

Research Question 1 - County Extension Agent (Respondent) Demographics

The CEAs responding were near even in distribution with regard to gender, male (55%) and female (45%). The largest group responding within the two variables of gender and experience were 52 CEA with 3 years or less experience (24.9%). Additionally, 65% of the respondents had 12 years or less of experience. Table 3 shows a crosstabulation for respondents based on experience and gender.

Table 3.
Respondent Demographics Based on Gender and Experience Utilizing Crosstabulation.

Experience (Years)	Gender			
	Male	Female	Total	Percent of Total
< 3	23	29	52	24.9
4 - 6	11	11	22	10.5
7 - 9	25	11	36	17.2
10 - 12	14	12	26	12.4
13 - 15	3	3	6	2.9
16 - 18	14	4	18	8.6
19 - 21	6	3	9	4.3
22 - 24	4	1	5	2.4
25 - 27	10	9	19	9.1
28 - 30	4	7	11	5.3
31 and up	1	4	5	2.4
Total	115	94	209	100
Percent of Total	55.0	45.0	100	

Career Ladder ranking of respondents were primarily Level II or lower (73.4%) with 134 having served in 2 or less (64.4%) counties. The majority of respondents (79.6%) had only been employed by the Texas AgriLife Extension Service in the CEA. Fifty-six percent (56%) of the respondents were CEA working in the subject matter area of agriculture and natural resources. In regards to county responsibilities, 54.9% were county coordinators, 43.3% were 4-H coordinators, and 32.6% were community/economic development coordinators.

County extension offices in Texas range in size from single agent staffing patterns to large offices which include county directors and multiple agents working within the same subject matter areas (Texas AgriLife Extension Service, 2009e). The majority of

respondents (72.4%) were from county populations of fifty thousand or less, with 60% of those coming from an office with two or less agents. Additionally, 85.6% of the respondents had two or less secretarial or support staff positions. Ninety-five percent (95.8%) of respondents stated they had one or no part-time support housed in the office. Further responses concerning 68.6% of county extension agents participating in this study did not have volunteers support housed in the office. Response ranks categorized by county population are illustrated in Table 4 and are crosstabulation of the same demographics are illustrated in Table 5.

Table 4.
Ranking of Respondents by County Population.

Population	Number of Responses	Percent	Ranking
Less than 10,000	72	33.3	1
10,001 - 30,000	54	25.0	2
30,001 - 50,000	26	12.0	3
100,001 - 250,000	19	8.8	4
50,001 - 75,000	11	5.1	5
75,001 - 100,000	8	3.7	6
500,001 - 1, 000,000	8	3.7	6
250,001 - 500,000	7	3.2	7
More than 1,000,000	5	2.3	8
Missing Data	6	2.8	--
Total	216	100.0	--

Table 5.

Respondent Demographics Based on CEA Gender and County Population Using Crosstabulation.

County Population	Gender			
	Male	Female	Total	Percent of Total
Less than 10,000	47	25	72	34.4
10,001 - 30,000	30	24	54	25.8
30,001 - 50,000	14	12	26	12.4
50,001 - 75,000	5	6	11	5.3
75,001 - 100,000	2	6	8	3.8
100,001 - 250,000	10	9	19	9.1
250,001 - 500,000	2	5	7	3.3
500,001 - 1,000,000	4	3	7	3.3
More than 1,000,000	1	4	5	2.4
Total	115	94	209	100
Percent of Total	55	45	100	

Respondents' primarily perceived themselves as educators/trainers (78.2 %) versus program managers (18.1%) or volunteer managers (0.5%), with 84.2% agreeing or strongly agreeing volunteer programs are emphasized by their immediate supervisor. CEA perceptions related to county environments also showed positive results. Ninety-three and one-half percent (93.5%) of respondents agreed or strongly agreed volunteer programs are necessary for their county with 44.4% agreeing or strongly agreeing those programs are also emphasized by their commissioners' court. Finally, 97.7% of CEA agreed or strongly agreed volunteer programs benefit their county.

Respondents were asked if they had ever worked for AgriLife Extension prior to their appointment as a CEA. Of those respondents, 83.9% had held only a position as a CEA during their extension career. Results are illustrated in Table 6.

Table 6.

Previous Respondent AgriLife Extension Appointments Correlating to Gender Utilizing Crosstabulation.

Previous Appointment	Gender			
	Male	Female	Total	Percent of Total
Extension Assistant	11	5	16	7.8
Extension Associate	3	1	4	2.0
Program Specialist	0	3	3	1.5
Program Assistant	1	1	2	0.9
Extension Agent - IPM	0	1	1	0.5
County Funded Paraprofessional	1	0	1	0.5
Support Staff	0	0	0	0.0
Intern	4	2	6	2.9
No Other Position	91	81	172	83.9
Total	111	94	205	100
Percent of Total	54.2	45.8	100	

Research Question 2 - Extension Volunteer Program Characteristics

County extension agents agree to strongly agree with the components of the ISOTURE model. All components of the model yielded frequencies in excess of 90% agree to strongly agree relating to identification, selection, orientation, training, and recognition. Evaluation (87.6%) was the only competency having a frequency of less than 90% selection of agree or strongly agree.

Respondents were also asked to measure their level agreement regarding the importance of the volunteer program aspects of leadership, visibility, influence, marketability, and interest. The statement joined the program aspects related to county

program growth. CEA responses yielded frequencies in excess of 90% agree to strongly agree on all five aspects.

Extension programs require volunteers to serve in a number of different roles. Respondents were asked to indicate their level of agreement regarding volunteer roles of service, educator, leader, and manager. Responses indicated frequencies in excess of 90% agree to strongly agree with the roles of service and leader. The roles of educator and manager had in excess of 80% agree to strongly agree.

Question five (5) of the survey instrument asked respondents to identify a volunteer group which they would utilize a reference for following questions. This volunteer group then became referenced in the instrument as "Your Volunteer Group." Respondents were give eight (8) pre-identified groups for this question which were: Master Volunteer Group, Youth Board, Family & Consumer Sciences Program Area Committee, Result Demonstration Cooperators, Leadership Advisory Board, Task Force / Coalition, Agriculture Program Area Committee, and CRED Program Area Committee. An additional selection for "Other (please specify)" was also a selection for respondents. Table 7 ranks the selection made by respondents concerning their referencing volunteer group.

Table 7.

Ranking of Volunteer Groups Utilized by County Extension Agents.

Volunteer Group	Number of Responses	Percent	Ranking
Leadership Advisory Board	62	28.7	1
Master Volunteer Group	47	21.8	2
Result Demonstration Cooperators	29	13.4	3
CRED Program Area Committee	22	10.2	4
Youth Board	19	8.8	5
Agriculture Program Area Committee	13	6.0	6
Other 4-H&YD	9	4.2	6
Family & Consumer Sciences Program Area Committee	5	2.3	7
Other ANR	3	1.4	8
Other FCS	3	1.4	9
Task Force / Coalition	2	0.9	10
Missing Data	2	0.9	--
Total	216	100.0	--

Significant differences (α=0.05) between respondents from large population counties (more than 75,000 people) was identified concerning volunteer recruitment. Mean differences were found utilizing an independent samples T-test to analyze county extension agent volunteer recruitment techniques. Results of the test show county extension agents from lesser populated counties (less than 75,000 people), disagree with agents from higher populated areas that "their volunteer group recruits volunteers." Although, results from this test were statistically significant, effect sizes of the differences were both medium. Analyses indicate close mean values in the neutral range based on the Likert-type scale questions asking respondents about two basic recruitment

techniques. These were that the CEA recruited the volunteer group and conversely the volunteer group conducted recruitment. The results show CEAs working in lower populated counties tended to perceive they performed more recruitment than their volunteer group. Conversely, in higher populated counties, the perception was that the volunteer group performed more of the recruitment. Results of this test are illustrated in Table 8.

Table 8.

Independent Samples t-Test for County Populations with a Cutpoint of 75,000 Regarding Recruitment.

Test Variable	Population	Equal Variances Assumed	df	Mean[a]	t	Sig	d
"recruitment for YVG is conducted by the CEA"	<= 75,000 >75,000	NO	67.685	3.9202 3.5532	2.338	0.022	0.4010
"recruitment for YVG is conducted by the other volunteers"	<= 75,000 >75,000	NO	88.017	3.6481 3.9362	2.173	0.032	0.3418

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Responses concerning the respondent's primary volunteer group showed Leadership Advisory Boards (28.7%), Master Volunteer Groups (21.8%), and Result Demonstration Cooperators (13.4%) as highest ranking groups when self evaluating volunteer management competencies. Over half of the respondents (57.6%) indicated they worked with result demonstration cooperators, and 52.4% responded that result demonstrations were important to their primary volunteer group.

Concerning their volunteer management competencies, respondents agreed to strongly agreed their programs benefited their community/county (μ=4.59), were emphasized by their supervisor (μ=4.15), were necessary to their county (μ=4.40), and were used in collaboration with cooperating agencies/businesses/organizations.

However, respondents neither agreed nor disagreed their volunteer programs were emphasized by their commissioners' court (μ=3.38).

Respondents were asked concerning their perceptions relating to program characteristics and their impact on program growth. Data collected indicates respondents agreed to strongly agreed leadership (μ=4.55), visibility (μ=4.52), influence (μ=4.37), marketability (μ=4.39), and interest (μ=4.53) were important characteristics to program growth.

When asked about volunteer roles, respondent perception was fairly similar. Ranked means relating to service, educator, leader, and manager indicate the role of service (μ=4.47) as highest among responses. Numerically, this agrees with respondent perception concerning outcomes relating to volunteer management. Respondents indicated they agree their volunteers produce outcomes (μ=4.07). However, respondents tend to neither agree nor disagree their volunteer programs accomplish more than other volunteer groups in their county (μ=3.47).

Research Question 3 - Volunteer Management Differences

Sixty-six (66, 31.4%) of respondents answered they had volunteers working in the county extension office to assist with serving county clientele. A statistical test (independent samples t-test) was conducted to compare means of those offices which have volunteers assisting CEA at some level to those offices (144 respondents, 66.7%) which do not utilize volunteers. CEA answering "Yes" had a higher level of agreement relating volunteer management competencies to their success. Volunteer competencies of orientation and evaluation, were determined to be more important to CEA working with volunteers in their office setting. Furthermore, CEA with volunteers working in their office were more likely to utilize a volunteer application process. They also indicated their volunteer group had a larger proactive role in the respective agent's program development process. Further differences were identified concerning program interpretation and activity. CEA using volunteers in the office setting also stated the volunteer leader was recognized as the leader of the volunteer program, and they also perceived a larger involvement of the volunteer group within the community. Effect sizes of these results showed to be medium. Results of these analyses are illustrated in Table 9.

Table 9.

Independent Samples t-Test for Extension Programs Having Volunteers Who Serve in the Extension Office.

Test Variable	Volunteers Work In The Office	Equal Variances Assumed	df	Mean[a]	t	Sig	d
volunteer orientation	Yes No	YES	208	4.5152 4.2708	2.138	0.034	0.3273
volunteer recognition	Yes No	NO	158.045	4.6212 4.3958	2.130	0.035	0.3023
volunteer evaluation	Yes No	YES	208	4.2879 3.9306	2.536	0.012	0.3850
use of volunteer application process	Yes No	NO	106.256	2.8939 2.5278	2.076	0.040	0.3198
“volunteer leadership proactive in program development”	Yes No	YES	208	4.0909 3.8403	2.237	0.036	0.3116
“chair/president identified as leader of the volunteer program”	Yes No	YES	208	4.0909 3.7639	2.726	0.007	0.4090
“interpretation efforts conducted jointly between CEA and volunteer leadership”	Yes No	YES	206	4.1077 3.7622	2.761	0.006	0.4137
“volunteer group is active in county”	Yes No	YES	207	4.3788 4.1119	2.665	0.008	0.4161

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

In addition to testing volunteer management competencies relating to volunteers assisting in the office, dependent variables relating to volunteer management were compared based on CEA ranking in the Texas AgriLife Extension Service career ladder. Table 10 illustrates means associated with the One-Way ANOVA.

Table 10.

Mean Values of CEA Perceptions on Volunteer Management from One-Way ANOVA Testing Differences in CEA Career Ladder Rankings.

	Mean			
Statement	I n=93	II n=59	III n=35	IV n=20
"Extension volunteer programs set the standard for volunteer activities in your county"	3.7527	3.8305	3.4000	3.3500
"Your responsibility with AgriLife Extension volunteer groups is aligning local goals with state goals."	3.7634	3.6780	3.4000	3.2500
"Extension volunteer programs are necessary to your county."	4.5054	4.4407	4.0571	4.3158
"Recruitment for YVG is conducted by the CEA."	4.0215	3.7966	3.5714	3.5000
"Volunteers are retained too long in YVG."	2.9355	3.0339	2.6000	2.3500
"Your volunteer group is larger in number than surrounding counties with the same program."	2.9570	3.3390	3.0000	3.2000
"You feel confident having a volunteer management component in your plan of work."	3.9011	3.6271	3.8000	4.4000
"Volunteer management is integral to your success as a CEA."	4.4444	4.4237	4.0571	4.4500

Variables tested showed significant differences between CEA career ladder rankings using a One-Way ANOVA (results in Table 11). A Tukey HSD post hoc analysis was performed for further mean comparison. Results indicated a difference in levels of agreement between CEA with career ladder rankings of Level I and Level III when testing perceptions of the overall volunteer program. Respondents were asked to determine their level of agreement using a Likert-type scale with the following statement, "Extension volunteer program are necessary to your county." CEA with a career ladder ranking of Level I had a higher level of agreement than those with a Level III ranking. Results also indicated differences between CEA Level I and Level II when questioning the size of their volunteer program compared to those in surrounding counties with the same program. Level II CEA were neutral regarding answers concerning the following statement, "YVG is larger in number than surrounding counties with the same program." Level I CEA disagreed with this statement and these means were significantly different from the results of the post hoc analysis.

Table 11.

One-Way ANOVA for County Extension Agent Perceptions of Volunteer Management and Career Ladder Ranking.

Test Variable		Sum of Squares	df	Mean Square	F	Sig
"Extension volunteer programs set the standard for volunteer activities in your county"	Between Groups	6.747	3	2.249	2.843	0.039
	Within Groups	160.567	203	0.791		
	Total	167.314	206			
"Your responsibility with AgriLife Extension volunteer groups is aligning local goals with state goals."	Between Groups	6.530	3	2.1777	3.030	0.030
	Within Groups	145.827	203	0.718		
	Total	152.357	206			
"Extension volunteer programs are necessary to your county."	Between Groups	5.370	3	1.790	3.552	0.015
	Within Groups	101.781	202	0.504		
	Total	107.150	205			
"Recruitment for YVG is conducted by the CEA."	Between Groups	7.994	3	2.665	3.444	0.018
	Within Groups	157.088	203	0.774		
	Total	165.082	206			
"Volunteers are retained too long in YVG."	Between Groups	9.862	3	3.287	2.895	0.036
	Within Groups	230.495	203	1.135		
	Total	240.357	206			

Table 11, Continued.

Test Variable		Sum of Squares	df	Mean Square	F	Sig
"Your volunteer group is larger in number than surrounding counties with the same program."	Between Groups	5.819	3	1.940	2.693	0.047
	Within Groups	146.248	203	0.720		
	Total	152.068	206			
"You feel confident having a volunteer management component in your plan of work."	Between Groups	9.303	3	3.101	3.175	0.025
	Within Groups	196.307	201	0.977		
	Total	205.610	204			
"Volunteer management is integral to your success as a CEA."	Between Groups	4.222	3	1.407	2.720	0.046
	Within Groups	103.465	200	0.517		
	Total	107.686	203			

The majority of the county offices in the state of Texas have two agents (Texas AgriLife Extension Service, 2009e). Primarily, the positions are agriculture/natural resources and family and consumer sciences. One hundred twenty-six (126) of the respondents selected an office staffing pattern of two or less agents while 84 of the respondents selected 3 or more. Differences in volunteer management competencies were tested relating to these staffing patterns.

Differences between CEA perceptions of the ISOTURE model in relation to county staffing patterns were identified. No significance was found concerning identification and selection of volunteers. Significance was found when testing the ISOTURE components of orientation, training, utilization, recognition, and evaluation.

The results showed to be positive, however CEA working in counties with more than two agents consistently showed to have numerically higher levels of agreement pertaining to all components of the ISOTURE model.

All means ranged above 4 (agree) with the exception of evaluation in counties with two or less agents. CEA in those counties maintained a more neutral perception regarding evaluation as a component to the success of their programs. Effect sizes for significant results were medium. Nonsignificant results relating to identification and selection also has small effect sizes. Results are located in Table 12.

Table 12.

Independent Samples t-Test for ISOTURE Volunteer Management Model and County Staffing Pattern.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
identification	> 2 agents <= 2 agents	YES	208	4.4405 4.4048	0.357	0.722	0.0516
selection	> 2 agents <= 2 agents	YES	208	4.5952 4.5079	0.878	0.381	0.1281
orientation	> 2 agents <= 2 agents	YES	208	4.4881 4.2540	2.163	0.032	0.3145
training	> 2 agents <= 2 agents	NO	205.154	4.5952 4.3095	2.956	0.003	0.3956
utilization	> 2 agents <= 2 agents	NO	204.273	4.6310 4.4400	2.116	0.036	0.2842
recognition	> 2 agents <= 2 agents	NO	207.348	4.6071 4.3730	2.335	0.020	0.3143
evaluation	> 2 agents <= 2 agents	NO	206.829	4.3214 3.8571	3.761	0.000	0.5125

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Responses relating to program aspects and their bearing on program growth were tested based on county staffing patterns. All means tested in this *t*-test showed CEA agreed these program aspects were important to program growth. Significance was found regarding the program aspect of leadership between staffing patterns. Both means indicate respondents in both groups agreed with this statement. Medium effect sizes were observed on statistically significant results while small effect sizes were noted on nonsignificant results. Results are located in Table 13.

Table 13.

Independent Samples t-Test for Importance of Program Aspects and County Staffing Pattern.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
leadership	> 2 agents <= 2 agents	NO	206.115	4.6667 4.4560	2.473	0.014	0.3337
visibility	> 2 agents <= 2 agents	YES	207	4.5714 4.4720	1.036	0.301	0.1507
influence	> 2 agents <= 2 agents	YES	205	4.3735 4.3548	0.183	0.855	0.0267
marketability	> 2 agents <= 2 agents	YES	205	4.4940 4.3065	1.865	0.064	0.2737
interest	> 2 agents <= 2 agents	NO	206.701	4.6190 4.4720	1.706	0.090	0.2306

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Texas is a state with varying ranges in population per county. Harris County, where the county seat is Houston, has a population of 3,984,394 people. In contrast, Texas' least populated county of Loving, where the county seat is Mentone, has a population of 42 people (U. S Census Bureau, 2009). An ANOVA was performed to test

differences between county extension agent perceptions of their volunteer management competencies based on the size of their county populations. Differences between respondents were observed concerning volunteer management, outcomes and results, recruitment, interpretation, and activities. Results are illustrated in Table 14.

Table 14.

One-Way ANOVA for County Extension Agent Perceptions of Volunteer Management and County Populations in the State of Texas.

Test Variable		Sum of Squares	df	Mean Square	F	Sig
"volunteer management - evaluation"	Between Groups	20.216	8	2.527	2.946	0.004
	Within Groups	172.399	201	0.858		
	Total	192.614	209			
"YVG is effective in producing outcomes in your county."	Between Groups	15.425	8	1.928	2.861	0.005
	Within Groups	134.767	200	0.674		
	Total	150.191	208			
"an application process is utilized to recruit volunteers for YVG."	Between Groups	32.343	8	4.043	3.598	0.001
	Within Groups	225.872	201	1.124		
	Total	258.214	209			

Table 14, continued.

Test Variable		Sum of Squares	df	Mean Square	F	Sig
"interpretation efforts for YVG are conducted as a joint effort between the volunteer leadership and yourself."	Between Groups	18.221	8	2.278	3.453	0.001
	Within Groups	131.275	199	0.660		
	Total	149.495	207			
"activity/result - volunteer development."	Between Groups	11.866	8	1.483	2.057	0.042
	Within Groups	144.220	200	0.721		
	Total	156.086	208			

Respondent perceptions relating to the ISOTURE model were tested based on county population. An independent samples *t*-test was conducted segregating counties with a population of less than 50,000 and those having a population in excess of 50,000. No difference was found relating to identification and selection of volunteers. However, CEA working in counties with populations in excess of 50,000 had a significantly higher level of agreement concerning the remaining concepts of the ISOTURE model. Particularly different were the means regarding the component of evaluation (>=50,000 - 4.4828, < 50,000 - 3.8750). CEA working in lower populated counties were neutral concerning volunteer evaluation as an important component to their success where those in larger counties had a strong level of agreement. Population comparisons of the ISOTURE had medium effect sizes. Low effect sizes were found for nonsignificant results. Results of this test are illustrated in Table 15.

Table 15.

Independent Samples t-Test for ISOTURE Volunteer Management Model and County Population.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
identification	>= 50,000 < 50,000	YES	208	4.4655 4.4013	0.586	0.559	0.0971
selection	>= 50,000 < 50,000	YES	208	4.5690 4.5329	0.330	0.741	0.0549
orientation	>= 50,000 < 50,000	NO	173.732	4.6207 4.2434	4.034	0.000	0.5499
training	>= 50,000 < 50,000	NO	184.027	4.7241 4.3092	4.623	0.000	0.6202
utilization	>= 50,000 < 50,000	NO	166.841	4.6724 4.4570	2.437	0.016	0.3363
recognition	>= 50,000 < 50,000	NO	170.761	4.6724 4.3882	2.953	0.004	0.4043
evaluation	>= 50,000 < 50,000	NO	164.815	4.4828 3.8750	5.224	0.000	0.7217

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Program aspects related to county program growth were tested for differences between county populations. Significance was determined in four of the five aspects. While there were significant differences between the means, the separation was not outside the Likert-type scale between 4 (agree) and 5 (strongly agree). Additionally, effect sizes were medium. Additionally, the observed effect size for the tested variable of influence was medium while not being statistically significant. Results are illustrated in Table 16.

Table 16.

Independent Samples t-Test for Importance of Program Aspects and County Population.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
leadership	>= 50,000	NO	169.831	4.7586	3.704	0.000	0.5088
	< 50,000			4.4750			
visibility	>= 50,000	NO	159.776	4.6724	2.572	0.011	0.3587
	< 50,000			4.4503			
influence	>= 50,000	YES	205	4.4821	1.469	0.143	0.2505
	< 50,000			4.3179			
marketability	>= 50,000	YES	205	4.5965	2.712	0.007	0.4596
	< 50,000			4.3000			
interest	>= 50,000	NO	156.279	4.6724	2.290	0.023	0.3211
	< 50,000			4.4768			

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

County extension agents were asked to respond to statements about the roles volunteers fill in their county programs. The four roles identified were service, educator, leader, and manager. No differences were found, with the exception the volunteer role of educator. CEA working in counties with populations in excess of 50,000 were significantly more likely to have volunteers in the role of an educator. Nonsignifcant results showed to have small effect sizes. Observed effect size for the significant comparison of population and volunteer role of educator was medium. Results are located in Table 17.

Table 17.

Independent Samples t-Test for Volunteer Roles and County Population.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
service	>= 50,000 < 50,000	YES	206	4.4912 4.4503	0.403	0.687	0.0561
educator	>= 50,000 < 50,000	YES	206	4.4211 4.0199	3.057	0.003	0.4910
leader	>= 50,000 < 50,000	YES	205	4.3333 4.3133	0.185	0.853	0.0299
manager	>= 50,000 < 50,000	YES	205	4.0351 4.0600	0.181	0.857	0.0285

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Question 5 asked respondents to identify a volunteer group they worked closely with to be identified as "Your Volunteer Group" (YVG). Questions following the selection of YVG were related to increased size and scope of the county program as an effect of utilizing the respondent's primary volunteers. Selections for YVG included the following:

- Master Volunteer Group (MVG)
- Youth Board (YB)
- Family & Consumer Sciences Program Area Committee (FCSPAC)
- Result Demonstration Cooperators (RDC)
- Leadership Advisory Board (LAB)
- Task Force/Coalition (TFC)
- Agriculture Program Area Committee (APAC)
- Community Resource/Economic Development (CRED) Program Area Committee (CREDPAC)

Respondent rankings of this selection are illustrated in Table 18 where crosstabulation was utilized to categorize the selection based on a population break of 50,000. Selections compiled to be less than 9.0% were categorized as others.

Table 18.

Respondent Answers to Selection of "Your Volunteer Group" Correlating to a County Population Break at 50,000 Using Crosstabulation.

"Your Volunteer Group"	Population			
	>= 50,000	< 50,000	Total	Percent of Total
Leadership Advisory Board	12	50	62	29.5
Master Volunteer Group	15	29	44	21.0
Result Demonstration Cooperators	2	27	29	13.8
CRED Program Area Committee	16	6	22	10.5
Youth Board	0	19	19	9.0
Others (<9.0%)	13	21	34	16.2
Total	58	152	210	100
Percent of Total	27.6	72.4	100	

Variables were further tested utilizing a Tukey HSD through the SPSS system. Differences between volunteer management competencies based on county population were found when analyzing the efficacy of "Your Volunteer Group" in producing outcomes. County extension agents working in lowly populated counties, less than 10,000 citizens, indicated a lower level of agreement than those working in higher populated counties, populations of 100,001 to 250,000 people.

Three population groups disagreed with the statement, "an application process is utilized to recruit volunteers for Your Volunteer Group." County extension agents working in counties with populations of less than 10,000, 10,001 - 30,000, and 250,001 - 500,000 indicated disagreement and were different from CEA working in counties with a population range of 50,001 - 75,000. Respondents working in those counties with populations between 50,001 and 75,000 had a neutral to agreeable perception (μ=3.7273).

Significance was also found regarding the use of current volunteers recruiting new volunteers. County extension agents in counties with a population of less than 10,000 maintained a neutral position regarding recruitment while respondents working in counties with a population range of 10,001 to 30,000 showed a more agreeable perception.

Differences concerning interpretation were identified between respondent's perceptions in counties with a population of less than 10,000 and respondents working in counties with populations ranging from 75,001 to 100,000. County extension agents working in low population counties had a neutral perception (μ=3.6620) when asked whether they utilized volunteers for interpretation efforts with stakeholders. County extension agents working in counties with higher populations (75,001 - 100,000) perceived a highly agreeable response (μ=4.6250) indicating they perform joint interpretations to stakeholders. Results are illustrated in Table 19.

Table 19.

Tukey HSD Mean Comparison for County Extension Agent Perceptions of Volunteer Management by County Populations in the State of Texas.

Test Variable	Post hoc Variable	Mean	Standard Error	Sig
"YVG is effective in producing outcomes in your county."	less than 10,000 100,001 - 250,000	3.7500 4.5263	0.21172	0.009
"an application process is utilized to recruit volunteers for YVG."	50,001 - 75,000 less than 10,000 10,001 - 30,000 250,001 - 500,000	3.7273 2.3889 2.5556 1.7143	 0.34317 0.35067 0.51254	 0.004 0.027 0.004
"recruitment for YVG is conducted by the other volunteers."	less than 10,000 10,001 - 30,000	3.3611 3.8679	0.15488	0.034
"interpretation efforts for YVG are conducted as a joint effort between the volunteer leadership and yourself."	less than 10,000 75,001 - 100,000	3.6620 4.6250	0.30290	0.044

Research Question 4 - Volunteer Utilization in the Texas AgriLife Extension Service

Levels of agreement of volunteer management competencies relating to identification, selection, orientation, training, utilization, recognition, and evaluation of volunteers were tested. Mean results indicated respondents agreed to strongly agree with each of these competencies: identification (μ=4.42), selection (μ=4.54), orientation (μ=4.35), training (μ=4.42), utilization (μ=4.51), recognition (μ=4.47), and evaluation (μ=4.05).

Crosstabulation of data based on categorized by career ladder ranking and measuring responses relating to recruitment and selection showed most agreed they were "good recruiters of volunteers" (70.6%), and they also agreed they were "good at retaining volunteers" (77.2%). Corresponding with this data was the neutral to strong disagreement perceptions relating to the statement, "volunteers are retained to long" (71.0%). Crosstabulation results of county extension agent career ladder rankings and volunteer recruitment statements are located in Table 20.

Table 20.

Responses Based on Professional Career Ladder Ranking Corresponding with Volunteer Recruitment Utilizing Crosstabulation.

Recruitment	n	Career Ladder Ranking	1[a]	2[a]	3[a]	4[a]	5[a]	Total	Percent of Total
"Good Recruiter of Volunteers"	207	I	0	6	23	51	13	93	44.9
		II	0	2	15	34	8	59	28.5
		III	0	0	12	19	4	35	16.9
		IV	0	1	2	10	7	20	9.7
Total			0	9	52	114	32	207	100
Percent of Total			0.0	4.3	25.1	55.1	15.5	100	
"Good at Retaining Volunteers"	206	I	0	2	16	60	15	93	45.1
		II	1	1	11	35	10	58	28.2
		III	0	1	10	21	3	35	17.0
		IV	0	1	4	11	4	20	9.7
Total			1	5	41	127	32	206	100
Percent of Total			0.5	2.4	19.9	61.7	15.5	100	
"Volunteers Are Retained Too Long"	207	I	9	25	29	23	7	93	44.9
		II	3	13	25	15	3	59	28.5
		III	4	17	6	5	3	35	16.9
		IV	5	7	4	4	0	20	9.7
Total			21	62	64	47	13	207	100
Percent of Total			10.1	30.0	30.9	22.7	6.3	100	

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

County extension agents who have served in more than 3 counties perceive more use of volunteers as educators (μ=4.23) than those who have served in 3 counties or less (μ=3.93). This independent sample T-test had significance of 0.028 with equal variances not assumed in this analysis. Additionally, agents with experience in more counties indicated the chair/president of their volunteer group was recognized as the leader of the volunteers and the CEA as leader of the program, while less traveled agents did not have this perception. Significance of this independent sample *t*-test was 0.024 with equal

variances assumed. One difference found while analyzing number of counties served, was the difference in utilization of result demonstration cooperators. Agents having served in 3 or less counties utilized result demonstration cooperators at a significantly higher level than those more traveled agents. The independent sample *t*-Test resulted in a difference of 0.038 not assuming equal variances. Effect sizes were medium for this comparison. Results are illustrated in Table 21.

Table 21.

Independent Sample t-Test for Agent Service and Volunteer Competencies.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
volunteers as educators	<=3	NO	115.394	3.9315	-2.223	0.028	0.3376
	>3			4.2331			
chair/president of their volunteer group was recognized as the leader	<=3	YES	204	3.7778	-2.282	0.024	0.3333
	>3			4.0746			
work with result demonstration cooperators	<=3	NO	158.621	1.3243	-2.089	0.038	0.3000
	>3			1.4701			

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

The questionnaire asked respondents to identify what was the best description of their title. Based on responses from this question, CEA working in different subject matter areas were compared utilizing an Independent samples *t*-Test. Comparison variables included extension volunteer competencies, program formats, program support, and program perception. Mean differences were identified between AGNR and FCS CEA concerning volunteer orientation and evaluation. AGNR CEA less strongly agreed concerning the importance of orientation and evaluation than FCS CEA. Another

difference identified was in the program aspect of interest. AGNR CEA perceived program interest as less important than FCS CEA. Further analyses of these two groups of CEA indicate differences in the levels of agreement concerning volunteer roles. FCS CEA stated a more agreeable perception with the use of volunteers as educators for their programs. However, they also indicated they differed in perception relating to the leadership of their volunteer programs, where AGNR CEA felt the volunteer leadership was in more control of their program. AGNR CEA also indicated a significantly higher level of support of their volunteer programs from businesses. The final difference identified with these two groups was the importance of sequential activities/events as part of their volunteer educational program. FCS CEA stated higher level of agreement concerning sequential activities as important activities for their volunteer groups. Calculated effect sizes for this test were medium. The *t*-test comparisons of agriculture and natural resources and family and consumer sciences agents are located in Table 22.

Table 22.

Independent Sample t-Test for Agriculture & Natural Resources (AGNR) and Family & Consumer Sciences (FCS) County Extension Agents.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
volunteer orientation	AGNR FCS	YES	195	4.2477 4.5000	2.279	0.024	0.3285
volunteer evaluation	AGNR FCS	YES	195	3.8532 4.2841	3.169	0.002	0.4548
program interest	AGNR FCS	YES	194	4.4495 4.6437	2.041	0.043	0.2958
volunteer role as educator	AGNR FCS	YES	193	3.9720 4.3295	2.914	0.004	0.4221
volunteer chair/president as leader of program	AGNR FCS	NO	172.940	3.9908 3.7159	2.305	0.022	0.3329
Businesses contact CEA to support volunteers	AGNR FCS	YES	195	3.5229 3.1705	2.494	0.013	0.3590
Importance of sequential programs/meetings	AGNR FCS	YES	193	3.8704 4.1379	2.241	0.026	0.3203

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

An independent samples t-test was utilized in a mean comparison of Youth Board and Leadership Advisory Board (LAB) perceptions of CEA. CEA selecting Youth Boards and "Your Volunteer Group" had a stronger level of agreement volunteer selection was important to their success. This trend of emphasis in Youth Boards of Leadership Advisory Boards was also significantly different in three other volunteer management competencies. CEA using Youth Boards in this instrument indicated higher levels of agreement based on importance in the following variables: 1) program aspects of leadership in terms of program growth, and 2) volunteer roles as an educator. Additionally, CEA perceived greater collaborative functionality of Youth Boards in

comparison to LAB. Respondents stated greater level of agreement concerning volunteer accomplishments and utilization from outside community groups and their perception of Extension volunteers. Differences were observed concerning community service and the use of Youth Boards and LAB within their perspective communities. Effect sizes of this test range from low to high. Results are illustrated in Table 23.

Table 23.
Independent Samples t-Test for Youth Board and Leadership Advisory Board (LAB).

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
volunteer selection	Youth Board LAB	N6	54.328	4.7895 4.5161	2.032	0.047	0.4543
program aspect - leadership	Youth Board LAB	N6	48.599	4.7895 4.5161	2.128	0.038	0.4689
volunteer role - educator	Youth Board LAB	YES	78	4.3684 3.7541	2.928	0.004	0.8684
volunteer group accomplishments in community service / citizenship	Youth Board LAB	YES	78	3.8421 3.1475	2.545	0.013	0.6867
community group utilization of volunteer group	Youth Board LAB	YES	79	3.7895 3.1290	2.566	0.012	0.6883

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Further analyses were conducted concerning CEA volunteer perceptions concerning respondent selection of "Your Volunteer Group. Master volunteer groups (MVG) and leadership advisory boards (LAB) were compared using an independent samples t-test for mean comparison. Results of these comparisons indicated significant

differences in volunteer management competencies, program aspects, and volunteer roles. CEA selecting MVG as their reference group for this research had a greater level of agreement concerning volunteer management competencies as necessary for success of their program.

Primarily, the following competencies of utilization, recognition, and evaluation were perceived as more important to the CEA success. Additionally, program aspects relating to volunteers were also more important to CEA utilizing MVG. Those program aspects were visibility and interest. Volunteer roles of service, educator, leader, and manager were also significantly different between respondents who selected MVG. According to the data, CEA using MVG perceived a greater need for volunteers fulfilling these roles.

Finally, two other CEA perceptions regarding volunteerism were significantly different. CEA referencing MVG indicated a higher level of disagreement than those referencing LAB concerning volunteer retention. Those referring to MVG did not perceive volunteers were retained too long, while those referring to LAB were closer to neutral. Furthermore, LAB, as indicated by CEA, had stronger support from businesses.

Effect size for this test shows results ranging from small to large. Results of these analyses are in Table 24.

Table 24.

Independent Samples t-Test for Master Volunteer Group (MVG) and Leadership Advisory Board (LAB).

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
volunteer utilization	MVG LAB	NO	102.945	4.6383 4.3770	2.177	0.032	0.4111
volunteer recognition	MVG LAB	NO	104.935	4.6383 4.3387	2.333	0.022	0.4386
volunteer evaluation	MVG LAB	YES	107	4.3191 3.9355	2.240	0.027	0.4345
program aspect – visibility	MVG LAB	YES	106	4.6522 4.4032	2.048	0.043	0.4097
program aspect - interest	MVG LAB	YES	106	4.6957 4.3710	2.779	0.006	0.5556
volunteer role - service	MVG LAB	YES	106	4.6383 4.3770	2.109	0.037	0.4145
volunteer role - educator	MVG LAB	YES	106	4.4681 3.7541	4.697	0.000	0.9282
volunteer role - leader	MVG LAB	YES	105	4.5319 4.1500	2.920	0.004	0.5796
volunteer role - manager	MVG LAB	YES	105	4.2553 3.9167	2.137	0.035	0.4203
volunteers retained too long	MVG LAB	YES	107	2.7234 3.1452	2.103	0.038	0.4119
businesses contact CEA to support volunteers	MVG LAB	YES	104	2.9773 3.5000	2.782	0.006	0.5485

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Previous results list the number of responses per group where a *t*-test was utilized to find differences between groups with larger response numbers. After results of the independent samples t-test showed differences between CEA perceptions concerning "Your Volunteer Group," groups were tested for further differences relating to volunteer recruitment utilizing a One-Way ANOVA. Question five (5) also had a category for "Other" which had a text box allowing respondents to specify the volunteer group selection. Question six (6) asked for the title of the selected group. Based on responses in the "Other" text box, "Other" selections were categorized into other agriculture and natural resources committee, other 4-H and youth development committee, and other family and consumer sciences committee. Mean values of each group are listed in Table 25.

Results indicated differences in CEA perceptions between various volunteer groups selected during data collection. Significant differences were found between groups relating to outcomes produced through volunteer efforts and community service or citizenship of the volunteer group. Additional differences were found concerning recruitment competencies relating to the groups.

Table 25.

Mean Values of Master Volunteer Group (MVG), Youth Board (YB), Family & Consumer Sciences Program Area Committee (FCSPAC), Result Demonstration Cooperators (RDC), Leadership Advisory Board (LAB), Task/Force Coalition (TFC), Agriculture Program Area Committee (APAC), CRED Program Area Committee (CREDPAC), Other ANR Committee (ANRC), Other 4-H&YD Committee (4HYDC), and Other FCS Committee (FCSC) from One-Way ANOVA of Your Volunteer Group (YVG).

	Mean				
YVG	YVG is effective in producing outcomes in your county.	YVG accomplishes more in terms of community service/ citizenship than other VG.	An application process is utilized to recruit volunteers for YVG.	Recruitment for YVG is conducted by the other volunteers.	Volunteers are retained too long in YVG.
MVG N=47	4.1064	3.4468	2.5319	3.8723	2.7234
YB n=19	3.6316	3.8421	2.5263	3.3158	3.0526
FCSPAC n=5	4.2000	2.4000	2.0000	2.6000	2.0000
RCD n=29	4.0000	3.6552	2.5862	3.4828	3.0690
LAB n=62	4.0000	3.1475[a]	2.5484	3.5902[a]	3.1452
TFC n=2	5.0000	5.0000	2.0000	3.5000	3.0000
APAC n=13	4.6923	3.1538	2.1538	3.9231	2.5385
CREDPAC n=22	4.3182	3.9091	4.0000	4.3182	2.3636
ANRC n=2	4.5000	4.0000[b]	2.0000[b]	3.6667[b]	1.6667[b]
4HYDC n=9	3.7778	3.4444	2.5556	3.8889	2.8889
FCSC n=3	3.3333	4.3333	2.0000	5.0000	2.3333

[a] n for LAB is 61

[b] n for ANRC is 3

Table 26.

One-Way ANOVA for County Extension Agent Perceptions of "Your Volunteer Group" (YVG).

Test Variable		Sum of Squares	df	Mean Square	F	Sig
"YVG is effective in producing outcomes in your county."	Between Groups	15.126	10	1.513	2.153	0.022
	Within Groups	141.953	202	0.703		
	Total	157.080	212			
"YVG accomplishes more in terms of community service / citizenship than other volunteer groups."	Between Groups	29.019	10	2.902	2.902	0.002
	Within Groups	201.967	202	1.000		
	Total	230.986	212			
"An application process is utilized to recruit for YVG."	Between Groups	50.552	10	5.055	4.869	0.000
	Within Groups	210.743	203	1.038		
	Total	261.294	213			
"Recruitment for YVG is conducted by the other volunteers."	Between Groups	26.812	10	2.681	2.141	0.000
	Within Groups	138.286	202	0.685		
	Total	165.099	212			
"Volunteers are retained too long in YVG."	Between Groups	23.460	10	2.346	2.141	0.023
	Within Groups	222.451	203	1.096		
	Total	245.911	213			

The Tukey HSD test was performed as a post hoc analysis of the ANOVA for further mean comparisons. Table 26 illustrates the differences identified through the One-Way ANOVA.

Post hoc analysis of two of the five variables indicating differences showed no further mean separation. Those tested were "YVG accomplishes more in terms of community service / citizenship than other volunteer groups in your county" and "volunteers are retained too long in YVG." Three other variables relating to volunteer recruitment indicated differences between volunteer groups identified by CEA in question five of the instrument.

CEA perceptions of their selected volunteer group relating to outcomes as a result of volunteer activities differed among groups. Respondents identifying master volunteer groups, family and consumer sciences program area committees, result demonstration cooperators, leadership advisory boards, task force/coalition, community resource/economic development program area committees, and other agriculture/natural resource, 4-H and youth development, family and consumer sciences committees indicated no differences. Mean comparisons of youth boards and agriculture program area committees did result in differences using a post hoc analysis. CEA identifying agriculture program area committees indicate a stronger perception of outcomes produced from the programs originating from the direction of these committees.

Respondents were asked about their use of an application process while recruiting volunteers. Differences between YVG were identified through post hoc analyses. CEA identifying master volunteer group, youth board, family and consumer sciences program area committees, result demonstration cooperators, leadership advisory board, and

agriculture program area committee as YVG disagreed with the statement, “An application process is utilized to recruit volunteers for YVG.” These means were significantly different from CEA identifying community resource/economic development program area committee as YVG, based on results from the Tukey HSD post hoc test. Task force/coalition, other agriculture and natural resources committee, and other family and consumer sciences committee were not different from either of the two previous groups.

CEA were asked about their level of agreement relating to volunteer recruitment by other volunteers who were already members of the program. The Lickert Scale statement prompted respondents to indicate their level of agreement with the following statement, “Recruitment for YVG is conducted by the other volunteers.” Further mean separation using a Tukey HSD indicated differences between a number of the volunteer groups. Recruitment for member of master volunteer groups and community resource and economic development committees, tend to rely on current volunteers for growth of the group. These perceptions were different from those CEA identifying youth board, family and consumer sciences program area committee, result demonstration cooperators, land leadership advisory board. Results of the Tukey HSD post hoc analysis are located in Table 27.

Table 27.

Tukey HSD Mean Comparison for County Extension Agent Perceptions of Volunteer Management by Your Volunteer Group (YVG) Which Includes Master Volunteer Group (MVG), Youth Board (YB), Family & Consumer Sciences Program Area Committee (FCSPAC), Result Demonstration Cooperators (RDC), Leadership Advisory Board (LAB), Task Force/Coalition (TFC), Agriculture Program Area Committee (APAC), Community Resource/Economic Development Program Area Committee (CREDPAC), Other ANR (ANRC), Other 4-H&YD (4HYDC), and Other FCS (FCSC).

Test Variable	Post hoc Variable	Mean	Standard Error	Sig
… is effective in producing outcomes in your county.	APAC	4.6923		
	YB	3.6316	0.30173	0.023
"An application process is utilized to recruit for YVG."	CREDPAC	4.0000		
	MVG	2.5319	0.26320	0.000
	YB	2.5623	0.31910	0.000
	FCSPAC	2.0000	0.50479	0.005
	RDC	2.5862	0.28807	0.000
	LAB	2.5484	0.25285	0.000
	APAC	2.0000	0.35643	0.000
	4HYDC	2.5556	0.40316	0.018
"Recruitment for YVG is conducted by the other volunteers."	CREDPAC	4.3182		
	YB	3.3158	0.25913	0.007
	FCSPAC	2.6000	0.40992	0.002
	RDC	3.4828	0.23393	0.019
	LAB	3.5902	0.20577	0.021
	FCSPAC	2.6000		
	MVG	3.8723	0.38921	0.048
	CREDPAC	4.3182	0.40992	0.002
	FCSC	5.0000	0.60424	0.005
	FCSC	5.0000		
	YB	3.3158	0.51403	0.047
	FCSPAC	2.6000	0.60424	0.005

Previous results have indicated significant differences relating to the statement, "volunteers are retained too long." An independent samples T-test was constructed with a set cutpoint of three (3) using responses categorized as neutral to strongly disagree (Group 1) tested against respondents who either agreed or strongly agreed (Group 2) with this statement. The statement concerning volunteer retention was utilized as the independent variable tested against other respondent perceptions. Results of this test

show differences with within this group correlating with other variables regarding volunteer management, program development, volunteer groups, experience, and roles.

Respondents identified in Group 1 felt less affirmative concerning the statement, "YVG is effective in producing outcomes in your county." Another result of the T-test was relating to the statement, "YVG leadership takes proactive approaches in program development." Respondents of Group 1 were significantly different than those of Group 2, maintaining a mean value indicating neutrality with this statement.

County extension agents (CEA) who responded in Group 2 had a stronger perception in agreement with the statement, "interpretation efforts are conducted as a joint effort between the volunteer leadership and yourself." Those in Group 1 were comparably more neutral. Question 11.5 of the instrument stated, "YVG hinders your ability to perform your job duties." Respondents in both groups disagreed with this statement; however there was a statistical difference between the two means with Group 1 being more neutral with the statement in question 11.5.

Additional results of this test were found in the section of the instrument denoted to identifying important activities and results of extension volunteer programs. Group 2 indicated a higher level of importance concerning sequential informational meetings. They were also had a greater agreement with activities relating to volunteer development. The last two variables tested in this section compared Group 1 and Group 2 concerning "Your Volunteer Group" results of organizational development and program visibility. Perceptions of Group 2 were significantly more agreeable with those two variables than the respondents in Group 1. Results of these independent samples T-test are located in Table 28.

Table 28.

Independent Sample t-Test for "Volunteers Retained Too Long" and Volunteer Competencies.

Test Variable	Group	Equal Variances Assumed	df	Mean	t	Sig	d
volunteer role - educator	2 (>=3) 1 (<3)	YES	210	3.9683 4.4070	3.754	0.000	0.5372
"YVG is effective in producing outcomes in your county."	2 (>=3) 1 (<3)	YES	211	3.9055 4.3023	3.381	0.001	0.4841
"YVG leadership takes proactive approaches in program development."	2 (>=3) 1 (<3)	NO	210.499	3.7937 4.1149	3.093	0.002	0.4185
"Interpretation efforts for YVG are conducted as a joint effort between the volunteer leadership and yourself."	2 (>=3) 1 (<3)	NO	192.349	3.7500 4.0476	2.572	0.011	0.3590
"YVG hinders your ability to perform your job duties."	2 (>=3) 1 (<3)	NO	204.445	2.2033 1.7619	3.378	0.001	0.4636
Activity/Result - sequential programs/meetings	2 (>=3) 1 (<3)	YES	206	3.8800 4.1446	2.287	0.023	0.3241
Activity/Result - volunteer development	2 (>=3) 1 (<3)	YES	207	3.7857 4.0843	2.468	0.014	0.3507
Activity/Result - organizational development	2 (>=3) 1 (<3)	YES	203	3.6960 4.1000	3.202	0.002	0.4613
Activity/Result - county program visibility	2 (>=3) 1 (<3)	YES	205	4.2000 4.3902	1.982	0.049	0.2839

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Result demonstrations have been used as a consistent outreach teaching method since the inception of the cooperative extension service (Boleman and Dromgoole, 2007). Result demonstration cooperators (RDC) are utilized by CEA throughout the State of Texas, primarily in agriculture program areas. Results of an independent samples T-test showed significant differences corresponding with volunteer management competencies, volunteer roles, program aspects, and relationships pertaining to the respondent's selected volunteer group, "Your Volunteer Group." General volunteer competencies were answered prior to the respondent selecting the volunteer group which they utilized for the remainder of the questionnaire as a personal reference.

The independent samples *t*-test examined CEA who utilized result demonstration cooperators (Group 1) and those who do not use result demonstration cooperators (Group 2). Differences were found between thirteen (13) variables. Group 1 was less agreeable concerning the importance of volunteer orientation. They were also less agreeable with the importance of training and utilization of their volunteers. Group 1 volunteer recognition and evaluation competency statements also had a lower level of agreement.

Respondents in Group 1 and Group 2 differed in perceptions relating to program marketability and interest according to results from the independent samples T-test. Group 2 respondents indicated a significantly higher level of marketability of their program. Additionally, Group 2 also perceived a higher degree of interest in their program. Respondents in Group 2 placed a significantly higher value on volunteer service. The final differences between these two groups were identified in the volunteer role of educator. Respondents not utilizing result demonstration cooperators showed to have a significantly higher use of their volunteers as educators.

Respondents in Group 2 showed a high level of agreement with the statement, "recruitment for YVG is conducted by the other volunteers." However, Group one respondents maintained a more neutral perception concerning the statement, "volunteers are retained too long." The statement "business groups contact you to support YVG" also showed a more agreeable perception with Group 1.

Effect sizes ranged from small to medium for all comparisons. Results of this test are listed in Table 29.

Table 29.

Independent Sample t-Test for County Extension Agent Perceptions of Result Demonstration Cooperators (RDC) and Volunteer Management.

Test Variable	Group	Equal Variances Assumed	df	Mean	t	Sig	d
volunteer competency - Orientation	1 (YES) 2 (NO)	YES	208	4.2149 4.5281	2.946	0.004	0.4201
volunteer competency - Training	1 (YES) 2 (NO)	YES	208	4.3058 4.5843	2.633	0.009	0.3772
volunteer competency - Utilization	1 (YES) 2 (NO)	NO	206.003	4.4250 4.6404	2.315	0.022	0.3152
volunteer competency - Recognition	1 (YES) 2 (NO)	NO	207.515	4.3471 4.6292	2.756	0.006	0.3746
volunteer competency - Evaluation	1 (YES) 2 (NO)	YES	208	3.8430 4.3146	3.618	0.000	0.5095
program aspect - Marketability	1 (YES) 2 (NO)	YES	205	4.2810 4.5233	2.436	0.016	0.3515
program aspect - Interest	1 (YES) 2 (NO)	NO	201.480	4.4132 4.6932	3.295	0.001	0.4447
volunteer role - Service	1 (YES) 2 (NO)	YES	206	4.3782 4.5730	2.155	0.032	0.3056
volunteer role - Educator	1 (YES) 2 (NO)	YES	206	3.9496 4.3708	3.589	0.000	0.5131
“recruitment for YVG is conducted by the other volunteers”	1 (YES) 2 (NO)	NO	206.331	3.6000 3.8652	2.148	0.027	0.3059
“volunteers are retained too long in YVG”	1 (YES) 2 (NO)	YES	208	2.9917 2.6629	2.206	0.028	0.3128
“business groups contact you to support YVG”	1 (YES) 2 (NO)	YES	208	3.5455 3.1798	2.690	0.008	0.3769
Activities/Results - result demonstration	1 (YES) 2 (NO)	NO	118.482	4.2000 4.7386	2.944	0.004	0.4320

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Research Question 5 - Introspective Perceptions of County Extension Agents Regarding Their Volunteer Programs

Respondents were asked to measure their level of agreement with four different statements relating to their perceptions of how their volunteer programs are viewed by external entities. The statements were formatted in Likert-type scale questions requiring the respondent to indicate their level of agreement with the statement. The following statements were related to external perceptions:

- Extension volunteer programs set the standard for volunteer activities in your county (Set The Standard).
- Volunteer programs are used in collaboration with cooperating agencies/businesses/organizations (Collaboration).
- Community groups contact you concerning utilization of YVG (Utilization).
- Business groups contact you to support YVG (Support).

Results of this test showed CEA maintained neutral attitudes regarding the value of their volunteer programs. Both population groups agreed concerning the use of volunteers in collaboration with other organizations. CEA working in counties with higher populations were different from those in lower populations, indicating they have higher degrees of collaboration with external agencies/businesses/organizations. The final two variables showed CEA neither agreed nor disagreed pertaining to external utilization and support. Statistically significant results had medium observed effect sizes while nonsignificant data had a small to medium range of effect sizes. Results are illustrated in Table 30.

Table 30.

Independent Samples t-Test for External Perceptions and County Population.

Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
Set The Standard	>= 50,000 < 50,000	NO	157.696	3.6034 3.7105	1.700	0.091	0.1172
Collaboration	>= 50,000 < 50,000	YES	207	4.3966 4.1921	2.015	0.045	0.3300
Utilization	>= 50,000 < 50,000	YES	208	3.5345 3.3092	1.397	0.164	0.2114
Support	>= 50,000 < 50,000	YES	208	3.4483 3.3684	0.523	0.602	0.0797

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Respondents were given the following statement, "Volunteer management is integral to your success as a CEA." Results showed differences between Level I and Level III CEA in this study. While both groups agreed with this statement, Level I CEA had a significantly higher level of agreement. These results correspond with frequencies relating to volunteer roles. CEA agreed or strongly agreed with the volunteer role of service at a rate in excess of 90%. Furthermore, volunteers utilized as educators resulted in 80.7% of respondents agreeing or strongly agreeing with this statement.

An analysis was conducted relating to CEA roles, and differences were found between those who identified themselves as educators/trainers and program managers. Test variables which were significantly different included volunteer selection, volunteers as educators, and volunteer retention. These results were obtained from analyzing Likert-type scale questions concerning levels of agreement (1 = strongly disagree to 5 = strongly agree). Effect sizes were medium. Results of the independent samples T-test for county extension agent roles are located in Table 31.

Table 31.

Independent Sample t-Test for Levels of Agreement Regarding Respondents' Perception of Their Role as a CEA.

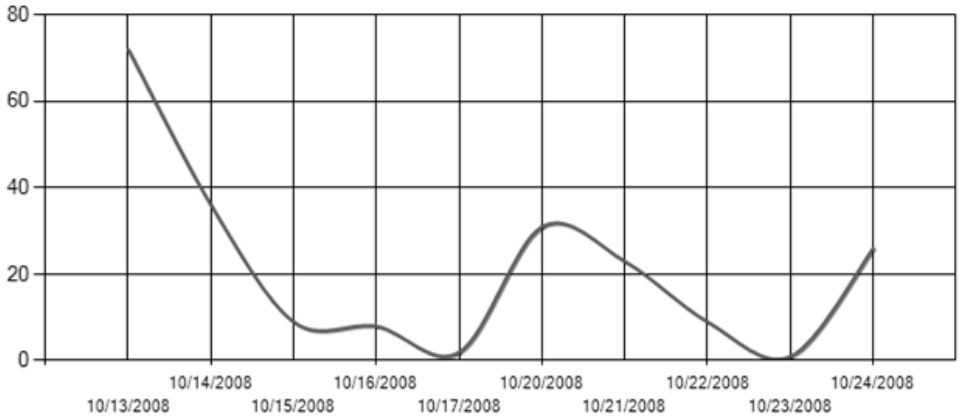
Test Variable	Group	Equal Variances Assumed	df	Mean[a]	t	Sig	d
volunteer selection	Educator/Trainer Program Manager	NO	92.012	4.4970 4.7179	2.375	0.020	0.3563
volunteers as educators	Educator/Trainer Program Manager	YES	204	4.1796 3.8718	2.026	0.044	0.3690
volunteers are retained too long	Educator/Trainer Program Manager	YES	206	2.7515 3.2564	2.673	0.008	0.4825

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Nonresponse Error Handling

Response rate of this study was 48.12%, which based on the review of literature, is a threat to external validity of this research (Lindner et al., 2001). Using their procedures for handling nonresponse issues in social science, the researcher compared early responders to late responders. In this study, there was a large response (>70) on the first day the survey was open and a lag towards the closing date which was October 24, 2008. Response rates by day are illustrated in Figure 2.

Figure 2.
Response Rates by Day.



For the purposes of this study, the first 75 responses were coded as early responders. The last 50 respondents were coded as late responders. An independent samples *t*-test was conducted on reoccurring variables were differences were noted previously in the results. No significant differences were noted between early and late responders regarding responses with the exception of program aspect - Leadership. Variable 3.1, program aspect - Leadership, did show a difference between early responders (μ=4.4730) and late responders (μ=4.7000). Additionally, question 3.1 was a Likert-type scale question with a range of 1 (strongly disagree) to 5 (strongly agree). Numeric indications of the means show both groups agree on the importance of this program aspect. A construct of early and late responders concerning all program aspect variables are listed in Table 32.

Table 32.

t-Test Comparison of Early and Late Responders to the Survey.

Test Variable	Early Mean	Late Mean	df	Sig
program aspect - Leadership	4.4730	4.7000	116.541	0.015
program aspect - Visibility	4.5541	4.5600	122	0.954
program aspect - Influence	4.3151	4.4600	121	0.213
program aspect - Marketability	4.3514	4.4898	121	0.221
program aspect - Interest	4.5676	4.6200	122	0.588

[a] 1=strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

In Table 8, the researcher identified variable 3.1, program aspect - Leadership, as perceived differently by respondents who had identified higher importance on leadership when using a Youth Board as "Your Volunteer Group" (YVG). Based on conclusions of the nonresponder analysis, as outlined by Linder, Murphy, and Briers (2001), these data are not representative of the population. However, all other data are deemed to be generalized to the population based on this test.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Research findings are summarized in this chapter. Additionally, results ascertained from this study have been organized to provide positive impacts for the Texas AgriLife Extension Service and Cooperative Extension Systems in other states regarding management of volunteers who greatly assist with the size and scope of Extension outreach educational efforts nationwide.

Summary

The purpose of this study was to have county extension agents working for the Texas AgriLife Extension Service self-assess various volunteer management competencies. Agents working in the fields of agriculture and family and consumer sciences answered Likert-type scale questions regarding competencies associated with general volunteer management and further questions concerning a specific volunteer group each respondent identified while completing the survey. Questions relating to extension programming environment in addition to personal characteristics were also completed to give the researcher parameters for comparing the data.

Research Questions

The researcher developed a questionnaire based on specific research questions. County Extension Agents addressed the following questions based on their perceptions of volunteerism relating to extension programming:

1. What are the demographics of county extension agents working for the Texas AgriLife Extension Service? How do county extension agents view themselves and their roles when working with volunteers?
2. What are the county characteristics of Extension volunteers and volunteer programs in Texas? What are the volunteer management competencies utilized by county extension agents to develop, implement, and maintain a county-based extension program?
3. What are the differences in volunteer management based on location factors such as population size and staff size? What are the similarities in volunteer management based on location factors such as population size and staff size?
4. Is the ISOTURE model for volunteer management utilized by county extension agents working for the Texas AgriLife Extension Service? Are extension volunteers utilized in correct roles to assist with bringing relevant and research-based information to the people of Texas? If so, are there areas where extension can improve employee development to augment this situation? Is the recruitment process for extension volunteers successful? Are extension volunteers retained too long?
5. How do county extension agents perceive their volunteer programs are viewed by the clientele they serve? Are their volunteer programs viewed as important by their clientele? What benefits are county extension agents, communities, and counties receiving from extension volunteer programs?

Summary of Review of Literature

Extension has been an avenue of the land-grant university system to bring scholarship to the people (Rasmussen, 1989). What started with agriculture and home economics demonstration work has evolved into a system which covers multiple aspects of life for citizens utilizing the cooperative extension system of their state. Programs are delivered to clientele through a number of different systems which include meetings, publications, demonstrations, and online delivery.

The Texas AgriLife Extension Service is the cooperative extension system for the state of Texas. It encompasses in excess of 600 county-based faculty members who provide educational programs in the areas of agriculture and natural resources, family and consumer sciences, 4-H and youth development, and community resource and economic development. Texas ranges widely in population from the least populated county of Loving (population 42) to higher populated urban centers such as Harris County where the population is near 4 million (U. S Census Bureau, 2009). Additionally, Texas is a large state geographically where climates differ and agriculture practices vary in different parts of the state. Due to these challenges, county extension agents provide a diversity of educational programs and delivery methods.

According to Brudney and Gazley (2002), there are three assumptions which are realized when volunteerism is utilized by a business, agency, organization, etc. First they elaborated on the assumption of cost savings. By the very nature of the word volunteer, individuals assume that people operating under the veil of volunteerism are free labor. The second assumption regarding volunteerism is expanded service (Brudney & Gazley, 2002). They suggest that most groups who explore the use of volunteers feel they will be

able to grow in size and scope while operating within the confines of their budget. The third assumption concerning utilization of a volunteer program is the impact on the paid staff (Brudney & Gazley, 2002). Their study indicated a negative impact concerning paid staff due to negative perceptions toward volunteers. The individual perception listed in this study was volunteers will replace paid positions. Brudney and Gazely (2002) stated some paid employees indicated during poor fiscal durations, volunteers fill positions which were previously held by paid employees.

The use of volunteers adds credibility to extension educational programs on a number of different fronts (Boleman and Burkham, 2005b). An internal publication written by Boleman and Burkham (2005b) stated several points which make the utilization of volunteers favorable to Extesnion programs. The use of volunteers increases the size and scope of educational programs. Additionally, volunteers add credibility to educational activities because they are not paid employees.

Due to the diverse nature of Texas, county extension agents rely heavily on volunteers to assist with planning, implementation, evaluation, and interpretation of educational programs. In doing this, the Texas AgriLife Extension Service has internally publicized the ISOTURE model of volunteer management. This model has seven major concepts which outline volunteer management. They include volunteer identification, selection, orientation, training, utilization, recognition, and evaluation.

Extension's program development model utilizes three phases: planning, implementation, and evaluation. This model is further categorized within each section to provide county extension agents with an outline do develop successful educational programs.

Instrumentation

The researcher notified each county extension agent currently serving in the disciplines of Agriculture, Agriculture/Natural Resources, Natural Resources, and Family and Consumer Sciences of their selection to voluntarily participate in this study. They were made aware of the objectives of this study and projected timeline for data collection on October 3, 2008. On October 13, ten days later, an electronic message was sent to the participants notifying them the survey was open for participants to complete. A reminder notice was sent via electronic message on October 20, 2008, seven days after the first announcement. On October 24, 2008, eleven days after the opening of data collection, a final reminder notice was sent to the participants reminding them of the survey.

The survey was closed on October 24, 2008, at 10:00 pm. Respondents were given ten working days to complete this survey. In total, 451 county extension agents were asked to participate in this study, with 217 completing the survey. Response rate was 48.12%.

The instrument for this study was in electronic format and was divided into three sections: general volunteerism, specified volunteerism as it relates to "Your Volunteer Group," and demographic data. It contained 52 statements regarding volunteerism. Of those fifty-two statements, 23 were general questions (section 1) about the respondent's perceptions of volunteerism. The following 29 statements (section 2), were related to a specific volunteer group which was identified by the respondent, and called "Your Volunteer Group" during the remainder of the survey. The participant was asked to select a specified volunteer group which had eight predefined groups and one blank for "Other."

Section 3 of the instrument requested demographic data of the respondent. This included information relating to tenure, location, office staffing, career ladder level, and previous employment history with the Texas AgriLife Extesion Service. In total, there were seventeen questions concerning the respondent.

Summary of Findings

Research Question 1

What are the demographics of county extension agents working for the Texas AgriLife Extension Service? How do county extension agents view themselves and their roles when working with volunteers?

This study was targeted at county extension agents serving in the subject areas of agriculture and natural resources and family and consumer sciences. Of the respondents, 65% had 12 years or less experience working for the Texas AgriLife Extension Service. Based on current staffing, 50.9% of county extension agents have less than 12 years of experience (D. Bogart, personal communication, September 22, 2009). Additionally, 73.4% were ranked at a Level II or less based on the County Extension Agent Career Ladder System which compares to 74.0% or current staff. Results also showed that 72.4% of respondents worked in counties with populations of 50,000 or fewer and 95.8% stated they had limited support staff housed in their office. Participants were asked how they viewed their position, and whether they perceived themselves as educators/trainers, program managers, or volunteer managers. A majority of respondents (78.2%) saw themselves as “educators/trainers” with 18.1% answering “program managers.” Only 0.5% of 217 respondents perceived themselves as volunteer managers. Significant

differences between respondents perceiving themselves as educators/trainers and program managers were found in a number of variables. Program managers felt more capable concerning volunteer selection, program viability, but felt less confident in reporting volunteerism through the Texas AgriLife Extension Service's accountability system. Educators/Trainers perceived higher utilization regarding volunteers as educators, felt they had stronger outcomes related to their volunteer program, and had more proactive volunteer involvement with program development.

Significant results were observed regarding public service as a county extension agent in multiple counties. Two groups were analyzed, those who worked in 3 or less counties and those who worked in 4 or more. Respondents who had served in 4 or more counties stated a higher reliance on volunteers as educators and more strongly agreed that the chair of their volunteer group was the recognized leader. However, county extension agents who had served in 3 counties or fewer were significantly more apt to utilize result demonstration cooperators.

For this study, county extension agents working in agriculture and natural resources (AGNR) and family and consumer sciences (FCS) were asked to participate. FCS agents were significantly more involved with volunteer orientation, evaluation, utilizing volunteers as educators, recognition of the chair/president as the leader of the program, and use of sequential programs/meetings. However, AGNR agents had a significantly higher level of agreement relating to general program interest and business support of their volunteer programs.

Research Question 2

What are the county characteristics of extension volunteers and volunteer programs in Texas? What are the volunteer management competencies utilized by county extension agents to develop, implement, and maintain a county-based extension program?

Participants of this study were asked general questions regarding volunteerism as well as questions targeted specifically at a volunteer group which was identified by the respondent in Question 5. 82.9% of respondents selected Leadership Advisory Board (28.7%), Master Volunteer Group (21.8%), Result Demonstration Cooperators (13.4%), Community Resource/Economic Development (CRED) Program Area Committee (10.2%), or Youth Board (8.8%).

Lower populated counties (<75,000) rely on CEA to provide leadership regarding volunteer recruitment. This contrasts with higher populated counties (>75,000) where volunteer groups take an active role in volunteer recruitment. The practicality of these results was observed through two tests. First, opposing statements were reflected reversely in the means, and secondly with both results having medium effect sizes.

Research Question 3

What are the differences in volunteer management based on location factors such as population size, staff size, etc.? What are the similarities in volunteer management based on location factors such as population size, staff size, etc.?

Results also showed 72.4% of respondents worked in counties with populations 50,000 or less and 95.8% stated they had limited support staff housed in their office.

County extension agents working in lowly populated counties, less than 10,000 citizens, indicated a lower level of agreement than those working in higher populated counties, populations of 100,001 to 250,000 people when comparing outcomes produced from volunteer groups.

Three population groups disagreed with the statement, "an application process is utilized to recruit volunteers for Your Volunteer Group." County extension agents working in counties with populations of less than 10,000, 10,001 - 30,000, and 250,001 - 500,000 indicated disagreement and were different from CEA working in counties with a population range of 50,001 - 75,000. Significance was also found regarding the use of current volunteers recruiting new volunteers.

Differences concerning interpretation were identified between respondents' perceptions in counties with populations of less than 10,000 and respondents working in counties with populations ranging from 75,001 to 100,000. County extension agents working in counties with higher populations perceived a significantly higher agreement indicating they perform joint interpretations to stakeholders.

The ISOTURE model, program aspects, and volunteer roles were compared within two groups. Those groups included number of agents and by population with a break at 50,000. Statistical results showed differences between means relating to a number of test variables. Furthermore, gaps between the means were numerically low. However, effects sizes were medium, supporting the validity of these differences. Particularly of interest in the ISOTURE model were the two variables of training and evaluation. AgriLife Extension has placed high value on these two components which is

validated by their effect size values being the highest with both population groups and agent capacity.

Research Question 4

Is the ISOTURE model for volunteer management utilized by county extension agents working for the Texas AgriLife Extension Service? Are extension volunteers utilized in correct roles to assist with bringing relevant and research-based information to the people of Texas? If so, are there areas where extension can improve employee development to augment this situation? Is the recruitment process for extension volunteers successful? Is volunteer service for extension volunteers retained too long?

The research identified the ISOTURE model (Dodd & Boleman, 2007) as one volunteer management model accepted by the Texas AgriLife Extension Service for use in volunteer development. Respondents were asked about their levels of agreement, using Likert-type scale questions concerning identification, selection, orientation, training, utilization, recognition, and evaluation. County extension agent perceptions were analyzed in several different tests with the following results. Agents identifying themselves as program managers had a significantly greater level of agreement on the importance of selection. FCS agents agreed at a significantly higher level concerning orientation and evaluation of volunteers. Selection was a key component of volunteer management when identifying membership for leadership advisory boards over youth boards. Training, utilization, recognition, and evaluation were significantly more important to county extension agents identifying master volunteer groups as their specific volunteer group for this study over leadership advisory boards. Extension offices which

have volunteers working in the office place a greater importance on orientation, recognition, and evaluation. Respondents who do not utilize result demonstration cooperators placed a significantly higher importance on orientation, training, utilization, recognition, and evaluation.

County extension agents who identified themselves as educators/trainers were significantly higher in agreement to use volunteers as educators which were similar to agents who had served in more than three counties. Additionally, FCS agents were more likely to also use their volunteers as educators. When comparing leadership advisory boards to youth boards, agent perceptions showed significant differences regarding volunteer roles. Youth board volunteers were significantly more utilized as leaders and educators.

Additionally, in another comparison where leadership advisory boards and master volunteer groups were compared, there were significant differences in agreement levels concerning volunteer roles. Agents identifying youth boards as their primary volunteer group significantly utilized their volunteers in roles of service, leadership, management, and education.

An analysis was conducted regarding the question of volunteer retention as being too long. Respondents with neutral or disagreeing perceptions were grouped for comparison against the second group which had an agreeable opinion with the retention statement. Those who disagreed that volunteers were retained too long utilized volunteers as educators on a more frequent basis. Respondents who did not utilize result demonstration cooperators were different from those who did and stated that they have greater use for volunteer service and use as educators.

Significant differences regarding volunteer selection, leadership, roles as educators and leaders, community service/citizenship, and utilization were found between leadership advisory boards and youth boards. In all categories, there was a significantly higher level of agreement from county extension agents regarding youth boards over leadership advisory boards. A second analysis yielded similar results when comparing leadership advisory boards to master volunteer groups. Significant differences were found regarding training, utilization, recognition, evaluation, viability, interest, service, roles as educators, roles such as service, roles as leaders, roles as managers, and volunteer retention. In all these analyses, county extension agent perception was significantly more agreeable on activity and utilization of master volunteer groups.

Comparisons were made of volunteer groups such as LAB, MVG, and YB relating to volunteer management competencies, program aspects, and volunteer roles. Statistical significance was found with a large number of variables with close mean values. Effect sizes, however, ranged from medium to large. Particular observations of the volunteer role of educator showed to have large effect sizes. Practicality of this information shows LAB have lower utility for volunteers as educators than youth boards. This trend is also observed in comparisons of LAB and MVG. Furthermore, comparisons of those who do not use result demonstration cooperators and those who do have a higher medium effect size. This is also observed when discussing disagree groups relating to the statement of "volunteers are retained too long." Agents disagree with this statement have greater use of volunteers as educators with this point being validated by a higher medium effect size.

Research Question 5

How do county extension agents perceive their volunteer programs are viewed by the clientele they serve? Are their volunteer programs viewed as important by their clientele? What benefits are county extension agents, communities, and counties receiving from extension volunteer programs?

Respondents were asked a number of questions of their awareness relating to external perceptions of their volunteer programs. Furthermore, program aspects relating to their volunteer groups were analyzed with Liket-type scale questions. Participants in this study who selected leadership advisory boards as their primary volunteer group were significantly more agreeable that businesses supported their programs. Extension offices that have volunteers serving during working hours indicated significantly higher in agreement concerning several areas which impact external perceptions. Respondents who have volunteers working in their extension office felt stronger about the statement concerning joint interpretation efforts between agents and volunteers. Also, they showed significance concerning their volunteer group's activity throughout the county.

Agents in higher populated counties (>50,000) felt their programs had greater functionality relating to collaboration, utilization, and external support. Statistical differences showed to have validity due to medium effect sizes. In regards to external view points, lower populated counties (<50,000) felt their volunteer program were more respected. Validation of this result was indicated by a medium effect size.

Conclusions and Recommendations

Based on the data collected from this study, the following is a list conclusions and recommendations for the Texas AgriLife Extension Service:

1. County extension agents perceive themselves primarily as educators/trainers (78.2%) and secondarily as program managers (18.1%). However, data gained from this study indicates each respondent, whether working in an urban or rural county; rely on volunteers to facilitate their outreach educational efforts. Results showed a majority of CEA agreed that the ISOTURE model for volunteer management was highly important to their success. Furthermore, a majority of CEA utilized volunteers in four specific programmatic roles: service, educator, leader, and manager. These results correspond with reviewed literature by Boleman and Burkham (2005b) who outlined the importance of volunteers and their necessity for successful county programs. Next, CEA who perceived themselves as educator/trainers, while still positive on the Likert-type scale questions, were significantly lower concerning the volunteer competency of selection and were lower when perceiving their program visibility. In contrast, they disagreed that "volunteers are retained too long." These results indicate CEA do not understand the relationship between volunteers and increased size and scope, which is identified as benefit of volunteer utilization by Boleman and Burkham (2005b).

   Associated Recommendation – Texas AgriLife Extension Service needs to continue training concerning volunteer management and the ISOTURE model. While county extension agents will be viewed as educators, each agent has to

become more aware of their time spent as a volunteer manager. Secondarily, the Texas AgriLife Extension Service should alter the general county extension agent job announcement to include volunteer management as a core duty of this position.

2. County offices who have volunteers assisting the county extension agents show to have a greater understanding of certain volunteer management competencies such as orientation, recognition, and utilization. The results of this study, while both positive, showed significant differences in means indicating county extension agents who have volunteers in the office have a greater understanding of the ISOTURE model. Also, county offices where population levels are greater than 50,000 placed a significantly higher importance on volunteer orientation, training, utilization, recognition, and evaluation of volunteers. They also placed significantly higher importance on program visibility and marketability.

   Associated Recommendation – With the population diversity of Texas, it is not feasible for every county to have volunteers working in their office. However, it is important for CEAs in counties with differing population sizes to be fundamentally sound in the practice of volunteer management. The Texas AgriLife Extension Service needs to provide opportunities for county extension agents observe different volunteer management strategies. Trainings which utilize county extension agents to expose their colleagues to new/different volunteer management strategies will increase the efficacy of all CEA. Additionally, the start of a program similar to Extension's First-Step program which specifically targets volunteer management, would provide this additional

exposure. Furthermore, volunteer mentoring similar to the mentorship program currently used could provide advanced training. AgriLife Extension currently has specialists working in the areas of volunteerism, so the infrastructure to develop this type of training is feasible.

3. Result demonstrations have been utilized by CEA since the authorization of the cooperative extension systems by the 1914 Smith-Lever Act. Result demonstration cooperators are a different volunteer group from others, such as advisory committees and master volunteer groups. Their motivations originate from a fiscal nature because the educational process derives from livelihood in the case of agriculture producers. Dromgoole and Boleman (2006) wrote about the economic competiveness of agriculture producers to maintain sustainability in their sector of agriculture production, so it is imperative CEA continue to work with this volunteer group. However, results show significantly lower importance placed on components (orientation, training, utilization, recognition, and evaluation) of the ISOTURE model for volunteer management. In order to maintain an economic advantage in an evolving field, such as agriculture production, results of the volunteer activity are more important than the development of the volunteers.

   Associated Recommendation – Texas AgriLife Extension Service should recognize result demonstration cooperator motivations are different from other volunteers such as master volunteer groups when presenting volunteer trainings. Volunteers who participate as result demonstration cooperators are seeking knowledge; however, this knowledge is more directly tied to their livelihoods.

Therefore, their interest in extension programs different from other volunteers. Volunteer trainings regarding result demonstration cooperators for new agents should be separated from trainings of other volunteers. This will ensure county extension agents have the knowledge and skills needed to serve this audience and meet their needs.

4. County extension agents who selected leadership advisory board as their volunteer group placed significantly less importance on ISOTURE management competencies in comparison other volunteer groups selected. Those identified were selection, utilization, and recognition. Dodd and Boleman (2005) wrote that the leadership advisory board should consist of opinion leaders who are advocates for AgriLife Extension. These points have to be addressed concerning selection and utilization if the expectations of a leadership advisory board are to be met. Furthermore, a leadership advisory board should correlate to the importance of program visibility and interest. However, results show significantly lower importance when compared with active master volunteer groups.

   Associated Recommendation – Texas AgriLife Extension Service should continue to refine the role of the leadership advisory board and add emphasis of this committee. Furthermore, greater emphasis of activity of these committees should be integrated to the county extension agent performance review. District Extension Administrators need to comprehensively evaluate and present stronger options for integrating this group as it is outlined by Boleman and Burkham (2005a). Also, the leadership advisory board is a group where all county

extension agents in the county office participate, which should provide a cohesive advocacy group for the county extension program.

5. Several ranges of county populations were tested to ascertain any differences between CEA volunteer management practices related to population size. Results showed there to be significant differences when comparing populations above and below 50,000. CEA working in counties with 50,000 or more placed a significantly higher importance on volunteer orientation, training utilization, recognition, and evaluation. Furthermore, there was a noticeable difference in attitude relating to volunteer evaluation with those working in larger population counties perceiving evaluation to be a very important. In terms of program growth, CEA working in counties with populations of 50,000 or more also placed significantly more importance on leadership, visibility and marketability of their programs due to volunteer involvement. They also felt their volunteers were significantly more capable of serving as educators. Additional results showed larger populated counties (100,001 - 250,000) were more effective in deriving outcomes from their volunteer programs. In summary, the results indicated higher populated counties relied on their volunteers and felt more comfortable utilizing the volunteers they trained.

   Associated Recommendation – Texas AgriLife Extension Service should develop specified trainings to assist agents in lower populated counties on how to correctly implement the ISOTURE volunteer management model. These trainings should include the importance of the volunteer model as a standard practice and offer opportunities for CEA in these counties.

6. Recently, the Texas AgriLife Extension Service has been in transition with two committees which are standardized throughout the state. Leadership advisory boards were previously known as extension program councils and youth boards were previously known as 4-H and youth development committees. In addition to changes in titles and membership, responsibilities of these committees have changed to encompass further roles for each of these groups (Boleman & Burkham, 2005a; Burkham & Boleman, 2005b). Results of this study show CEA felt youth boards are evolving as outlined by Burkham and Boleman (2005b). Key areas identified by CEA included volunteer selection, leadership, and use of volunteers as educators. Both groups have differing responsibilities and objectives; however, key concepts related to the ISOTURE model and should be static between these two committees. Additionally, CEA felt youth boards accomplished more in terms of community service and were utilized by other community groups. This data states CEA are using this group of volunteers and are visible to the public.

   Associated Recommendation – Texas AgriLife Extension Service should maintain their current position and training regarding youth boards as they show to meet protocols outlined by Burkham and Boleman (2005b).

7. Master volunteer groups are utilized by a large number of county extension programs with 21.8% of respondents selecting this type of group for reference in this study. Master volunteer groups require a certification process in order to obtain the title of master volunteer. Also, in groups of this nature, components of the ISOTURE model are necessary to maintain the functionality of these groups.

Therefore, the results that validate this premise were significant when testing volunteer competencies of this group to other groups such as a leadership advisory board. These programs also show to significantly higher visibility among external organizations, which provides benefits to CEA working with these groups. County extension agents also felt that volunteers working in these groups were not retained too long in comparison to other groups. This sets precedence within these groups that if a CEA is to expend the resources to train these volunteers, then they need to expanded service in various roles.

Associated Recommendation – Texas AgriLife Extension Service should continue to support these groups as respondents indicated they are being correctly trained, utilized, recognized, and evaluated. Furthermore, as indicated by the data summarized in Table 9, volunteer roles of service, educator, leader, and manager are perceived to be significantly higher than those respondents corresponding with leadership advisory boards.

Implications for the Texas AgriLife Extension Service

Volunteers are part of the Texas AgriLife Extension Service and have been since the first result demonstration was implemented. Based on the data collected from this study, county extension agents realize the importance of volunteers, yet they are hesitant to embrace the title of volunteer manager as one component of their job. Why is this? For the researcher, the answer lies in the response to question regarding the respondent's perception of their role. Over three-quarters of the respondents associated themselves and their profession as an educator/trainer. Historically, teachers have always held positions of respect and station. This can be traced back to the times of the ancient Greek philosophers, to the priests and scholars of the Middle Ages, and to finally to Justin Smith Morrill. One of the resonating comments in the many biographical literatures the researcher studied was that Justin Smith Morrill wanted an education, but had no access to higher education. Therefore, when he was in a position to enact legislation which brought scholarship to the people, he did just that.

It seems many of the county extension agents in Texas still hold that type of professional philosophy on their position. The researcher does not disagree with this position entirely, just partially. Because of this professional view, it is easy for an operational level employee to omit, either partially or entirely, other facets of their job depending on their location and program characteristics. Not closely paying attention to the role of volunteer manager, which is a people manager, can have subtle ramifications which may escalate over time. The Texas AgriLife Extension Service should recognize this as a potential problem and address this issue with simple solutions. First, increasing awareness as to what roles agents fill on a day-to-day basis is imperative. Extension has

incorporated this into training; however furthering and differentiating training types are necessary to elicit change in attitudes as well as increasing awareness. Additionally, altering the job posting for the position of county extension agent to include volunteer management as a component of encompassing work would increase the importance of this facet of county extension work. Failing to be outstanding volunteer managers runs the risk of reducing the size and scope of the program in addition to credibility as outlined by Boleman and Burkham (2005b).

What is an exceptional extension volunteer? This study has sought this question as well. Based on the data, an extension volunteer is one who advocates, serves, manages, and evaluates educational programs alongside their county extension agent. The researcher believes, based on the diversity of volunteer groups selected in Question 6, this is a different type of volunteer in every county. In an urban county, an exceptional extension volunteer may very well be a master volunteer who unselfishly gives up his/her time on a frequent basis to assist with the development of the county program. In a rural county, it may be the result demonstration cooperator who comes into the extension office frequently to discuss extension programs with the county extension agents and staff on an informal basis. The exceptional extension volunteer could be anything in between these two different types. County extension agents who are well developed in volunteer management are able to identify exceptional volunteers and utilize them in manners which promote and progress county extension programs.

Managing volunteers is very similar to managing a business (Cnaan et al., 1991; Cnaan & Goldberg-Glen, 1996), so CEAs must have management skills to effectively conduct programs as well as maintain a motivated volunteer resource. The inability to

keep employees limits the ability of business to progress; the same can be said for the volunteer workforce. Therefore it is imperative CEAs have competency in management.

The ISOTURE model has seven components of which two are identification and selection of volunteers. These two facets of this model are integral to the success of extension programs. The Texas AgriLife Extension Service has done an excellent job of describing the different types of volunteers agents use to plan, implement, and evaluate programs. This movement needs to continue as our society and technology move forward. Information is readily available in today's world, but Extension is still a trusted source for unbiased and factual information. Volunteers are avenues or tools which assist with the diffusion of innovation, and in this instance, innovation is information.

The second implication concerning the results of this study is county extension agents need to identify what makes an exceptional volunteer in their county. This is a simple idea, as Extension is a grassroots organization, it makes perfect sense. It also implies the need for county extension agents at all experience levels to be mindful of this aspect of their program.

A common recurrence during the data analysis was regarding the Likert-type statement, "volunteers are retained too long." Because this statement was located after the selection of the respondent's primary volunteer group, implications relating to this statement are based on the extension committee system. In most analysis respondents indicated they disagreed with this statement or maintained a neutral attitude. Based on information from the extension regarding modern volunteerism, the researcher understands Extension believes in rotation of volunteers in order to bring new ideas. This practice is necessary to maintain Extension's relevance with current issues. However,

when a county agent has a group of exceptional volunteers, as mentioned previously, it is difficult to introduce change to a successful guiding body. What is the best procedure for introducing new volunteers?

Use of a hierarchical approach, such as moving experienced volunteers to positions such as the leadership advisory board would be a practical approach. However, the volunteer may be moved to a position which removes him/her from the very motivation of volunteerism. Another approach would be to keep adding volunteers to the group; however, the overall expansion of the group could slow the program development process or put the agent in a position to make programmatic decisions which may not meet current issues. There are additional approaches which could be discussed, but the researcher feels the answer lies in the many types of volunteers Extension currently has described.

County extension agents who are not familiar with concepts regarding episodic volunteers need to become aware of this concept. Agents could rotate volunteers in this manner, keeping those associated with the program, and also allowing new volunteers to be the managing body of the committee. In analyzing this system as a possibility, volunteers would be put on a five year rotation instead of a three year rotation. They would have three years in which they were a voting member and two years as an ex-facto advisor, similar to the agent. This also provides a mentoring process for committee

volunteers. This third implication is an alternative to the traditionally promoted three year committee volunteer process. It offers continued participation for experienced volunteers, and then gives them a semi-dormant period of service where they can evaluate their participation and possible continued participation. After their five years, a volunteer could request to be rotated back to the voting committee. The second aspect of this process is new volunteers would have the opportunity to introduce new ideas.

In summary, the volunteer program of the Texas AgriLife Extension Service is an excellent agency with a solid program. Results of this survey had led the researcher to evaluate the efficacy of extension volunteer programs from an external point of view. Three concepts come to the forefront which could have positive implications on this organization. Introspective review of county agent roles as volunteer managers, identification of exceptional county volunteers, and modification of the committee rotational system are not new concepts, but they should be addressed by administration and specialists working in the areas of volunteer management. Review of these implications will add sustainability to the program and ensure the Texas AgriLife Extension Service maintains its role as a source of unbiased and relevant information.

Recommendations for Further Research

During the data analysis phase of this study, the researcher began to identify areas where further research could assist the Texas AgriLife Extension Service. Below are the researcher's notations and recommendations for further research:

1. This study was conducted utilizing only county extension agents working in the area of agriculture and natural resources and family and consumer sciences. extension staffing patterns show all counties having the position of agriculture and natural resources, agriculture, or natural resources. Furthermore, some family and consumer sciences agents serve multiple counties as well. The researcher believes this study needs to be conducted on the whole population to gain further insight on volunteer management.
2. There were notable differences between three volunteer groups: leadership advisory boards, youth boards, and master volunteer groups. The researcher believes a targeted study analyzing only these three groups would produce results where Texas AgriLife Extension Service administrators and specialists working in the area of volunteer management would be able to draw further inferences to strategically develop beneficial trainings for operational level employees.
3. Results indicated result demonstration cooperators had different motivations than other volunteers. It could be inferred that because this type of extension work directly ties to their livelihoods, their motivations are different. However, the researcher failed to specify the type of result demonstration cooperator for this study. Master Gardeners typically implement result demonstrations in landscape and home vegetable production. Conducting a study where traditional result

demonstration cooperators (farm, ranch, and commercial horticulture) are compared to nontraditional result demonstration cooperators (master volunteer groups, other types) would clarify these motivations.

4. During the final course of this study, the researcher began reviewing the Hersey-Blanchard situational theory. Based on his preliminary research, the researcher is recommending a study to compare the ISOTURE model to the Hersey-Blanchard situational leadership model for use in volunteer management.
5. The research conducted during this study was concentrated on volunteers and volunteer management. During the process the researcher identified the lack of use of the word volunteer in the county extension agent job postings. However, AgriLife Extension utilizes the word stakeholder. It is the suggestion of this researcher that the word volunteer and stakeholder be compared in further research of this type to clarify the perceptions of county extension agents.
6. This research produced quantitative results based on perceptions of county extension agents. The researcher suggests a corresponding qualitative study to derive additional information to support the quantitative results.
7. The researcher suggests that this study be performed again after 5 years to ascertain any further differences which may be found as professional development evolves, operational and administrative staff retires, and new operational staff is hired.

Conclusion

The ability of an agency to maintain a grassroots or localized approach in social education is what makes cooperative extension systems a viable part of the United States government. Furthermore, the use of multiple types of volunteers by the Texas AgriLife Extension Service is why this state agency can stay on forefront of local issues in a diverse and highly populated state. Use of volunteers adds size and scope to local or county programs as well as adding credibility to those programs. Therefore, managing those volunteers is paramount in having a sustainable educational program which positively affects the quality of life for those utilizing the system. A number of the points discussed seem to have simple solutions; however, those solutions should begin at the beginning. Entrusting the responsibility of volunteer management to new hires is the foundation the Texas AgriLife Extension Service needs to initiate, while further training on tenured CEAs will continue to ensure the excellence of county-based programs.

County extension agents have long been viewed as educators/trainers in the communities in which they work. However, as extension's mission and vision has diversified, so must the operational level employees. Understanding part of their role is a volunteer manager personally states to each agent that they must address this part of their job with the professionalism in which they are known to address other aspects.

The researcher is respectfully optimistic the findings of this research did identify areas where the Texas AgriLife Extension Service can strategically target professional development of county extension agents. Additionally, ideas for change addressed in this dissertation are aimed at assisting administration while adding further sustainability to a system which benefits people.

The findings of this research are generally positive in nature, which is a testament to the dedicated work county extension agents perform on a day to day basis. Furthermore, their work is supplemented by the motivated work of extension volunteers who support educational programs. In conclusion, while the Texas AgriLife Extension Service is a dedicated and sustainable organization, there is room for improvement which will further enhance this agency.

REFERENCES

Barnett, J., Johnson, E., & Satfish, V. (1999). Effectiveness of extension cotton advisiory committees. *Journal of Extension*, 37, 6. Retrieved October 20, 2005, from http://www.joe.org/joe/1999december/a5.html

Becker, L. A. (2000). *Effect size calculators*. Retrieved September 16, 2009, from http://www.uccs.edu/~faculty/lbecker/

Boleman, C. & Burkham, A. (2005a). *Volunteer administration in the 21st century: Leadership advisory boards*. AgriLife Communication and Marketing. Texas A&M University System. College Station, TX.

Boleman, C. & Burkham, A. (2005b). *Volunteer administration in the 21st century: Roles volunteers play in Texas extension*. AgriLife Communication and Marketing. Texas A&M University System. College Station, TX.

Boleman, C., Cummings, S., & Pope, P. (2005). *Keys to education that works: Texas Cooperative Extension's program development model*. AgriLife Communications and Marketing. Texas A&M University System. College Station, TX.

Boleman, C. & Dromgoole, D. A. (2007). *Result demonstration: A method that works*. AgriLife Communication and Marketing. Texas A&M University System. College Station, TX.

Brudney, J. L. (1990). *Fostering volunteer programs in the public sector*. San Francisco, CA: Jossey-Bass.

Brudney, J. L. & Gazley, B. (2002). Testing the conventional wisdom regarding volunteer programs: A longitudinal analysis of the service corps of retired executives and the U.S. small business administration. *Nonprofit and Voluntary Sector Quarterly*, 31, 525-548.

Burkham, A. & Boleman, C. (2005a). *Volunteer administration in the 21st century: volunteer associations and groups*. AgriLife Communication and Marketing. Texas A&M University System. College Station, TX.

Burkham, A. & Boleman, C. (2005b). *Volunteer administration in the 21st century: Program area committees and youth boards*. AgriLife Communication and Marketing. Texas A&M University System. College Station, TX.

Clary, G. E., Ridge, R. D., Stukas, A. A., Snyder, M., Copeland, J., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psycology*, 74, 1516-1530.

Cnaan, R. A. & Goldberg-Glen, R. S. (1991). Measuring motivation to volunteer in human resources. *Journal of Applied Behavioral Science*, 27, 269-284.

Cnaan, R. A., Handy, F., & Wadsworth, M. (1996). Defining who is a volunteer: Conceptual and empirical considerations. *Nonprofit and Voluntary Sector Quarterly*, 25, 364-383.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.

Connors, T. D. (Ed.). (1995). *The volunteer management handbook*. New York, NY: John Wiley & Sons, Inc.

Dodd, C. & Boleman, C. (2007). *Volunteer administration in the 21st century: ISOTURE: A model for volunteer management*. AgriLife Communication and Marketing. Texas A&M University System. College Station, TX.

Fisher, J. C. & Cole, K. M. (1993). *Leadership and management of volunteer programs*. San Francisco, CA: Jossey-Bass.

Hamilton, D. W. (2004). *Morrill Land Grant act of 1862*. Retrieved August 11, 2009, from http://www.loc.gov/rr/program/bib/ourdocs/Morrill.html

King, J. & Safrit, R. D. (1998). Extension agents' perceptions of volunteer management. *Journal of Extension*, 36, 3. Retrieved March 29, 2005, from http://www.joe.org/joe/1998june/a2.html

Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handlin nonresponse in social science research. *Journal of Agricultural Education*, 42, 4, 43-53.

Lockett, L., Kieth, L., Boleman, C., Pope, P., Merten, K., & Bessent, K. (2009). *Teaching effectiveness curriculum*. AgriLife Communications and Marketing. Texas A&M University System. College Station, TX.

MacLeod, F. & Hogarth, S. (1999). *Leading today's volunteers: Motivate and manage your team* (2nd ed.). Bellingham, WA: Self-Counsel Press.

Rasmussen, W. D. (1989). *Taking the university to the people*. Ames, IA: Iowa State University Press.

Santos, J. R. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. *Journal of Extension*, 37, 2. Retrieved from http://www.joe.org/1999april/tt3.php

Shmotkin, D., Blumstein, T., & Modan, B. (2003). Beyond keeping active: Concomitants of being a volunteer in old-old age. *Psychology and Aging,* 18, 602-607.

Smith-Lever Act. (2008). *13. Smith-Lever Act*. Retrieved August 11, 2009, from http://agriculture.senate.gov/Legislation/Compilations/AgRes/Smithlev.pdf

Snider, A. (1985). The dynamic tension: professionals and volunteers. *Journal of Extension*, 36, 3. Retrieved December 6, 2005, from http://www.joe.org/joe/1985fall/sa2.html

Stakeholder. (2009). In *Merriam-Webster online dictionary*. Retrieved August 31, 2009, from http://www.merriam-webster.com/dictionary/stakeholder

SPSS. (2007). *Graduate pack™ 16.0 for Windows®*. Chicago, IL: SPSS, Inc.

Texas AgriLife Extension Service. (2009a). *Agriculture and natural resources*. Retrieved September 22, 2009, from http://extensioneducation.tamu.edu/ANR/anr-outcomeindicatorsffg.htm

Texas AgriLife Extension Service. (2009b). *Community development*. Retrieved September 22, 2009, from http://comdev.tamu.edu/index.htm

Texas AgriLife Extension Service. (2009c). *Family and consumer sciences*. Retrieved September 22, 2009, from http://fcs.tamu.edu

Texas AgriLife Extension Service. (2009d). *Great jobs for great people*. Retrieved October 16, 2009, from https://greatjobs.tamu.edu/applicants/jsp/shared/frameset/Frameset.jsp?time=1255707783098

Texas AgriLife Extension Service. (2009e). *Personnel directory*. Retrieved October 16, 2009 from http://perdir.tamu.edu/Docs/ExtensionDirectory.pdf

Texas AgriLife Extension Service. (2009f). *Texas Agrilife Extension Service: What is extension?*. Retrieved August 11, 2009, from http://texasextension.tamu.edu/about/index.php

Texas AgriLife Extension Service. (2009g). *Texas Agrilife Extension Service: Texas agrilife extension service strategic plan 2007 - 2012*. Retrieved August 11, 2009, from http://texasextension.tamu.edu/about/strategyimpact/strategicplan/index.php

Texas Cooperative Extension. (2002). *Compact with Texans*. Retrieved December 6, 2005, from http://agextension.tamu.edu/compact.htm

Tuckman, B. W. (1999). *Conducting educational research* (5th ed.). Belmont, CA: Wadsworth Group/Thompson Learning.

U. S. Census Bureau. (2009). *Table 1: Annual estimates of the resident population for counties of Texas: April 1, 2000 to July 1, 2008*. Retrieved July 12, 2009, from http://www.census.gov/popest/counties/CO-EST2008-01.html

U. S. Department of Agriculture. (2009). *Cooperative state research, education, and extension service*. Retrieved August 11, 2009, from http://www.csrees.usda.gov/qlinks/extension.html#yesterday

University of Kentucky. (2008). *The Morrill Act and land-grant colleges*. Retrieved August 11, 2009, from http://www.uky.edu/CampusGuide/land-grant.html

Vineyard, S. (1993). *Megatrends and volunteerism*. Downers Grove, IL: Heritage Arts Publishing.

Volunteer. (2009). In *Merriam-Webster online dictionary*. Retrieved August 31, 2009, from http://www.merriam-webster.com/dictionary/volunteer

ZipSurvey. (2009). *ZipSurvey*™. Tulsa, OK. Retrieved October 16, 2009, from http://www.zipsurvey.com/

APPENDIX A

SURVEY INSTRUMENT

AgriLIFE EXTENSION
Texas A&M System

Improving Lives. Improving Texas.

Perceptions Of County Extension Agents Regarding Their Volunteer Management Competencies.

Section 1 of this questionnaire inquires about your general perceptions regarding your Texas AgriLife Extension Service volunteers.

1. Please indicate you level of agreement or disagreement with each of the following statements.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1.1	Volunteer programs benefit your county/community.	○	○	○	○	○
1.2	Extension volunteer programs set the standard for volunteer activities in your county.	○	○	○	○	○
1.3	Your responsibility with Texas AgriLife Extension Service volunteer groups is aligning local goals with state goals.	○	○	○	○	○
1.4	Volunteer programs are emphasized by your immediate supervisor.	○	○	○	○	○
1.5	Volunteer programs are emphasized by your County Commissioners' Court.	○	○	○	○	○
1.6	Extension volunteer programs are necessary to your county.	○	○	○	○	○
1.7	Volunteer programs are used in collaboration with cooperating agencies/businesses/organizations.	○	○	○	○	○

2. The following volunteer competencies associated with managing volunteers are highly important to your success as a County Extension Agent.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
2.1	Identification	○	○	○	○	○
2.2	Selection	○	○	○	○	○
2.3	Orientation	○	○	○	○	○
2.4	Training	○	○	○	○	○
2.5	Utilization	○	○	○	○	○
2.6	Recognition	○	○	○	○	○
2.7	Evaluation	○	○	○	○	○

3. The following program aspects are highly important to your program growth.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
3.1	Leadership	○	○	○	○	○
3.2	Visibility	○	○	○	○	○
3.3	Influence	○	○	○	○	○
3.4	Marketability	○	○	○	○	○
3.5	Interest	○	○	○	○	○

4. The roles your volunteers play is _____.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
4.1	Service	○	○	○	○	○
4.2	Educator	○	○	○	○	○
4.3	Leader	○	○	○	○	○
4.4	Manager	○	○	○	○	○

5. Select the volunteer group you will use to answer the following questions. This group will be know as 'Your Volunteer Group' for the following questions.
   - ○ Master Volunteer Group
   - ○ Youth Board
   - ○ Family & Consumer Sciences Program Area Committee
   - ○ Result Demonstration Cooperators
   - ○ Leadership Advisory Board
   - ○ Task Force/Coalition
   - ○ Agriculture Program Area Committee
   - ○ CRED Program Area Committee
   - ○ Other (please specify) _____

6. The title of this volunteer group is _____ (Please type the name of Your Volunteer Group).

The following statements concern Your Volunteer Group.

7. Please indicate your level of agreement or disagreement with each of the following statements.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
7.1	Your Volunteer Group is effective in producing outcomes in your county.	○	○	○	○	○
7.2	In addition to education, Your Volunteer Group accomplishes more in terms of community service and/or citizenship than other volunteer groups in your county.	○	○	○	○	○

The following questions are related to your volunteer management skills in relation to Your Volunteer Group.

8. Please indicate your level of agreement or disagreement with each of the following statements.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
8.1	You are a very good recruiter of the right people for a specific role/job.	○	○	○	○	○
8.2	Time availability is an important selection criteria for volunteers.	○	○	○	○	○
8.3	You are very good at retaining volunteers.	○	○	○	○	○
8.4	An application process is utilized to recruit volunteers for Your Volunteer Group.	○	○	○	○	○
8.5	Recruitment for Your Volunteer Group is conducted by the County Extension Agent.	○	○	○	○	○
8.6	Recruitment for Your Volunteer Group is conducted by the other volunteers.	○	○	○	○	○
8.7	Volunteers are retained too long in Your Volunteer Group.	○	○	○	○	○

The following statements are related to volunteer management of Your Volunteer Group.

9. Please indicate your level of agreement or disagreement with the following statements.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
9.1	Your Volunteer Group leadership takes proactive approaches in program development.	○	○	○	○	○
9.2	The chair/president of Your Volunteer Group is recognized as the volunteer leader of the program.	○	○	○	○	○
9.3	Your Volunteer Group recognizes the chair/president as leader of Your Volunteer Group and the County Extension Agent as leader of the program.	○	○	○	○	○

The following statements are related to Your Volunteer Group.

10. Please indicate your level of agreement or disagreement with the following statements.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
10.1	Community groups contact you concerning utilization of Your Volunteer Group.					
10.2	Business groups contact you to support Your Volunteer Group.					
10.3	Interpretation efforts for Your Volunteer Group are conducted as a joint effort between the volunteer leadership and yourself.					
10.4	Your Volunteer Group is active in your county.					
10.5	Your Volunteer Group is larger in number than surrounding counties with the same program.					

The following statements are related to Your Volunteer Group.

11. Please indicate your level of agreement or disagreement with the following statements.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	N/A
11.1	You feel confident having a volunteer management component in your Plan of Work.						
11.2	You feel confident when reporting your Master Volunteer activities.						
11.3	You feel confident when reporting volunteer activities.						
11.4	Volunteer management is integral to your success as a County Extension Agent.						
11.5	Your Volunteer Group hinders your ability to perform your job duties.						

12. In your position, do you work with Result Demonstration Cooperators?
- Yes
- No

The following activities/results are important to Your Volunteer Group.

13. Please indicate your level of agreement or disagreement with the following statements.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	N/A
13.1	Single Informational Meetings						
13.2	Sequential Programs/Meetings						
13.3	Result Demonstrations						
13.4	Volunteer Development						
13.5	Organizational Development						
13.6	County Program Visibility						
13.7	Marketability of the Texas AgriLife Extension Service						

Section 2 of this questionnaire inquires about the size and organization of your county office.

Please select the appropriate answer on the next two (2) questions based on the size and organization of your county office.

14. In what Texas AgriLife Extension Service District do you work?
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

- ○ 11
- ○ 12

15. What is your county population?
    - ○ Less than 10,000
    - ○ 10,001 - 30,000
    - ○ 30,001 - 50,000
    - ○ 50,001 - 75,000
    - ○ 75,001 - 100,000
    - ○ 100,001 - 250,000
    - ○ 250,001 - 500,000
    - ○ 500,001 - 1,000,000
    - ○ More than 1,000,000

This question is a 'multiple check box' question where you can choose ALL choices that apply to your specific job responsibilities as documented by your Approved County Job Responsibilities.

16. Your county responsibilities include:
    - ☐ County Coordinator
    - ☐ 4-H Coordinator
    - ☐ Community Development Coordinator
    - ☐ Agriculture Program Leader
    - ☐ Family & Consumer Sciences Program Leader
    - ☐ Horticulture Program Leader
    - ☐ Other (please specify)

Please select the appropriate answer on the next five (5) questions based on the size and organization of your county office.

17. How many County Extension Agents are housed in your office (including your position)?
    - ○ 1
    - ○ 2
    - ○ 3
    - ○ 4
    - ○ 5
    - ○ 6
    - ○ 7
    - ○ 8
    - ○ 9
    - ○ 10 or more

18. How many full-time support positions are housed in your county office?
    - ○ 0
    - ○ 1
    - ○ 2
    - ○ 3
    - ○ 4
    - ○ 5
    - ○ 6-7
    - ○ 8-9
    - ○ 10 or more

19. How many part-time support staff positions are housed in your county office?
    - ○ 0
    - ○ 1
    - ○ 2
    - ○ 3
    - ○ 4
    - ○ 5
    - ○ 6-7
    - ○ 8-9
    - ○ 10 or more

20. How many program assistants/associates are housed in your office?
    - ○ 0

- 1
- 2
- 3
- 4
- 5
- 6 or more

21. How many county-funded professionals/paraprofessionals are housed in your office?
    - 0
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7 or more

Please select the appropriate answer on the next question based on the size and organization of your county office.

22. Does your office have volunteers who work in the office partially or completely through the week?
    - Yes
    - No

Section 3 of this questionnaire inquires about your demographic data.

Please select the appropriate answer on the next question pertaining to your employment with the Texas AgriLife Extension Service.

23. What is your title or best description of your title?
    - Agriculture & Natural Resources
    - Agriculture
    - Natural Resources
    - Family and Consumer Sciences
    - 4-H and Youth Development
    - Urban Youth Development
    - Urban Development
    - Horticulture
    - Marine
    - Military Program Agent
    - Other (please specify) _____

Please select the appropriate answer on the next two (2) questions pertaining to your employment with the Texas AgriLife Extension Service.

24. How many years have you been employed by the Texas AgriLife Extension Service?
    - < 3
    - 4-6
    - 7-9
    - 10-12
    - 13-15
    - 16-18
    - 19-21
    - 22-24
    - 24-27
    - 28-30
    - 31 and up

This question is a 'multiple check box' question where you can choose ALL choices that apply to your specific job history with the Texas AgriLife Extension Service.

25. What other position(s) have you held with the Texas AgriLife Extension Service.
    - [ ] Extension Assistant
    - [ ] Extension Associate
    - [ ] Program Specialist
    - [ ] Program Assistant

- Extension Agent - IPM
- County Funded Paraprofessional
- Support Staff
- Intern
- No Other Position

26. How many counties have you served in during your career?
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7 or more

27. How many years have you served in your current position?
    - 0-2
    - 3-4
    - 5-6
    - 7-8
    - 9-10
    - 11-12
    - 13-14
    - 15-16
    - 17-18
    - 19-20
    - 21 and up

28. Your role as a County Extension Agent is to serve primarily as a(n) _____.
    - educator/trainer
    - program manager
    - volunteer manager

Please select the appropriate answer on the next two (2) questions pertaining to you.

29. Your career ladder ranking is _____.
    - I
    - II
    - III
    - IV

30. What is your gender?
    - Male
    - Female

APPENDIX B

INVITATION LETTER, EMAIL ANNOUNCEMENT, FOLLOW-UP LETTERS, FOLLOW-UP EMAILS

AgriLIFE EXTENSION
Texas A&M System

Midland County Office
2445 E HWY 80 • Midland, TX 79706
(432) 686-4700 • (432) 686-4704 (fax) • http://midland-tx.tamu.edu

October 3, 2008

Dear County Extension Agent,

I am currently a doctoral candidate in the Department of Agriculture Education at Texas A&M University. I am working with Dr. Scott Cummings on a project dealing with perceptions of County Extension Agents concerning their program volunteers. The purpose of this study is to provide information to more accurately target professional development concerning volunteer management.

You have been selected based on your position as a County Extension Agent for Agriculture / Natural Resources or Family and Consumer Sciences. I am asking each of you to complete a web survey related to your volunteer program and your perceptions of your volunteer management competencies. It should not take more than twenty (20) minutes to complete. On October 13, 2008, you will be sent a second message which will include a weblink to the survey.

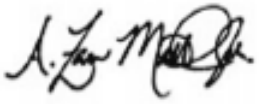
The objectives of this research project are to:

1. Identify professional development needs related to volunteer management.
2. Identify the difference in County Extension Agent perceptions of volunteerism based on the diversity of each county.
3. Compile a model of volunteer management characteristics based on differing county staffing patterns.
4. Identify correlations between volunteer groups across the state.

I appreciate your cooperation and support. Without you I would not be able to conduct this research project, which I hope will provide valuable insight concerning our professional development opportunities in the area of volunteer management. When this study is completed, I will provide you with a description of the results.

This study is confidential and your questionnaire answers will be securely stored. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only Allen Zan Matthies Jr. & Scott Cummings will have access to the records. If you have any further questions, please feel free to contact me at 432.686.4700.

Respectfully,



A. Zan Matthies Jr.
County Extension Agent
Agriculture / Natural Resources
Midland County
Texas AgriLife Extension Service

Perceptions Of CEAs Regarding Their Volunteer Management Competencies

Dear County Extension Agent:

This is the final reminder concerning the previous message sent to you concerning your perceptions of your volunteer management competencies. The survey will close this evening at 10:00 pm. Please take the time to complete the short survey located at the weblink below.

If you have already completed this survey, please disregard this message. Thank you for your participation and input.

Respectfully,

A. Zan Matthies Jr.
CEA AGNR
Midland County
Texas AgriLife Extension Service

Previous Message:

Dear County Extension Agent,

I am currently a doctoral candidate in the Department of Agriculture Education at Texas A&M University. I am working with Dr. Scott Cummings on a project dealing with perceptions of County Extension Agents concerning their program volunteers. The purpose of this study is to provide information to more accurately target professional development concerning volunteer management.

You have been selected based on your position as a County Extension Agent for Agriculture / Natural Resources or Family and Consumer Sciences. I am asking each of you to complete a web survey related to your volunteer program and your perceptions of your volunteer management competencies. It should not take more than twenty (20) minutes to complete.

The objectives of this research project are to:

1. *Identify professional development needs related to volunteer management.*
2. *Identify the difference in County Extension Agent perceptions of volunteerism based on the diversity of each county.*
3. *Compile a model of volunteer management characteristics based on differing county staffing patterns.*
4. *Identify correlations between volunteer groups across the state.*

I appreciate your cooperation and support. Without you I would not be able to conduct this research project, which I hope will provide valuable insight concerning our professional development opportunities in the area of volunteer management. When this study is completed, I will provide you with a description of the results.

This study is confidential and your questionnaire answers will be securely stored. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only Allen Zan Matthies Jr. & Scott Cummings will have access to the records. If you have any further questions, please feel free to contact me at 432.686.4700.

Respectfully,

A. Zan Matthies Jr.
County Extension Agent
Agriculture / Natural Resources
Midland County
Texas AgriLife Extension Service

INFORMATION SHEET

Perceptions of County Extension Agents Regarding Their Volunteer Management Competencies.

Introduction
The purpose of this form is to provide you (as a prospective research study participant) information that may affect your decision as to whether or not to participate in this research and to record the consent of those who agree to be involved in this study.

You have been asked to participate in a research study concerning county extension agent volunteer management competencies. The purpose of this study is to identify needs of county extension agents regarding volunteer management. You were selected to be a possible participant because you are currently employed as a county extension agent.

What will I be asked to do?
If you agree to participate in this study, you will be asked to complete an electronic survey concerning your perceptions related to volunteer management related to your current experience, job responsibilities, location, etc. This study will take approximately 20 minutes and will be a one-time questionnaire.

What are the risks involved in this study?
The risks associated in this study are minimal, and are not greater than risks ordinarily encountered in daily life.

What are the possible benefits of this study?
The possible benefits of participation are increased value of professional development opportunity in the area of volunteer management.

Do I have to participate?
No. Your participation is voluntary. You may decide not to participate or to withdraw at any time without your current or future relations with Texas A&M University being affected.

Who will know about my participation in this research study?
This study is confidential and your questionnaire answers will be securely stored. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only Allen Zan Matthies Jr. & Scott Cummings will have access to the records.

Whom do I contact with questions about the research?
If you have questions regarding this study, you may contact Allen Zan Matthies Jr. at z-matthies@tamu.edu or 432-686-4700.

Whom do I contact about my rights as a research participant?
This research study has been reviewed by the Human SubjectsÃ¢â‚¬â„¢ Protection Program and/or the Institutional Review Board at Texas A&M University. For research-related problems or questions regarding your rights as a research participant, you can contact these offices at (979) 458-4067 or irb@tamu.edu.

Participation
Please be sure you have read the above information, asked questions and received answers to your satisfaction. If you would like to be in the study, please await an email message indicating with a link to the questionnaire.

VITA

Allen Zan Matthies
2445 E. HWY 80
Midland, Tx. 79706
z-matthies@tamu.edu

EDUCATION:

2001 – 2009 Texas A&M University – College Station, Texas.
Doctor of Philosophy (December, 2009), Agriculture Education

1996 – 2000 Sul Ross State University – Alpine, Texas
Master of Science (August, 2000), Animal Science

1992 – 1996 Sul Ross State University – Alpine, Texas
Bachelor of Science (May, 1996), Agricultural Business

PROFESSIONAL
APPOINTMENTS:

2008 – 2009 Texas AgriLife Extension Service – Midland, Texas
County Extension Agent for Agriculture/Natural Resources in Midland County.

2007 – 2008 Texas AgriLife Extension Service – Georgetown, Texas
County Extension Agent for Agriculture and County Coordinator in Williamson County.

2003 – 2007 Texas AgriLife Extension Service – Port Lavaca, Texas
County Extension Agent for Agriculture/Natural Resources and County Coordinator in Calhoun County.

2001 – 2003 Texas AgriLife Extension Service – Bastrop, Texas
County Extension Agent for 4-H and Youth Development in Bastrop County

1999 – 2001 Texas AgriLife Extension Service – Bastrop, Texas
Assistant County Extension Agent for Agriculture in Bastrop County