

IMPACT OF TEXAS 4-H SHOOTING SPORTS ON YOUTH AND THE STATE

A Thesis

by

SARAH LYNNE JENKE

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

MASTER OF SCIENCE

May 2003

Major Subject: Agricultural Education

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ABSTRACT

Impact of Texas 4-H Shooting Sports on Youth and the State.

(May 2003)

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This project is designed to determine the impact that Texas 4-H shooting sports has on its youth and the State of Texas using research from a study done 1991 and another study done in 2002. The purpose of these two studies was to analyze the amount of life skills gained by youth through their involvement in the Texas 4-H shooting sports program, to see how much parents are willing to spend to have their children participate in this program, and also to evaluate if the state of Texas incurs some economic gain due to the amount of money spent by parents.

This study uses existing data from two surveys that were completed in 1991 and 2002 at Texas 4-H shooting sports state competition(s). The target population for both of the surveys consisted of youth participants and parents. These two surveys are the same in their attitudinal structure, but are different because the 2002 survey also includes cost analyses.

The major findings were as follows:

- 1.) Involvement in the Texas 4-H shooting sports program does have a positive impact on the life skills gained by youth.
- 2.) Money being spent on youth by their parents to be a part of the Texas 4-H shooting program helps the state of Texas incur some economic gain due to travel and shooting expenses being made in the state
- 3.) Youth representing Texas shooting sports are also having a national impact due to the amount of money they are spending traveling and shooting in other cities.
- 4.) Youth representing Texas shooting sports are having a competitive shooting impact not only in Texas, but on the nation as well.
- 5.) Youth involved in the 4-H shooting program are spending more quality time with family members and practicing more with supervised instruction.
- 6.) The state of Texas is spending close to \$55,000 per year to keep one juvenile delinquent housed in a correctional facility when it cost \$4,000 a year to participate in 4-H shooting sports.

DEDICATION

I would like to dedicate this thesis to everyone that is involved in the Texas 4-H & Youth Development Program and Texas 4-H shooting sports. 4-H and the shooting sports program was a major part of my life as a youth and will continue to impact me as I go through my career. The inspiration to write this thesis came from Dr. Ron Howard, Director of the Texas 4-H shooting sports program. If it were not for him and for the 4-H program millions of youth would not be saved, helped, nor impacted. I hope this thesis can make as much as an impact on Texas 4-H as 4-H has made on me. Good luck, 4-H, and may you be able to use this information to prosper the youth of today and tomorrow!

ACKNOWLEDGMENTS

Words cannot express how truly grateful I am to all of the people that have joined me on this journey through graduate school and writing my thesis. My first thanks goes out to the Texas 4-H & Youth Development Program, faculty, and staff. If it were not for the kindness of Dr. Martha Couch, Dr. Jeff Howard, and soon to be doctor, Toby Lepley, I would never have had an assistantship with 4-H and would not have gone through the graduate school program. I would like to thank them for taking me in, making me feel like I belonged, and believing in me.

Next, I would like to thank Dr. Dennis Fisher who was not only one of my committee members, but has been a mentor since my undergraduate career. It was he who encouraged me to not only pursue a master's degree, but to also write a thesis. Dr. Fisher's support and knowledge in economics has meant a lot and has also taught me many skills that I will continue to use throughout my career.

I would also like to thank Dr. Ron Howard. Dr. Howard has taught me the ins and outs of the shooting sports program and has also provided me with his excellent expertise in evaluation and analyses methods on the shooting sports program. Not only has Dr. Howard been there for me as a graduate student, but he played a big part in my life when I went through the 4-H shooting sports program as a youth. Dr. Howard truly cares about the Texas 4-H shooting sports program and the members involved in it. It is because of people like Dr. Howard that youth in 4-H are positively impacted so greatly.

Another person I would like to thank is Dr. Dick Cummins, one of my committee members and professors, for his support throughout my graduate and undergraduate career. Dr. Cummins has always encouraged his students to reach for their goals, and will do everything in his power to help them accomplish them.

I would like to send a very special thank you to Dr. Scott Cummings, who opened his door and made himself available to me at all times, no matter how busy he was with other things. If it were not for him, the details of this thesis would not be complete. Dr. Cummings walked side by side with me through this entire thesis process with nothing but words of encouragement and wisdom.

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CHAPTER I

INTRODUCTION

History of the Texas 4-H and Youth Development Program

In 1908, a county Extension agent implemented the first corn club for boys in Texas. Over the next decade several more youth clubs were organized that centered around similar production of agriculture commodities. These clubs had an agricultural theme because education through agriculture met the needs of the day. County Extension agents started these clubs because youth were more apt to implement the newest technologies and research theories into their families, farms, and ranches (Wessel and Wessel, 1982). Over time, the needs of the century changed.

The demographic population of the 1900's is dramatically different from the demographic population of the new millennium. Texas has rapidly progressed from a periodically rural state to a more urban atmosphere. Dr. John Hoyle, Professor of Education and Futurism at Texas A&M University, reported that in the year 2020, people in Texas that are of white ethnicity will make up 50% of its population. The other 50% will represent ethnicities from Hispanic, Asian, and African American origins (2002).

This thesis follows the style and format of *The Journal of Leadership Studies*.

Due to these demographic changes, Texas 4-H has been strategically developing projects and curricula that will appeal to youth from varied backgrounds and family structures. According to Lepley, Burkham, and Howard, (1987) there are 47 different 4-H projects youth in Texas can participate in. Of these 47, there are still traditional projects such as beef cattle, swine, and sheep. However, there are also numerous projects that were developed for today's 4-H youth. Some of these include automotive, bicycle, biological science, citizenship, clothing and textiles, companion animals, computer science, electric, health, housing, leadership, photography, and shooting sports. These diverse projects have led to a more inclusive program appealing to youth with varying backgrounds and knowledge.

In 2000, the 4-H enrollment in Texas reached the highest total in the history of the organization with over one million youth participating in 4-H projects. Using data provided by the United State Census Bureau (2000), this means that approximately 1 in 10 children (between the ages of 5-19) in Texas experienced a 4-H program or activity.

The Texas 4-H Office is located in College Station, Texas and is a part of the Texas A&M University System through Texas Cooperative Extension. Cooperative Extension was placed into motion on May 8, 1914 when President Woodrow Wilson signed the Smith-Lever Act. This act brought the university to the people by disseminating research based findings to individuals in communities (Rasmussen, 1989). As a component of land-grant universities, Cooperative Extension services provide educational programs for the general public that pertain to the needs of the day. Texas Cooperative Extension is an educational organization provided by the U.S. government,

the state government through Texas A&M University, and county government. As one - third of land grant mandate of Texas A&M University (teaching, research, extension) Texas Cooperative Extension serves every county in Texas, from the biggest to the smallest, with 250 offices and 1,400 personnel.

The mission of the Texas 4-H & Youth Development Program is to prepare youth to meet the challenges of childhood, adolescence and adulthood, through a coordinated, long-term, progressive series of educational experiences that enhance life skills and develop social, emotional, physical, and cognitive competencies (Couch, et al., 2002). These educational experiences are predicated by an underlying set of values. These values include 1. development of positive life skills, 2. diversity among youth participants, family and Extension personnel, 3. use of research-based information in creative, diverse, hands-on educational environments, and 4. optimizing each youth's potential through unique partnerships with other youth, families, volunteers, Texas A&M University System personnel, and community stakeholders. It is through this mission and value system that Texas 4-H has been able to reach issue based needs of its youth, leading to enhanced knowledge.

As the issues and needs of the individuals involved in 4-H change it will be imperative that new evaluation methods are implemented to assess changes of 4-H's growing program. These new and creative evaluation methods require funding through grants from outside sources and private organizations.

Three major acts have been passed impacting Texas Cooperative Extension planning, implementation, and evaluation of programs. The Government Performance

and Results Act (GPRA) of 1993, the Federal Agriculture Improvement and Reform Act (FAIR) of 1996 and the Agriculture Research, Extension, and the Education Reform Act (AREERA) of 1998 require specific quotas for Texas Cooperative Extension. For example, the GPRA demands that performance plans be recorded for the annual budget. FAIR ensures that programs are effectively measured within their systems through state of the art information technology. AREERA requires the Texas Cooperative Extension to have plans of work approved to receive federal funding.

In order to meet the requirement of these acts, competitive grant funding and sponsorship from the private sector are essential to the growth and development of the Texas 4-H Youth Development Program.

As society continues to change and technology use increases, it is imperative that the largest youth serving organization in Texas emphasize a more researched based structure to provide a solid foundation for youth development efforts. As Texas becomes more urban, it will be critically important to focus toward the needs and wants of Texas children in the new millennium. In order to reach these objectives, the Texas 4-H & Youth Development Program has implemented an enhanced research and evaluation effort to ensure that issues of youth of all ages and ethnicities are addressed. It is essential that state stakeholders, officials, Extension faculty, and the general public have a full understanding of not only the large 4-H enrollment numbers in Texas, but also the effectiveness and impact of the youth programs provided by the Texas 4-H & Youth Development Program.

Statement of the Problem

Due to the substantial decrease in state funds for non-profit youth programs there is now a major need for more intrusive evaluations of specific programs in Texas 4-H. Does the Texas 4-H shooting sports program impact the Texas economy? Do youth gain life skills through involvement in Texas 4-H shooting sports? Is it worth it for the state of Texas to provide money to the Texas 4-H and Youth Development Program? This study seeks to answer these questions.

Purpose and Objectives

This project is designed to determine the impact that Texas 4-H shooting sports has on the state of Texas. The following objectives have been developed to accomplish these purposes:

1. *To determine the impact of life skills gained through involvement of the Texas 4-H shooting sports program. Examples include life skill questions geared towards the following:*
 - A. Gun safety
 - B. Respect for environment
 - D. Ability to set goals
 - E. Respect for others
 - F. Ability to make decisions
 - G. Interest in shooting sports career
 - H. Pride in accomplishing goals
 - I. Willingness to help others learn

- J. Interest in school and education
- K. Ability to talk to adults and parents
- L. Responsibility for their own actions
- M. Ability to get along with people

2. *The second objective was to determine how much parents are willing to spend for their children to be a part of this program, and to determine if the state of Texas incurs economic gain due to the amount of money spent by parents for their youth to participate in the Texas 4-H shooting sports program.*

- A. Travel expenses (gas, vehicle maintenance)
- B. Traffic fine expenses
- C. Common carrier expenses (air, train, bus)
- D. Lodging expenses
- E. Meal expenses
- F. Communication expenses (long distance calls, modem use, letters)
- G. On sight expenses (recreation activities)
- H. Equipment expenses
- I. Equipment maintenance
- J. Ammunition expenses
- K. Clothing & gear expenses
- L. Entry fee expenses

M. Miles traveled

Definition of Terms

4-H - The youth development component of the Cooperative Extension Program.

Texas 4-H shooting sports program - A 4-H youth development program area using shooting sports (archery, hunting, muzzle loading, pistol, rifle, shotgun) as a means of promoting youth development.

Texas Cooperative Extension - The state of Texas division of the United States Department of Agriculture created by the Smith-Lever Act and charged with disseminating research-based information to the public through state and land grant universities.

Theoretical Base for the Study

Throughout the past couple of decades youth in the state of Texas have become challenged with difficult decisions and life changing alterations. Are parents providing their children with the life development skills they need to adapt to everyday situations? Millions of youth have become at-risk due to the lack of parental and organizational involvement.

During the period between 1987 to 1997 Texas reported that the arrest rate between 15 and 16 year olds had jumped to 58% (ATAC, 2001). Also reported in Texas was a 12% increase in juvenile crime since 1995 (ATAC, 2001). In 1997, more than half of the juvenile referrals dealt with delinquent behavior with juveniles with prior records for crimes such as car theft, robberies, and drugs (ATAC, 2001).

Tony Fabelo, Ph. D. and Executive Director for the Criminal Justice Policy Council prepared a study for the 78th Legislature, 2003 called “Mango to Mangos: Comparing the Operational Cost of Juvenile and Adult Correctional Programs in Texas (Fabelo, 2003).” In this study Dr. Fabelo found that it cost \$151.28 per day to house a juvenile in a Texas Youth Commission Facility during the 2001-2002 fiscal year (Fabelo, 2003). Fabelo also calculated that there were a total of 106,884 youth referrals to a juvenile probation department during the fiscal year of 2001-2002, which means the total cost for a year to refer and hold one juvenile in a correctional facility would be \$55,217.20 (Fabelo, 2003). This is an outrageous amount for the state of Texas to be spending on youth who are committing crime!

Assumptions

In conduction of this study, the following assumptions were made:

- A. Youth gained a large amount of life skills due their involvement in the Texas 4-H shooting sports program
- B. The development of family time spent with the guardian and child is desirable in the 2002 surveys.
- C. Parents and youth are willing to spend a large amount of their money to be a part of the Texas 4-H shootings sports program.
- D. The state of Texas gains some economic support due the amount parents are willing to spend for their children to be a part of the Texas 4-H shooting sports program.

- E. It is beneficial for the state of Texas to provide sufficient funds to the Texas 4-H & Youth Development Program.

Delimitations

Both the 1991 and the 2002 surveys were delimited to parents, youth, leaders/coaches, and volunteers. All respondents remained anonymous throughout both studies.

Limitations

The 4-H shooting sports surveys from 1991 and 2002 did not contain youth that are not involved in the Texas 4-H & Youth Development Program. Only the 2002 shooting sports survey contained expense questions. Also the 2002 survey was not targeted to those who participated in the archery event, therefore, all of those respondents apart of this event were eliminated from both studies during analyses of life skills and expenses.

CHAPTER II

REVIEW OF LITERATURE

The Texas 4-H Shooting Sports Program

The Texas 4-H shooting sports program was established in 1973 and has continued to grow throughout the past decade. In 2002 it was reported that at least 8,000 Texas youth participated in the Texas 4-H shooting sports program. These youth participated in the following state level matches: Indoor Archery, BB Gun, Extravaganza, four Shotgun Extravaganzas, Roundup Rifle Match, Outdoor Archery, and Texas 4-H Shooting Sports Games. Included in these matches were the youth plus over 2,000 parents, siblings, leaders, coaches, and volunteers. At these competitions youth had the chance to shoot in events such as archery, muzzle loading, pistol, rifle, and shotgun.

Evaluation of 4-H Shooting Sports Programs

Texas 4-H's Dr. Ron Howard conducted one of the first shooting sports evaluations in 1991 over life skills gained through involvement in 4-H shooting sports. The results from the 1991 surveys have remained unrecorded, but have been used by Dr. Ron Howard when reporting the annual assessments of the Texas 4-H shooting sports program to the National 4-H Shooting Sports Committee (Howard, 2002).

In 1991, Dr. Ron Howard teamed up with Steve Carlson who is with the Minnesota 4-H shooting sports program to provide another life skill impact study on youth involved in 4-H shooting sports. In addition to Dr. Howard's survey Mr. Carlson

involved “at-risk” youth (Carlson, & Howard, 1991). The next study done by Minnesota 4-H was conducted by Carlson in the early 1990's with 4-H shooting sports alumni. The alumni evaluation analyzed the life skills and environmental behaviors gained through involvement in the Minnesota 4-H shooting sports program (Carlson, 1991).

Wendy Hamilton and Kenneth Sabo also reviewed the 4-H shooting sports program with their study on the New Mexico 4-H shooting sports program using high risk youth from low income housing (1997). Through this study, Hamilton and Sabo were able to assess the life, character building, and gun safety skills that these high-risk youth gained through their involvement in the New Mexico 4-H shooting sports program (1997).

Louisiana State University Research and Extension provided an impact report on the Louisiana 4-H shooting sports program, to evaluate how 4-H youth involved in a state shooting sports competition can develop life skills such as self esteem, responsibility, respect, citizenship, and trust (Reed, 2001).

From September 2001 through January 2002, John Patten conducted a youth collaboration project for youth living on the Fairchild Air Force Base and living in the Windsor Community (Patton, 2002). These youth consisted of civilians, military, and at-risk youth enrolled in the GROW program (a 4-H based curriculum using shooting sports). This survey showed how youth involved in the GROW 4-H shooting sports training program had impacts on the individuals, schools, and community (Patton, 2002).

The 2002, Texas 4-H shooting sports program unrecorded survey is one of the latest studies done on 4-H shooting sports (Howard, 2002). This survey was conducted

by Dr. Ron Howard who used a survey similar to the 1991 survey with the addition of cost expenditure questions. There have been no studies reported that have conducted a cost expenditure for involvement in 4-H shooting sports (Howard, 2002).

Youth Involvement in Organizational Activities and the Life Skills Gained

Barry Boyd did a dissertation on the *Analysis of 4-H Participation and Leadership Life Skill Development In Texas 4-H Club Members* (Boyd, 1991). This dissertation showed research on the life skill development of youth gained in organizations besides 4-H such as YMCA. Dr. Boyd found that youth involved in organizational activities such as 4-H and YMCA developed leadership skills by working with groups, understanding self, communicating with others (Boyd, 1991). Boyd's dissertation proves that youth today need to participate in organizational activities in order to develop their life and attitudinal skills so that they will not inhabit bad at-risk youth behaviors such as dealing drugs or stealing cars.

Sportsmanship Among Youth

Kathryn Cox, Extension 4-H Specialist, Youth Development, The Ohio State University, wrote an article on *Developing Sportsmanship*, which talked about the importance of sportsmanship among youth and the steps needed to obtain good sportsmanship like character (Cox et al., 1996). Cox felt that sportsmanship is a vital part in the development of youth. Cox thinks that "To become contributing, competent, caring, capable adults, youth must develop the knowledge, skills, attitudes, and aspirations of sportsmanship and become fair and generous competitors, good losers and graceful winners (Cox et al., 1996)." Cox also thought that "At one time sportsmanship

was taught and reinforced within families to such an extent that it was not necessary for it to be taught elsewhere, and that Extension professionals and volunteers are seeing an alarming decline in sportsmanship by participants and spectators at judging events, fairs, and other programs (Cox et al., 1996).”

Does the 2002 Texas 4-H shooting sports survey done by Dr. Ron Howard show that the life skills gained by youth incorporate sportsmanship like conduct?

Summary of the Review of Literature

The Texas 4-H shooting sports program has been around since the early 1970's. Through the years of its existence the 4-H shooting sports program has had a major impact of the lives of youth all across Texas. Due to the evaluation efforts of many across the nation the life skill effects of being involve in 4-H shooting sports have been published. Never before has the cost expenditure for involvement in 4-H shooting sports been shown until Dr. Howard's recent evaluation effort in 2002 on the Texas 4-H shooting Sports program (Howard, 2002). Studies show that involvement in organizations help youth gain life skills. Extension specialist and volunteers have noticed an increase in unsportsman like conduct in youth participating in 4-H events.

CHAPTER III

METHODS/PROCEDURES

Research Design

This study uses existing data from two surveys that were completed in 1991 and 2002 at 4-H Texas shooting sports state competition(s). The target population for the surveys consisted of youth participants, parents, leaders, coaches, and volunteers that were involved in shooting sports. These two surveys are the same in their attitudinal structure, but are different because the 2002 survey also includes cost analyses. The expenditure cost used for the cost analysis consisted of travel cost, ammunition cost, and competition cost.

Population

Both the 1991 and 2002 surveys were done with males and females ranging in ages of 9 years to 19 years of age. Each survey was done on a random basis and handed to leaders or parents during their registration packet pick up. The surveys were dropped off by the leader or parent and put into a survey drop box that was located in several sites around the camp ground of the shooting sports complex. The 1991 and 2002 surveys were conducted during the annual summer state shooting sports competition(s). The investigator of the 1991 and 2002 surveys was Dr. Ron Howard, Director of the Texas 4-H shooting sports program. (A copy of each survey is located in Appendix A-F.)

Sample

The 1991 survey sample size consisted of 302 youth, 161 parents, and 109 leaders, coaches, and volunteers. The 2002 survey sample size contained 101 youth, 91 parents, and 49 leaders, coaches, and volunteers. Please note that in order for this information to not be skewed during its analyses of youth in 1991 and 2002 and parents in 2002, all archers were taken out of both studies due to the fact that they were not targeted during the pilot of the 2002 survey. This changed the sample size of youth in 1991 to 223 and also changed the 2002 sample size of youth to 89 and parents to 74.

Both of these surveys are confidential and participant identity was anonymous. Participants of the survey were not asked anything that would link information to their personal identity. The two surveys consist of simple classification data, including age, sex, and information on 4-H and 4-H shooting sports participation, hours invested, and family 4-H history. The 2002 survey is different from the 1991 survey because it asks expense questions and archers were not targeted during its pilot.

Instrument

The purpose of these two studies was to evaluate the attitude and life skills gained through participation in the Texas 4-H shooting sports program. To evaluate these measures, skill questions were asked to determine the feasibility of goal setting, character development, leadership development, and civil service attitudes acquired

through participation in the 4-H shooting sports program. These life skill questions were asked in a Likert format ranging from the degree of 0 to 7 (0=None, 1=Not Much, 2=A Little, 3=Like Most Things, 4=Quite a Bit, 5=Lots, 6=Very Much, 7=More than Anything Else). Also, open ended questions such as “what are your goals” were used to specify goal achievement in life.

The elicited technique used to conduct the expense questions from the parents in the 2002 survey used direct open ended questions in which the respondents (participants, parents, leaders, and coaches) were asked how much they approximately paid to participate in the Texas 4-H shooting sports program for that year.

Collection of Data

1991 Data

The existing surveys were conducted at the 1991 5 Star Match (rifle, pistol, muzzle loading, and archery), Silhouette Match, and the Trap, Skeet and Sporting Clays Shoot. Questionnaires were randomly filled out anonymously by youth participants, parents, volunteers, leaders, and coaches.

2002 Data

The existing surveys were completed at the 2002 Texas shooting sports state competition. At this state competition a random survey was handed to the following anonymous respondents: youth participants, parents, volunteers, leaders, and coaches.

Analysis of Data

The surveys were anonymous and there were no identifiers used except for the type of event the respondent participated in. Dr. Ron Howard, the Texas 4-H shooting

sports Director calculated the results from both the 1991 and 2002 surveys tabulating them using D-base and Excel programs. The analysis of the data was computed using the (1999) Statistical Package for Social Sciences (SPSS). The SPSS program was used to analyze the Likert scale sections, and the overall survey instrument for the Texas 4-H shooting sports program. In order to show a reliable significance among correlations of the data confidence intervals and tests were set at the .05 level. (Please note that in order for this information to not be skewed all archers were taken out of both studies due to the fact that they were not targeted during the pilot of the 2002 survey.) The following test were ran using SPSS:

1. Pearson Correlation Coefficients- According to SPSS Pearson Correlation

Coefficients show the “linear relationship between two quantitative variables in which the values of the coefficient are not expressed in units of data, but range from -1 to 1 and is used for list wise and pair wise methods for incomplete data (SPSS, 1999).” (Use of this method is described on page 20 under Objective 1 and Objective 2.)

2. Spearman’s Rho Correlation Coefficients- Spearman’s Rho Correlation

Coefficients according to SPSS “uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999).” This method was used for all analyses with variables that represented time, years, or hours. (Further use of this method is described on page 20 under Objective 1 and Objective 2.)

3. Independent Samples T-test- According SPSS an Independent Samples T-test is the procedure, which tests whether the mean of a single variable for subjects in one group differs from that in another group (SPSS, 1999). (Use of this method can be found on page 20 under Objective 1 and Objective 2.)

Symbols/codes were developed for reference in tables in for Chapter IV Findings and Discussion and used in the Appendices section. These symbols/codes can be found in Table 1 and Table 2.

Table 1. Symbols for Life Skills

<i>LIFE SKILLS</i>		
Symbol	Descriptives	Values
LQ-1	Archery and/or firearm safety	"0-7" Likert Scale
LQ-2	Responsibility with firearms and/or archery equipment	"0-7" Likert Scale
LQ-3	Respect for the environment and living things	"0-7" Likert Scale
LQ-4	Ability to make decisions	"0-7" Likert Scale
LQ-5	Interest in shooting or conservation careers	"0-7" Likert Scale
LQ-6	Pride in accomplishing goals	"0-7" Likert Scale
LQ-7	Willingness to help others learn	"0-7" Likert Scale
LQ-8	Ability to set goals	"0-7" Likert Scale
LQ-9	Respect for other people and property	"0-7" Likert Scale
LQ-10	Interest in conservation (including outdoor recreation)	"0-7" Likert Scale
LQ-11	Interest in school and education	"0-7" Likert Scale
LQ-12	Ability to talk to adults and parents	"0-7" Likert Scale
LQ-13	Responsibility for own actions	"0-7" Likert Scale
LQ-14	Ability to get along with people	"0-7" Likert Scale

These life skill questions were asked in a Likert format ranging from the degree of 0 to 7 (0=None, 1=Not Much, 2=A Little, 3=Like Most Things, 4=Quite a Bit, 5=Lots, 6=Very Much, 7=More than Anything Else).

Table 2. Codes for Travel/Shooting Expenses and Cost per Kid

<i>TRAVELING EXPENSES</i>	
Symbol	Descriptives
TQ-1	Travel Expenses (gas, vehicle maintenance)
TQ-2	Traffic Fine Expenses
TQ-3	Common Carrier Expenses (air, train, bus)
TQ-4	Lodging Expenses
TQ-5	Meal Expenses
TQ-6	Communication Expenses (long distance calls, modem use, letters)
TQ-7	On Site Expenses (recreation activities)
TQ-total	Travel Expense Total
<i>SHOOTING EXPENSES</i>	
Symbol	Descriptives
SQ-1	Equipment Expenses
SQ-2	Equipment Maintenance
SQ-3	Ammunition Expenses
SQ-4	Clothing & Gear Expenses
SQ-5	Entry Fee Expenses
SQ-total	Shooting Expense Total
<i>COST PER KID</i>	
Symbol	Descriptives
C/K	Average amount of money that parents spent per child

Objective 1

Objective 1 was to determine the impact of life skills gained through involvement of the Texas 4-H shooting sports program.

Objective one was completed by using several different methods for evaluation. The items assessed using the 2002 data were the correlations between age, gender, and years of shooting sports involvement using Pearson and Spearman's Rho Correlation Coefficients. The Independent Samples T-test showed the significance of life skill questions comparing both the 1991 life skill results to the 2002 life skill results for the following areas of analyses: Texas participation compared to out of state participation, effect of gender, and years of involvement in the shooting sport program on life skills.

Objective 2

The second objective was to determine how much parents are willing to spend for their children to be a part of this program, and to determine if the state of Texas incurs economic gain due to the amount of money spent by parents for their youth to participate in the Texas 4-H shooting sports program.

In order to evaluate the expense questions of the parent's responses, Pearson and Spearman's Rho Correlation Coefficients and an Independent T-Test were used. Correlation models were used to analyze the positive and negative comparison between the following things: total amount spent per child to number of years the child spent in the shooting sports program, program event, gender, age, number of hours of family time spent, number of hours of supervision while practicing, activities inside 4-H other than

shooting sports, activities outside of 4-H, number of 4-H shooting sports competitions entered, and number of shooting sports competitions entered outside of 4-H. The Independent Samples T-test analyzed the significance among the amount of money parents spent inside of Texas compared to outside of Texas.

CHAPTER IV

FINDINGS AND DISCUSSION

This project is designed to determine the impact that Texas 4-H shooting sports has on the state of Texas. The purpose of these two studies was to determine the amount of life skills gained by youth through their involvement in the Texas 4-H shooting sports program, to see how much parents are willing to spend to be a part of this program and does Texas incur economic gain due to the money being spent by the parent.

Findings Related to Objective 1

The first objective was to determine the impact of life skills gained through involvement of the Texas 4-H shooting sports program.

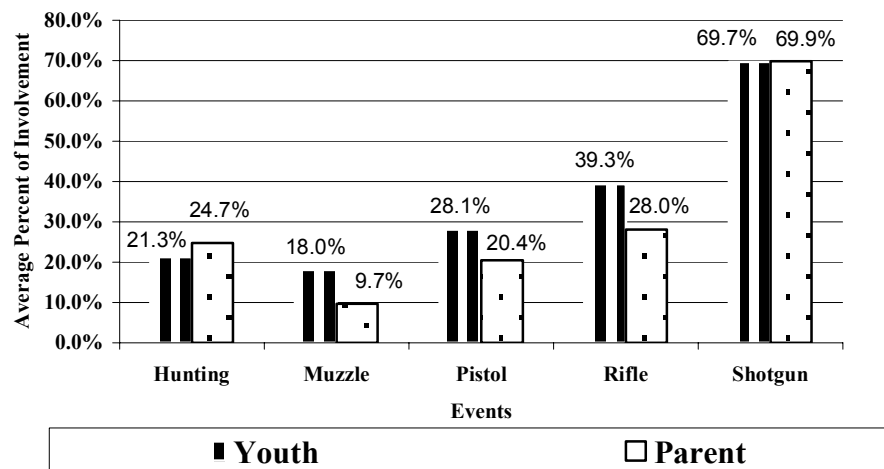
The 1991 and 2002 life skill questions were computed using Frequencies, Descriptives, Independent Samples T-test, Pearson's and Spearman's Rho Correlations Coefficients. (Please note that in order for this information to not be skewed all archers were taken out of both studies due to the fact that they were not targeted during the pilot of the 2002 survey.)

The Frequencies showed that 11% of the youth respondents were females and 89% of the respondents were males. Participants were involved with the Texas 4-H shooting sports program for an average of 3 years and were an average of 13 years old. (These results are shown in Table 3.)

Table 3. 2002 Frequencies & Descriptives for Youth

	<i>Females</i>	<i>Males</i>	<i>Average Number of Years involved in 4-H Shooting Sports</i>	<i>Average Age</i>
Youth	11.2%	88.8%	3 years	13 years old

The Frequencies for the shooting sports events showed that 70% of the youth participated in the shotgun event, 40% in rifle, 28% in pistol, 18% in muzzle, 21% in hunting. Please note that this figure will not up to 100% due to the fact that the majority of the respondents participated in multiple events. (These results are shown in Figure 1.)

Figure 1. 2002 Youth and Parent Frequencies for Events

In 2002, both the youth and parents felt that they gained a large amount of quality family time as well as supervised instruction. The parents reported that they spent over 2,000 hours of quality per year with their family, which is higher than the 1,000 hours that the youth reported. Also reported was a higher amount of supervised practice hours with coaches leaders and volunteers by parents who said their child spend over 650 hours per year and the youth reporting over 380 hours per year. (These results are shown in Table 4.)

Table 4. 2002 Average Amount of Hours per Year Youth and Parents Spent Together as a Family and with Coaches/Leaders & Volunteers

	<i>Youth</i>	<i>Parent</i>
<i>Supervised hours youth spent practicing shooting sports skill with a Coach or Volunteer</i>	379.93	657.78
<i>Family hours spent with youth resulting from the 4-H Shooting Sports Program</i>	1,092.37	2,084.49

The 2002 data showed that the 4-H youth competed at an average of 5 contest compared to 3 non-4-H contests. This data also showed that youth were involved in 2 other 4-H activities besides shooting sports and involved in an average of 2 extracurricular non-4-H activities such as athletics or Boy Scouts. (This data is shown in Table 5.)

Table 5. 2002 Average Number of 4-H Participation vs. Non-4-H Participation for Youth

<i>4-H Shooting Contest</i>	5.26
<i>Non-4-H Shooting Contest</i>	3.14
<i>Other 4-H Activities</i>	2.06
<i>Extracurricular Non-4-H Activities</i>	2.32

In 2002, 82% of the youth said they participated in shooting competitions just inside of Texas, which is higher than the parent's report of 78%. Out of the youth 18% of them reported that they participated in contest outside of Texas and 21.6% of the parents felt their children participated in out of state events. (These percentages are shown in Table 6.)

Table 6. Percentage of Those Who Participated in Contest Inside and Outside of Texas, Youth vs. Parents

	<i>Percentage</i>
<i>Inside of Texas (Youth)</i>	82.0%
<i>Outside of Texas</i>	18.0%
<i>Inside of Texas (Parent)</i>	78.4%
<i>Outside of Texas</i>	21.6%

Inside of Texas refers to the contest participants competed at just inside the state of Texas.
Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

The results from the T-test showed no substantial life skill increases within the Texas 4-H shooting sports program from 1991 to 2002. All of them remained high with the lowest rank being a 4 “Quite a Bit” and the highest being a 6 “Very Much”. The youth however showed some significant decreases in life skills from 1991 to 2002 in responsibility with firearms and/or archery equipment which had a mean of 5.87 in 1991 and 5.49 in 2002. Another significant decrease in between 1991 and 2002 was with the life skill responsibility for the environment and living things which had a mean of 5.26 in 1991 and 4.67 in 2002. (These results are shown in Table 7.)

Table 7. Life Skills Gained, 1991 vs. 2002

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Archery and/or firearm safety</i>				
1991	226	5.51	1.68	0.11
2002	87	5.11	1.93	0.21
<i>Responsibility with firearms and/or archery equipment</i>				
1991	226	5.87**	1.31	8.70E-02
2002	88	5.49**	1.60	0.17
<i>Respect for the environment and living things</i>				
1991	226	5.26**	1.66	0.11
2002	87	4.67**	2.02	0.22
<i>Ability to make decisions</i>				
1991	226	5.03	1.45	9.62E-02
2002	88	4.89	1.83	0.20
<i>Interest in shooting or conservation careers</i>				
1991	226	4.96	1.68	0.11
2002	87	5.15	1.94	0.21
<i>Pride in accomplishing goals</i>				
1991	226	5.62	1.39	9.25E-02
2002	86	5.65	1.41	0.15
<i>Willingness to help others learn</i>				
1991	226	5.19	1.60	0.11
2002	86	5.28	1.47	0.16
<i>Ability to set goals</i>				
1991	226	4.99	1.54	0.10
2002	88	5.33	1.61	0.17

Table 7. (Continued)

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Respect for other people and property</i>				
1991	226	5.65	1.31	8.73E-02
2002	87	5.60	1.67	0.18
<i>Interest in conservation (including outdoor recreation)</i>				
1991	226	4.69	1.72	0.11
2002	86	4.29	2.14	0.23
<i>Interest in school and education</i>				
1991	226	4.82	1.76	0.12
2002	87	4.48	2.03	0.22
<i>Ability to talk to adults and parents</i>				
1991	226	4.84	1.67	0.11
2002	88	5.06	1.80	0.19
<i>Responsibility for own actions</i>				
1991	128	5.47	1.32	0.12
2002	88	5.58	1.57	0.17
<i>Ability to get along with people</i>				
1991	226	5.42	1.38	9.17E-02
2002	88	5.42	1.55	0.17

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

These life skill questions were asked in a Likert format ranging from the degree of 0 to 7 (0=None, 1=Not Much, 2=A Little, 3=Like Most Things, 4=Quite a Bit, 5=Lots, 6=Very Much, 7=More than Anything Else).

An Independent Samples T-test tests whether the mean of a single variable for subjects in one group differs from that in another group (SPSS, 1999).

Please view Appendix G and Appendix H for the following: These means showed a significant difference LQ-2: 1991 = 1992; LQ-3: 1991=2002

After comparing gender using Spearman's Rho Correlation Coefficients, there was only one life skill that showed significance, which was that through their involvement in the Texas 4-H shooting sports program, females felt that they were more willing to help others learn with a mean of 6.30 compared to the males who had a mean of 5.14. Although the rest of the data showed no significance means remained high with the lowest mean being a 4 "Quite a Bit" and the highest being a 6 "Very Much". (Results for this are shown in Table 8.)

Pearson Correlation Coefficients were used to compare the youths years of involvement in shooting sports to age, gender, years involved in 4-H, hours spent practicing, family and supervised hours spent, and life skills. The results showed that the following as a positive significant impact due to the longer years of involvement: age with a correlation of .603, years involved in 4-H with a correlation of .906, and the life skill of archery and/or firearm safety with a correlation of .278. (The complete results are shown in Table 9.)

Spearman's Rho Correlation Coefficients were used for youth participating in shooting sports competitions inside and outside of Texas. Those that participated in competitions just inside of Texas showed no significant increases. The life skill interest in shooting or conservation careers was significantly positive for those participating in competitions outside of Texas with a correlation coefficient of .287 and significantly negative for those participating inside of Texas with a correlation of -.0225. (All of these Spearman's Rho Correlation Coefficients are shown in Table 10.)

Table 8. 2002 Life Skills Gained, Females vs. Males

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Archery and/or firearm safety</i>				
Females	10	5.70	1.34	0.42
Males	77	5.04	1.98	0.23
<i>Responsibility with firearms and/or archery equipment</i>				
Females	10	6.00	0.67	.21
Males	78	5.42	1.67	0.19
<i>Respect for the environment and living things</i>				
Females	10	5.10	1.20	0.38
Males	77	4.61	2.10	.24
<i>Ability to make decisions</i>				
Females	10	5.10	1.52	.48
Males	78	4.86	1.88	.21
<i>Interest in shooting or conservation careers</i>				
Females	10	4.90	2.38	0.75
Males	77	5.18	1.89	0.22
<i>Pride in accomplishing goals</i>				
Females	10	6.00	0.94	.30
Males	76	5.61	1.46	0.17
<i>Willingness to help others learn</i>				
Females	10	6.30**	1.06	0.33
Males	76	5.14**	1.47	0.17
<i>Ability to set goals</i>				
Females	10	6.00	0.94	0.30
Males	78	5.24	1.66	0.19
<i>Respect for other people and property</i>				
Females	10	6.20	1.03	.33
Males	77	5.52	1.72	0.20

Table 8. (Continued)

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Interest in conservation (including outdoor recreation)</i>				
Females	10	5.00	1.70	0.54
Males	76	4.20	2.18	0.25
<i>Interest in school and education</i>				
Females	10	5.30	1.34	0.42
Males	77	4.38	2.09	0.24
<i>Ability to talk to adults and parents</i>				
Females	10	4.80	2.15	0.68
Males	78	5.09	1.76	0.20
<i>Responsibility for own actions</i>				
Females	10	6.30	1.57	0.50
Males	78	5.49	1.56	0.18
<i>Ability to get along with people</i>				
Females	10	6.10	1.29	.41
Males	78	5.33	1.57	0.18

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

These life skill questions were asked in a Likert format ranging from the degree of 0 to 7 (0=None, 1=Not Much, 2=A Little, 3=Like Most Things, 4=Quite a Bit, 5=Lots, 6=Very Much, 7=More than Anything Else).

An Independent Samples T-test tests whether the mean of a single variable for subjects in one group differs from that in another group (SPSS, 1999).

Please refer to Appendix I and Appendix J for the following: These means showed a significant difference L.Q-7:

Females=Males

Table 9. 2002 Shooting Years vs. Life Skills

	<i>Shooting Years Involved</i>
<i>Archery and/or firearm safety</i>	.278**
<i>Responsibility with firearms and/or archery equipment</i>	0.162
<i>Respect for the environment and living things</i>	0.106
<i>Ability to make decisions</i>	0.125
<i>Interest in shooting or conservation careers</i>	-0.173
<i>Pride in accomplishing goals</i>	0.106
<i>Willingness to help others learn</i>	-0.094
<i>Ability to set goals</i>	0.025
<i>Respect for other people and property</i>	0.052
<i>Interest in conservation (including outdoor recreation)</i>	0.04
<i>Interest in school and education</i>	-0.021
<i>Ability to talk to adults and parents</i>	0.065
<i>Responsibility for own actions</i>	0.133
<i>Ability to get along with people</i>	0.073

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Pearson Correlation Coefficients show the "linear relationship between two quantitative variables in which the values of the coefficient are not expressed in units of data, but range from -1 to 1 and is used for list wise and pair wise methods for incomplete data (SPSS, 1999)."

Please refer to Appendix K for the following: These means showed a significant correlation LQ-1 Vs. Shooting Years Involved

Table 10. 2002 Youth Participating in Competitions Within Only Texas vs. Outside Competitions

	<i>Inside of Texas</i>	<i>Outside of Texas</i>
<i>Age</i>	-0.440	0.122
<i>Gender</i>	-0.056	0.074
<i>Years involved in 4-H</i>	-0.016	0.028
<i>Years involved in 4-H Shooting Sports</i>	-0.004	0.025
<i>Hours spent practicing that year</i>	0.051	-0.067
<i>Hours spent with supervised instruction for that year</i>	0.002	0.066
<i>Family hours spent together for that year</i>	-0.113	0.158
<i>4-H shooting sports contest that were entered per youth for that year</i>	0.163	-0.108
<i>Non-4-H shooting sports contest entered per youth for that year</i>	-0.256	.318*
<i>Involvement in other 4-H activities</i>	0.024	-0.024
<i>Involvement in extracurricular Non-4-H activities</i>	-0.127	0.109
<i>Archery and/or firearm safety</i>	-0.016	0.09
<i>Responsibility with firearms and/or archery equipment</i>	-0.055	0.123

Table 10. (Continued)

	<i>Inside of Texas</i>	<i>Outside of Texas</i>
<i>Respect for the environment and living things</i>	0.164	-0.137
<i>Ability to make decisions</i>	-0.033	0.066
<i>Interest in shooting or conservation careers</i>	-0.225*	.287*
<i>Pride in accomplishing goals</i>	0.011	0.065
<i>Willingness to help others learn</i>	0.045	0.014
<i>Ability to set goals</i>	-0.066	0.11
<i>Respect for other people and property</i>	-0.045	0.109
<i>Interest in conservation (including outdoor recreation)</i>	0.042	-0.009
<i>Interest in school and education</i>	0.036	-0.039
<i>Ability to talk to adults and parents</i>	0.073	-0.016
<i>Responsibility for own actions</i>	-0.083	0.147
<i>Ability to get along with people</i>	0.080	-0.029

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Inside of Texas refers to the contest participants competed at just inside the state of Texas.

Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

Spearman's Rho Correlation Coefficients "uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999)." This method was used for all analyses with variables that represented time, years, or hours.

Please refer to Appendix L for the following: These showed a significant correlation Inside of Texas Vs. LQ-5; Outside of Texas Vs. Non-4-H Shooting Contest; Outside of Texas Vs. LQ-5

The 2002 Spearman's Rho Correlation Coefficients was used to analyze the life skills gained for youth participating in just 4-H shooting events compared to those who participated in non-4-H shooting sports events. The results showed that there were no positive or negative significance differences in those youth who participated in just 4-H shooting sports events. However, those youth that participated in non-4-H shooting events had a positive significant increase in hours spent practicing with a correlation of .472, the life skill of interest in shooting or conservation careers with a correlation of .322, and a positive significance in participation in contest outside of Texas with a correlation of .318. (These significance are shown in Table 11.)

Pearson Correlation Coefficients were used for the 2002 youth to show the positive and negative significance in the number of practice hours, supervised hours, and quality family hours spent together versus life skills gained. The results showed that youth that practiced more had a significant increase in both supervised hours with a correlation of .409 and quality family hours with a correlation of .367, but no significant increase or decrease in life skills. Youth who spent more hours being supervised by a coach/leader or volunteer had a positive significant increase in hours spent practicing with a correlation of .409 and quality family hours with a correlation of .834, but no positive or negative significant increase or decreases in life skills. Youth who spent more quality in hours with their family showed a significant increase in hours spent practicing with a correlation of .367 and hours spent being supervised with a correlation of .834, as well as a positive significant increase in participation in other 4-H activities which had a correlation of .440. Youth who spent more time with their family showed a negative significant decrease in the life skills respect for other people and property with a correlation of -.233, and responsibility for own actions with a correlation of -.227. (All of these results are shown in Table 12.)

Table 11. 2002 Youth 4-H Shooting Sports Events vs. Non-4-H Shooting Sports Events

	<i>4-H Events</i>	<i>Non-4-H Events</i>
<i>Age</i>	-0.06	0.135
<i>Gender</i>	0.03	0.114
<i>Years involved in 4-H</i>	-0.043	0.244
<i>Years involved in 4-H Shooting Sports</i>	-0.037	0.196
<i>Hours spent practicing that year</i>	0.037	.472**
<i>Hours spent with supervised instruction for that year</i>	0.016	-0.009
<i>Family hours spent together for that year</i>	0.085	0.127
<i>4-H shooting sports contest that were entered per youth for that year</i>	1.000	-0.086
<i>Non-4-H shooting sports contest entered per youth for that year</i>	-0.086	1.000
<i>Involvement in other 4-H activities</i>	-0.086	0.19
<i>Involvement in extracurricular Non-4-H activities</i>	-0.145	0.067
<i>Archery and/or firearm safety</i>	0.115	0.205
<i>Responsibility with firearms and/or archery equipment</i>	0.115	0.06
<i>Respect for the environment and living things</i>	0.211	0.035

Table 11. (Continued)

	<i>4-H Events</i>	<i>Non-4-H Events</i>
<i>Ability to make decisions</i>	0.153	0.066
<i>Interest in shooting or conservation careers</i>	0.082	.322**
<i>Pride in accomplishing goals</i>	0.166	0.276
<i>Willingness to help others learn</i>	0.094	-0.038
<i>Ability to set goals</i>	0.159	0.096
<i>Respect for other people and property</i>	0.16	0.101
<i>Interest in conservation (including outdoor recreation)</i>	0.186	-0.093
<i>Interest in school and education</i>	0.129	-0.014
<i>Ability to talk to adults and parents</i>	0.091	0.135
<i>Responsibility for own actions</i>	0.111	0.104
<i>Ability to get along with people</i>	0.129	-0.036
<i>Participation in contest just in Texas</i>	0.163	-.256
<i>Participation in contest outside of Texas</i>	-0.108	.318*

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Spearman's Rho Correlation Coefficients "uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999)." This method was used for all analyses with variables that represented time, years, or hours.

Please refer to Appendix M for the following:

These have a significant correlation Non-4-H Events Vs. Hours Spent Practicing; Non-4-H Events Vs. LQ-5; Non-4-H Events Vs. Participation in Events Outside of Texas.

Table 12. 2002 Youth Practice Hours, Supervised Hours, & Family Hours vs. 4-H Activities & Life Skills

	<i>Practice Hours</i>	<i>Supervised Hours</i>	<i>Family Hours</i>
<i>Hours spent practicing that year</i>	1.000	.409**	.367**
<i>Hours spent with supervised instruction for that year</i>	.409**	1.000	.834**
<i>Family hours spent together for that year</i>	.367**	.834**	1.000
<i>Involvement in other 4-H activities</i>	0.244	-0.208	.440*
<i>Archery and/or firearm safety</i>	-0.002	-0.16	-0.181
<i>Responsibility with firearms and/or archery equipment</i>	0.000	-0.111	-0.168
<i>Respect for the environment and living things</i>	0.01	-0.115	-0.108
<i>Ability to make decisions</i>	0.008	-0.096	-0.142
<i>Interest in shooting or conservation careers</i>	0.109	0.069	-0.05
<i>Pride in accomplishing goals</i>	0.031	0.004	-0.098
<i>Willingness to help others learn</i>	-0.057	-0.149	-0.192
<i>Ability to set goals</i>	0.004	-0.067	-0.194
<i>Respect for other people and property</i>	-0.045	-0.161	-0.233*
<i>Interest in conservation (including outdoor recreation)</i>	-0.036	-0.076	-0.12
<i>Interest in school and education</i>	-0.078	-0.139	-0.15
<i>Ability to talk to adults and parents</i>	0.082	-0.068	-0.139
<i>Responsibility for own actions</i>	0.08	-0.097	-.227*
<i>Ability to get along with people</i>	-0.031	-0.118	-0.208
<i>Participation in contest just in Texas</i>	0.066	-0.067	0.025
<i>Participation in contest outside of Texas</i>	-0.084	0.091	-0.01

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Pearson Correlation Coefficients show the "linear relationship between two quantitative variables in which the values of the coefficient are not expressed in units of data, but range from -1 to 1 and is used for list wise and pair wise methods for incomplete data (SPSS, 1999)."

Please refer to Appendix N for the following: These had a significant correlation Practice Hours Vs. Supervised Hours; Practice Hours Vs. Family Time; Supervised Hours Vs. Hours Practicing; Supervised Vs. Family Time; Family Time Vs. Practice Hours; Family Time Vs. Supervised Hours; Family Time Vs. LQ-13.

Pearson Correlation Coefficients were used to analyze the positive and negative increases or decreases in significance for the 2002 youths' age compared to years of involvement and life skills. The results showed that youth who were older have a positive significant increase in years involved in 4-H with a correlation of .587 and years of involvement in shooting sports with a correlation of .607, but no significant increases or decreases in life skills. (These results are shown in Table 13.)

Table 13. 2002 Youth's Age vs. Years of Involvement & Life Skills

	<i>Age</i>
<i>Years involved in 4-H</i>	.587**
<i>Years involved in 4-H Shooting Sports</i>	.603**
<i>Archery and/or firearm safety</i>	0.089
<i>Responsibility with firearms and/or archery equipment</i>	0.149
<i>Respect for the environment and living things</i>	0.058
<i>Ability to make decisions</i>	-0.011
<i>Interest in shooting or conservation careers</i>	-0.133
<i>Pride in accomplishing goals</i>	-0.007
<i>Willingness to help others learn</i>	-0.07
<i>Ability to set goals</i>	-0.117
<i>Respect for other people and property</i>	-0.074
<i>Interest in conservation (including outdoor recreation)</i>	0.072
<i>Interest in school and education</i>	-0.127
<i>Ability to talk to adults and parents</i>	0.028
<i>Responsibility for own actions</i>	-0.029
<i>Ability to get along with people</i>	-0.024
<i>Participation in contest just in Texas</i>	-0.033
<i>Participation in contest outside of Texas</i>	0.116

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Just in Texas refers to the contest participants competed at just inside the state of Texas.

Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

Pearson Correlation Coefficients show the "linear relationship between two quantitative variables in which the values of the coefficient are not expressed in units of data, but range from -1 to 1 and is used for list wise and pair wise methods for incomplete data (SPSS, 1999)."

Please refer to Appendix O for the following: These had a significant correlation Age Vs. Years in 4-H; Age Vs. Years in 4-H Shooting Sports

Independent T-test was used to compare life skills gained by those youth who participated in contest just inside of Texas versus those who participated in contest outside of Texas. The results showed significance in the life skill interest in shooting or conservation careers in which those youth who participated in contest outside of Texas had a higher mean of 6.07 than those who participated just inside of Texas with a mean of 4.97. (The results of the Independent T-test are shown in Table 14.)

Another Independent T-test was run to compare parents and youth response for life skills. The following were the life skills in which parents had a significant increase:

- archery and/or firearm safety
- responsibility with firearms and/or archery equipment
- respect for the environment and living things
- ability to make decisions
- interest in shooting or conservation careers
- pride in accomplishing goals
- willingness to help others learn
- interest in conservation (including outdoor recreation)
- interest in school and education
- ability to talk to adults and parents
- ability to get along with people

There were no youth or parents responses that were below a 4 which meant they felt they gained the skill “quite a bit” and the highest response was a 6 which meant they gained the life skill “very much”. (The results from this T-test are shown in Table 15.)

Table 14. 2002 Life Skills Gained by Youth Competing Within Only Texas vs. Outside of Texas

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Archery and/or firearm safety</i>				
Outside of Texas	14	5.21	1.93	0.52
Inside of Texas	73	5.10	1.94	0.23
<i>Responsibility with firearms and/or archery equipment</i>				
Outside of Texas	14	5.57	1.91	0.51
Inside of Texas	74	5.47	1.55	0.18
<i>Respect for the environment and living things</i>				
Outside of Texas	14	3.86	2.32	0.62
Inside of Texas	73	4.82	1.93	0.23
<i>Ability to make decisions</i>				
Outside of Texas	14	4.93	2.06	0.55
Inside of Texas	74	4.88	1.81	0.21
<i>Interest in shooting or conservation careers</i>				
Outside of Texas	14	6.07**	1.38	0.37
Inside of Texas	73	4.97**	1.99	0.23
<i>Pride in accomplishing goals</i>				
Outside of Texas	14	5.21	2.33	0.62
Inside of Texas	72	5.74	1.16	0.14
<i>Willingness to help others learn</i>				
Outside of Texas	14	5.07	1.69	0.45
Inside of Texas	72	5.32	1.43	0.17
<i>Ability to set goals</i>				
Outside of Texas	14	5.64	1.28	0.34
Inside of Texas	74	5.27	1.67	0.19
<i>Respect for other people and property</i>				
Outside of Texas	14	5.93	1.14	0.30
Inside of Texas	73	5.53	1.75	0.20

Table 14. (Continued)

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Interest in conservation (including outdoor recreation)</i>				
Outside of Texas	14	4.07	2.40	0.64
Inside of Texas	72	4.33	2.10	0.25
<i>Interest in school and education</i>				
Outside of Texas	14	4.36	2.06	0.55
Inside of Texas	73	4.51	2.04	0.24
<i>Ability to talk to adults and parents</i>				
Outside of Texas	14	4.93	1.54	0.41
Inside of Texas	74	5.08	1.85	0.21
<i>Responsibility for own actions</i>				
Outside of Texas	14	6.00	1.04	0.28
Inside of Texas	74	5.50	1.65	0.19
<i>Ability to get along with people</i>				
Outside of Texas	14	5.21	1.53	0.41
Inside of Texas	74	5.46	1.56	0.18

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Inside of Texas refers to the contest participants competed at just inside the state of Texas.

Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

These life skill questions were asked in a Likert format ranging from the degree of 0 to 7 (0=None, 1=Not Much, 2=A Little, 3=Like Most Things, 4=Quite a Bit, 5=Lots, 6=Very Much, 7=More than Anything Else).

An Independent Samples T-test tests whether the mean of a single variable for subjects in one group differs from that in another group (SPSS, 1999).

Please refer to Appendix P and Appendix Q for the following: These means showed a significant difference LQ-5: Outside of Texas Vs. Inside of Texas

Table 15. 2002 Life Skills, Youth vs. Parents

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Archery and/or firearm safety</i>				
Youth	87	5.11**	1.93	0.21
Parent	69	6.10**	1.38	0.17
<i>Responsibility with firearms and/or archery equipment</i>				
Youth	88	5.49**	1.60	0.17
Parent	73	6.34**	0.85	9.99E-02
<i>Respect for the environment and living things</i>				
Youth	87	4.67**	2.02	0.22
Parent	71	5.55**	1.32	0.16
<i>Ability to make decisions</i>				
Youth	88	4.89**	1.83	0.20
Parent	72	5.50**	1.15	0.14
<i>Interest in shooting or conservation careers</i>				
Youth	87	5.15**	1.94	0.21
Parent	71	5.76**	1.48	0.18
<i>Pride in accomplishing goals</i>				
Youth	86	5.65**	1.41	0.15
Parent	72	6.07**	1.00	0.12
<i>Willingness to help others learn</i>				
Youth	86	5.28**	1.47	0.16
Parent	70	5.87**	1.15	0.14
<i>Ability to set goals</i>				
Youth	88	5.33	1.61	0.17
Parent	74	5.73	1.11	0.13
<i>Respect for other people and property</i>				
Youth	87	5.60	1.67	0.18
Parent	73	5.82	1.16	0.14

Table 15. (Continued)

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<i>Interest in conservation (including outdoor recreation)</i>				
Youth	86	4.29**	2.14	0.23
Parent	70	5.43**	1.44	0.17
<i>Interest in school and education</i>				
Youth	87	4.48**	2.03	0.22
Parent	70	5.07**	1.54	0.18
<i>Ability to talk to adults and parents</i>				
Youth	88	5.06**	1.80	0.19
Parent	71	5.72**	1.27	0.15
<i>Responsibility for own actions</i>				
Youth	88	5.58	1.57	0.17
Parent	72	5.88	1.13	0.13
<i>Ability to get along with people</i>				
Youth	88	5.42**	1.55	0.17
Parent	73	5.86**	1.00	0.12

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

These life skill questions were asked in a Likert format ranging from the degree of 0 to 7 (0=None, 1=Not Much, 2=A Little, 3=Like Most Things, 4=Quite a Bit, 5=Lots, 6=Very Much, 7=More than Anything Else).

An Independent Samples T-test tests whether the mean of a single variable for subjects in one group differs from that in another group (SPSS, 1999).

Please refer to Appendix R and Appendix S for the following:

These means showed a significant difference LQ-1: Youth=Parents; LQ-2: Youth=Parents; LQ-3: Youth=Parents; LQ-4: Youth=Parents; LQ-5: Youth=Parents; LQ-6: Youth=Parents; LQ-7: Youth=Parents; LQ-10: Youth=Parents; LQ-11: Youth=Parents; LQ-12: Youth=Parents; LQ-14: Youth=Parents

Spearman's Rho Correlation Coefficients were used for both parents and youth to compare the life skills gained for each shooting sports event. The youth had no positive or negative significant increases or decreases in any event. Parents showed a positive significant increase in the hunting event for the life skill willingness to help others learn with a coefficient of .286 and responsibility for own actions with a coefficient of .234. The parents had no negative significant decreases for life skills in any of the events. (The results from these Correlation Coefficients are shown in Table 16 and Table 17.)

Table 16. 2002 Life Skills, Parents vs. Shooting Events

PARENTS	Hunting	Muzzle	Pistol	Rifle	Shotgun
<i>Archery and/or firearm safety</i>	0.097	-0.067	-0.169	0.013	-0.050
<i>Responsibility with firearms and/or archery equipment</i>	0.065	-0.042	-0.107	0.048	-0.076
<i>Respect for the environment and living things</i>	0.055	0.016	-0.117	-0.057	0.017
<i>Ability to make decisions</i>	-0.001	-0.008	-0.069	-0.068	-0.033
<i>Interest in shooting or conservation careers</i>	0.033	-0.100	-0.054	0.063	0.080
<i>Pride in accomplishing goals</i>	0.132	0.071	-0.044	0.037	0.050
<i>Willingness to help others learn</i>	.286*	0.139	0.067	0.077	-0.033
<i>Ability to set goals</i>	0.031	0.013	-0.191	-0.105	-0.043
<i>Respect for other people and property</i>	0.026	0.038	-0.103	-0.092	0.000
<i>Interest in conservation (including outdoor recreation)</i>	-0.039	-0.003	-0.230	-0.141	0.033
<i>Interest in school and education</i>	-0.002	0.169	-0.013	-0.093	-0.136
<i>Ability to talk to adults and parents</i>	0.088	-0.012	-0.048	0.021	-0.068
<i>Responsibility for own actions</i>	.234*	0.047	0.001	0.023	-0.125
<i>Ability to get along with people</i>	0.119	0.113	-0.089	-0.095	-0.055

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

These life skills represent the skills that parents thought their youth gained through participation in the Texas 4-H Shooting Sports Program in 2002.

Spearman's Rho Correlation Coefficients "uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999)." This method was used for all analyses with variables that represented time, years, or hours.

Please refer to Appendix T for the following: These had a significant correlation Hunting Vs. LQ-7; Hunting Vs. LQ-13

These had a significant correlation Hunting Vs. LQ-7; Hunting Vs. LQ-13

Table 17. 2002 Life Skills, Youth vs. Shooting Events

YOUTH	Hunting	Muzzle	Pistol	Rifle	Shotgun
<i>Archery and/or firearm safety</i>	0.041	0.024	0.045	0.089	0.124
<i>Responsibility with firearms and/or archery equipment</i>	0.088	-0.035	-0.026	0.026	0.051
<i>Respect for the environment and living things</i>	0.099	0.103	-0.022	0.160	0.084
<i>Ability to make decisions</i>	0.070	0.157	0.055	0.064	-0.017
<i>Interest in shooting or conservation careers</i>	-0.008	0.028	-0.003	0.029	-0.129
<i>Pride in accomplishing goals</i>	0.199	0.070	-0.066	0.050	0.057
<i>Willingness to help others learn</i>	-0.006	0.082	-0.028	-0.013	-0.050
<i>Ability to set goals</i>	0.037	0.097	0.090	0.060	-0.061
<i>Respect for other people and property</i>	0.166	0.170	0.052	0.098	-0.075
<i>Interest in conservation (including outdoor recreation)</i>	-0.012	0.085	-0.130	0.022	0.066
<i>Interest in school and education</i>	0.134	0.093	-0.012	0.186	0.097
<i>Ability to talk to adults and parents</i>	0.110	0.046	-0.005	0.021	-0.019
<i>Responsibility for own actions</i>	0.199	0.115	-0.056	0.088	-0.150
<i>Ability to get along with people</i>	0.005	-0.056	-0.093	0.039	0.010

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

These life skills represent the life skills that the youth felt they gained through participation in the Texas 4-H Shooting Sports Program.

Spearman's Rho Correlation Coefficients "uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999)." This method was used for all analyses with variables that represented time, years, or hours.

Please refer to Appendix U.

Findings Related to Objective 2

The second objective was to determine how much parents are willing to spend for their children to be a part of this program, and to determine if the state of Texas incurs economic gain due to the amount of money spent by parents for their youth to participate in the Texas 4-H shooting sports program.

The 2002 expense questions from parents were computed using Frequencies, Descriptives, Independent Samples T-test, Pearson's Correlation Coefficients, and Spearman's Rho Correlation Coefficients. (Please note that in order for this information to not be skewed all archers were taken out due to the fact that they were not targeted during the pilot of the 2002 survey.)

The 2002 data for parent expenses showed that the average mean for travel expenses for a year was \$2,257.77, the average mean for shooting expenses for a year was \$2,668.00, and the average cost per child to participate and travel to shooting sports events for a year was \$4,322.15 for the year. Please note that in Table 4, the average percent of youth participating in Texas was 78.4 and the average percent of youth participating outside of Texas was 21. (The average expense means are shown in Table 18.)

An Independent Samples T-Test was executed to analyze the average amount spent for youth just inside of Texas compared to those youth participating in competitions both inside and outside of Texas. (Again please note that in Table 4 the average percent of youth participating in Texas was 78.4 and the average percent of youth participating outside of Texas was 21.6.) The analyses of the T-test showed those

that participating inside of Texas had spent an average mean of \$2,970.69 per child and those who participated both inside and outside of Texas spent an average of \$8,334.58 per child. There was an average of \$4,820.63 spent by parents for youth's travel expenses for competitions inside and outside of Texas, an average of \$1550.78 spent for travel expenses just inside of Texas, and an average of \$2,065.95 spent for youth by their parents for shooting expenses. (These results are shown in Table 19.)

Table 18. Descriptive Statistics for Parent's Expenses

Travel Expenses	N	Minimum	Maximum	Mean	Std. Deviation
<i>Travel Expenses (gas, vehicle maintenance)</i>	70	50.00	8,000.00	913.29	1,339.42
<i>Traffic Fine Expenses</i>	37	0.00	50.00	1.35	8.22
<i>Common Carrier Expenses (air, train, bus)</i>	36	0.00	5,000.00	355.56	991.23
<i>Lodging Expenses</i>	69	0.00	4,000.00	577.10	640.70
<i>Meal Expenses</i>	70	100.00	1,500.00	428.00	300.34
<i>Communication Expenses (long distance calls, modem use, letters)</i>	55	0.00	500.00	77.18	103.03
<i>On Site Expenses (recreation activities)</i>	59	0.00	2,000.00	275.76	362.25
<i>Travel Expense Total</i>	74	0.00	14,500.00	2,257.77	2,806.92
Shooting Expenses	N	Minimum	Maximum	Mean	Std. Deviation
<i>Equipment Expenses</i>	64	0.00	3,500.00	991.80	886.23
<i>Equipment Maintenance</i>	61	0.00	2,000.00	218.11	336.36
<i>Ammunition Expenses</i>	68	0.00	10,000.00	1,154.56	1,704.82
<i>Clothing & Gear Expenses</i>	60	0.00	2,000.00	264.33	351.86
<i>Entry Fee Expenses</i>	64	30.00	2,000.00	411.80	414.99
<i>Shooting Expense Total</i>	74	0.00	11,700.00	2,668.99	2,661.52
Other	N	Minimum	Maximum	Mean	Std. Deviation
<i>Cost per child</i>	74	0.00	19,900.00	4,130.45	4,322.15
<i>Children</i>	74	1.00	4.00	1.45	0.67

Table 19. 2002 Expenses Within Texas vs. Outside of Texas

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Travel Expenses				
<i>Travel Expenses (gas, vehicle maintenance)</i>				
Outside of Texas	15	1753.33**	2162.96	558.47
Inside of Texas	55	684.18***	911.04	122.84
Traffic Fine Expenses				
Outside of Texas	7	0.00	0.00	0.00
Inside of Texas	30	1.67	9.13	1.67
Common Carrier Expenses (air, train, bus)				
Outside of Texas	7	1828.57**	1609.05	608.16
Inside of Texas	29	0.00**	0.00	0.00
Lodging Expenses				
Outside of Texas	15	1146.67**	1120.50	289.31
Inside of Texas	54	418.89**	278.50	37.93
Meal Expenses				
Outside of Texas	15	673.33**	435.17	120.11
Inside of Texas	55	361.09**	194.63	26.24
Communication Expenses (long distance calls, modem use, letters)				
Outside of Texas	11	166.36**	187.42	56.51
Inside of Texas	44	54.89**	51.17	7.71
On Site Expenses (recreation activities)				
Outside of Texas	14	635.71**	583.90	156.05
Inside of Texas	45	163.78**	134.91	20.11
Travel Expense Total				
Both Inside & Outside of Texas	16	4820.63**	4821.79	1205.45
Just Inside of Texas	58	1550.78**	1272.69	167.11

Table 19. (Continued)

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Shooting Expenses				
<i>Equipment Expenses</i>	14	946.43	1021.40	272.98
Outside of Texas	50	1004.50	855.73	121.02
Inside of Texas				
<i>Equipment Maintenance</i>				
Outside of Texas	14	292.14**	249.50	66.68
Inside of Texas	47	196.06**	357.51	52.15
<i>Ammunition Expenses</i>				
Outside of Texas	15	2868.67**	2786.47	719.46
Inside of Texas	53	669.43**	752.95	103.43
<i>Clothing & Gear Expenses</i>				
Outside of Texas	13	444.62**	527.77	146.38
Inside of Texas	47	214.47**	272.77	39.79
<i>Entry Fee Expenses</i>				
Outside of Texas	15	768.57**	567.15	146.44
Inside of Texas	49	302.55**	283.26	40.47
<i>Shooting Expense Total</i>				
Outside of Texas	16	4855.00**	3388.25	847.06
Inside of Texas	58	2065.95**	2083.17	273.53
Other				
<i>Cost per child</i>				
Outside of Texas	16	8334.58**	5819.42	1454.86
Inside of Texas	58	2970.69**	2946.64	386.91

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Inside of Texas refers to the contest participants competed at just inside the state of Texas.

Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

An Independent Samples T-test tests whether the mean of a single variable for subjects in one group differs from that in another group (SPSS, 1999).

Please refer to Appendix V and Appendix W for the following:

These means had a significant difference TQ-1: Outside of TX Vs. Inside TX; TQ-3: Outside of TX Vs. Inside TX; TQ-4: Outside of TX Vs. Inside TX; TQ-5: Outside of TX Vs. Inside TX; TQ-6: Outside of TX Vs. Inside TX; TQ-7: Outside of TX Vs. Inside TX

Pearson Correlation Coefficients were used to show the 2002 parent expenses compared to the number of years their child was involved in the Texas 4-H shooting sports program. The results showed that parents who had children involved in the shooting program longer had a significant increase on their spending for the following: common carrier expenses (air, train, bus), communication expenses (long distance calls, modem use, letters), on site expenses (recreation activities), ammunition expenses, entry fee expenses, spent more hours with supervised shooting instruction, and significantly spent more hours of quality family time. (These results are shown in Table 20.)

Spearman's Rho Correlation Coefficients was used to show the for parents who spent more money per child in Texas compared to spending more money per child going to and participating in out of state shooting events. The results showed a negative significant decrease in the amount of money spent per child in shooting competitions in Texas in total travel expenses with a correlation of $-.400$ and also among the following: travel expenses such as gas, vehicle maintenance, common carrier expenses (air, train, bus), lodging expenses, meal expenses, and on site expenses (recreation activities). Parents who spent more money per child for those who had youth participating just inside of Texas also spent significantly less on the total amount of shooting expenses with a correlation of $-.364$ and also among the following: equipment maintenance, ammunition expenses, clothing and gear expenses, and entry fee expenses. Parent who's youth participated just inside of Texas had a negative significant decrease in hours spent with supervised instruction with a correlation of $-.370$ and their family with a correlation of $-.402$.

The correlations also showed that more money was significantly being spent per child going to and participating in out of state shooting competitions in total travel expenses which had a correlation of $.392$ and total shooting expenses which had a

correlation of .363. The cost per child had a significant positive increase in those traveling to participate in out of state competitions with a correlation of .404. Also analyzed was the positive significant increase in hours spent with family members which had a correlation of .415 and being supervised while practicing which had a correlation of .375 those going to in state and out of state competitions. (Please note that all participants who participated in out of state competitions also participated in Texas competitions during 2002.) (All of these results are shown in Table 21.)

Table 20. 2002 Years of Involvement vs. Hours Spent & Expenses

Travel Expenses	
<i>Travel Expenses (gas, vehicle maintenance)</i>	0.089
<i>Traffic Fine Expenses</i>	-0.077
<i>Common Carrier Expenses (air, train, bus)</i>	0.385*
<i>Lodging Expenses</i>	0.215
<i>Meal Expenses</i>	0.172
<i>Communication Expenses (long distance calls, modem use, letters)</i>	.293*
<i>On Site Expenses (recreation activities)</i>	.324*
<i>Travel Expense Total</i>	0.217
Shooting Expenses	
<i>Equipment Expenses</i>	-163
<i>Equipment Maintenance</i>	-0.031
<i>Ammunition Expenses</i>	.274*
<i>Clothing & Gear Expenses</i>	0.157
<i>Entry Fee Expenses</i>	.264*
<i>Shooting Expense Total</i>	0.202

Table 20. (Continued)

Other	
<i>Cost per child</i>	0.229
<i>Hours spent with supervised instruction for that year</i>	.494**
<i>Family hours spent together for that year</i>	.381**

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Inside of Texas refers to the contest participants competed at just inside the state of Texas.

Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

Pearson Correlation Coefficients show the "linear relationship between two quantitative variables in which the values of the coefficient are not expressed in units of data, but range from -1 to 1 and is used for list wise and pair wise methods for incomplete data (SPSS, 1999)."

Please refer to Appendix X for the following: These showed a significant correlation Years Involved Vs. TQ-3, Years Involved Vs. TQ-6, Years Involved Vs. TQ-7, Years Involved Vs. SQ-3, Years Involved Vs. SQ-5, Years Involved Vs. Supervised Hours, Years Involved Vs. Family Time.

Table 21. 2002 Cost per Child, Cost Inside of Texas, & Cost Outside of Texas vs. Expenses, Number of Children & Hours Spent

	<i>Inside of Texas</i>	<i>Outside of Texas</i>	<i>Cost Per Child</i>
Travel Expenses			
<i>Travel Expenses (gas, vehicle maintenance)</i>	-0.316**	.333**	.714**
<i>Traffic Fine Expenses</i>	0.081	-0.08	0.156
<i>Common Carrier Expenses (air, train, bus)</i>	-.906**	.926**	.556**
<i>Lodging Expenses</i>	-.387**	.376*	.599**
<i>Meal Expenses</i>	-.294*	.304*	.548**
<i>Communication Expenses (long distance calls, modem use, letters)</i>	-0.227	0.23	.451**
<i>On Site Expenses (recreation activities)</i>	-.433*	.423*	.563**
<i>Travel Expense Total</i>	-400**	.392**	.730**

	<i>Inside of Texas</i>	<i>Outside of Texas</i>	<i>Cost Per Child</i>
Shooting Expenses			
<i>Equipment Expenses</i>	0.08	-0.09	.467**
<i>Equipment Maintenance</i>	-.364**	.349**	.599**
<i>Ammunition Expenses</i>	-.461**	.456**	.770**
<i>Clothing & Gear Expenses</i>	-.316*	.301*	.659**
<i>Entry Fee Expenses</i>	-.397**	.408**	.624**
<i>Shooting Expense Total</i>	-.364**	.363**	.820**

Table 21. (Continued)

Other	<i>Inside of Texas</i>	<i>Outside of Texas</i>	<i>Cost Per Child</i>
<i>Cost per child</i>	-0.407**	.404**	1.000
<i>Number of Children involved in shooting sports</i>	0.061	-0.61	-.512**
<i>Participation in contest just in Texas</i>	1.000	-.991**	-0.407**
<i>Participation in contest outside of Texas</i>	-.991**	1.000	.404**
<i>Hours spent with supervised instruction for that year</i>	-.370**	.375**	.421**
<i>Family hours spent together for that year</i>	-.402**	.415**	.563**

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Inside of Texas refers to the contest participants competed at just inside the state of Texas.

Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

Spearman's Rho Correlation Coefficients "uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999)." This method was used for all analyses with variables that represented time, years, or hours.

Please refer to Appendix Y for the following:

These had a significant correlation Inside of Texas Vs.: TQ-1, TQ-3, TQ-4, TQ-5, TQ-7, TQ-total, SQ-2, SQ-3, SQ-4, SQ-5, SQ-total, C/K, Outside of TX, Supervised Hours, Family Time

These had a significant correlation Outside of Texas Vs.: TQ-1, TQ-3, TQ-4, TQ-5, TQ-7, TQ-total, SQ-2, SQ-3, SQ-4, SQ-5, SQ-total, C/K, Inside of TX, Supervised Hours, Family Time

These had a significant correlation for C/K Vs.: TQ-1, TQ-3, TQ-4, TQ-5, TQ-6, TQ-7, TQ-total, SQ-1, SQ-2, SQ-3, SQ-4, SQ-5, SQ-total, Inside of TX, Outside of TX, Supervised Hours, Family Time

Spearman's Rho was used to show the Correlation Coefficients of travel expenses, shooting expenses, and cost per child compared to life skills parents thought their child gained within that year of participation in 4-H shooting sports. Parents spending more money on total travel expenses per child showed a significant increase their child's life skill ability to make decisions with a correlation of .238, interest in conservation (including outdoor recreation) with a correlation of .287, interest in school and education with a correlation of .300, ability to talk to adults and parents with a correlation of .297, and ability to get along with people with a correlation of .298. (The results for this correlation are shown in Table 22.)

Parents spending more money on the total shooting expenses showed neither a significant increases or decreases. The results of parents spending more on the cost per child showed a significant increase in the life skill interest in conservation (including outdoor recreation) with a correlation of .238, ability to talk to adults and parents with a correlation of .272, and ability to get along with people with a correlation of .265. (The results for this correlation are shown in Table 22.)

Table 22. 2002 Cost per Child vs. Life Skills Gained per Child

<i>Life Skills</i>	<i>Travel Expenses</i>	<i>Shooting Expenses</i>	<i>Cost Per Child</i>
<i>Archery and/or firearm safety</i>	-0.036	-0.026	-0.04
<i>Responsibility with firearms and/or archery equipment</i>	0.093	0.037	0.044
<i>Respect for the environment and living things</i>	0.144	0.046	0.058
<i>Ability to make decisions</i>	.238*	0.097	0.161
<i>Interest in shooting or conservation careers</i>	0.111	0.141	0.071
<i>Pride in accomplishing goals</i>	0.192	0.072	0.139
<i>Willingness to help others learn</i>	0.08	0.08	0.071
<i>Ability to set goals</i>	0.166	0.015	0.123
<i>Respect for other people and property</i>	0.19	0.015	0.091
<i>Interest in conservation (including outdoor recreation)</i>	.287*	0.23	.238*
<i>Interest in school and education</i>	.300*	0.089	0.23
<i>Ability to talk to adults and parents</i>	.297*	0.233	.272*
<i>Responsibility for own actions</i>	0.147	0.081	0.16
<i>Ability to get along with people</i>	.298*	0.158	.265*

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Spearman's Rho Correlation Coefficients "uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999)." This method was used for all analyses with variables that represented time, years, or hours.

Please refer to Appendix Z for the following:

These showed a significant correlation for Travel Expenses Vs.: LQ-4, LQ-5, LQ-11, LQ-12, LQ-14.

These showed a significant correlation for C/K Vs.: LQ-10, LQ-12, LQ-14.

Spearman's Rho Correlation Coefficients were used to compare travel and shooting expenses to shooting events that youth were involved in. Hunting had no positive significant increases, but had a negative significant decrease in meal expenses with a correlation of $-.274$, and total traveling expenses with a correlation of $-.232$. Muzzle loading had a positive significant increase in traffic fine expenses with a correlation of $.479$, and a negative significant decreases on site expenses (recreation activities) with a correlation of $-.280$. Pistol had no positive significant increases, but had negative significant decreases in the following: travel expenses (gas vehicle maintenance), meal expenses, on site expenses, total travel expense, equipment maintenance, ammunition expenses, clothing and gear expenses, entry fee expenses, total shooting expenses, cost per child, and less family time spent together. The pistol event has a minimum negative correlation value of $-.575$ and a maximum negative correlation value of $-.283$. Rifle had the following significant increases: involvement in other 4-H activities with a correlation of $.336$ and more participation in competitions inside of Texas with a correlation of $.249$. Rifle had the following negative significant decreases: lodging expenses, meal expenses, communication expenses, on site expenses, total traveling expenses, equipment maintenance expenses, ammunition expenses, entry fee expenses, total shooting expenses, cost per child, gender, participation in contest both inside and outside of Texas, and less hours spent with supervised instruction and family. The minimum value for these negative correlations for the rifle event was $-.630$ and the maximum value was $-.249$. Shotgun had a positive significant increase for: on site expenses, equipment expenses, equipment maintenance, ammunition expense, entry fee expense, total shooting expense and cost per child. The minimum value of positive increases for the shotgun event was $.231$ and the maximum was $.445$. Shotgun had no negative significant decreases. (These results are shown in Table 23.)

Table 23. 2002 Shooting Events vs. Travel/Shooting Expenses, Gender, Involvement, Inside/Outside of Texas, Participation, & Hours Spent Together

Travel Expenses	<i>Hunting</i>	<i>Muzzle</i>	<i>Pistol</i>	<i>Rifle</i>	<i>Shotgun</i>
<i>Travel Expenses (gas, vehicle maintenance)</i>	-0.185	-0.021	-.283*	-.429	.131
<i>Traffic Fine Expenses</i>	0.256	.479**	0.294	0.256	0.058
<i>Common Carrier Expenses (air, train, bus)</i>	-0.257	-0.134	-.0238	-.0276	0.157
<i>Lodging Expenses</i>	0.17	0.022	-.0216	-.278*	-.031
<i>Meal Expenses</i>	-.274*	-0.053	-.268*	-.372**	0.136
<i>Communication Expenses (long distance calls, modem use, letters)</i>	0.013	-0.031	0.175	-.0308*	-.0388
<i>On Site Expenses (recreation activities)</i>	-0.189	-.280*	-.415**	-.471**	.334**
<i>Travel Expense Total</i>	-.232*	-.084	-.261*	-.401**	.058
Shooting Expenses	<i>Hunting</i>	<i>Muzzle</i>	<i>Pistol</i>	<i>Rifle</i>	<i>Shotgun</i>
<i>Equipment Expenses</i>	-.02	-0.209	-.02	-.146	.287*
<i>Equipment Maintenance</i>	-0.251	-0.181	-.380**	-.0316*	.276*
<i>Ammunition Expenses</i>	-0.07	-0.125	-.538**	-.613**	.445**
<i>Clothing & Gear Expenses</i>	-0.109	-0.151	-.294*	-.0196	0.218
<i>Entry Fee Expenses</i>	0.164	-0.216	-.575**	-.630**	.423**
<i>Shooting Expense Total</i>	-0.064	-0.223	-.322**	-.323**	.359**

Table 23. (Continued)

Other	Hunting	Muzzle	Pistol	Rifle	Shotgun
<i>Cost per child</i>	-0.068	-0.065	-.301**	-.414*	.231*
<i>Gender</i>	-0.018	-0.053	-0.174	-.310**	0.137
<i>Number of Children involved in shooting sports</i>	-0.118	-0.125	0.017	0.195	-0.099
<i>Years of Child's involvement in Shooting Sports</i>	0.129	-0.026	-0.014	-0.145	-0.026
<i>Involvement in other 4-H activities</i>	0.195	0.246	0.153	.336*	-0.194
<i>Involvement in extracurricular Non-4-H activities</i>	0.104	-0.074	-0.177	-0.072	0.015
<i>Participation in contest just in Texas</i>	-.002	-0.005	0.158	.249*	-0.095
<i>Participation in contest outside of Texas</i>	.002	0.005	-0.158	-.249*	-0.095
<i>Hours spent with supervised instruction for that year</i>	-.125	0.081	-0.204	-.322**	0.049
<i>Family hours spent together for that year</i>	-.011	-0.039	-.325**	-.394**	0.128

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Inside of Texas refers to the contest participants competed at just inside the state of Texas.

Outside of Texas refers to the contest participants competed at both inside and outside the state of Texas.

Spearman's Rho Correlation Coefficients "uses the rank order of each data value or logged value in the formula for the Pearson Correlation Coefficient (adjustments are made if there are ties) (SPSS, 1999)." This method was used for all analyses with variables that represented time, years, or hours.

Please refer to Appendix AA for the following:

These showed a significant correlation for Hunting Vs.: TQ-5, TQ-total.

These showed a significant correlation for Muzzle Vs.: TQ-2, TQ-7.

These showed a significant correlation for Pistol Vs.: TQ-1, TQ-5, TQ-7, TQ-total, SQ-2, SQ-3, SQ-4, SQ-5, SQ-total, C/K, Family Time.

These showed a significant correlation for Rifle Vs.: TQ-4, TQ-5, TQ-6, TQ-7, TQ-total, SQ-2, SQ-3, SQ-5, SQ-total, C/K, Gender, 4-H Activities, Inside TX, Outside TX.

These showed a significant correlation for Shotgun Vs.: TQ-7, SQ-1, SQ-2, SQ-3, SQ-5, SQ-total, C/K.

Discussion Related to Objective 1

The first objective was to determine the impact of life skills gained through involvement of the Texas 4-H shooting sports program.

Since shooting sports is directly related to the handling of guns it is automatically thought of as a male sport therefore more males were in attendance in 2002 than females. However this image through the years has slowly been changing with the participation of more females.

More parents felt that they spent more quality time with their youth than what their children thought because a parent will take into account all of the miles traveled together, practicing hours spent together, and competition hours spent together where a child might only consider traveling to and competing in a competition.

Due to the fact that all of these respondents primarily shoot in Texas they were more accessible to participate in Texas competitions than out of state competitions. Youth that participate in 4-H shooting sports were involved in other 4-H activities. Texas 4-H has a large group of programs to offer them in nine delivery modes (*Community Clubs, Project Clubs, School Clubs, Community Partnership Clubs, Special Interest, Curriculum Enrichment, Expanded Nutrition Program-Youth, Camping, and Clover Kids*). Also, those that were involved in 4-H shooting sports have time to work on their shooting individually so that it can fit into their school activities or other extracurricular activities that they were involved in. Parents felt that their children participated in more Texas competitions than out of state competitions than youth did because they were the ones who made the travel arrangements and help pay for the entry fees, therefore they had a better idea than the youth did. Also according to Dr. Ron Howard “parents may be recalling postal leagues, ect. That kids do not count as competitions” (Howard, 2002)

Females were more willing to help others learn than males. This is because it is in a female's nature to help others and to be more cooperative than males who are very competitive. Also, since the females were the minority in the shooting sports program and they knew what it felt like to not be the dominate one in membership, therefore to be well represented they helped others learn due to their green-hand experiences.

Those that were in 4-H shooting sports in 2002 were about 13 years of age, had been in 4-H for a long time, and felt that they gained the skill of archery and/or firearm safety. These skills were gained because they had been required to participate in safety skill sessions and were required to follow safety rules and guidelines in all practices and competitions or anytime they handled their shooting equipment.

Youth participating in out of state competitions had more interest in shooting and conservation careers. This is due to the fact that youth visited other states and other non-4-H organizations, which opened them up to a multitude of shooting and conservation careers that were not available in Texas. Those youth who participated in more non-4-H competitions practiced more because they were going to competitions such as Nationals or Junior Olympics, which had participants of high caliber, therefore they had to prepare themselves. Youth who practiced more spent more time with their family and had more supervised instruction because they were traveling more miles to out of state competitions and spending more time practicing for those competitions than they would have if preparing for a competition inside of Texas.

Youth who spent more quality time with their family were involved in other 4-H activities because many youth have other siblings involved in 4-H and because 4-H focuses on the family which encourages more participation in other 4-H activities such as show projects, judging contest, or leadership activities. Youth who spent more time with their family showed less respect for other people and property and also

responsibility for their own actions for the following reasons: 1. shooting sports is a very individualized mental sport, when something went wrong it was easier for the shooters to blame others, their equipment, or gear instead of taking responsibility for their own actions. 2. shooting sports is an individualized mental sport competitiveness amongst each other is high, so youth only thought about themselves and winning instead of caring for others and their possessions. 3. Their parents grew up in the “Baby Boom” generation during the 1960's and early 1970's and were not as permissive as their parents who were raised in during the stringent times of the Great Depression.

Older youth were involved in shooting sports longer for the following reasons: 1. enjoyed it and were hooked on the competitiveness of the sport and independent success, 2. had other siblings or friends that were involved in it, 3. got a late start, 4. they dropped out of the shooting program more slowly than other 4-H programs, 5. they found a place to compete where the results and winnings were fair and no cheating was prohibited. Also, older youth practiced more and were preparing to compete at more competitions inside and outside of Texas than younger shooters were.

Parents felt that their children gained more overall life skills than youth did because parents know their children and can see the visible daily results due to the impact 4-H shooting sports has. The responses for both parents and youth regarding life skill impacts remained high because life skills were being gained due to participation in the Texas 4-H shooting sports program which proves Objective 1, that youth were impacted with life skills due to involvement in the Texas 4-H shooting sports program, and can be found inside Table 14 and Table 15. Independent Samples T-test for life skills gained: youth versus parents. This shows that 4-H youth are getting the skills they need to be successful in life out of the shooting sports program.

Parents felt that their children who were involved in the hunting event gained the life skill of willingness to help others learn and responsibility for their own actions for the following reasons:

1. Each of the following hunting events is a very complex competition therefore youth had to work together to better themselves and gather study material:

- Hunter Decision Making- requires youth to be able to describe, find, and label hunting gear, equipment, camouflage, patterns, cutting tools, firearms, bows, ammunition, decoys, etc.
- Hunting Skills- requires youth to track and site animal patterns for hunting, etc.
- Wildlife and Management- requires that youth to be able to describe, locate, and define every species in the state and also describe their eating, gestation, growing patterns, and prey, etc.

The kids in these three hunting events tend to be very competitive. Dr. Ron Howard stated that “Kids that tend to study really hard in the hunting event usually place in the middle of that pack, but continue to work hard and truly admire and love the sport” (2002). Dr. Howard also feels that “the hunting event is the only element that goes beyond personal responsibility, self-control, and sportsmanship to ethical reasoning” (2002). Due to this love and admiration of the hunting sport the youth that are involved in it are more reliable and study hard with other youth. Due to the fact that the youth might not be negligent of the enouncement of these skills parents are more apt to notice these skill impacts on their child’s daily routine and attitude.

Discussions Related to Objective 2

The second objective was to determine how much parents are willing to spend for their children to be a part of this program, and to determine if the state of Texas incurs economic gain due to the amount of money spent by parents for their youth to participate in the Texas 4-H shooting sports program.

The average cost per child to participate in the Texas 4-H shooting sports program was around \$4,800 per year for the following reasons: initial cost of buying gear and equipment was high, there was the constant cost for upkeep for the equipment per year, and the older shooters that have been involved longer were going to more competitions both inside and outside of Texas than the younger participants. The cost per child that were traveling and shooting in out of state competitions was higher because in order to travel there the parent was either spending money on gas to drive or spending money on plane tickets to fly. Also, those going to these out of state competitions have to pay for lodging, meals, communication, and on site expenses such as recreation for the entire family.

The average spent by parents for youth going to contest just inside of Texas compared to those youth participating in contest outside of Texas as shown in Table 17 proves Objective 2, in that Texas does incur an economic gain due to the amount of money spent by parents for youth to participate in the Texas 4-H shooting sports program. It also has a national fiscal impact because a significant amount of money was spent for contest outside of Texas.

Parents who spend more on travel expenses for their children feel that their kids gain life skills in the ability to make decisions, interest in education, ability to talk to adults and parents, and ability to get along with other people for the following reasons:

1. youth that were traveling more had an increased exposure to other kids and adults from varying demographics, 2. due to the various types of people at these events youth interacted and worked with a large amount of people, 3. kids that travel more have no time to slack off with their schoolwork so their interest in their education was high, 4. children who traveled more gained the experience of seeing and being in new places, and also had no time to slack off because they were constantly busy balancing school, 4-H, shooting sport practice, and shooting sport competitions therefore they gained the confidence they needed to make decisions. The parents cost per child had a significant increase in the life skill interest in shooting and conservation careers, ability to talk to adults and parents, and ability to get along with people for the following reasons:

1. Parents spending more per child were attending more out of state events which exposed their children to other people from different towns, cities, states, and countries which therefore made them more apt to talk to and get along with others.
2. Since youth had the chance to visit other cities, states, and countries other than their own they saw how depressed other places conservation efforts were and how run down these places looked due to a deficient economy with run down houses and buildings and urban sprawl, therefore they learned the importance

of conserving the environment that they had in their own state, Texas.

Parents who had youth that were involved in the hunting event had a decrease in meal and total travel expenses because only 24.7% participated in this event compared to the 69.9% of the youth who participated in the shotgun event. Another reason is because this event was only held at two competitions in 2002, the Extravaganza and the State Contest. The reason for an increase in traffic fine expenses for those involved in the muzzle event may be due to the fact that the shooters, shooter families, and their coaches/leaders traveled in a caravan with a driver that had a heavy foot, otherwise the reason for this expense is unknown. The reason why those involved in muzzle loading had a decrease in on site expenses was that only 9.7% were competing in this event. The reason why those involved in pistol had a decrease in the following:

- in travel expenses (gas, vehicle maintenance)
- meal expenses
- on site (recreation) expenses
- total travel expenses
- equipment maintenance expenses
- ammunition expense
- clothing and gear expense
- entry fee expense
- total shooting expenses
- cost per child

- less quality time spent with the family

The decrease in these expenses and time spent was that only 20.4% of them were a part of the pistol event and also because this event was not shot at as many competitions as some of the other events were.

Youth involved in the rifle event were involved in other 4-H activities and participating in more competitions inside of Texas than outside because they were younger and in the shooting sports program a less amount of years compared to the other events such as shotgun where the youth were older and involved in shooting sports longer. This was also the reason why they spent less in total travel expenses and shooting expenses plus they did not have the cost of traveling outside of Texas. Those involved in rifle also spent less time with supervision during practice and family time because they were young and did not have to prepare as much as those that were older traveling and participating in more in state and out of state competitions.

The youth involved in the shotgun event had more expenses than all of the other events because the shotgun event was the most costly to participate in due to the high cost of targets, gear, and ammunition and also because these youth traveled to an average of 25-30 shotgun competitions in Texas and out of Texas. Some of these events included 4-H U.S. Nationals in New Mexico and other countries to shoot with the U.S. Junior Olympic shooting sports Team.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This project is designed to determine the impact that the Texas 4-H shooting sports program has on its youth and the state of Texas. The purpose of these two studies was to analyze the amount of life skills gained by youth through their involvement in the Texas 4-H shooting sports program, to see how much parents and youth are willing to spend to be apart of this program, and also to evaluate if the state of Texas incurs some economic gain due to the amount of money spent by parents. The following objectives were identified to accomplish these purposes:

- 1. To determine the impact of life skills gained through involvement in the Texas 4-H shooting sports program on an annual and long-term basis.*
- 2. The second objective was to determine how much parents are willing to spend for their children to be apart of this program, and to also determine if the state of Texas incurs an economic gain due to the amount of money spent by parents for their youth to participate in the Texas 4-H shooting sports program.*

This research sought to compare the life skills gained by youth due to the number of years involved, age, gender, parents responses, event participation in Texas versus outside of Texas. Also analyzed was if the state of Texas incurred any money due to the

parents spending money comparing traveling expenses, shooting expenses, and cost per child to years of participation, participation just in Texas compared to participation outside of Texas, amount paid per child for life skills, and amount paid to be in each event.

Conclusions Related to Objective 1

Shooting sports is predominately a male sport, but through the years this persona has slowly been changing with the participation of more females. The results of the 2002 life skill impact study showed the females show a better willingness to help others, which is due to their cooperative nature and males, show a more competitive edge. There are studies that show that females have a more cooperative nature than males. For example, Carol Gilligan studied the differences on how females and males respond to moral dilemmas and she found that females are more concerned with relationships, progressing as they grow older from pleasing others for personal gain to building close, intimate, selfless, giving relationships in which they do good for others and get pleasure from doing so (Gilligan, 1982). Gilligan also found that males are more adapted to making rules and laws and figuring out what is fair (Gilligan, 1982).

This study proves that those involved in the Texas 4-H shooting sports program do gain and show sportsmanship like conduct among their fellow contestants. For example in the hunting event parents felt that their children were more apt to help others and have responsibility for their own actions. These two skills shows that these youth are using ethical judgment when working with others and competing.

Those involved in shooting sports that were older traveled to more out of state competitions because they had more experience in shooting, gained something from the 4-H shooting program, enjoyed it and liked the competitiveness of the sport, were looking for scholarships to shoot on behalf of a university or college, and some were looking for a career in it. At these out of state competitions, youth were exposed to a larger variety of people from diverse demographics, which made them better more apt to talk to and get along with others. These older youth also gained the skill of archery and/or firearm safety which they in turn helped teach younger members who looked up to them during safety sessions, practices, and competitions.

The results from the T-test showed no substantial life skill increases within the Texas 4-H shooting sports program from 1991 to 2002, which means that the program has remained strong having a high impact on youth for 13 years.

Parents felt that they spent more quality time with their youth than what their children thought because due to the busy lives they lead trying to support their families this is one program that youth and the parent notices how much time they spend together by traveling to practices and competitions, giving support for loses or winnings, and interacting with each other when at practices and competitions. Also, over 2,000 hours per year may seem like a lot of time for parents to spend with their children but the following facts show the benefits:

- A. “Preschool children watch an average of twenty-eight hours of television per week; teenagers watch an average of 21 hours of

television per week. By contrast, teenagers spend only 35 minutes per week talking with their fathers (Bennett, 1994).”

- B. “Almost 20 percent of sixth through twelfth graders have not had a good conversation lasting for at least 10 minutes with at least one of their parents in more than a month (Benson, 1993).”
- C. “American mothers spend less than thirty minutes a day talking with their children and fathers spend even less than that—about fifteen minutes a day (Wiener, 1988.)”

Youth that were involved in the 4-H shooting sports program were involved in other 4-H activities because the organization gives youth the opportunity to find their place and specialty within 4-H’s nine delivery modes which include: *Community Clubs, Project Clubs, School Clubs, Community Partnership Clubs, Special Interest, Curriculum Enrichment, Expanded Nutrition Program-Youth, Camping, and Clover Kids*. Each of these programs provides a positive impact such as the shooting sports program does, and also helps youth gain the life skills that they need to succeed. This study proves Dr. Boyd’s findings that organizational involvement improves life skills in leadership, working with others, understanding self, and communicating with others. Also due to the fact that most shooting competitions are held in the summer, youth have the ability to balance school activities and education with shooting practice and competitions because the shooting sports program is very flexible and accessible to youth.

Parents felt that their children gained more overall life skills than the youth did because they can see the positive daily impacts that their involvement in 4-H shooting sports has on their child. The responses for both parents and youth in 2002 remained high because participation in the Texas 4-H shooting sports program does have an impact on youth's life skills.

Shooting sports is not just about guns and ammo, but is comprised of so much more. Involvement in shooting sports will not only open youth up to a variety of people, but also to a variety of experiences. Youth will learn the value of conservation due to their exposure to defauling resources in other cities, states, and countries and work hard to enhance our Texas resources. Also, the sport of shooting is very individualized and mental, which can create a fair playing competitiveness amongst shooters, and compel them to work and practice hard for their shot at winning first!

Little do these 8,000 children that are involved in the 4-H shooting sports program realize how much of an impact that their shooting will have on their future. Each time a youth safely picks up a gun, checks it for readiness to shoot, makes sure all pathways to the target are clear, clears their mind, finds their mark, aims and shoots they are learning how to work hard, be patient, stay calm, do the right and safe thing, set goals, aim for them, and then most importantly, go after them! The skills that they learn now will be applied to their everyday lives, for the rest of their life. They will use the skills learned when interacting with other shooters in school, on other teams, or in the workforce. Those involved in shooting sports will gain self confidence to get them

through any obstacle or endeavor and teach them how to pick themselves up after a bad shot or loss.

As mentioned in the introduction, the rate of crime in Texas amongst adolescents is high, but programs like this take youth, even youth like this that are “at-risk”, gets them off the street and into a family structured environment that lets them know there are people out there that truly care about them, that they are loved, that they are special, and that they can succeed!

Conclusions Related to Objective 2

The average cost per child to participate in the shooting sports program in 2002 was about \$4,800 per year. This money impacts the state of Texas by providing some revenue for Texas businesses such as shooting clubs and shops, gas stations, hotels, motels, phone services, restaurants, and recreational parks while youth, their families, and coaches/leaders and volunteers travel to practices and participate in shooting competitions. This amount of money not only helps Texas businesses, but it helps enrich the lives of youth who gain the impacts of life skills due to their involvement in the Texas 4-H shooting sports program.

Parents who pay this average amount of \$4,800 for each of their children to be a part of the Texas 4-H program for a year may seem high, but is low compared to the \$55,000 the state of Texas pays per year to house juvenile delinquents in correctional facilities. The state of Texas has recently decided to give a huge budget cut of 7% to the Texas 4-H Youth & Development Organization. If this budget cut continues to decrease it will eventually create a major negative effect on the 4-H shooting program because it

will lose staff support and vehicles that are used at competitions, workshops for youth, coaches/leaders and volunteers, and practices. Even though a positive program such as 4-H has gone through a budget cut the state of Texas still manages to pour out thousands of tax payer dollars to juvenile delinquents who are busy vandalizing our streets, doing drugs and dealing to children, robbing stores, stealing cars, and shooting innocent human beings, all while 4-H is getting these “at-risk” youth off the street and providing them with positive life skill impacts and trying to do it with a low budget.

Not only are youth whose parents are spending money on them to participate in Texas, but they are also financially supporting them to compete in out of state competitions. The results showed that more money was spent on traveling and shooting expenses for those going to competitions both inside and outside of Texas. The cost is higher because parents are having to provide more gas, flight, motel, and meal money to travel to out of state competitions. Also, due to participation in these out of state competitions more money is being spent on shooting expenses by parents because their children are older, have been involved in the sport for a long time, are more experienced, are seeking higher level of competition by attending National and Junior Olympic events, and need better equipment to contend at these higher level competitions.

These results prove that money spent to be involved in the 4-H shooting program is having an economic impact on Texas due to the fact that 78% of the competitions were spent just inside of Texas, but is also having an impact on a national level through travel money being spent in other states by 21% Texas parents. Shooters representing

Texas 4-H are making a competitive shooting impact not only on Texas, but on the nation.

Programmatic Recommendations

The following recommendations for action are based on the findings and conclusions of this study:

1. Traditionally the Texas 4-H shooting sports program's participants are from rural Texas and are not considered "at-risk", therefore more public relation efforts need to be made to promote the sport to inner city youth, "at-risk" youth, minorities, and females. Opening up the program to more youth will help the program not only grow, but also help 4-H reach even more Texas youth and impact their lives with positive skill developments.
2. The Texas Legislature needs to evaluate the positive impacts of programs such as the Texas 4-H shooting sports program and provide more financial assistance to the Texas 4-H & Youth Development Program. This study shows this organization is providing youth with the altitudinal skills that they will use for the rest of their lives, therefore it shows that this program is vital to the development of youth and that it will continue to work in the years to come. Therefore, due to 4-H's efficiency in youth development the Texas Legislature should provide more fiscal assistance to the organization.

3. This study shows that in 2002 that the majority of the events had a low participation percentage that was below 40% besides the shotgun event which had 70% of youth participation. Therefore more public relation efforts need to promote the hunting, muzzle loading, and pistol events so that their enrollment will increase. This will also challenge youth to develop their a more versatile shooting ability and gain the positive skills incorporated with each of these events.
4. The 2002 study showed that youth that went outside of Texas had an increase interest in careers within shooting and conservation. Shooting and conservation careers could help youth sustain the Texas economy by working in these fields and also conserve Texas demographics for water and farming. Therefore, an increase effort needs to be made to promote these careers to youth at Texas 4-H shooting competitions. One way this could be done is by bringing in people from these various fields in to talk to youth.
5. This study shows that there was an interest in shooting and conservation careers and that youth practiced over 600 hours per year with supervised instruction which shows that they are competitive and serious about their role in this program and that they would like to continue this sports in the future. Due to this

an increase scholarship opportunities to major colleges or universities in shooting sports area should be offered. If more scholarships are offered in the shooting sports area youth will be able to remain competitive, increase their shooting ability, accomplish their shooting sports dream, and receive a good education.

6. Due to the low amount of competitions in Texas for events other than the shot gun more competitions need to be made available in Texas for those who participate in hunting, muzzle loading, pistol, and rifle events. If more competitions are offered to youth than the shooting sports program will have the opportunity to grow and become versatile to reach more of its members in both rural and urban areas. This will also help the Texas 4-H shooting sports program have an even larger life skill impact on youth.

Recommendations for Additional Research

The completion of this study left some questions unanswered and raised an inquiry about several additional questions. These unanswered questions, which suggest topics for additional research, are as follows:

1. The current amount of beneficial and positive time Texas guardians spend with their youth. This study shows that the parents spend over 2,000 hours with their children and other studies show that guardians today spend only 30 minutes a day

talking to their children. Therefore a study showing beneficial and positive time Texas guardians spend with their children would show that the 4-H shooting sports program is inducing positive behaviors among parents and their children.

2. The current amount of beneficial and positive time that Texas leaders, coaches, and volunteers spend with youth. Preliminary data shows that coaches/leaders and volunteers spending time with participant is beneficial to the members life skill impact. This study would show that 4-H is helping youth learn communication skills with other adults.
3. The relationship between youth involved in the Texas 4-H shooting sports program compared to youth involved in other shooting sports programs that are not affiliated with 4-H. This study would show that the Texas 4-H shooting sports program is providing youth with more life skills than those participating in other non-4-H programs. It would also show that Texas 4-H will continue to be strong and viable. Another thing being affiliated with just 4-H would do is guarantee that if youth participate in this program they will gain the skills necessary to become upstanding citizens.
4. The evaluation of the travel cost method to determine how much people are willing to spend to travel to shooting meets and

- events and to also analyze the economic impact made in the cities they travel to. This study would show how beneficial the 4-H shooting sports program is to the state of Texas fiscally. It will also show how far parents are willing to travel in order for their child to participate in this program due to their belief that this program is having a positive developmental impact on their children.
5. The evaluation of the cryptic analysis for the amount of family time spent, amount of supervised hours by coaches, leaders, and volunteers, amount of miles traveled (air, car, bus, train), and the total number of states and countries traveled to for 4-H shooting competitions. This study would show how much youth are willing to do to be a part of this program and the lengths they take to be competitive. The study would also show all of the positive skills youth gain through working with others and traveling.
 6. The evaluation of a contingent valuation that would give a number value to intangible things such as life skills so that Texas 4-H shooting can analyze the cost benefits of its program and to also see if parents would be willing to spend even more for their child to reap the life skill impacts of this program. This study would show that some parents might be willing to spend

more than the 2002 average of \$4,000 per year per child and that Texas incurs an economic gain due to more money being spent. A contingent valuation would also be a good study to show the Texas Legislature so our representatives can place a number value and assess the viability of this program and understand how crucial 4-H is to youth development.

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APPENDICES

APPENDIX A
1991 YOUTH SHOOTING SPORTS SURVEY

**TEXAS 4-H SHOOTING SPORTS PROGRAM
PARTICIPANT SURVEY**

The Texas 4-H Shooting Sports Program has been offered to young people and adult leaders for many years. This instrument is intended as a foundation for a study of its impacts on youth and adults participating in the program. Your cooperation and willingness to give us the benefit of your insights into the value of 4-H Shooting Sports can assist us in determining its value to the youth of Texas. Please take a few minutes to share your insights. Thank you.

Age: _____ Sex: F or M

How many years have you participated in 4-H? _____ years

How many years have you participated in 4-H Shooting Sports? _____ years

Which disciplines have you taken? (Please check each one that applies)

Basic Archery ___ Basic Pistol ___ Basic Rifle ___ Basic Shotgun ___

Air Pistol ___ Air Rifle ___ Archery Recurve ___ Archery Compound ___

Archery 3-D ___ Hunting/Wildlife ___ Light Rifle ___ Muzzle loading ___ Position Rifle ___

Silhouette ___ Skeet ___ Sporting Clays ___ Trap ___

Others (please state) _____

Approximately how many hours of supervised shooting with a 4-H leader or leaders have you experienced in this program?

Approximately how many hours of shooting have you done with family members either participating, instructing or observing?

Please rate the value of your 4-H Shooting Sports experience in developing abilities in the following areas.

Please use the numbers from the scale listed below.

	Not	A	Like	Most	Quite		Very	More than
	None	Much	Little	Things	a Bit	Lots	Much	Anything Else
	0	1	2	3	4	5	6	7

___ Archery and/or firearms safety

___ Ability to set goals

___ Responsibility with firearms and/or archery equipment

___ Respect for other people and property

___ Respect for the environment and living things

___ Interest in conservation

___ Ability to make decisions

___ Interest in school and education

___ Interest in shooting or conservation careers

___ Ability to talk to adults and parents

___ Pride in accomplishing goals

___ Responsibility for my own actions

___ Willingness to help others learn

___ Ability to get along with people

What has your involvement with shooting sports done for you?

Do you have anything you would like to add?

APPENDIX B
1991 PARENT SHOOTING SPORTS SURVEY

TEXAS 4-H SHOOTING SPORTS PROGRAM

PARENT SURVEY

The Texas 4-H Shooting Sports Program has been offered to young people and adult leaders for many years. This instrument is intended as a foundation for a study of its impacts on youth and adults participating in the program. Your cooperation and willingness to give us the benefit of your insights into the value of 4-H Shooting Sports can assist us in determining its value to the youth of Texas. Please take a few minutes to share your insights. Thank you.

Sex: F or M Children involved in 4-H Shooting Sports _____

Years involved (list each one) _____

Please list any other 4-H activities taken

Please list other extracurricular activities

In which disciplines has (have) your child (children) participated? (Please check each one that applies)

Basic Archery ___ Basic Pistol ___ Basic Rifle ___ Basic Shotgun ___

Air Pistol ___ Air Rifle ___ Archery Recurve ___ Archery Compound ___

Archery 3-D ___ Hunting/Wildlife ___ Light Rifle ___ Muzzle loading ___

Position Rifle ___ Silhouette ___ Skeet ___ Sporting Clays ___ Trap ___

Others (please state)

Please estimate the total time (hours) your child (children) have been involved in supervised instruction or practice of a shooting sports skill through their 4-H involvement. _____

Please estimate your total contact time (leaders x hours) your children have spent with positive adult role models through this program. _____

Please estimate the total family time (parents x kids x hours) resulting from your program. Include all travel, observation, practice, competition, hunting or recreational shooting. _____

Please rate the value of 4-H Shooting Sports experiences in helping your children develop abilities in the following areas, using the numbers from the scale listed below.

	Not	A	Like	Most	Quite		Very	More than
None	Much	Little	Things	a Bit	Lots	Much	Anything	Else
0	1	2	3	4	5	6	7	

_____ Archery and/or firearms safety

_____ Ability to set goals

_____ Responsibility with firearms and/or archery equipment

_____ Respect for other people and property

_____ Respect for the environment and living things

_____ Interest in conservation (including outdoor recreation)

- ___ Ability to make decisions
- ___ Interest in school and education
- ___ Interest in shooting or conservation careers
- ___ Ability to talk to adults and parents
- ___ Pride in accomplishing goals
- ___ Responsibility for their own actions
- ___ Willingness to help others learn
- ___ Ability to get along with people

What do you think involvement with shooting sports has done for your child or children, your family or others you have observed in the program?

Do you have anything you would like to add?

APPENDIX C

1991 LEADER/COACH AND VOLUNTEER SHOOTING SPORTS SURVEY

TEXAS 4-H SHOOTING SPORTS PROGRAM

LEADER/COACH SURVEY

The Texas 4-H Shooting Sports Program has been offered to young people and adult leaders for many years. This instrument is intended as a foundation for a study of its impacts on youth and adults participating in the program. Your cooperation and willingness to give us the benefit of your insights into the value of 4-H Shooting Sports can assist us in determining its value to the youth of Texas. Please take a few minutes to share your insights. Thank you.

Sex: F or M Years as a 4-H volunteer _____

Years as a shooting sports volunteer _____

Years of shooting experience _____

Other affiliations (please list)

Which disciplines does your club or group offer? (Please check each one that applies)

Basic Archery ___ Basic Pistol ___ Basic Rifle ___ Basic Shotgun ___

Air Pistol ___ Air Rifle ___ Archery Recurve ___ Archery Compound ___

Archery 3-D ___ Hunting/Wildlife ___ Light Rifle ___ Muzzle loading ___

Position Rifle ___ Silhouette ___ Skeet ___ Sporting Clays ___ Trap ___

Others (please state) _____

Please estimate the total time (hours) you have spent developing your teaching skills. _____

Please estimate your total contact time (kids x hours) as a shooting sports volunteer in any role. _____

Please estimate the total family contact time (parents x kids x hours) resulting from your program. Include all travel, observation, practice, competition, hunting or recreational shooting if known. _____

Please rate the value of 4-H Shooting Sports experiences in helping young people develop abilities in the following areas, using the numbers from the scale listed below.

Not	A	Like	Most	Quite	Very	More than	
None	Much	Little	Things	a Bit	Lots	Much	Anything Else
0	1	2	3	4	5	6	7

- ___ Archery and/or firearms safety
- ___ Ability to set goals
- ___ Responsibility with firearms and/or archery equipment
- ___ Respect for other people and property
- ___ Respect for the environment and living things
- ___ Interest in conservation (including outdoor recreation)
- ___ Ability to make decisions
- ___ Interest in school and education
- ___ Interest in shooting or conservation careers
- ___ Ability to talk to adults and parents
- ___ Pride in accomplishing goals
- ___ Responsibility for their own actions
- ___ Willingness to help others learn
- ___ Ability to get along with people

What do you think involvement with shooting sports has done for young people, families or volunteers?

Do you have anything you would like to add?

APPENDIX D

2002 YOUTH SHOOTING SPORTS SURVEY

Texas 4-H Shooting Sports Program

Participant Survey

The Texas 4-H Shooting Sports Program has been offered to young people and adult leaders for many years. This instrument is intended as a foundation for a study of its impacts on youth and adults participating in the program. Your cooperation and willingness to give us the benefit of your insights into the value of 4-H Shooting Sports can assist us in determining its value to the youth of Texas. Please take a few minutes to share your insights. Thank you.

Age: _____ Sex: F or M How many years have you participated in 4-H? _____ years

How many years have you participated in 4-H Shooting Sports? _____ years

Which major disciplines have you taken? (Please check each one that applies)

Archery _____ Hunting _____ Muzzleloading _____ Pistol _____ Rifle _____

Shotgun _____

Others (please state):

Approximately how many hours per week do you spend practicing your shooting? _____

Estimate the total hours of 4-H supervised shooting or practice you invested in this program _____

Estimate total hours of family involvement in shooting (observing, coaching or participating) _____

How many competitive 4-H shooting events have you entered this year? _____

How many non-4-H shooting events did you compete in this year? _____

Please list any other 4-H activities taken:

Please list other extracurricular activities:

Using the scale below, please rate the value of your 4-H Shooting Sports experience in developing abilities in the following areas.

None	Not A	Like	Most	Quite	Very	More than	
0	1	2	3	4	5	6	7
___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___

Please estimate miles traveled to compete in, train, or teach shooting sports events in the last year.

Highway _____ Air _____ Other _____

Please indicate states visited related to shooting sports activities. (Circle)

AK AL AR AZ CA CO CT DE FL GA HI IA ID IL IN KS KY LA MA MD

ME MI MO MN MS MT NC ND NE NH NJ NM NV NY OH OK OR

PA RI SC SD TN TX UT VA VT WA WI WV WY

List any countries outside the United States visited within the last year as part of your shooting sports activities.

What are your goals for your shooting? (Do you want to compete at a higher level?)

What has your involvement with shooting sports done for you?

Please indicate the approximate amount of money spent on traveling to all shooting sports competitions this year.

<i>Travel Expenses</i>	<i>Approximate amount spent this year:</i>
<i>Travel Expenses (gas, vehicle maintenance)</i>	
<i>Traffic Fine Expenses</i>	
<i>Lodging Expenses</i>	
<i>Meal Expenses</i>	
<i>Communication Expenses (long distance calls)</i>	
<i>On Sight Expenses (recreation activities)</i>	

Please indicate the approximate amount of money spent on shooting expenses for all shooting sports competitions this year.

<i>Shooting Expenses</i>	<i>Approximate amount spent this year:</i>
<i>Equipment Expenses</i>	
<i>Equipment Maintenance</i>	
<i>Ammunition Expenses</i>	
<i>Clothing & Gear Expenses</i>	
<i>Entry Fee Expenses</i>	

Do you have anything you would like to add?

APPENDIX E
2002 PARENT SHOOTING SPORTS SURVEY

Texas 4-H Shooting Sports Program

Parent Survey

The Texas 4-H Shooting Sports Program has been offered to young people and adult leaders for many years. This instrument is intended as a foundation for study of its impacts on youth and adults participating in the program. Your cooperation and willingness to give us your insights into the value of 4-H Shooting Sports can assist us in determining its value to the youth of Texas. Please take a few minutes to share your insights. Thank you.

Sex: F or M Children involved in 4-H Shooting Sports _____

Years involved (list each one) _____

Please list any other 4-H activities taken

Please list other extracurricular activities

In which disciplines has (have) your child (children) participated? (Please check each one that applies)

Archery ____ Hunting ____ Muzzle loading ____ Pistol ____ Rifle ____ Shotgun ____

Others (please state)

Please indicate states visited related to shooting sports activities.

AK AL AR AZ CA CO CT DE FL GA HI IA ID

IL IN KS KY LA MA MD ME MI MO MN MS MT

NC ND NE NH NJ NM NV NY OH OK OR PA RI

SC SD TN TX UT VA VT WA WI WV WY

List any countries outside the United States visited within the last year as part of your shooting sports activities.

Please estimate miles traveled to compete in, train, or teach shooting sports events in the last year.

Highway _____ Air _____ Other _____

Please approximate the total miles traveled for competitive shooting sports events. _____

Please estimate the total time (hours) your child (children) have been involved in supervised instruction or practice of a shooting sports skill through their 4-H involvement. _____

Please estimate your total contact time (leaders x hours) your children have spent with positive adult role models through this program. _____

Please estimate the total family time (parents x kids x hours) resulting from your program. Include all travel, observation, practice, competition, hunting or recreational shooting. _____

Please rate the value of 4-H Shooting Sports experiences in helping your children develop abilities in the following areas, using the numbers from the scale listed below.

Not	A	Like	Most	Quite		Very	More than
None	Much	Little	Things	a Bit	Lots	Much	Anything Else
0	1	2	3	4	5	6	7

___ Archery and/or firearms safety

___ Ability to set goals

___ Responsibility with firearms and/or archery equipment

___ Respect for other people and property

___ Respect for the environment and living things

___ Interest in conservation (including outdoor recreation)

___ Ability to make decisions

___ Interest in school and education

___ Interest in shooting or conservation careers

___ Ability to talk to adults and parents

___ Pride in accomplishing goals

___ Responsibility for their own actions

___ Willingness to help others learn

___ Ability to get along with people

What do you think involvement with shooting sports has done for your child or children, your family or others you have observed in the program?

Please indicate the approximate amount of money spent on travel for you and your family to all shooting sports competitions this year.

<i>Travel Expenses</i>	<i>Approximate amount spent this year:</i>
<i>Travel Expenses (gas, vehicle maintenance)</i>	
<i>Traffic Fine Expenses</i>	
<i>Common Carrier Expenses (Air, train, bus)</i>	
<i>Lodging Expenses</i>	
<i>Meal Expenses</i>	
<i>Communication Expenses (long distance calls, modem use, letters)</i>	
<i>On Sight Expenses (recreation activities)</i>	

Please indicate the approximate amount of money spent on shooting expenses for all shooting sports competitions this year (You may amortize capital expenses like firearms.)

<i>Shooting Expenses</i>	<i>Approximate amount spent this year:</i>
<i>Equipment Expenses</i>	
<i>Equipment Maintenance</i>	
<i>Ammunition Expenses</i>	
<i>Clothing & Gear Expenses</i>	
<i>Entry Fee Expenses</i>	

Do you have anything you would like to add?

APPENDIX F

2002 LEADER/COACH AND VOLUNTEER SHOOTING SPORTS SURVEY

Texas 4-H Shooting Sports Program

Leader/coach Survey

The Texas 4-H Shooting Sports Program has been offered to young people and adult leaders for many years. This instrument is intended as a foundation for a study of its impacts on youth and adults participating in the program. Your cooperation and willingness to give us the benefit of your insights into the value of 4-H Shooting Sports can assist us in determining its value to the youth of Texas. Please take a few minutes to share your insights. Thank you.

Sex: F or M Years as a 4-H volunteer _____

Years as a shooting sports volunteer _____

Years of shooting experience _____ Other affiliations (please list) _____

Which disciplines does your club or group offer? (Please check each one that applies)

Archery _____ Hunting _____ Muzzle loading _____ Pistol _____ Rifle _____ Shotgun _____

Others (please state)

Circle states visited within the last year as part of shooting sports activities

AK AL AR AZ CA CO CT DE FL GA HI IA ID

IL IN KS KY LA MA MD ME MI MO MN MS MT

NC ND NE NH NJ NM NV NY OH OK OR PA RI

SC SD TN TX UT VA VT WA WI WV WY

List any countries outside the United States visited within the last year as part of your shooting sports activities.

Please estimate miles traveled to compete in, train, or teach shooting sports events in the last year.

Highway _____ Air _____ Other _____

Please estimate the total time (hours) you have spent developing your teaching skills.

Please estimate your total contact time (kids x hours) as a shooting sports volunteer in any role.

Please estimate the total family contact time (parents x kids x hours) resulting from your program.

Include all travel, observation, practice, competition, hunting or recreational shooting if known.

Please rate the value of 4-H Shooting Sports experiences in helping young people develop abilities in the following areas, using the numbers from the scale listed below.

None	Not Much	A Little	Like Most Things	Quite a Bit	Very Lots	More than Much	Anything Else
0	1	2	3	4	5	6	7

____ Archery and/or firearms safety

____ Ability to set goals

____ Responsibility with firearms and/or archery equipment

____ Respect for other people and property

____ Respect for the environment and living things

____ Interest in conservation (including outdoor recreation)

____ Ability to make decisions

____ Interest in school and education

____ Interest in shooting or conservation careers

____ Ability to talk to adults and parents

____ Pride in accomplishing goals

____ Responsibility for their own actions

___ Willingness to help others learn

___ Ability to get along with people

What do you think involvement with shooting sports has done for young people, families or volunteers?

Please indicate the approximate amount of money spent for on traveling for you and your family or team to all shooting sports competitions this year.

<i>Travel Expenses</i>	<i>Approximate amount spent this year:</i>
<i>Travel Expenses (gas, vehicle maintenance)</i>	
<i>Traffic Fine Expenses</i>	
<i>Common Carrier Expenses (Air, train, bus)</i>	
<i>Lodging Expenses</i>	
<i>Meal Expenses</i>	
<i>Communication Expenses (long distance calls, modem use, letters)</i>	
<i>Equipment, Clothing, and Gear</i>	
<i>Firearms, Optics , Archery Tackle</i>	
<i>Ammunition, Targets, Other Shooting Expense</i>	
<i>On Sight Expenses (recreation activities)</i>	

Do you have anything you would like to add?

APPENDIX G**INDEPENDENT SAMPMLES T-TEST FOR EQUALITY OF MEANS: LIFE****SKILLS GAINED 1991 VS. 2002**

		t	df	Sig. (2-tailed)	Mean Difference
LO -1	Equal variances assumed	1.17	3078	0.243	0.26
	Equal variances not assumed	1.115	133.855	0.267	0.26
LO -2	Equal variances assumed	1.324	307	0.186	0.24
	Equal variances not assumed	1.204	123.973	0.231	0.24
LO -3	Equal variances assumed	1.955	306	.052*	0.44
	Equal variances not assumed	1.788	123.31	0.076	0.44
LO -4	Equal variances assumed	0.825	307	0.41	0.16
	Equal variances not assumed	0.749	123.655	0.455	0.16
LO -5	Equal variances assumed	-0.285	306	0.776	-.653E-02
	Equal variances not assumed	-0.263	124.73	0.793	-.653E-02
LO -6	Equal variances assumed	0.262	305	0.793	-4.81E-02
	Equal variances not assumed	0.255	134.522	0.799	-4.81E-02
LO -7	Equal variances assumed	-0.1	306	0.921	-2.04E-02
	Equal variances not assumed	-0.101	147.984	0.919	-2.04E-02
LO -8	Equal variances assumed	-0.1723	307	0.086	-0.35
	Equal variances not assumed	-0.1682	139.739	0.095	-0.35
LO -9	Equal variances assumed	0.264	306	0.0792	4.85E-02
	Equal variances not assumed	0.235	118.238	0.815	4.85E-02
LO -10	Equal variances assumed	1.478	306	0.141	0.35
	Equal variances not assumed	1.352	123.352	0.179	0.35
LO -11	Equal variances assumed	1.647	306	0.101	0.39
	Equal variances not assumed	1.527	125.988	0.129	0.39
LO -12	Equal variances assumed	-0.963	307	0.336	-0.21
	Equal variances not assumed	-0.946	141.393	0.346	-0.21
LO -13	Equal variances assumed	-0.82	209	0.413	-0.16
	Equal variances not assumed	-0.797	158.973	0.426	-0.16
LO -14	Equal variances assumed	-0.538	307	0.591	-9.77E-02
	Equal variances not assumed	-0.514	134.692	0.608	-9.77E-02

df. Degrees of freedom (SPSS, 1999).

*. Correlation is significant at the .05 level (2-tailed).

APPENDIX H**T-TEST FOR EQUALITY FOR MEANS: LIFE SKILLS GAINED 1991 Vs. 2002**

		t-test for Equality of Means		
		St. Error Difference	95% confidence Interval of the Difference	
			Lower	Upper
LO -1	Equal variances assumed	0.22	-0.18	0.7
	Equal variances not assumed	0.23	-0.2	0.72
LO -2	Equal variances assumed	0.18	-0.12	0.59
	Equal variances not assumed	0.2	-0.15	0.63
LO -3	Equal variances assumed	0.23	-2.95E-03	0.89
	Equal variances not assumed	0.25	-4.75E-02	0.94
LO -4	Equal variances assumed	0.2	0.23	0.55
	Equal variances not assumed	0.22	0.27	0.6
LO -5	Equal variances assumed	0.23	0.52	0.39
	Equal variances not assumed	0.25	0.56	0.43
LO -6	Equal variances assumed	0.18	-0.41	0.31
	Equal variances not assumed	0.19	-0.42	0.32
LO -7	Equal variances assumed	0.2	-0.42	0.38
	Equal variances not assumed	0.2	-0.42	0.38
LO -8	Equal variances assumed	0.2	-0.74	4.92E-02
	Equal variances not assumed	0.21	-0.75	6.07E-02
LO -9	Equal variances assumed	0.18	-0.31	0.41
	Equal variances not assumed	0.21	-0.36	0.46
LO -10	Equal variances assumed	0.24	-0.12	0.81
	Equal variances not assumed	0.26	-0.16	0.86
LO -11	Equal variances assumed	0.24	-7.63E-02	0.86
	Equal variances not assumed	0.26	-0.12	0.9
LO -12	Equal variances assumed	0.22	-0.64	0.22
	Equal variances not assumed	0.22	-0.64	0.23
LO -13	Equal variances assumed	0.2	-0.55	0.23
	Equal variances not assumed	0.2	-0.56	0.24
LO -14	Equal variances assumed	0.18	-0.46	0.26
	Equal variances not assumed	0.19	-0.47	0.28

APPENDIX I**INDEPENDENT SAMPLES T-TEST FOR EQUALITY OF MEANS: LIFE****SKILLS GAINED FEMALES VS. MALES**

		t	df	Sig. (2-tailed)	Mean Difference
LO -1	Equal variances assumed	1.022	85	0.31	0.66
	Equal variances not assumed	1.378	14.731	0.189	0.66
LO -2	Equal variances assumed	1.076	86	0.285	0.58
	Equal variances not assumed	2.037	27.273	0.052	0.58
LO -3	Equal variances assumed	0.721	85	.473	0.49
	Equal variances not assumed	1.094	17.279	0.289	0.49
LO -4	Equal variances assumed	0.389	86	0.698	0.24
	Equal variances not assumed	0.458	12.788	0.655	0.24
LO -5	Equal variances assumed	-0.431	85	0.668	-.28
	Equal variances not assumed	-0.36	10.529	0.726	-.28
LO -6	Equal variances assumed	0.829	84	0.409	.39
	Equal variances not assumed	1.154	15.404	0.266	.39
LO -7	Equal variances assumed	2.403	84	0.018*	1.16
	Equal variances not assumed	3.082	14.008	0.008	1.16
LO -8	Equal variances assumed	1.407	86	0.163	0.76
	Equal variances not assumed	2.146	17.265	0.046	0.76
LO -9	Equal variances assumed	1.218	85	0.227	.68
	Equal variances not assumed	1.786	16.413	0.093	.68
LO -10	Equal variances assumed	1.119	84	0.266	0.8
	Equal variances not assumed	1.354	13.238	0.198	0.8
LO -11	Equal variances assumed	1.357	85	0.178	0.92
	Equal variances not assumed	1.902	15.432	0.076	0.92
LO -12	Equal variances assumed	-0.478	86	0.634	-0.29
	Equal variances not assumed	-0.409	10.603	0.691	-0.29
LO -13	Equal variances assumed	1.55	86	0.125	0.81
	Equal variances not assumed	1.545	11.412	0.15	0.81
LO -14	Equal variances assumed	1.481	86	0.142	.77
	Equal variances not assumed	1.727	12.7	0.108	.77

df. Degrees of freedom (SPSS, 1999).

*. Correlation is significant at the .05 level (2-tailed).

APPENDIX J

T-TEST FOR EQUALITY OF MEANS: LIFE SKILLS GAINED FEMALES VS.

MALES

		t-test for Equality of Means		
		St. Error	95% confidence	
		Differenc	Lower	Upper
LO-1	Equal variances assumed	0.65	-0.63	1.95
	Equal variances not assumed	0.48	-0.36	1.68
LO-2	Equal variances assumed	0.54	-0.49	1.64
	Equal variances not assumed	0.28	-4.05E-03	1.16
LO-3	Equal variances assumed	0.68	-.86	1.84
	Equal variances not assumed	0.45	-.45	1.43
LO-4	Equal variances assumed	0.62	-0.99	1.47
	Equal variances not assumed	0.53	-0.9	1.38
LO-5	Equal variances assumed	0.65	-1.58	1.02
	Equal variances not assumed	0.78	-2.01	1.45
LO-6	Equal variances assumed	0.48	-0.55	1.34
	Equal variances not assumed	0.34	-0.33	1.12
LO-7	Equal variances assumed	0.48	0.2	2.11
	Equal variances not assumed	0.37	0.35	1.96
LO-8	Equal variances assumed	0.54	-0.31	1.83
	Equal variances not assumed	0.35	1.36E-02	1.50
LO-9	Equal variances assumed	0.56	-0.43	1.79
	Equal variances not assumed	0.38	-0.13	1.49
LO-10	Equal variances assumed	0.72	-0.62	2.23
	Equal variances not assumed	0.59	-0.48	2.08
LO-11	Equal variances assumed	0.68	-.43	2.28
	Equal variances not assumed	0.49	-.11	1.96
LO-12	Equal variances assumed	0.61	-1.49	0.92
	Equal variances not assumed	0.71	-1.86	1.28
LO-13	Equal variances assumed	0.52	-0.23	1.86
	Equal variances not assumed	0.53	-0.34	1.97
LO-14	Equal variances assumed	0.53	-0.26	1.8
	Equal variances not assumed	0.44	-0.19	1.73

APPENDIX K
PEARSON CORRELATION COEFFICIENTS MATRIX: SHOOTING YEARS
VS. LIFE SKILLS

		Shooting Years
LO-1	Pearson Correlation	0.278**
	Sig. (2-tailed)	0.009
	N	87
LO-2	Pearson Correlation	0.162
	Sig. (2-tailed)	0.131
	N	88
LO-3	Pearson Correlation	0.106
	Sig. (2-tailed)	0.331
	N	87
LO-4	Pearson Correlation	0.125
	Sig. (2-tailed)	0.247
	N	88
LO-5	Pearson Correlation	-0.173
	Sig. (2-tailed)	0.109
	N	87
LO-6	Pearson Correlation	0.106
	Sig. (2-tailed)	0.333
	N	86
LO-7	Pearson Correlation	-0.094
	Sig. (2-tailed)	0.388
	N	86
LO-8	Pearson Correlation	0.025
	Sig. (2-tailed)	0.814
	N	88
LO-9	Pearson Correlation	0.052
	Sig. (2-tailed)	0.635
	N	87
LO-10	Pearson Correlation	0.04
	Sig. (2-tailed)	0.714
	N	86
LO-11	Pearson Correlation	-0.021
	Sig. (2-tailed)	0.845
	N	87
LO-12	Pearson Correlation	0.065
	Sig. (2-tailed)	0.545
	N	88
LO-13	Pearson Correlation	0.133
	Sig. (2-tailed)	0.215
	N	88
LO-14	Pearson Correlation	0.073
	Sig. (2-tailed)	0.5
	N	88

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX L

**SPEARMAN'S RHO CORRELEATION COEFFICIENTS MATRIX: YOUTH
PARTICIPATING IN COMPETITIONS INDISE OF TEXAS VS. OUTSIDE**

		Inside TX	Outside TX
Age	Correlation Coefficient	-0.044	0.122
	Sig. (2-tailed)	.681	0.256
	N	88	88
Gender	Correlation Coefficient	-0.056	0.074
	Sig. (2-tailed)	0.602	0.491
	N	89	89
4-H years	Correlation Coefficient	-0.016	0.028
	Sig. (2-tailed)	0.883	0.793
	N	89	89
Shooting yrs	Correlation Coefficient	-0.004	0.025
	Sig. (2-tailed)	0.973	0.817
	N	89	89
Practice hrs	Correlation Coefficient	0.051	-0.067
	Sig. (2-tailed)	0.639	0.537
	N	87	87
Supervised hrs	Correlation Coefficient	0.002	0.066
	Sig. (2-tailed)	0.986	0.549
	N	84	84
Family time	Correlation Coefficient	-0.113	.158
	Sig. (2-tailed)	0.317	0.162
	N	80	80
4-H Shooting Contest	Correlation Coefficient	0.163	-0.108
	Sig. (2-tailed)	0.148	0.341
	N	80	80
Non-4-H Shooting Contest	Correlation Coefficient	-0.256	0.318*
	Sig. (2-tailed)	0.097	0.038
	N	43	43
4-H activities	Correlation Coefficient	0.024	-0.024
	Sig. (2-tailed)	0.89	.890
	N	36	36
Non-4-H activities	Correlation Coefficient	-0.127	0.109
	Sig. (2-tailed)	0.395	0.464
	N	47	47
LO-1	Correlation Coefficient	-0.016	0.09
	Sig. (2-tailed)	0.883	0.406
	N	87	87
LO-2	Correlation Coefficient	-0.055	0.123
	Sig. (2-tailed)	0.611	0.254
	N	88	88
LO-3	Correlation Coefficient	0.164	-0.137
	Sig. (2-tailed)	0.129	0.206
	N	87	87

		Inside TX	Outside TX
LO-4	Correlation Coefficient	-0.033	0.066
	Sig. (2-tailed)	0.76	0.54
	N	88	88
LO-5	Correlation Coefficient	-0.225*	.287**
	Sig. (2-tailed)	0.036	0.007
	N	87	87
LO-6	Correlation Coefficient	0.011	0.065
	Sig. (2-tailed)	0.923	0.552
	N	86	86
LO-7	Correlation Coefficient	0.045	0.014
	Sig. (2-tailed)	0.681	0.901
	N	86	86
LO-8	Correlation Coefficient	-0.066	0.111
	Sig. (2-tailed)	0.544	0.305
	N	88	88
LO-9	Correlation Coefficient	-0.045	0.109
	Sig. (2-tailed)	0.68	0.315
	N	87	87
LO-10	Correlation Coefficient	0.042	-0.009
	Sig. (2-tailed)	0.702	0.938
	N	86	86
LO-11	Correlation Coefficient	0.036	-0.039
	Sig. (2-tailed)	0.738	0.718
	N	87	87
LO-12	Correlation Coefficient	0.073	-0.016
	Sig. (2-tailed)	0.499	0.886
	N	88	88
LO-13	Correlation Coefficient	-0.083	0.147
	Sig. (2-tailed)	0.444	0.172
	N	88	88
LO-14	Correlation Coefficient	0.08	-0.029
	Sig. (2-tailed)	0.459	0.79
	N	88	88

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX M**SPEARMAN'S RHO CORRELATION COEFFICIENTS MATRIX: YOUTH 4-H
SHOOTING SPORTS EVENTS VS. NON-4-H SHOOTING SPORTS EVENTS**

		4-H Events	Non-4-H Events
Age	Correlation Coefficient	-0.06	0.135
	Sig. (2-tailed)	0.6	0.387
	N	79	43
Gender	Correlation Coefficient	0.03	0.114
	Sig. (2-tailed)	0.794	0.466
	N	80	43
4-H years	Correlation Coefficient	-0.043	0.244
	Sig. (2-tailed)	0.702	0.114
	N	80	43
Shooting yrs	Correlation Coefficient	-0.037	0.196
	Sig. (2-tailed)	0.744	0.207
	N	80	43
Practice hrs	Correlation Coefficient	0.037	.472**
	Sig. (2-tailed)	0.745	0.022
	N	79	42
Supervised hrs	Correlation Coefficient	0.016	-0.009
	Sig. (2-tailed)	0.893	0.957
	N	77	42
Family time	Correlation Coefficient	0.085	0.127
	Sig. (2-tailed)	0.463	0.434
	N	76	40
4-H Shooting Contest	Correlation Coefficient	1	-0.086
	Sig. (2-tailed)	.	0.582
	N	80	43
Non-4-H Shooting Contest	Correlation Coefficient	-0.086	1
	Sig. (2-tailed)	0.582	.
	N	43	43
4-H activities	Correlation Coefficient	-0.086	1.9
	Sig. (2-tailed)	0.631	0.482
	N	34	16
Non-4-H activities	Correlation Coefficient	-0.145	0.067
	Sig. (2-tailed)	0.332	0.749
	N	47	25
LO-1	Correlation Coefficient	0.115	0.205
	Sig. (2-tailed)	0.312	0.194
	N	79	42

		4-H Events	Non-4-H Events
LO-2	Correlation Coefficient	0.115	0.06
	Sig. (2-tailed)	0.308	0.702
	N	80	43
LO-3	Correlation Coefficient	0.211	0.035
	Sig. (2-tailed)	0.062	0.823
	N	79	43
LO-4	Correlation Coefficient	0.153	0.066
	Sig. (2-tailed)	0.175	0.675
	N	80	43
LO-5	Correlation Coefficient	0.082	.322*
	Sig. (2-tailed)	0.471	0.035
	N	79	43
LO-6	Correlation Coefficient	0.166	0.276
	Sig. (2-tailed)	0.145	0.073
	N	79	43
LO-7	Correlation Coefficient	0.094	-0.038
	Sig. (2-tailed)	0.413	0.812
	N	78	42
LO-8	Correlation Coefficient	0.159	0.096
	Sig. (2-tailed)	0.158	0.54
	N	80	43
LO-9	Correlation Coefficient	0.16	0.101
	Sig. (2-tailed)	0.159	0.518
	N	79	43
LO-10	Correlation Coefficient	0.186	-0.093
	Sig. (2-tailed)	0.103	0.559
	N	78	42
LO-11	Correlation Coefficient	0.129	-0.014
	Sig. (2-tailed)	0.257	0.927
	N	79	43
LO-12	Correlation Coefficient	0.091	0.135
	Sig. (2-tailed)	0.422	0.388
	N	80	43
LO-13	Correlation Coefficient	0.111	0.104
	Sig. (2-tailed)	0.325	0.507
	N	80	43
LO-14	Correlation Coefficient	0.129	-0.036
	Sig. (2-tailed)	0.254	0.82
	N	80	43
Inside TX	Correlation Coefficient	0.163	-0.256
	Sig. (2-tailed)	0.148	0.097
	N	80	43
Outside TX	Correlation Coefficient	-0.108	.318*
	Sig. (2-tailed)	0.341	0.038
	N	80	43

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX N

**PEARSON CORRELATION COEFFICIENTS MATRIX: YOUTH PRACTICE,
SUPERVISED, & FAMILY HOURS VS. 4-H ACTIVITIES & LIFE SKILLS**

		Practice Hours	Supervised Hours	Family Hours
Practice hrs	Pearson Correlation	1	.409**	.367**
	Sig. (2-tailed)	.	0	0.001
	N	87	83	79
Supervised hrs	Pearson Correlation	.409**	1.000	.834**
	Sig. (2-tailed)	0	.	0
	N	83	84	79
Family time	Pearson Correlation	.367**	.834**	1
	Sig. (2-tailed)	0.001	0	.
	N	79	79	80
4-H activities	Pearson Correlation	0.244	-.208	.440*
	Sig. (2-tailed)	0.158	0.23	0.01
	N	35	35	33
LO-1	Pearson Correlation	-0.002	0.16	-0.181
	Sig. (2-tailed)	0.985	0.15	0.111
	N	85	82	79
LO-2	Pearson Correlation	0	-0.111	-0.168
	Sig. (2-tailed)	0.997	0.318	0.137
	N	86	83	80
LO-3	Pearson Correlation	0.01	-0.115	-0.108
	Sig. (2-tailed)	0.925	0.302	0.341
	N	85	82	79
LO-4	Pearson Correlation	0.008	-0.096	-0.142
	Sig. (2-tailed)	0.939	0.388	0.207
	N	86	83	80
LO-5	Pearson Correlation	0.109	0.069	-0.05
	Sig. (2-tailed)	0.321	0.535	0.659
	N	85	82	79
LO-6	Pearson Correlation	0.031	0.004	-0.098
	Sig. (2-tailed)	0.783	0.971	0.393
	N	84	81	78
LO-7	Pearson Correlation	-0.057	-0.149	-0.192
	Sig. (2-tailed)	0.604	0.185	0.092
	N	84	81	78
LO-8	Pearson Correlation	0.004	-0.067	-0.194
	Sig. (2-tailed)	0.972	0.546	0.084
	N	86	83	80
LO-9	Pearson Correlation	-0.045	-0.161	-.233*
	Sig. (2-tailed)	0.685	0.148	0.039
	N	85	82	79
LO-10	Pearson Correlation	-0.036	-0.076	-0.12
	Sig. (2-tailed)	0.745	0.5	0.295
	N	84	81	78
LO-11	Pearson Correlation	-0.078	-0.139	-0.15
	Sig. (2-tailed)	0.48	0.213	0.187
	N	85	82	79
LO-12	Pearson Correlation	0.082	-0.068	-0.139
	Sig. (2-tailed)	0.454	0.539	0.219
	N	86	83	80
LO-13	Pearson Correlation	0.08	0.097	-.227*
	Sig. (2-tailed)	0.462	0.383	0.043
	N	86	83	80
LO-14	Pearson Correlation	-0.031	-0.118	-0.208
	Sig. (2-tailed)	0.779	0.289	0.064
	N	86	83	80
Inside TX	Pearson Correlation	0.066	-0.067	0.025
	Sig. (2-tailed)	0.542	0.544	0.826
	N	87	84	80
Outside TX	Pearson Correlation	-0.084	0.091	-0.01
	Sig. (2-tailed)	0.438	0.411	0.928
	N	87	84	80

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX O

PEARSON CORRELATION COEFFICIENTS MATRIX: YOUTH'S AGE VS.

YEARS OF INVOLVMENT & LIFE SKILLS

		<i>Age</i>
4-H Years	Pearson Correlation	.587**
	Sig. (2-tailed)	0
	N	88
Shooting Years	Pearson Correlation	.603**
	Sig. (2-tailed)	0
	N	88
I.O-1	Pearson Correlation	0.089
	Sig. (2-tailed)	0.415
	N	86
I.O-2	Pearson Correlation	0.149
	Sig. (2-tailed)	0.168
	N	87
I.O-3	Pearson Correlation	0.058
	Sig. (2-tailed)	0.596
	N	86
I.O-4	Pearson Correlation	0.011
	Sig. (2-tailed)	0.922
	N	87
I.O-5	Pearson Correlation	-0.133
	Sig. (2-tailed)	0.223
	N	86
I.O-6	Pearson Correlation	-0.007
	Sig. (2-tailed)	0.952
	N	85
I.O-7	Pearson Correlation	-0.07
	Sig. (2-tailed)	0.527
	N	85
I.O-8	Pearson Correlation	-0.117
	Sig. (2-tailed)	0.279
	N	87
I.O-9	Pearson Correlation	-0.074
	Sig. (2-tailed)	0.499
	N	86
I.O-10	Pearson Correlation	0.072
	Sig. (2-tailed)	0.511
	N	85
I.O-11	Pearson Correlation	-0.127
	Sig. (2-tailed)	0.244
	N	86
I.O-12	Pearson Correlation	0.028
	Sig. (2-tailed)	0.795
	N	87
I.O-13	Pearson Correlation	-0.029
	Sig. (2-tailed)	0.793
	N	87
I.O-14	Pearson Correlation	-0.024
	Sig. (2-tailed)	0.825
	N	87
Inside TX	Pearson Correlation	-0.033
	Sig. (2-tailed)	0.76
	N	88
Outside TX	Pearson Correlation	0.116
	Sig. (2-tailed)	0.28
	N	88

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX P

**INDEPENDENT SAMPLES T-TEST FOR EQUALITY OF MEANS: LIFE
SKILLS GAINED BY YOUTH COMPETING INSIDE OF TEXAS VS. OUTSIDE**

		t	df	Sig. (2-tailed)	Mean Difference
LO-1	Equal variances assumed	0.21	85	0.835	0.12
	Equal variances not assumed	0.21	18.396	0.836	0.12
LO-2	Equal variances assumed	0.21	86	0.834	9.85E-02
	Equal variances not assumed	0.182	16.377	0.858	9.85E-02
LO-3	Equal variances assumed	-1.657	85	0.101	-0.96
	Equal variances not assumed	-1.464	16.648	0.162	-0.96
LO-4	Equal variances assumed	0.093	86	0.926	5.02E-02
	Equal variances not assumed	0.85	17.006	0.933	5.02E-02
LO-5	Equal variances assumed	1.976	85	.051*	1.1
	Equal variances not assumed	2.514	24.587	0.019	1.1
LO-6	Equal variances assumed	-1.27	84	0.208	-0.52
	Equal variances not assumed	-0.82	14.847	0.426	-0.52
LO-7	Equal variances assumed	-576	84	0.566	-0.25
	Equal variances not assumed	-0.516	16.847	0.613	-0.25
LO-8	Equal variances assumed	-0.792	86	0.43	0.37
	Equal variances not assumed	0.949	22.3	0.353	0.37
LO-9	Equal variances assumed	0.809	85	0.421	0.39
	Equal variances not assumed	1.074	26.379	0.293	0.39
LO-10	Equal variances assumed	-0.418	84	0.677	-0.26
	Equal variances not assumed	-0.381	17.071	0.708	-0.26
LO-11	Equal variances assumed	0.251	85	0.802	-0.15
	Equal variances not assumed	0.249	18.24	0.806	-0.15
LO-12	Equal variances assumed	-0.29	86	0.773	-0.15
	Equal variances not assumed	-0.328	20.754	0.746	-0.15
LO-13	Equal variances assumed	1.091	86	0.278	0.5
	Equal variances not assumed	1.483	27.278	0.15	0.5
LO-14	Equal variances assumed	-0.54	86	0.591	-0.25
	Equal variances not assumed	-0.548	18.527	0.59	-0.25

df. Degrees of freedom (SPSS, 1999).

*. Correlation is significant at the .05 level (2-tailed).

APPENDIX Q**T-TEST FOR EQUALITY OF MEANS: LIFE SKILLS GAINED BY YOUTH****COMPETING JUST INSIDE OF TEXAS VS. OUTSIDE**

		t-test for Equality of Means		
		St. Error	95% confidence	
		Differenc	Lower	Upper
LO-1	Equal variances assumed	0.56	-1	1.24
	Equal variances not assumed	0.56	-1.06	1.3
LO-2	Equal variances assumed	0.47	-.83	1.03
	Equal variances not assumed	0.54	-1.05	1.24
LO-3	Equal variances assumed	0.58	-2.12	0.19
	Equal variances not assumed	0.66	-2.36	0.43
LO-4	Equal variances assumed	0.54	-1.02	1.12
	Equal variances not assumed	0.59	-1.19	1.29
LO-5	Equal variances assumed	0.56	-7.01E-03	2.2
	Equal variances not assumed	0.44	0.2	2
LO-6	Equal variances assumed	0.41	-1.34	0.3
	Equal variances not assumed	0.64	-1.88	0.84
LO-7	Equal variances assumed	0.43	-1.10	0.61
	Equal variances not assumed	0.48	-1.26	0.77
LO-8	Equal variances assumed	0.47	-0.56	1.31
	Equal variances not assumed	0.39	-0.44	1.19
LO-9	Equal variances assumed	0.49	-0.57	1.36
	Equal variances not assumed	0.37	-.36	1.15
LO-10	Equal variances assumed	0.63	-1.51	0.98
	Equal variances not assumed	0.69	-1.71	1.19
LO-11	Equal variances assumed	0.6	-1.34	1.04
	Equal variances not assumed	0.6	-1.41	1.11
LO-12	Equal variances assumed	0.53	-1.2	0.89
	Equal variances not assumed	0.46	-1.12	0.81
LO-13	Equal variances assumed	0.46	-0.41	1.14
	Equal variances not assumed	0.34	-0.19	1.19
LO-14	Equal variances assumed	0.45	-1.15	0.66
	Equal variances not assumed	0.45	-1.18	0.69

APPENDIX R**INDEPENDENT SAMPLES T-TEST FOR EQUALITY OF MEANS: LIFE****SKILLS YOUTH VS. PARENTS**

		t	df	Sig. (2-tailed)	Mean Difference
LO-1	Equal variances assumed	-3.583	154	.000*	-0.99
	Equal variances not assumed	-3.718	152.631	.000	-0.99
LO-2	Equal variances assumed	-4.105	159	.000*	-.85
	Equal variances not assumed	-4.325	137.5	.000	-.85
LO-3	Equal variances assumed	-3.176	156	.002*	-0.88
	Equal variances not assumed	-3.309	149.354	.001	-0.88
LO-4	Equal variances assumed	-2.468	158	.015*	-.61
	Equal variances not assumed	-2.578	148.654	.011	-.61
LO-5	Equal variances assumed	-2.188	156	.030*	-.61
	Equal variances not assumed	-2.247	155.332	.026	-.61
LO-6	Equal variances assumed	-2.11	156	.036*	-0.42
	Equal variances not assumed	-2.174	151.909	.031	-0.42
LO-7	Equal variances assumed	-0.2753	154	.007*	-0.59
	Equal variances not assumed	-2.821	153.825	.005	-0.59
LO-8	Equal variances assumed	-1.805	160	.073	-0.4
	Equal variances not assumed	-1.861	154.567	.065	-0.4
LO-9	Equal variances assumed	-0.969	158	.334	-0.22
	Equal variances not assumed	-0.999	152.983	.319	-0.22
LO-10	Equal variances assumed	-3.807	154	.000*	-1.14
	Equal variances not assumed	-3.957	149.158	.000	-1.14
LO-11	Equal variances assumed	-2.001	155	.047*	-0.59
	Equal variances not assumed	-2.06	154.524	.041	-0.59
LO-12	Equal variances assumed	-2.621	157	.010	-0.66
	Equal variances not assumed	-2.717	154.405	.007	-0.66
LO-13	Equal variances assumed	-1.337	158	.183	-0.3
	Equal variances not assumed	-1.382	155.36	.169	-0.3
LO-14	Equal variances assumed	-2.099	159	.037	-0.44
	Equal variances not assumed	-2.181	150.645	.031	-0.44

df. Degrees of freedom (SPSS, 1999).

*. Correlation is significant at the .05 level (2-tailed).

APPENDIX S

T-TEST FOR EQUALITY OF MEANS: 2002 LIFE SKILLS YOUTH VS.

PARENTS

		t-test for Equality of Means		
		St. Error	95% confidence	
		Differenc	Lower	Upper
LO-1	Equal variances assumed	0.28	-1.53	-0.44
	Equal variances not assumed	0.27	-1.51	-0.46
LO-2	Equal variances assumed	0.21	-1.26	-0.44
	Equal variances not assumed	0.2	-1.24	-0.46
LO-3	Equal variances assumed	0.28	-1.43	-0.33
	Equal variances not assumed	0.27	-1.41	-0.36
LO-4	Equal variances assumed	0.25	-1.1	-0.12
	Equal variances not assumed	0.24	-1.08	-0.14
LO-5	Equal variances assumed	0.28	-1.16	-5.93E-02
	Equal variances not assumed	0.27	-1.15	-7.10E-02
LO-6	Equal variances assumed	0.2	-0.81	-2.38E-02
	Equal variances not assumed	0.19	-0.8	-3.82E-02
LO-7	Equal variances assumed	0.22	-1.02	-0.17
	Equal variances not assumed	0.21	-1.01	-0.18
LO-8	Equal variances assumed	0.22	-0.84	3.76E-02
	Equal variances not assumed	0.21	-0.82	2.45E-02
LO-9	Equal variances assumed	0.23	-0.68	0.23
	Equal variances not assumed	0.22	-.67	0.22
LO-10	Equal variances assumed	0.3	-1.73	-0.55
	Equal variances not assumed	0.29	-1.71	-0.57
LO-11	Equal variances assumed	0.29	-1.17	-7.53E-03
	Equal variances not assumed	0.29	-1.15	-2.43E-02
LO-12	Equal variances assumed	0.25	-1.16	-0.16
	Equal variances not assumed	0.24	-1.14	-0.18
LO-13	Equal variances assumed	0.22	-0.73	0.14
	Equal variances not assumed	0.21	-0.72	0.13
LO-14	Equal variances assumed	0.21	-0.86	8.376E-02
	Equal variances not assumed	0.2	-0.84	8.85E-02

APPENDIX T**SPEARMAN'S RHO CORRELATION COEFFICIENTS MATRIX: LIFE
SKILLS PARENTS VS. SHOOTING EVENTS**

		Hunting	Muzzle	Pistol	Rifle	Shotgun
LO-1	Correlation Coefficient	0.197	0.097	-0.067	0.013	-0.05
	Sig. (2-tailed)	0.21	0.427	0.582	0.915	0.685
	N	42	69	69	69	69
LO-2	Correlation Coefficient	0.18	0.065	-0.042	0.048	-0.076
	Sig. (2-tailed)	0.249	0.583	0.726	0.69	0.524
	N	43	73	73	73	73
LO-3	Correlation Coefficient	-0.071	0.055	0.016	-0.057	0.017
	Sig. (2-tailed)	0.652	0.65	0.893	0.637	0.886
	N	43	71	71	71	71
LO-4	Correlation Coefficient	-0.001	-0.008	-0.069	-0.068	-0.033
	Sig. (2-tailed)	0.995	0.944	0.564	0.572	0.784
	N	72	72	72	72	72
LO-5	Correlation Coefficient	0.033	-0.1	-0.054	0.063	0.08
	Sig. (2-tailed)	0.784	0.409	0.656	0.604	0.507
	N	71	71	71	71	71
LO-6	Correlation Coefficient	0.132	0.071	-0.044	0.037	0.05
	Sig. (2-tailed)	0.271	0.551	0.716	0.757	0.674
	N	72	72	72	72	72
LO-7	Correlation Coefficient	.286*	0.139	0.067	0.077	-0.033
	Sig. (2-tailed)	0.016	0.252	0.579	0.525	0.788
	N	70	70	70	70	70
LO-8	Correlation Coefficient	0.031	0.013	-0.191	-0.105	-0.043
	Sig. (2-tailed)	0.793	0.911	0.103	0.371	0.717
	N	74	74	74	74	74
LO-9	Correlation Coefficient	0.026	0.038	-0.103	-0.092	0
	Sig. (2-tailed)	0.827	0.751	0.386	0.441	1
	N	73	73	73	73	73
LO-10	Correlation Coefficient	-0.039	-0.003	-0.23	-0.141	0.033
	Sig. (2-tailed)	0.747	0.978	0.056	0.244	0.786
	N	70	70	70	70	70
LO-11	Correlation Coefficient	-0.002	0.169	-0.013	-0.093	-0.136
	Sig. (2-tailed)	0.985	0.161	0.914	0.443	0.263
	N	70	70	70	70	70
LO-12	Correlation Coefficient	0.088	0.012	-0.048	0.021	-0.068
	Sig. (2-tailed)	0.466	0.921	0.691	0.862	0.572
	N	71	71	71	71	71
LO-13	Correlation Coefficient	.234*	0.047	0.001	0.023	-0.125
	Sig. (2-tailed)	0.048	0.696	0.995	0.845	0.297
	N	72	72	72	72	72
LO-14	Correlation Coefficient	0.119	0.113	-0.089	-0.095	-0.055
	Sig. (2-tailed)	0.317	0.343	0.454	0.425	0.643
	N	73	73	73	73	73

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX U**SPEARMAN'S RHO CORRELATION COEFFICIENTS MATRIX: LIFE****SKILLS YOUTH VS. SHOOTING EVENTS**

		Hunting	Muzzle	Pistol	Rifle	Shotgun
LO-1	Correlation Coefficient	0.041	0.024	0.045	0.089	0.124
	Sig. (2-tailed)	0.707	0.828	0.682	0.41	0.252
	N	87	87	87	87	87
LO-2	Correlation Coefficient	0.088	-0.035	-0.026	0.26	0.051
	Sig. (2-tailed)	0.414	0.744	0.813	0.807	0.636
	N	88	88	88	88	88
LO-3	Correlation Coefficient	0.099	0.103	-0.022	0.16	0.084
	Sig. (2-tailed)	0.363	0.341	0.839	0.14	0.439
	N	87	87	87	87	87
LO-4	Correlation Coefficient	0.07	0.157	0.055	0.064	0.017
	Sig. (2-tailed)	0.517	0.145	0.613	0.556	0.874
	N	88	88	88	88	88
LO-5	Correlation Coefficient	-0.008	0.028	-0.03	0.029	-0.129
	Sig. (2-tailed)	0.942	0.798	0.977	0.788	0.234
	N	87	87	87	87	87
LO-6	Correlation Coefficient	0.199	0.07	-0.066	0.05	0.057
	Sig. (2-tailed)	0.066	0.522	0.546	0.647	0.601
	N	86	86	86	86	86
LO-7	Correlation Coefficient	-.006	0.082	-0.028	-0.013	-0.05
	Sig. (2-tailed)	0.958	0.455	0.797	0.904	0.649
	N	86	86	86	86	86
LO-8	Correlation Coefficient	0.037	0.097	0.09	0.06	-0.061
	Sig. (2-tailed)	0.732	0.369	0.402	0.577	0.572
	N	88	88	88	88	88
LO-9	Correlation Coefficient	0.166	0.17	0.052	0.098	-0.075
	Sig. (2-tailed)	0.125	0.116	0.631	0.365	0.491
	N	87	87	87	87	87
LO-10	Correlation Coefficient	-0.012	0.085	-0.13	0.022	0.066
	Sig. (2-tailed)	0.912	0.436	0.233	0.839	0.545
	N	86	86	86	86	86
LO-11	Correlation Coefficient	0.134	0.093	-0.012	0.186	-0.097
	Sig. (2-tailed)	0.215	0.391	0.909	0.084	0.373
	N	87	87	87	87	87
LO-12	Correlation Coefficient	0.11	0.046	-0.005	0.021	-0.019
	Sig. (2-tailed)	0.31	0.671	0.962	0.845	0.861
	N	88	88	88	88	88
LO-13	Correlation Coefficient	.199	0.115	0.056	0.088	-0.15
	Sig. (2-tailed)	0.063	0.286	0.603	0.416	0.163
	N	88	88	88	88	88
LO-14	Correlation Coefficient	0.005	-0.056	-0.093	0.039	0.01
	Sig. (2-tailed)	0.967	0.605	0.391	0.719	0.93
	N	88	88	88	88	88

APPENDIX V

INDEPENDENT SAMPLES T-TEST FOR EQUALITY OF MEANS: EXPENSES

INSIDE OF TEXAS VS. OUTSIDE

		t	df	Sig. (2-tailed)	Mean Difference
TO-1	Equal variances assumed	2.882	68	.005*	1069.15
	Equal variances not assumed	1.87	15.378	.081	1069.15
TO-2	Equal variances assumed	-0.478	0.5	.636	-1.67
	Equal variances not assumed	-1	29	.326	-1.67
TO-3	Equal variances assumed	6.424	34	.000*	1828.57
	Equal variances not assumed	3.007	6	.024	1828.57
TO-4	Equal variances assumed	4.382	67	.000*	727.78
	Equal variances not assumed	2.494	14.484	.025	727.78
TO-5	Equal variances assumed	3.924	68	.000*	312.24
	Equal variances not assumed	2.54	15.36	.022	312.24
TO-6	Equal variances assumed	3.535	53	.001*	111.48
	Equal variances not assumed	1.955	10.375	.078	111.48
TO-7	Equal variances assumed	5.09	57	.000	471.94
	Equal variances not assumed	2.999	13.434	.010	471.94
TO-total	Equal variances assumed	4.678	72	.000*	3269.85
	Equal variances not assumed	2.687	15.581	.016	3269.85
SO-1	Equal variances assumed	-0.215	62	.830	-58.07
	Equal variances not assumed	-0.194	18.423	.848	-58.07
SO-2	Equal variances assumed	0.937	59	.352	96.08
	Equal variances not assumed	1.135	30.536	.265	96.08
SO-3	Equal variances assumed	5.197	66	.000*	2199.23
	Equal variances not assumed	3.026	14.583	.009	2199.23
SO-4	Equal variances assumed	2.15	58	.036	230.15
	Equal variances not assumed	1.517	13.819	.152	230.15
SO-5	Equal variances assumed	4.303	62	.000*	466.12
	Equal variances not assumed	3.068	16.192	.007	466.12
SO-total	Equal variances assumed	4.092	72	.000*	2789.05
	Equal variances not assumed	3.133	18.239	.006	2789.05
C/K	Equal variances assumed	5.09	72	.000*	5363.89
	Equal variances not assumed	3.563	17.174	.002	5363.89

df. Degrees of freedom (SPSS, 1999).

*. Correlation is significant at the .05 level (2-tailed).

APPENDIX W

T-TEST FOR EQUALITY OF MEANS: EXPENSES INSIDE OF TEXAS VS.

OUTSIDE OF TEXAS

		t-test for Equality of Means		
		St. Error	95% confidence	
		Differenc	Lower	Upper
TO-1	Equal variances assumed	371.01	328.81	1809.5
	Equal variances not assumed	571.82	-147.06	2285.36
TO-2	Equal variances assumed	3.49	-8.75	5.41
	Equal variances not assumed	1.67	-5.08	1.74
TO-3	Equal variances assumed	284.65	1250.1	2407.05
	Equal variances not assumed	608.16	340.45	3316.7
TO-4	Equal variances assumed	166.09	396.27	1059.29
	Equal variances not assumed	291.79	103.91	1351.64
TO-5	Equal variances assumed	79.58	153.45	471.03
	Equal variances not assumed	122.94	50.74	573.75
TO-6	Equal variances assumed	31.54	48.23	174.73
	Equal variances not assumed	57.03	-14.98	237.93
TO-7	Equal variances assumed	92.72	286.26	657.61
	Equal variances not assumed	157.34	133.13	810.74
TO-total	Equal variances assumed	698.92	1876.57	4663.13
	Equal variances not assumed	1216.98	684.32	5855.38
SO-1	Equal variances assumed	270.02	-597.84	481.7
	Equal variances not assumed	298.02	-684.38	568.24
SO-2	Equal variances assumed	102.52	-109.06	301.21
	Equal variances not assumed	84.65	-76.67	268.83
SO-3	Equal variances assumed	423.18	1354.33	3044.14
	Equal variances not assumed	726.86	646.1	3752.37
SO-4	Equal variances assumed	107.02	15.92	444.38
	Equal variances not assumed	151.69	-95.59	555.89
SO-5	Equal variances assumed	108.32	249.59	682.64
	Equal variances not assumed	151.92	144.36	787.87
SO-total	Equal variances assumed	681.67	1430.17	4147.93
	Equal variances not assumed	890.13	920.71	4657.39
C/K	Equal variances assumed	1053.91	3262.96	7464.83
	Equal variances not assumed	1505.43	2190.18	8537.61

APPENDIX X

**PEARSON CORRELATION COEFFICIENTS MATRIX: YEARS OF
INVOLVEMENT VS. HOURS SPENT & EXPENSES**

		Years of Involvement
TO-1	Pearson Correlation	0.089
	Sig. (2-tailed)	0.472
	N	68
TO-2	Pearson Correlation	-0.077
	Sig. (2-tailed)	0.656
	N	36
TO-3	Pearson Correlation	0.385*
	Sig. (2-tailed)	0.022
	N	0.35
TO-4	Pearson Correlation	0.215
	Sig. (2-tailed)	0.08
	N	67
TO-5	Pearson Correlation	0.172
	Sig. (2-tailed)	0.16
	N	68
TO-6	Pearson Correlation	.293*
	Sig. (2-tailed)	0.033
	N	53
TO-7	Pearson Correlation	.324*
	Sig. (2-tailed)	0.014
	N	57
TO-total	Pearson Correlation	.217
	Sig. (2-tailed)	0.067
	N	72
SO-1	Pearson Correlation	-.163
	Sig. (2-tailed)	0.203
	N	63
SO-2	Pearson Correlation	-0.031
	Sig. (2-tailed)	0.816
	N	60
SO-3	Pearson Correlation	.274*
	Sig. (2-tailed)	0.025
	N	67
SO-4	Pearson Correlation	0.157
	Sig. (2-tailed)	0.235
	N	59
SO-5	Pearson Correlation	.264*
	Sig. (2-tailed)	0.037
	N	63
SO-total	Pearson Correlation	0.202
	Sig. (2-tailed)	0.09
	N	72
C/K	Pearson Correlation	0.229
	Sig. (2-tailed)	0.053
	N	72
Supervised Hours	Pearson Correlation	.494**
	Sig. (2-tailed)	0
	N	71
Family Time	Pearson Correlation	.381**
	Sig. (2-tailed)	0.002
	N	64

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX Y

**SPEARMAN'S RHO CORRELATION COEFFICIENTS MATRIX: COST PER
CHILD, COST INSIDE OF TEXAS, & COST OUTSIDE OF TEXAS VS.
EXPENSES, NUMBER OF CHILDREN, & HOURS SPENT**

		Inside of Texas	Outside of Texas	Cost Per Child
TO-1	Correlation Coefficient	-.316**	.316**	.714**
	Sig. (2-tailed)	.008	.008	.000
	N	70	70	70
TO-2	Correlation Coefficient	.081	-.081	.156
	Sig. (2-tailed)	.636	.636	.356
	N	37	37	37
TO-3	Correlation Coefficient	-.906**	.906**	.556**
	Sig. (2-tailed)	.000	.000	.000
	N	36	36	36
TO-4	Correlation Coefficient	-.387**	.387**	.599
	Sig. (2-tailed)	.001	.001	.000
	N	69	69	36
TO-5	Correlation Coefficient	-.294	.294*	.548**
	Sig. (2-tailed)	.013	.013	.000
	N	70	70	70
TO-6	Correlation Coefficient	-.227	.227	.451**
	Sig. (2-tailed)	.096	.096	.001
	N	55	55	55
TO-7	Correlation Coefficient	-.433**	.433**	.563**
	Sig. (2-tailed)	.001	.001	.000
	N	59	59	59
TO-total	Correlation Coefficient	-.400**	.400**	.730**
	Sig. (2-tailed)	.000	.000	.000
	N	74	74	74
SO-1	Correlation Coefficient	.079	-.079	.467**
	Sig. (2-tailed)	.535	.535	.000
	N	64	64	64
SO-2	Correlation Coefficient	-.364	.364*	.599*
	Sig. (2-tailed)	.004	.004	.000
	N	61	61	61
SO-3	Correlation Coefficient	-.461**	.461*	.770**
	Sig. (2-tailed)	.000	.000	.000
	N	68	68	68
SO-4	Correlation Coefficient	-.316*	.316*	.659**
	Sig. (2-tailed)	.014	.014	.000
	N	60	60	60

		Inside of Texas	Outside of Texas	Cost Per Child
SO-5	Correlation Coefficient	-.397**	.397**	.624**
	Sig. (2-tailed)	.001	.001	.000
	N	64	64	64
SO-total	Correlation Coefficient	-.364**	.364**	.820**
	Sig. (2-tailed)	.001	.001	.000
	N	74	74	74
C/K	Correlation Coefficient	-.407**	.407	1.000
	Sig. (2-tailed)	.000	.000	.
	N	74	74	74
Number of Children	Correlation Coefficient	0.061	-.061	-.512**
	Sig. (2-tailed)	0.608	.608	.000
	N	74	74	74
Supervised Hours	Correlation Coefficient	-.370**	.370**	.421**
	Sig. (2-tailed)	0.001	.001	.000
	N	73	73	73
Family Time	Correlation Coefficient	-.402**	.402**	.563**
	Sig. (2-tailed)	0.001	.001	.000
	N	66	66	66
Inside TX	Correlation Coefficient	1	-1.000**	-.407**
	Sig. (2-tailed)	.	.000	.000
	N	74	74	74
Outside TX	Correlation Coefficient	1.000**	1.000	.407**
	Sig. (2-tailed)	.000	.	.000
	N	74	74	74

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX Z

**SPEARMAN'S RHO CORRELATION COEFFICIENTS MATRIX: COST PER
CHILD VS. LIFE SKILLS GAINED PER CHILD**

		Travel Expenses	Shooting Expenses	Cost Per Child
LQ-1	Correlation Coefficient	-0.036	.045	-.040
	Sig. (2-tailed)	.769	.732	.747
	N	69	60	69
LQ-2	Correlation Coefficient	.093	.089	.044
	Sig. (2-tailed)	.435	.489	.710
	N	73	63	73
LQ-3	Correlation Coefficient	.144	.196	.058
	Sig. (2-tailed)	.230	.126	.632
	N	71	62	71
LQ-4	Correlation Coefficient	.238*	.097	.161
	Sig. (2-tailed)	.044	.418	.176
	N	72	72	72
LQ-5	Correlation Coefficient	.111	.141	.071
	Sig. (2-tailed)	.355	.241	.556
	N	71	71	71
LQ-6	Correlation Coefficient	.192	.072	.139
	Sig. (2-tailed)	.107	.550	.246
	N	72	82	72
LQ-7	Correlation Coefficient	.080	.080	.071
	Sig. (2-tailed)	.509	.509	.559
	N	70	70	70
LQ-8	Correlation Coefficient	.166	.015	.123
	Sig. (2-tailed)	.157	.902	.295
	N	74	74	74
LQ-9	Correlation Coefficient	.190	.015	.091
	Sig. (2-tailed)	.107	.902	.444
	N	73	73	73
LQ-10	Correlation Coefficient	.287*	.230	.238*
	Sig. (2-tailed)	.016	.056	.047
	N	70	70	70
LQ-11	Correlation Coefficient	.300*	.089	.230
	Sig. (2-tailed)	.012	.464	.055
	N	70	70	70
LQ-12	Correlation Coefficient	.297*	.233	.272*
	Sig. (2-tailed)	.012	.051	.022
	N	71	71	71
LQ-13	Correlation Coefficient	.147	.081	.160
	Sig. (2-tailed)	.219	.497	.179
	N	72	72	72
LQ-14	Correlation Coefficient	.298*	.158	.265*
	Sig. (2-tailed)	.011	.183	.024
	N	73	73	73

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

APPENDIX AA

**SPEARMAN'S RHO CORRELATION COEFFICIENTS MATRIX: SHOOTING
EVENTS VS. TRAVEL/SHOOTING EXPENSES, GENDER, INVOLVEMENT,
INSIDE/OUTSIDE OF TEXAS, PARTICIPATION, & HOURS SPENT
TOGETHER**

		Hunting	Muzzle	Pistol	Rifle	Shotgun
TO-1	Correlation Coefficient	-.185	-.021	-.283*	-.429**	.131
	Sig. (2-tailed)	.125	.862	.018	.000	.278
	N	70	70	70	70	70
TO-2	Correlation Coefficient	.256	.479**	.294	.256	.058
	Sig. (2-tailed)	.126	.003	.077	.126	.733
	N	37	37	37	37	37
TO-3	Correlation Coefficient	-.257	-.134	-.238	-.276	.157
	Sig. (2-tailed)	.130	.435	.163	.103	.360
	N	36	36	36	36	36
TO-4	Correlation Coefficient	-.170	.022	-.216	.278*	-.031
	Sig. (2-tailed)	.164	.859	.074	.021	.797
	N	69	69	69	69	69
TO-5	Correlation Coefficient	-.274*	-.053	-.268*	-.372**	.136
	Sig. (2-tailed)	.022	.665	.025	.002	.261
	N	70	70	70	70	70
TO-6	Correlation Coefficient	.013	-.031	-.175	-.308*	-.038
	Sig. (2-tailed)	.923	.821	.201	.022	.785
	N	55	55	55	55	55
TO-7	Correlation Coefficient	-.189	-.280	-.415**	-.471**	.334**
	Sig. (2-tailed)	.151	.032	.001	.000	.010
	N	59	59	59	59	59
TO-total	Correlation Coefficient	.232*	-.084	-.261*	-.401**	.058
	Sig. (2-tailed)	.046	.476	.024	.000	.623
	N	74	74	74	74	74
SO-1	Correlation Coefficient	-.200	-.209	-.200	-.146	.287*
	Sig. (2-tailed)	.114	.097	.112	.250	.021
	N	64	64	64	64	64
SO-2	Correlation Coefficient	-.251	-.181	-.380**	-.316*	.276*
	Sig. (2-tailed)	.051	.162	.003	.013	.031
	N	61	61	61	61	61
SO-3	Correlation Coefficient	-.070	-.125	-.538**	-.613**	.445**
	Sig. (2-tailed)	.572	.311	.000	.000	.000
	N	68	68	68	68	68
SO-4	Correlation Coefficient	-.109	-.151	-.294*	-.196	.218
	Sig. (2-tailed)	.406	.249	.023	.133	.095
	N	60	60	60	60	60

		Hunting	Muzzle	Pistol	Rifle	Shotgun
SO-5	Correlation Coefficient	-.164	-.216	-.575**	-.630**	.423**
	Sig. (2-tailed)	.196	.086	.000	.000	.001
	N	64	64	64	64	64
SO-total	Correlation Coefficient	-.064	-.223	-.322**	-.323**	.359**
	Sig. (2-tailed)	.586	.057	.005	.005	.002
	N	74	74	74	74	74
C/K	Correlation Coefficient	-.068	-.065	-.301**	-.414**	.231*
	Sig. (2-tailed)	.563	.583	.009	.000	.047
	N	74	74	74	74	74
Gender	Correlation Coefficient	-.018	-.053	-.174	-.310**	.137
	Sig. (2-tailed)	.878	.661	.143	.008	.253
	N	72	72	72	72	72
Number of Children	Correlation Coefficient	-.118	-.125	.017	.195	-.099
	Sig. (2-tailed)	.315	.287	.885	.096	.401
	N	74	74	74	74	74
4-H Activities	Correlation Coefficient	.195	.246	.153	.336	-.194
	Sig. (2-tailed)	.228	.127	.345	.034	.230
	N	40	40	40	40	40
Inside TX	Correlation Coefficient	-.002	-.005	.158	.249*	-.095
	Sig. (2-tailed)	.987	.963	.178	.032	.421
	N	74	74	74	74	74
Outside TX	Correlation Coefficient	.002	.005	-.158	-.249*	.095
	Sig. (2-tailed)	.987	.963	.178	.032	.421
	N	74	74	74	74	74
Supervised Hours	Correlation Coefficient	-.125	.081	-.204	.322**	.049
	Sig. (2-tailed)	.292	.494	.083	.005	.683
	N	73	73	73	73	73
Family Time	Correlation Coefficient	-.011	-.039	-.325**	-.394**	.128
	Sig. (2-tailed)	.929	.757	.008	.001	.307
	N	66	66	66	66	66

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

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