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Benefits of Participation in the Cannon County 4-H Livestock Projects as Perceived by Select Former Exhibitors

Heath Darrell Nokes
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I am submitting herewith a thesis written by Heath Darrell Nokes entitled "Benefits of Participation in the Cannon County 4-H Livestock Projects as Perceived by Select Former Exhibitors." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agriculture and Extension Education.

Randol G. Waters, Major Professor

We have read this thesis and recommend its acceptance:

W. Warren Gill, Doyle G. Meadows

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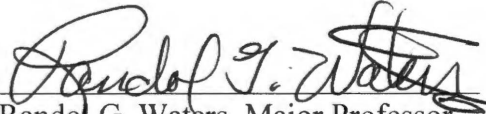
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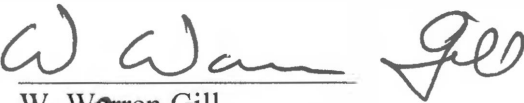
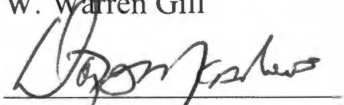
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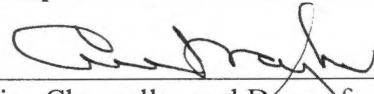
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W. Warren Gill

Doyle G. Meadows

Acceptance for the Council:


Vice Chancellor and Dean of
Graduate Studies

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Thesis
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BENEFITS OF PARTICIPATION IN THE
CANNON COUNTY 4-H LIVESTOCK PROJECTS
AS PERCEIVED BY SELECT FORMER EXHIBITORS

A Thesis Presented for the Master of Science Degree

The University of Tennessee, Knoxville

Heath Darrell Nokes

August, 2005

DEDICATION

This thesis is dedicated to my parents, L. D. and Faye Nokes for their love, support, and encouragement. To my wife, Susan and children Samuel and Ashlyn for their continued love and support. And finally to Dr. Randol Waters, and members of my Graduate Committee who made a daunting task seem a little easier.

ACKNOWLEDGMENTS

I wish to thank all those who helped me obtain my Master's degree in Agricultural and Extension Education. I would like to thank Dr. Warren Gill and Dr. Doyle Meadows for their help and encouragement. I would like to thank Dr. Randol Waters for all the long tireless hours of assistance with this work. Finally I wish to thank the Cannon County Extension Office Staff for their input, assistance, encouragement, and friendship during this process.

ABSTRACT

The Purpose of this study was to determine the perceived influence of the development in certain life skills and decisions regarding education and career choices. A total of 52 former participants of the program were identified and responded to mailed questionnaires concerning their experiences in the 4-H livestock project.

Findings revealed that participation in the 4-H livestock projects had a positive effect on the development of life skills such as leadership, confidence, communication skills, record keeping skills, and confidence. Decisions regarding educational and career choices were impacted. Participants regarded participation in the livestock projects as having “some effect” ($M = 3.16$) on a Likert-type scale on the decision to continue their education. Participants regarded participation in the livestock projects as having “some effect” ($M = 3.12$) on a Likert-type scale of influencing their choice of career.

Recommendations include continuing to promote and encourage participation in the 4-H livestock projects for the development of life skills. The study should be replicated on a larger scale to confirm results on a broader scale.

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CHAPTER I

INTRODUCTION

Need for the Study

The Cannon County 4-H livestock projects have a long and successful history. The program has produced two Tennessee Grand Champion market steers and several Reserve Champion steers since the late 1940's. The Cannon County livestock project also received awards for the most entries in the Tennessee State 4-H market hog show during the 1960's. The number of current swine exhibitors has decreased due to the severe reduction of market hog operations in the county. Cannon County 4-Hers have also actively participated in the horse and dairy projects. The tradition continues today as Cannon County 4-Hers continue to participate in the various livestock projects. The underlying goal of these projects is to aid young people in the development of such life skills as responsibility, teamwork, and leadership. These projects are highly publicized and are usually the most recognized of all 4-H projects. These projects are usually more costly than other 4-H projects but also have a higher potential for profit. As a result, agents often allocate large amounts of time and financial resources to these projects.

Parental support plays a larger part in these projects compared to many other 4-H projects. The livestock projects often require a greater devotion of time and financial resources than other 4-H projects. The pressure "to win" or "make money" in the

livestock project could be overshadowing the emphasis on the intended goal of the project to aid in the development of life skills.

Due to the high number of current participants in the livestock project, coupled with the high number of past participants, there is a need to further study the benefits of participation in these programs upon youth who were active in the projects. There is also a need to determine if participation in these projects actually helped 4-H members develop life skills such as responsibility, leadership, and teamwork.

Purpose of the Study

The purpose of this study was to determine if the youth of Cannon County have benefitted from their participation in the livestock projects. The results of the study will be used for future program planning for these projects. There also exists a need to determine if participation in these projects actually help 4-H members develop such life skills. There were four objectives of this study:

- 1) To assess the respondent's demographics.
- 2) To determine if participation in the livestock projects helped develop life skills such as responsibility, self-esteem, teamwork, and leadership.
- 3) To determine if participation in the livestock projects helped develop and influence the education and career choice of the participants.
- 4) To determine if there is a relationship between selected variables identified in objective one in relation to selected variables listed in objectives two and three.

CHAPTER II

RATIONALE FOR THE STUDY THROUGH A REVIEW OF LITERATURE

Introduction

The 4-H youth development program offers youth a wide variety of projects, activities, and opportunities in which to participate. According to the Tennessee State 4-H website, the current mission of the Tennessee 4-H program is to provide research-based educational experiences that will stimulate young people to develop life skills, and form positive attitudes to prepare them to become capable, responsible and compassionate adults. (2005, January 15). Livestock projects are one of the most popular projects used to achieve this goal. With the excitement of shows, recognition, and the many related activities 4-Hers may participate in, the livestock projects have remained popular for many years. The livestock projects have been very popular in Cannon County since the 1950's and they continue to be so today. The purpose of this study was to determine what benefits participation in the livestock projects have provided for the youth of Cannon County.

The first objective listed in Unit 2 of the Tennessee 4-H Beef project manual is: "To aid the development of young men and women into responsible American citizens by, teaching responsibility through working with animals that depend on the member to provide proper feed, care, etc." (Lane, 1998). From a professional and personal stand

point one would observe that participation in the livestock projects benefit the member in some way but does participation actually help develop life skills such as responsibility, leadership, self-esteem, and teamwork? If the activity actually helps develop life skills, participation in the livestock projects could be beneficial. Presuming that education and career choice are also important, does participation in the livestock project influence education or lead them to pursue a particular field of work? By nature of the project and activities, some participants may be encouraged to continue their education and career choice. A project or activity could be beneficial if it encourages participants to further their education and influence their choice of career. The purpose of this review of literature is to describe how participants have benefitted from participation in livestock projects similar to those offered in Cannon County.

Development of Life Skills

Many studies have been dedicated to the relation of participation in 4-H and the development of life skills. Fox, Schroeder and Lodl (2003) found in a study of former Nebraska 4-H members that 58.5% responded that 4-H club involvement was the primary influence on their development of a sense of responsibility. In addition to responsibility, the study found that the majority of participants regarded participation in the 4-H clubs as a primary influence in their ability to handle competition and the ability to get along with others. Fox's results are supported by a study conducted by Laedwig and Thomas (1987), which found, when compared to other youth groups, former 4-Hers were more pleased

with the program's contribution to the formation of their self-worth, responsibility, and the ability to set goals than participants of other youth development programs. In a study of former participants of horse, livestock, meats, and wool judging programs, respondents reported communication skills as the most important life skill gained as a result of participation followed by animal evaluation skills, confidence, and decision-making skills. McCann and McCann (1992).

“‘The 4-H program is more interested in the boy who holds the lead strap than the animal at the other end.’ ” (Schwieder, 1993 p.170). This, coupled with the current objectives of the 4-H beef project, would indicate that the development of the 4-Her as a person would be the desired result of participation in the 4-H livestock projects. In a study of life skill development in the 4-H swine project in Iowa, Gamon and Dehegedus-Hetzel, (1994), found life skill development rated a mean value of 4.07 on a five point Likert scale. Another result of the study indicated that respondents rated life skill development greater than subject matter skills learned as a result of participation. Gamon's findings regarding development of life skills are supported by the findings of a study of parents' perceptions of life skills gained by youth participating in the 4-H beef project in Texas. Parents perceived that accepting responsibility, goal setting, self-discipline, self-motivation, knowledge of the livestock industry, positive self esteem, and decision making as life skills were gained as a result of their children's participation in the beef project. Boleman, Cummings, Briers, (2004).

Developing leadership skills is another goal of participation in the 4-H club program. The 4-H program has long been known for its ability to influence leadership

development in participants. In a study of 140 parents of 4-H members in Nevada, Singletary, Smith and Evans, (2001) found leadership development was highly rated by parents of 4-H members. In a study of 4-H alumni in Nebraska, Fox et al. (2003) found that 46.0% of respondents credited 4-H club involvement as the primary influence of this life skill. As indicated above, there is evidence that both participants and parents of participants hold 4-H in high regard when pertaining to the leadership development qualities of 4-H. The literature supports the theory that participants will carry the leadership skills learned through 4-H into adulthood and become more productive and capable citizens as a result of participation in the 4-H program.

Impact of 4-H Upon Educational Decisions

When the subject of education is discussed in reference to 4-H, the question is centered around whether or not 4-H participation actually encourages participants to pursue higher education. During a study of former livestock project participants in Wilson County, Tennessee, Beaty (1993) discovered that former participants perceived participation in the livestock projects, had “greater than average” impact in all variables related to education. In a study of agricultural students in Illinois and Iowa, Dyer, and Wittler, (2002) found that students who were members of FFA or 4-H were more likely to complete a degree in a college of agriculture than those who were not members. As a secondary effect of influencing decisions upon education, past 4-H members may achieve higher grades than those who were not members of 4-H. In a study of college freshmen

Ball, Garton and Dyer, (2001) found that former members of 4-H had higher grade point averages and retention rates than students who were not 4-H members.

Impact Upon Career Decisions

Career opportunity is very closely related to education and life skill. It is often assumed that if one has developed the appropriate life skills and educational level that person would naturally be an excellent product for the job market. In a study in Nebraska, Rockwell (1981), surveyed former 4-H members to determine what influence , 4-H had on their careers and advanced training. She discovered that the respondents regarded increased knowledge in project areas and competing with others as very important. Rockwell's findings are supported by the results of Matulis (1985), whose study on the effects of 4-H regarding career development found that 4-H had a positive effect on "self awareness, particularly concerning interests and abilities and greatest impact on general career awareness." Developing life skills is another way in which participation in the 4-H club could benefit one in his or her career. In a study to determine personal characteristics that agribusiness employers find most desirable in applicants conducted in Montana, (Bishop and Shelhamer, 1984). Employers responded with the following: "1) honesty, 2) willingness to fulfill obligations and promises, 3) ability to listen, speak, and write effectively, 4) ability to follow orders, 5) being on time and using time effectively, 6) friendliness and cleanliness." As revealed in section I of this review, it is evident that 4-H helps develop life skills that are closely related to those characteristics that

employers seek out in their employees.

Summation

Developing the proper life skills can guide a student in obtaining an education, those educational decisions certainly has an impact on their choice of career. The question addressed in this review of literature is “Does participation in the livestock projects in Cannon County help to develop life skills, and influence education and career choices of 4-H members?” By the nature of livestock projects, participants can gain insight into careers and educational opportunities. It is also evident that participation in 4-H will help aid in the development of life skills that can mold participants into better citizens and employees. The goal of this study is to determine the impact that the 4-H livestock projects had upon 4-Hers’ life skill development, educational and career decisions.

CHAPTER III

PROCEDURES AND METHODOLOGY

Identification of the Population

The data for this survey was collected from former participants in the Cannon County 4-H livestock projects by a mailed questionnaire. The researcher attempted to locate all possible former livestock exhibitors. The technique which was used was the “snowball sampling technique” (Bailey, 1982). Each member of the population, identified, was asked to provide the researcher with other possible respondents. In addition to the snowball sampling technique, old participation records were searched, and interviews with former agents who conducted the projects were used to identify the population. The population was limited to those who could be located, and had participated in livestock shows conducted by the University of Tennessee Agricultural Extension Service from 1940 until present.

After considerable searching, 79 former exhibitors were located and identified. Each former exhibitor was mailed a questionnaire along with a cover letter explaining the purpose of the study. After the first mailing was completed, 41 of the former exhibitors responded to the survey. The second mailing was sent to the remaining 38 people who had not responded to the first mailing. Eleven former exhibitors responded to the final mailing for a total response of 52. The final response rate for those identified to

participate in the study was 66 percent. These 52 respondents were considered the accessible population for this census study.

Variables

The first objective of the study was to describe the respondents demographically. Questions in the instrument were used to determine how long they participated in the livestock projects, what aspects of the livestock project they participated in, and the length of time they participated in the project, and the number of years they were active in the 4-H program. All of the demographic variables with the exception of age were considered to either nominally or ordinally scaled. Age was considered to be of ratio scale.

The second objective of the study was to determine the impact participation in the livestock project had upon the development of certain life skills. Questions utilizing a five-point Likert-type scale were used in determining the impact of participation in the livestock project on the development of their sense of responsibility, self-esteem, teamwork, and leadership skills. Six Likert-type questions were developed to assess these attitudes. Each question was analyzed separately and treated as an intervally scaled variable.

The third objective of the study was to determine if participation in the livestock project effected decisions regarding educational and career decisions. These two Likert-type questions were also analyzed separately and treated as intervally scaled variables

Respondents were asked to identify the highest educational level attained and if their participation in the livestock project affected their deciding to continue their education. Respondents who completed college, were also asked to identify their major emphasis of study and if participation in the livestock project had any perceived impact upon that decision. Finally, respondents were asked if they chose a career in an agriculture-related field, and to what, if any, degree participation in the livestock projects influenced their career decision.

Design

This study was a descriptive correlation study with no experimental design. The purpose of this study was to determine the impact of participation in the Cannon County 4-H Livestock Project upon former exhibitors and their perceptions regarding the program. Since this was an *Expost Facto* study, no control of the treatment or pretesting was possible.

Instrumentation

The instrument, (located in Appendix II) used in this study was a researcher-developed instrument, based on the Beaty instrument (1993) used to survey former livestock project participants in Wilson County, Tennessee. The instrument was mailed to all former exhibitors along with a cover letter explaining why the research is being

conducted. It also included a self-addressed stamped envelope for respondents to return the questionnaire. The information remained confidential, but not anonymous because of the need for follow up letter. The questionnaire included several closed ended questions which required the respondents to pick the best answer concerning him/her self. These questions dealt with factual information concerning type of employment, highest educational level received, and the decade in which the respondent participated in the program. In support of factual questions several opinion questions were asked with the exhibitors responding to a closed ended Likert-type scale. The content and face validity of the instrument were assessed by a review panel. With minor editorial changes, it was approved by the panel. Since the instrument was used previously in a similar study with a similar audience, it was not pilot tested prior to use.

Data Analysis

Data analysis was performed using the Statistical Package for the Social Scientist (SPSS Release 13.0) which is available for the personal computer. Appropriate descriptive statistics were used in reporting findings. Since this was a population study, it was considered inappropriate to use inferential tests to describe the magnitude of relationships.

CHAPTER IV

PRESENTATION OF DATA AND FINDINGS

The purpose of this chapter is to present the findings as they relate to the objectives of the study. It is organized into four major sections, one for each of the four objectives.

Objective One

The first objective of the study was to describe the respondents demographically. The demographic data are outlined in Table I. (All Tables are Located in Appendix IV). The questions that pertained to the demographic data of the respondents were:

1. Were you reared on a farm?
2. What type of livestock did you exhibit?
3. When did you exhibit?
4. How many years were you active in the 4-H livestock project?
5. Are you male or female?
6. How old are you?

The first question dealing with the demographics of the respondents was if they were reared on a farm or not. The choices were “reared on a farm” or “not reared on a farm”?

The vast majority of the respondents, 49, (94.2 percent) responded that they had been reared on a farm. Three (5.8 percent) responded that they had not been reared on a farm, while the entire population of 52 responded to the question.

The respondents were then asked to indicate which types of livestock they had exhibited. Many of the respondents indicated they had exhibited more than one type of livestock during their involvement with the livestock project. All 52 former exhibitors responded to the question. Twenty-two (42.3 percent) reported they had exhibited registered beef cattle. Ten (19.2 percent) exhibited market steers, 5 (9.6 percent) exhibited commercial heifers, 5 (9.6 percent) exhibited Registered Ewes, 6 (11.5 percent) exhibited market lambs, 3 (5.8 percent) exhibited commercial ewes, 10 (19.2 percent) exhibited horses, 14 (26.9 percent) exhibited dairy, 1 (1.9 percent) exhibited goats, 12 (23.1 percent) exhibited swine, and 9 (17.3 percent) had exhibited poultry.

The former exhibitors were next asked to indicate the decade in which they participated in the livestock projects. Again, all 52 of the respondents answered the question, with several indicating that they participated in more than one decade. The range for the responses for the decade of participation began with the 1930's and ended with the 2000's. None of the respondents indicated that they participated in the 1930's. One (1.9 percent) participated in the 1940's, 3 (5.8 percent) participated in the 1950's, 21 (40.4 percent) participated in the 1960's, 17 (32.7 percent) participated in the 1970's, 14 (26.9 percent) participated in the 1980's, 9 (17.3 percent) participated in the 1990's, and 4 (7.7 percent) participated in the 2000's.

The next demographic variable was the number of years in which the respondents participated in 4-H. The ranges of answers were two to four, five to seven, and eight or more, all 52 of the respondents responded to the question. Twelve (23.1 percent) participated in 4-H two to four years, 18 (34.6 percent) participated in 4-H five to seven years, and 22 (42.3 percent) participated in 4-H eight or more years.

The next demographic variable to be studied was gender. As with all the other demographic questions, all 52 of the former exhibitors responded to the question. Twenty (38.5 percent) of the respondents were male, 32 (61.5 percent) of the respondents were Female.

As reported in Table I, respondents were asked to list their highest attained educational level, with possible responses being some high school, high school graduate, some college, college graduate, post graduate education, and other education. There was one response each with other education and some high school (1.9 percent), 14 (26.9 percent) were high school graduates, 13 (25.0 percent) reported some college education, 16, (30.8 percent) were college graduates, 7 (13.5 percent) reported post graduate education. As with all demographic questions, all 52 of the former participants responded to the question. A final demographic question asked was that of age, since age is an intervally scaled variable, it was not reported in Table I. The average age of the participants was 44.63 (s.d.= 13.36).

In summary, the majority of respondents were reared on a farm. The predominant types of livestock shown were Registered Beef Heifers, Market Steers, Horses, Dairy, Poultry and Swine. The majority of the respondents participated in the livestock projects

during the 1960's, 1970's and 1980's, and were active in the project for eight or more years. The majority of respondents were female and the mean age of the respondents was 44.63 years of age.

Objective Two

Objective two of the study was to determine if former participants perceived the livestock projects as beneficial to the development of certain life skills. Six life skills were identified in the study: leadership, responsibility, communication skills, teamwork, record-keeping skills, and confidence. Participants in the study were asked to rate the influence of participation in the livestock projects upon the development of these skills. All 52 of the respondents rated each skill. Using a five-point Likert-type scale, with one being no effect and five being great effect, participants rated their perception of the livestock projects influence on each of the six life skills identified in the study. Table II reports data in support of this objective.

Participants' perceived effects of participation in the livestock projects in the six life skills identified were highest in the development of responsibility ($M= 4.38$, $s.d.= .844$) and confidence ($M= 4.37$, $s.d.= .864$). The respondents regarded the life skills of teamwork ($M= 4.27$, $s.d.= .888$) and communication skills ($M= 4.15$, $s.d.= .872$) as highly influenced by participation in the livestock projects also. The life skills that were least influenced as a result of participation in the livestock projects were the

development of leadership ($M = 4.04$, $s.d. = .885$) and record-keeping skills ($M = 3.81$, $s.d. = 1.03$).

In summary, the respondents regarded the livestock projects very influential in the areas of life skill development. Participants regarded the livestock project as having the greatest impact in the development of responsibility and confidence, followed by a sense of teamwork and communication skills. Participants regarded participation in the livestock projects as having the least impact in the areas of leadership and record-keeping.

Objective Three

The third objective of the study was to determine if participation in the livestock projects helped develop and influence the education and career choice of the participants. Fifty-one of the respondents indicated that participation in the livestock projects had influenced their education and career choices in some manner. Of the 51 respondents, 38 responded to the question of college degree choice, the others reported the highest educational level attained as high school graduate or other education.

For those who reported having at least some college education, participants regarded participation in the livestock projects as having “some effect” ($M = 3.16$, $s.d. = 1.197$) on their decision of college degree major. Of the 38 responses, 5 (9.6 percent) reported no effect, 4 (7.7 percent) reported a rating of 2 on the decision of college major, 13 (25.5 percent) reported a rating of 3, 10 (26.3 percent) reported a rating of 4, while 5

(9.6 percent) reported participation in the livestock projects as having a “great effect” on the decision of their college major.

When asked about the livestock projects influence upon their choice of careers, fifty-one of the respondents indicated that participation in the livestock projects influenced their choice of career. The effect on career choice of the respondents was ($M=3.12$, $s.d.=1.437$). Ten (19.2 percent) of the respondents indicated that participation in the livestock projects had “no effect” on their choice of career, while 12 (23.1 percent) indicated that participation in the livestock projects had a “great effect” on their choice of career.

In summary, the former participants perceived participation in the livestock project had some effect on the decision regarding education and career choice. However, relatively high standard deviation scores indicate that perceptions varied somewhat among respondents.

Objective Four

The final objective of the study was to determine if there was a relationship between selected variables identified in objective one in relation to selected variables listed in objectives two and three. Dependent variables included the influence of participation on development of life skills, influence of participation upon decisions regarding continuing education and the influence of participation in the livestock projects upon career choice. The independent variables included: gender, whether or not the

respondent was reared on a farm, numbers of years active in 4-H, decade of involvement, highest educational level attained, and whether or not the participant had ever worked in an agricultural occupation.

The first relationship studied was that of gender. The relationship of gender and perceived influence on life skill development and educational and career decisions are reported in Table IV. In the areas of life skill development, there was very little difference in the responses in relation to gender. The mean scores reported a difference of only .23 or less between the six life skills selected with females reporting slightly higher influence on responsibility, communication, teamwork, and confidence. The males rated influence of the livestock projects influence on leadership and record-keeping skills slightly higher than their female counterparts.

Regarding the influence of participation in the livestock projects upon decisions affecting educational and career decisions, the females perceived their participation in the livestock project had a greater influence on both college degree choice and career choice than the males. Females perceived the influence of participation upon college degree choice to be 3.33 on the five point Likert-type scale while males rated it 2.95. Similarly, females ($M = 3.32$) perceived the influence of participation upon career choice to be greater than males ($M = 2.80$)

The second relationship to be studied was between the influence of participation in the livestock projects on life skills and decisions concerning education and career choices of former participants and whether or not they were reared on a farm or not. Data describing these relationships are reported in Table V. Forty-nine of the respondents

reported that they were reared on farms, leaving only three of the total population of 52 not being reared on the farm. One must be cautious in interpreting differences between these two groups since so very few were not reared on a farm. However, those not reared on farms reported a greater influence in most life skill development and impact upon career choices than did their counterparts who were reared on farms. They perceived that participation had a slightly less influence on college degree choice than those reared on a farm.

The third relationship to be studied was between the perceived influence upon the development of life skills and decisions regarding education and career choice and the number of years in 4-H. Respondents were asked how long they were active in 4-H based on the following scale: two to four years, five to eight years, and eight or more years. All 52 of the participants responded to the question. Twelve responded they had been active for two to four years, 18 responded they were active in 4-H five to seven years, and 22 reported they had been active for eight or more years. Data describing these relationships are reported in Table VI.

Respondents who had been active for only five to seven years reported slightly lower-perceived influence upon life skill development, educational and career decisions than those who were active for two to four years and eight or more years. While there was little difference between the perceptions of those having two to four years of 4-H experience and those having eight or more, those who were active for eight or more years reported slightly greater influence in all areas with the exception of the development of confidence and communication skills.

The influence on life skill development, education and career choices were studied in their relation to the decade in which the respondent participated in the livestock projects. As with other questions, the entire population of 52 responded to the question. The majority of the respondents reported they were active in the livestock projects during the 1960's, 1970's, and 1980's. The relationships between the decade of involvement and perceived impacts upon life skill development, education and career decisions are reported in Table VII.

Although very small, there were some differences in how participants from different decades perceived the influence of participation upon the development of selected life skills. With the exception of the 1940's where there was only one respondent, those who participated in the 2000's reported the greatest impact in the areas of leadership, communication skills, teamwork and confidence. Those who participated in the 1990's reported the greatest influence in the areas of gaining a sense of responsibility and record keeping skills. Those who participated in the 1950's, however reported the greatest amount of impact upon the perceived influence upon the decision of continuing their education and their choice of career.

The next relationship to be studied was that of the perceived influence of participation in the livestock projects upon life skill development and educational and career choices of those with differing levels of education. The entire population of 52 responded to the question. Respondents were asked to list their highest educational level attained. The responses included some high school, high school graduate, some college, college graduate, post graduate work, and other education. Of those responding, only one

(1.9 percent) participant marked some high school and other education, 14 (26.9 percent) were high school graduates, 13 (25.0 percent) had some college, 16 (30.8 percent) were college graduates, and 7 (13.5 percent) reported post graduate work. The relationship regarding perceived influence on life skill development, educational, and career decisions and highest educational level attained are reported in Table VIII. As with other analyses, one should interpret differences between groups with very small numbers with caution.

Discounting the categories with only one respondent, the areas of perceived life skill development, participants with post graduate education perceived the greatest influence in the areas of leadership ($M = 4.43$, $s.d. = .535$), responsibility ($M = 4.43$, $s.d. = .535$) and the development of confidence ($M = 4.43$, $s.d. = .787$). However those with some college perceived the greatest influence to be on the development of communication ($M = 4.62$, $s.d. = .650$), teamwork ($M = 4.69$, $s.d. = .630$) and record keeping skills ($M = 4.23$, $s.d. = .725$). Those completing post graduate work, perceived the greatest influence to be on degree choice ($M = 3.43$, $s.d. = .787$) and those completing some college perceived the highest influence to be upon career choice ($M = 3.42$, $s.d. = 1.621$).

In summary, those with post graduate educations perceived the greatest impact upon the areas on leadership, responsibility, and the development of confidence. Those with some college reported the greatest impact upon the areas of communication skills, teamwork, and record keeping skills. Participation in the livestock projects had the greatest impact in the area degree choice upon those respondents who had post graduate education, and affected the choice of careers upon those with some college education.

The next relationship studied was that of the perceived effect upon life skill

development, college degree choice and career choice of those who have ever worked in an agricultural occupation. The results are reported in Table IX.

The perceived life skill development of former participants of the livestock projects was very similar. Those who had previously worked in an agricultural-related occupation perceived a greater influence in the development of leadership, communication, teamwork, and record keeping skills. However, those who had not worked in an agricultural-related occupation perceived the greatest influence in the areas of responsibility ($M = 4.42$, $s.d. = 1.026$), and the development of confidence ($M = 4.37$, $s.d. = 1.012$).

The thirty-three respondents who had worked in an agricultural-related occupation felt that participation in the livestock projects had an influence on their choice of college degree. There was a difference of 1.38 in the means that perceived impact of degree choice for those who had worked in an agricultural occupation over those nineteen who did not. There was a similar response for those who had worked in an agricultural occupation upon the area of career choice. There was a difference of 1.53 in the means of the respondents reporting that working in an agricultural occupation influenced their choice of career.

The final relationship studied was between the perceived influence on the development of life skills, and decisions regarding education and career choice and age. Data describing these relationships are reported in Table X. Davis' convention (1971), will be used to interpret these correlations. The correlations between all six of the life skills variables and age is low to negligible. However, there is a positive correlation

between perceived influence on college degree choice and age ($r^2 = .162$) and there is a low positive correlation between perceived influence on career choice and age ($r^2 = .049$).

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction and Theoretical Framework

The Cannon County 4-H livestock projects have had a long and successful history. The livestock and horse projects are the most heavily participated in and publicized of all the 4-H projects. The goal of the 4-H beef project is “To aid in the development of young men and women into responsible American citizens by, teaching through working with animals that depend on the member to provide proper feed, care, etc.” (Lane, 1998). Participation in the livestock projects are very influential in the areas of life skill development. As reported in the literature cited below, the development of life skills such as leadership, confidence, communication skills, responsibility, record keeping skills, and teamwork is the aim of the livestock projects. In a study of life skill development in the 4-H swine project in Iowa, Gamon and Dehegedus-Hetzel, (1994), found life skill development rated a mean value of 4.07 on a five point Likert scale. In a study involving the parents of 4-Hers participating in the livestock projects in Texas, parents perceived that accepting responsibility, goal setting, self-discipline, self-motivation, knowledge of the livestock industry, positive self esteem, and decision making as life skills were gained as a result of their children’s participation in the beef project. Boleman, Cummings, and Briers, (2004).

Education and career choice are also important. Does participation in the livestock project influence members to continue their education or pursue a certain field of work? During a study of former livestock project participants in Wilson County, Tennessee, Beaty (1993) discovered that former participants perceived participation in the livestock projects, had “greater than average” impact in all variables related to education. Participation in the livestock projects have also been influential in the career choice of the former participant. Matulis, (1985) whose study on the effects of 4-H regarding career development found, that 4-H had a positive effect on “self awareness, particularly concerning interests and abilities and greatest impact on general career awareness.” The results of this study will be used to determine if the livestock projects in Cannon County are meeting the goals of life skill development, and impacting the decisions regarding education and career choice of participants.

Purpose and Objectives

The purpose of the study was to determine if participation in the livestock project helped develop select life skills and influence decisions regarding education and career choices. There were four objectives of the study:

- 1) To assess the respondent’s demographics.
- 2) To determine if participation in the livestock projects helped develop life skills such as responsibility, self-esteem, teamwork, and leadership.
- 3) To determine if participation in the livestock projects helped develop and

influence the education and career choice of the participants.

4) To determine if there is a relationship between selected variables identified in objective one in relation to selected variables listed in objectives two and three.

Methods and Procedures

The data for this survey was collected from former participants in the Cannon County 4-H livestock projects by a mailed questionnaire. The researcher attempted to locate all possible former livestock exhibitors. The technique which was used was the “snowball sampling technique” (Bailey, 1982). Each member of the population, identified, was asked to provide the researcher with other possible respondents. Seventy-nine former exhibitors were located and identified. Each former exhibitor was mailed a researcher-developed questionnaire based on the Beaty instrument (1993) used in Wilson County, Tennessee, along with a cover letter explaining the purpose of the study. After the first mailing was completed, 41 of the former exhibitors responded to the survey. The second mailing was sent to the remaining 38 people who had not responded to the first mailing. Eleven former exhibitors responded to the final mailing for a total response of 52. The final response rate for those identified to participate in the study was 66 percent. These 52 respondents served as the population for this census study. Questions in the instrument were developed to determine how long they participated in the livestock projects, what aspects of the livestock project they participated in, the length of time they participated in the project, and the number of years they were active in the 4-H program.

Questions using a five-point Likert-type scale were used in determining the impact of participation in the livestock project on the development of their sense of responsibility, self-esteem, teamwork, and leadership skills. Respondents were asked to identify the highest educational level attained and if their participation in the livestock projects affected their deciding to continue their education. Respondents who completed college were also asked to identify their major emphasis of study and if participation in the livestock projects had any perceived impact upon that decision. Finally, respondents were asked if they chose a career in an agriculture-related field, and to what, if any, degree participation in the livestock projects influenced their career decision.

This study was a descriptive/correlational study with no experimental design. The purpose of this study is to determine the impact of Cannon County 4-H Livestock Project upon former exhibitors and their perceptions regarding the program. Since this was an *Expost Facto* study, no control of the treatment or pretesting was possible. The content and face validity of the instrument was studied by a review panel. With minor revisions, the instrument was mailed to respondents. Since the instrument was used in a similar study with a similar audience several years earlier, it was not pilot tested before use. Data analysis was performed using the Statistical Package for the Social Scientist (SPSS Release 13.0) which is available for the personal computer. Appropriate descriptive statistics were used in reporting findings. Since this was a population study, it was considered inappropriate to use inferential tests to describe the significance of relationships.

Findings

Note: Tables of data in support of these findings are presented in Appendix IV of this thesis.

The first objective of this study was to describe the demographics of the former participants. The vast majority of respondents were reared on a farm. The predominant types of livestock shown were Registered Beef Heifers, Market Steers, Horses, Dairy, Poultry and Swine. The majority of the respondents participated in the livestock projects during the 1960's, 1970's and 1980's, and were active in the project for eight or more years. The majority of respondents were female and the mean age of the respondents was 44.63 years of age.

The second objective of this study was to determine the perceived influence upon the development of certain life skills. Participants' perceived influence of participation in the livestock projects upon the development of the leadership ($M = 4.04$, $s.d. = .885$), confidence ($M = 4.37$, $s.d. = .864$), responsibility ($M = 4.38$, $s.d. = .844$), teamwork ($M = 4.27$, $s.d. = .888$), communication skills ($M = 4.15$, $s.d. = .872$), and record-keeping skills ($M = 3.81$, $s.d. = 1.03$).

The third objective of the study was to determine the influence of participation in the livestock projects upon the choice of college major and career decisions. For those who reported having at least some college education, participants regarded participation in the livestock projects as having "some effect" ($M = 3.16$, $s.d. = 1.197$) on their decision of college degree major. Of the 38 responses, 5 (9.6 percent) reported no effect, 4 (7.7

percent) reported a rating of 2 on the decision of college degree choice 13 (25.5 percent) reported a rating of 3, 10 (26.3 percent) reported a rating of 4, while 5 (9.6 percent) reported participation in the livestock projects as having a “great effect” on the decision of college major.

When asked about the livestock projects influence upon their choice of careers, fifty-one of the respondents indicated that participation in the livestock projects influenced their choice of career. The effect on career choice of the respondents was ($M=3.12$ s.d.= 1.437). Ten (19.2 percent) of the respondents indicated that participation in the livestock projects had “no effect” on their choice of career, while 12 (23.1 percent) indicated that participation in the livestock projects had a “great effect” on their choice of career.

The fourth and final objective of the study was to determine the relationship between selected independent variables such as life skill development, educational, and career influence was studied along with the dependent variables such as gender, being reared on a farm, years active in 4-H, decade participated, and if the participants had ever worked in an agricultural-related occupation.

The first relationship studied was that of gender. In the area of life skill development, there was very little difference in the responses in relation to gender. The mean scores reported a difference of only .23 or less between the six life skills selected with females reporting slightly higher influence on responsibility, communication, teamwork, and confidence. The males rated influence of the livestock projects effect on leadership and record-keeping skills slightly higher than their female counterparts. The

females perceived their participation in the livestock projects having a greater influence on both college degree choice and career choice than the males. Females perceived the influence of participation upon college degree choice to be 3.33 on the five point Likert-type scale while males rated it 2.95. Similarly, females ($M = 3.32$) perceived the influence of participation upon career choice to be greater than males ($M = 2.80$).

The second relationship to be studied was between the influence of participation in the livestock projects on life skills and decisions concerning education and career choices of former participants and whether or not they were reared on a farm or not. Forty-nine of the respondents reported that they were reared on farms, leaving only three of the total population of 52 not being reared on farms. Those not reared on farms reported a greater influence in most life skill development and impact upon career choices than did their counterparts who were reared on farms. They perceived that participation had a slightly less influence on college degree choice than those reared on a farm.

The third relationship to be studied was between the perceived influence upon the development of life skills and decisions regarding education and career choice and the number of years in 4-H. Respondents who had been active for only five to seven years reported slightly lower perceived influence upon life skill development, educational and career decisions than those who were active for two to four years and eight or more years. While there was little difference between perceptions of those having two to four years of 4-H experience and those having eight or more, those who were active for eight or more years reported slightly greater influence in all areas with the exception of the development of confidence and communication skills.

The influence on life skill development, education and career choices were studied in their relation to the decade in which the respondent participated in the livestock projects. The majority of the respondents reported they were active in the livestock projects during the 1960's, 1970's, and 1980's. Although very small, there were some differences in how participants from different decades perceived the influence of participation upon the development of selected life skills. With the exception of the 1940's where there was only one respondent, those who participated in the 2000's reported the greatest impact in the areas of leadership, communication skills, teamwork and confidence. Those who participated in the 1990's reported the greatest influence in the areas of gaining a sense of responsibility and record keeping skills. Those who participated in the 1950's, however reported the greatest amount of impact upon the perceived influence upon the decision of college major and their choice of career.

The next relationship to be studied was that of the perceived influence of participation in the livestock projects upon life skill development and educational and career choices of those with differing levels of education. Respondents were asked to list their highest educational level attained. The responses included some high school, high school graduate, some college, college graduate, post graduate work, and other education. Of those responding, only one (1.9 percent) participant each marked some high school and other education, 14 (26.9 percent) were high school graduates, 13 (25.0 percent) had some college, 16 (30.8 percent) were college graduates, and 7 (13.5 percent) reported post graduate work. Discounting the categories with only one respondent, the areas of perceived life skill development, participants with post graduate education perceived the

greatest influence on the areas of leadership ($M= 4.43$, $s.d.= .535$), responsibility ($M= 4.43$, $s.d.= .535$) and the development of confidence ($M= 4.43$, $s.d.= .787$) . However, those with some college perceived the greatest influence to be on the development of communication ($M= 4.62$, $s.d.= .650$), teamwork ($M= 4.69$, $s.d.=.630$) and record keeping skills ($M= 4.23$, $s.d.= .725$). Those completing post graduate work, perceived the greatest influence to be on degree choice ($M= 3.43$, $s.d. .787$) and those completing some college perceived the highest influence to be upon career choice ($M=3.42$, $s.d.= 1.621$).

The next relationship studied was that of the perceived effect upon life skill development, college degree choice and career choice of those who have ever worked in an agricultural occupation. Thirty-three respondents had worked in an agricultural occupation, nineteen had not. In the areas of perceived life skill development between those former participants of the livestock projects were very similar. Those who had previously worked in an agricultural-related occupation perceived a greater influence in the development of leadership, communication, teamwork, and record keeping skills. However, those who had not worked in an agricultural-related occupation perceived the greatest influence in the areas of responsibility ($M= 4.42$, $s.d. 1.026$), and the development of confidence ($M= 4.37$, $s.d.=1.012$).

Respondents who had worked in an agricultural-related occupation felt that participation in the livestock projects had a profound effect on their choice of college major. There was a difference of 1.38 in the means that perceived impact of college major for those who had worked in an agricultural occupation over those who did not. There was a similar response for those who had worked in an agricultural occupation upon the

area of career choice. There was a difference of 1.53 in the means of the respondents reporting that working in an agricultural occupation influenced their choice of career.

The final relationship studied was between the perceived influence on the development of life skills, and decisions regarding education and career choice and age. The correlations between all six of the life skills variables and age is low to negligible. However, there is a positive correlation between perceived influence on college degree choice and age ($r^2 = .162$) and there is a low positive correlation between perceived influence on career choice and age ($r^2 = .049$).

Conclusions, Implications, and Recommendations

Based on the findings from this study it can be concluded that the livestock projects are meeting their goal of teaching participants important life skills such as leadership, responsibility, teamwork, confidence, communication skills, and record keeping skills. However, the success of these projects in accomplishing this goal varies slightly upon several key variables. For example, participants rated the development of responsibility and confidence as being greatly influenced as a result of participation in the livestock projects. The influence upon record keeping skills was the lowest rated life skill of the former participants. These findings suggest that the traditional methods of record keeping for the livestock project may not be reaching the intended goal and a new method may be implemented to emphasize the financial aspects of the projects rather than project activities.

The livestock projects are having “some effect” in the areas of affecting college degree choice ($M=3.16$, $s.d.=1.197$) and career choice ($M=3.12$, $s.d.=1.437$). This is most profound when studying the relationship between perceived influence upon life skill development, college degree choice and career decisions of those who had ever worked in an agricultural-related occupation. There was a difference of 1.38 in the means that perceived impact of college major for those who had worked in an agricultural occupation over those who did not. There was a difference of 1.53 in the means of the respondents reporting that working in an agricultural occupation influenced their choice of career. These findings suggest that participation in the livestock projects helped to develop an interest in careers related to agriculture. Events and activities such as college tours and career days highlighting careers in agriculture should be emphasized and promoted to current participants of livestock projects.

When looking at the relationships between the development of life skills, and decisions regarding education and career choice, there was very little difference between the perceived influence of the development of life skills and gender. However, females perceived a greater influence upon college degree choice and career choice as a result of participation in the livestock projects. This result could be that of the livestock projects exposing females to educational and career possibilities that they perceived as being closed to them.

Based on this study, it is also apparent that those who participated in the livestock projects two to four or eight or more years felt a greater influence upon the perceived influence upon life skill development and impact upon decisions regarding education and

career choice than those who were active for only five to eight. It could be determined that those who participated for two to four years felt that had they been involved longer with the livestock project, the influences upon life skill development and career and degree choices could have been positive. For those who participated eight or more years; suggests that those participants who participated in the program for the greatest number of years received the greatest benefit in the influence of life skill development and decisions regarding college major and careers.

Based on this study, it can be concluded that the participants who attended college, or have had post graduate education perceive the greatest influence in the area of life skill development. Those with post graduate education perceive the greatest impact in the areas of leadership, responsibility, and the development of confidence. Those with some college education perceive the greatest influence in the development of communication skills, teamwork, and record keeping skills. This group also perceived the greatest impact in the areas of college degree choice, ($M = 3.43$, $s.d. = .787$) and the livestock projects had the greatest influence on career choice on those who reported some college education, ($M = 3.42$, $s.d. = .787$). These findings suggest that for those participants who attend college, the livestock projects have a greater influence in the decision of college major and career choice. Perhaps one should think about implementing a work force education program with program participants to expose current participants to careers in the field of agriculture.

It is recommended that the livestock projects should be encouraged and promoted in Cannon County and counties with similar demographics throughout the state. Based on

this research, it is recommended that emphasis continue to be placed on the development of life skills and exposing participants to educational and career opportunities that involve agriculture. Further research is recommended in this area. The study should be replicated on a larger scale, such as statewide, to determine if the livestock projects are meeting the goals of life skill development and influencing educational and career decisions on a state level. The findings of this study relate to the Beaty, (1993) study of former participants of the Wilson County, Tennessee livestock projects, and correlate with the findings of the Boleman, (2004) study of parents' perceptions of life skills gained as a result of participation in the 4-H beef project.

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APPENDICES

APPENDIX I

614 Lehman Street
Woodbury TN, 37190

Dear X:

The 4-H Livestock program in Cannon County, Tennessee is one of the largest and most recognized programs of its type in the state. The reason for the great amount of success that the program has enjoyed is credited to 4-H members and leaders such as you. I am currently trying to gather data concerning the perceived benefits of the program from former participants such as yourself. While your participation in this study is voluntary, I would greatly appreciate your taking time to assist me, as it should take no more than five minutes to complete the study.

Due to the limited number of people I have been able to locate that have participated in the program, it is important to the study that I have as many completed responses as possible. Because of this, you will note a code number in the upper right-hand corner of the survey. This is to assure that I receive as many responses as possible to complete the study. I assure that the responses that you provide will remain strictly confidential and your name will not be linked to any response. All data received will only be reported in aggregate or group form only.

Again, I appreciate your time and support given to the survey. Any information obtained through this study will be used in an attempt to improve the program for future participants.

Sincerely,

Heath Nokes
Cannon County 4-H Agent

APPENDIX II

Survey of Cannon County Livestock Program Participants

Please chose the best answer unless otherwise noted.

1. Were you raised on a farm?

_____ a. yes

_____ b. no

2. Which types of livestock did you exhibit? (check as many as apply)

_____ a. Registered Beef Cattle

_____ b. Market Steers

_____ c. Commercial Heifers

_____ d. Registered Ewe Sheep

_____ e. Market Lambs

_____ f. Commercial Ewes

_____ g. Horses

_____ h. Dairy

_____ g. Goats

_____ h. Swine

_____ i. Poultry

3. When did you participate in the Livestock project?

_____ a. 1930's

_____ b. 1940's

_____ c. 1950's

_____ d. 1960's

_____ f. 1970's

_____ g. 1980's

_____ h. 1990's

_____ i. 2000's

4. How many years were you a 4-H member?

_____ a. Never

_____ b. Less than two Years

_____ c. Two to Four Years

_____ d. Five to Seven Years

_____ e. Eight Years and Over

5. Are you male or female?

_____ a. Female

_____ b. Male

6. How old are you?

_____ Years Old

7. On a scale of 1 to 5 (1 being **no effect** and 5 being **great effect**), how much effect do you feel that your experiences in the Livestock Project had on you deciding to continue your education? (Continue does not necessarily mean to college, it may mean stay in high school, continue to trade school, etc.) Please circle an appropriate response.

No Effect			Great Effect		
1	2	3	4	5	

8. What was the highest level of education you completed?

_____ a. Some High School	_____ e. College Graduate
_____ b. High School Graduate	_____ f. Post Graduate Work
_____ c. Some College	_____ g. Other (Specify) _____

9. What is your current occupation? (If retired, please list career retired from)

If you have not attended college, SKIP THE FOLLOWING QUESTION.

10. If you attended college, to what degree do you believe that your experiences in the Livestock Project had an effect on your choice of study in college? Circle one.

No Effect			Great Effect		
1	2	3	4	5	

11. Please respond to what degree you feel your participation in the Livestock Project aided you in developing the following skills. (Circle a response for **each skill** with **1 being no help at all** and **5 being greatly helped.**)

	<u>No Help</u>			<u>Greatly Helped</u>	
a. Leadership	1	2	3	4	5
b. Responsibility	1	2	3	4	5
c. Ability to Communicate	1	2	3	4	5
d. Teamwork	1	2	3	4	5
e. Record Keeping	1	2	3	4	5
f. Confidence	1	2	3	4	5

12. To what degree do you feel that your participation in the livestock project had an effect on your career choice. (Please circle a choice with **1 being no effect** and **5 being great effect**).

<u>No Effect</u>			<u>Great Effect</u>	
1	2	3	4	5

13. What is your current occupation?

14. Have you ever worked in an Agricultural related-occupation?

Thank you for your responses, if you have any comments regarding your participation in the livestock project, please feel free to list them below.

APPENDIX III

(Second Mailing)

April 5, 2005

614 Lehman Street
Woodbury TN, 37190

Dear X:

Recently, I sent you a questionnaire concerning your experiences in the livestock program in Cannon County. As of the date on this letter, I have not received your response. I know that this is an extremely busy time of year to be competing for your time; however, it is important that I receive as many completed responses as possible due to the limited number of former participants in the livestock program. In order to assure that everyone has an opportunity to participate, I am sending you another questionnaire. Please complete the enclosed questionnaire and mail it back to me before April 20th. The survey should take no longer than five minutes to complete.

While I would greatly appreciate your participation, should you choose to not participate in the study, return the uncompleted questionnaire in the enclosed postage paid envelope. I will mark your code number off of my list and you will not be contacted again.

If you have already mailed in your response, please disregard this letter. Again I thank you for your time and support in this matter. Upon completion, simply place it in the enclosed envelope and drop it in the mail.

Sincerely,

Heath Nokes
Cannon County 4-H Agent

Enclosures (2)

APPENDIX IV

Table I. Demographic Characteristics of Cannon County Livestock Participants

Characteristics	Number	Percent
Reared on Farm		
Farm	49	94.2
Non-Farm	<u>3</u>	<u>5.8</u>
Total	52	100.0
Kinds of Livestock Shown		
Reg. Beef Cattle	22	42.3
Market Steers	10	19.2
Comm. Heifers	5	9.6
Reg. Ewes	5	9.6
Market Lambs	6	11.5
Comm. Ewes	3	5.8
Horses	10	19.2
Dairy	14	26.9
Goats	1	1.9
Swine	12	23.1
Poultry	<u>9</u>	<u>17.3</u>
Total	*	*
Decade Exhibited		
1930's	0	0
1940's	1	1.9
1950's	3	5.8
1960's	21	40.4
1970's	17	32.7
1980's	14	26.9
1990's	9	17.3
2000's	<u>4</u>	<u>7.7</u>
Total	*	*
Years In 4-H		
Two to Four	12	23.1
Five to Seven	18	34.6
Eight or More	<u>22</u>	<u>42.3</u>
Total	52	100.0

Table I. (Continued)

Characteristics	Number	Percent
Highest Educational Level		
Some High School	1	1.9
High School Grad	14	26.9
Some College	13	25.0
College Grad	16	30.8
Post Grad	7	13.5
Other	<u>1</u>	<u>1.9</u>
Gender		
Male	20	38.5
Female	<u>32</u>	<u>61.5</u>
Total	52	100.0

* Totals for the kind of livestock exhibited and decades exhibited in will be greater than 52 and the percent will be larger than 100 because participants may have exhibited more than one type of livestock and in more than one decade.

Table II. Perceptions of Respondents Regarding the Livestock Projects Influence on the Development of Certain Life Skills.

Variable	Mean*	S. D.
Effect on development of Leadership Skills	4.04	.885
Effect on development of Responsibility	4.38	.844
Effect on development of Communication Skills	4.15	.872
Effect on development of Teamwork	4.27	.888
Effect on development of Record-keeping Skills	3.81	1.030
Effect on development on Confidence	4.37	.864

* The value ranged from no effect (1) to great effect (5) on a Likert-type rating scale.

Table III. Perceptions of Respondents Regarding Participation in the Livestock Projects upon College Degree and Career Choice.

Variable	Mean*	S. D.
Effect on College Degree Choice**	3.16	1.197
Effect on Career Choice	3.12	1.437

* The value of Education and Career Choice ranged from no effect (1) to great effect (5) on a Likert-type scale.

**The value for college degree choice is reported for only the 38 respondents who reported some college, college graduate, or post graduate education.

Table IV. The Relationship Between the Perceived Influence on the Development of Life Skills and Decisions Regarding Education and Career Choice and Gender.

Variable	Female		Male	
	Mean*	S. D.	Mean*	S. D.
Aided Leadership	4.03	.740	4.05	1.099
Aided Responsibility	4.34	.745	4.45	.999
Aided Communication	4.22	.832	4.05	.945
Aided Teamwork	4.31	.821	4.20	1.005
Aided Record keeping	3.72	.991	3.95	1.099
Aided Confidence	4.44	.759	4.25	1.020
Effect on College Degree Choice	3.33	1.111	2.94	1.298
Effect on Career Choice	3.32	1.400	2.80	1.473

* The value ranged from no effect (1) to great effect (5) on a Likert-type rating scale.

Table V. The Relationship Between the Perceived Influence of the Development of Life Skills and Decisions Regarding Education and Career Choice and Whether Respondents were Reared on a Farm or Not.

Variable	Reared on Farm		Not Reared on Farm	
	Mean*	S. D.	Mean*	S. D.
Aided Leadership	4.04	.889	4.00	1.00
Aided Responsibility	4.37	.859	4.67	.577
Aided Communication	4.12	.888	4.67	.577
Aided Teamwork	4.24	.902	4.67	.577
Aided Record keeping	3.78	1.046	4.33	.857
Aided Confidence	4.33	.875	5.00	0
Effect on College Degree Choice	3.23	1.190	3.13	1.424
Effect on Career Choice	2.33	1.155	3.00	2.000

* The value ranged from no effect (1) to great effect (5) on a Likert-type rating scale.

Table VI. The Relationship Between the Perceived Effects of the Development of Life Skills and Decisions Regarding Education and Career Choice and Number of Years Active in 4-H.

Variable	Number of Years Active in 4-H					
	Two to Four (N=12)		Five to Seven (N=18)		Eight or more (N=22)	
	Mean*	S. D.	Mean*	S. D.	Mean*	S. D.
Aided Leadership	4.08	.669	3.89	1.132	4.14	.774
Aided Responsibility	4.33	.651	4.17	1.150	4.59	.590
Aided Communication	4.42	.669	3.89	1.032	4.23	.596
Aided Teamwork	4.33	.778	3.89	1.132	4.55	.596
Aided Record keeping	3.83	1.115	3.67	1.138	3.91	.921
Aided Confidence	4.58	.669	4.06	1.110	4.50	.673
Effect on Degree Choice	3.13	1.246	2.92	1.115	3.35	1.272
Effect on Career Choice	3.27	1.348	2.67	1.138	3.41	1.652

* The value ranged from no effect (1) to great effect (5) on a Likert-type rating scale.

Table VII. The Relationship Between the Perceived Effects of the Development of Life Skills and Decisions Regarding Education and Career Choice and Decade of involvement in 4-H.

Variable	Decade of Involvement													
	1940's		1950's		1960's		1970's		1980's		1990's		2000's	
	(N=1)		(N=3)		(N=21)		(N=17)		(N=14)		(N=9)		(N=4)	
	Mean*	S. D. **	Mean*	S. D. **	Mean*	S. D. **	Mean*	S. D. **	Mean*	S. D. **	Mean*	S. D. **	Mean*	S. D. **
Aided Leadership	5.00	**	4.67	.577	4.10	.831	3.82	.809	3.79	1.051	4.44	.527	4.75	.500
Aided Responsibility	5.00	**	4.33	.577	4.38	.740	4.53	.624	4.07	1.141	4.67	.707	4.50	1.00
Aided Communication	5.00	**	4.00	1.000	4.05	.921	4.12	.718	4.14	.949	4.56	.726	4.75	.500
Aided Teamwork	5.00	**	4.67	.577	4.19	.873	4.29	.686	4.00	1.177	4.67	.500	4.75	.500
Aided Record keeping	5.00	**	4.33	1.155	3.18	.873	3.71	.985	3.57	1.342	4.44	.726	4.25	.957
Aided Confidence	5.00	**	4.67	.577	4.38	.740	4.35	.702	4.00	1.177	4.89	.333	4.75	.500
Effect on Degree Choice	5.00	**	4.00	.000	3.57	.852	3.67	1.231	2.92	1.379	2.56	1.130	3.00	1.000
Effect on Career Choice	5.00	**	4.33	.577	3.67	1.155	3.00	1.458	2.54	1.330	2.79	1.641	3.75	1.893

* The value ranged from no effect (1) to great effect (5) on a Likert-type rating scale.

** Only one respondent participated in the 1940's.

Table VIII. The Relationship Between Perceived Effects of the Development of Life Skills and Decisions Regarding Education and Career Choice and Highest Educational Level Attained

Variable	Highest Educational Level Attained											
	Some High School (N=1)		High School Grad. (N=14)		Some College (N=13)		College Graduate (N=16)		Post Graduate (N=7)		Other (N=1)	
	Mean*	S. D.	Mean*	S. D.	Mean*	S. D.	Mean*	S. D.	Mean*	S. D.	Mean*	S. D.
Aided Leadership	5.00	***	4.00	.877	4.23	.599	3.63	1.088	4.43	.535	5.00	***
Aided Responsibility	5.00	***	4.40	.756	4.46	.660	4.19	1.667	4.43	.535	5.00	***
Aided Communication	5.00	***	4.21	.669	4.62	.650	3.88	1.088	3.57	.535	5.00	***
Aided Teamwork	5.00	***	4.36	.633	4.69	.630	3.94	1.181	3.86	.690	5.00	***
Aided Record keeping	5.00	***	3.50	1.092	4.23	.725	3.43	1.125	3.43	.967	5.00	***
Aided Confidence	5.00	***	4.29	.726	4.69	.480	4.06	1.127	4.43	.545	5.00	***
Effect on Degree Choice	5.00	***	**	**	3.31	1.032	3.06	1.436	3.43	.787	5.00	***
Effect on Career Choice	5.00	***	3.36	1.336	3.42	1.621	2.75	1.612	3.14	1.069	5.00	***

* The value ranged from no effect (1) to great effect (5) on a Likert-type rating scale.

** Respondents did not attend College.

Table IX. Perceptions of Respondents Regarding Participation in the Livestock Projects upon Life Skill Development, Continuing Education and Career Choice and Whether they have Ever Worked in an Agricultural Occupation.

Variable	Yes		No	
	Mean*	S. D.	Mean*	S. D.
Leadership	4.09	.805	3.95	1.026
Responsibility	4.36	.742	4.42	1.017
Communication	4.30	.847	3.89	.875
Teamwork	4.30	.847	4.21	.976
Record keeping	3.88	1.023	3.68	1.057
Confidence	4.36	.783	4.37	1.012
Effect on College Choice	3.67	1.007	2.29	.994
Effect on Career Choice	3.69	1.330	2.16	1.068

* The value of Education and Career Choice ranged from no effect (1) to great effect (5) on a Likert-type scale.

Table X. The Relationship Between the Perceived Influence on the Development of Life Skills and Decisions Regarding Education and Career Choice and Age.

Variable	Age	
	r	r ²
Leadership	.008	<.001
Responsibility	.018	<.001
Communication	-.138	.019
Teamwork	-.031	<.001
Record keeping	-.022	<.001
Confidence	-.007	<.001
College degree choice	.403	.162
Career choice	.222	.049

VITA

Heath Darrell Nokes was born September 8, 1974 in Murfreesboro, Tennessee and graduated from Cannon County High School in 1992. In August of 1992, he entered Middle Tennessee State University in Murfreesboro, Tennessee. In December 1995, he completed requirements for a Bachelor of Science degree Majoring in Animal Science with a Minor in Business Administration.

He was employed by the UT Extension Service on July 1, 1996 in Moore County, Tennessee in charge of 4-H Agriculture. He transferred to Cannon County, Tennessee on October 15, 2001.

He is a member of TAAA&S, Charter member of Cannon County YF&R, Farm Bureau, and Past President of the Lynchburg Lions Club.

He is the oldest son of L.D. & Faye Nokes of Woodbury, Tennessee. He and his wife, Susan, have 2 children, Samuel and Ashlyn.

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