# IMPACT ASSESSMENT OF THE NEVADA 4-H PROGRAM: AN EXAMINATION OF PUBLIC SCHOOL STUDENTS' PERCEPTIONS AND BEHAVIOR 

A Record of Study by STEVEN RICHARD LEWIS

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

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December 2007

Major Subject: Agricultural Education

ABSTRACT<br>Impact Assessment of the Nevada 4-H Program:<br>An Examination of Public School Students' Perceptions and Behavior. (December 2007)<br>Steven Richard Lewis, B.S., University of Nevada Reno;<br>M.S., University of Nevada Reno<br>Co-Chairs of Advisory Committee: Dr. Tim H. Murphy<br>Dr. Matt Baker

A 4-H impact evaluation study, conducted in Montana, Idaho, Colorado, and Utah, was replicated in the Nevada public schools. The purpose was to measure the impact of the 4-H experience on the lives of Nevada youth, and to provide impact data for accountability and improvement for University of Nevada Cooperative Extension 4H Programs. The 1,492 respondents were; $47.6 \%$ male and $52.4 \%$ female; $34.6 \% 5^{\text {th }}$ grade, $28.1 \% 7^{\text {th }}$ grade, and $37.3 \% 9^{\text {th }}$ grade; $63.1 \%$ urban and $36.9 \%$ rural; and $11.7 \%$ 4-H and $88.3 \%$ non 4-H youth. Eight youth development constructs were measured including; extracurricular activity involvement; school leadership positions held; close relationship with adults; caring for others; amount of negative behavior; personal identity; positive identity; and self-confidence, character and empowerment. ANOVA for constructs by independent variables, age groups gender, 4-H participation, and population density revealed that 4-H participation significantly contributed to the variance in extracurricular activity involvement ( $p=.000$ ), school leadership positions held $(p=.025)$, caring for others $(p=.000)$, and self-confidence, character and empowerment $(p=.004)$.

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## CHAPTER I

## INTRODUCTION

4-H has a rich history of helping youth grow into productive citizens. Through participation in 4-H, youth learn life skills that they can further shape and use as adults. Coordinated by the Land Grant College and Cooperative Extension systems, the 4-H program is funded by federal, state, and county dollars. Accountability of these funds is of paramount importance to ensure continued support. Furthermore, 4-H programming must be evaluated to determine how it impacts youth and in what ways it needs to improve.

4-H originated with boys and girls clubs to extend agricultural education to young people and ultimately to their parents (Howard, et al., 2001). Record keeping was used to document the learning and activities of youth. For much of the 4-H history, it was simply assumed that the youth development program was effective in helping youth avoid at-risk behaviors (Singletary \& Smith, 2004). This level of accountability was deemed adequate for nearly 100 years, until conveying program worth through anecdotal success stories became seen as an unreliable method of program evaluation (Goodwin, Carroll \& Oliver, 2005b). Within the past couple of decades, Cooperative Extension systems have increasingly

This dissertation follows the style of Journal of Agricultural Education.
recognized the need to discover more quantifiably defensible impact information (Gruidi \& Hustedde, 2003; Karr et al., 2001; Seevers, Dormody \& Clason, 1995; Scholl \& Lago, 1994; Boyd, Herring \& Briers, 1992).

The numerous and varied approaches utilized suggest that no one measurement strategy to assess the impact of youth development programs has been commonly accepted. Adoption and replication of quantitative impact measurement approaches has been slow. Nevertheless, 4-H impact measurement is the responsibility of Cooperative Extension systems, and demands for quantitative measures of programmatic impact continue to escalate.

## Importance of Study

The need to measure youth development more accurately and efficiently as a result of 4-H programming remains critically important to Cooperative Extension nationwide. The impact of 4-H in Nevada on educational, emotional, and social skill development requires further investigation. More specifically, the effects of organized out-of-school activities on at-risk behavior of Nevada youth remain unsubstantiated to a large extent. Additionally, differences in the effectiveness of 4-H programming between the urban and rural sectors of Nevada are not well known.

Membership recruitment and retention in 4-H has become more challenging as the program competes for participation against growing numbers of organized youth activities. Today, youth can choose from a wide array of athletic programs, church functions, leadership opportunities, and organized school activities. Cooperative

Extension has the ability and responsibility to document the impact it has on developing life skills in youth. Positive results may be used to promote future 4-H participation. For these reasons, replication of a study in Montana in 2000, in Idaho in 2002, and in Colorado and Utah in 2005, was conducted. Goodwin, Carroll, and Oliver (2005b) reported that the replication of this study in other states and the compilation of additional data will lend strength to programmatic assessment and planning for $4-\mathrm{H}$ in the Western states and nationwide. The difference between urban and rural 4-H youth development was a variable not explored in the previous studies. This comparison may also promote better understanding of youth development impact by demographic setting and be of significant influence in program planning.

## Statement of Problem

Cooperative Extension is charged to be accountable to its publics. One of the six purposes of the Government Performance and Results Act of 1993 is that federal agencies are to be held accountable for achieving program results. Extension program coordinators, managers, and administrators strive to justify the value of educational programming, including 4-H efforts.

One of the goals of The National 4-H Strategic Plan (2001) is to "collect national impact and accountability data that fully demonstrates the impact of 4-H on youth, their families, and communities" (p. 13). 4-H program managers and administrators are continually searching for improved methods of determining impact. Therein lays the problem. Efforts to measure 4-H impact are numerous, and impact measurement strategies vary in focus and approach. Collection and synthesis of existing 4-H impact
data is difficult at best. Replication of one instrument over time and across states is needed to establish consistency and bolster accountability.

Purpose of the Study
The purpose of the study is three-fold:

1) To replicate a 4-H impact study conducted in Montana, Idaho, Utah, and Colorado and contribute additional data from another western state.
2) To measure impacts of the 4-H experience on the lives of Nevada youth.
3) To provide impact data for accountability and improvement of University of Nevada Cooperative Extension's 4-H youth development programming. Specifically, the study addressed the following research questions:
4) What is a description of study participants based upon: a) extracurricular activity involvement, b) leadership positions held, c) close relationships with adults, d) caring for others, e) amount of negative behavior, f) personal identity, g) positive identity, h) self-confidence, character, and personal empowerment, and i) demographic characteristics and personolgical attributes?
5) How do the subjects differ in terms of; extracurricular activity involvement; leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; self-confidence, character, and personal empowerment; based upon age, gender, 4-H participation, and population density?
6) How does involvement in 4-H programming influence youth?

## CHAPTER II

## REVIEW OF LITERATURE

Youth development is a process that includes support and opportunities that promote positive outcomes for young people (National Research Council and Institute of Medicine, 2002). Benson and Saito (2000) purport youth development as an approach moving toward positive developmental processes, opportunities, and experiences. Youth development prepares individuals to become healthy, happy, and productive members of our communities. Through youth development programs such as $4-\mathrm{H}$, youth become better prepared to meet the roles and responsibilities of adulthood. Youth development programs exist in a variety of structures, age groups, and subject matter areas.

## 4-H Youth Development

4-H youth development has been defined for the Cooperative Extension System, addresses the recommendation of the National 4-H Strategic Plan (2001) and approved by the National 4-H Leadership Trust. These definitions include the following (National 4-H Council, 2002, p5):

Youth development is the natural process of developing one's capacities. While it naturally occurs through each youth's daily experiences with people, places, and possibilities, it is far too important to be left to chance.

Positive youth development occurs from an intentional process that promotes positive outcomes for young people by providing opportunities, relationships and the support to fully participate. Youth development takes place in families, peer groups, schools, neighborhoods, and communities.

4-H Youth Development Programs provide just such opportunities, relationships, and support for youth to help them acquire the life skills necessary to meet the challenges of adolescence and adulthood. 4-H Youth Development uses experiential, research-based educational opportunities that help youth become competent, caring, confident, connected, and contributing citizens of character.

These definitions provide a solid description of 4-H youth development as it is understood today. They help us comprehend the basis for which 4-H was created and continues to thrive. According to Astroth (2003), 4-H youth development consists of four dimensions and these may be considered foundational to the theoretical framework of 4-H. The dimensions include; Experience, Philosophical approach, Multitude of programs and delivery methods, and Field of Scholarship. The Experience dimension is best described in detail by Kolb's experiential learning model (Figure 1). Experiential education and reflective thinking can be linked back to the ideas of John Dewey. The first phase of Kolb's model is Experience the activity; perform or to do it. Share the results, the reactions, and the observations, is the second phase. Sharing is followed by Process, by discussing, looking at the experience, and analyzing and reflecting. Generalization is next, which is to connect the experience to real world examples. Finally, Apply is the application of what was learned to a similar or different situation or practice.


Figure 1. Experiential learning model (Utah 4-H Volunteer Handbook, 2002, p. 20).

In Astroth's description of Experience dimension, he refers to the Six C's; competence, character, caring, confidence, connections, and contributions (Pittman, 1996; Villarruel, et al., 2003; ECOP, 1985; U.S. Department of Health and Human Services, 1997). Experience is embedded in the four H's which include, head, heart, hands, health and forty-seven developmental skills that have been associated to the four H's and used by Extension professionals in measuring impact of experiential programming (Barkman \& Machtmes, 2000).

Astroth (2003) describes the second dimension, the Philosophical approach, as both experiential and developmental. The Philosophical dimension blends programming
that is age and developmental stage specific, and incorporates community engagement. 4-H is grounded in sociology and child development but the programs have a variety of complexions and delivered in a variety of ways.

Astroth's third dimension of 4-H youth development is Multitude of programs and delivery methods. Given its program variety and delivery dexterity, 4-H programming must include three critical elements; opportunities to practice service for others, a positive connection with the future, and strong links between families, schools, and broader community resources.

The fourth dimension of 4-H youth development, according to Astroth, is that it is a Field of multi-disciplinary scholarship. 4-H youth development offers professionals a wealth of scholastic opportunity and must be considered an abundantly rigorous discipline relevant to all youth. Lerner and Simon (1998) outline the theoretical and empirical bases for promoting positive youth development and discuss the vast amounts of scholarly work needed to apply to developmental science and ultimately improve the lives of young people.

Positive youth development is a systems approach that took root in the 1980's. Rather than focusing attention on a single problem behavior, professionals started to recognize the need to address all factors that promote youth development (Catalano, et al. 1998). When evaluated, prevention approaches that targeted deficits in young lives, were failing to show positive impact on youth drug use, delinquent behaviors, school failure, and pregnancy (Mitchell, et al., 1997). Researchers and practitioners found that an adolescent's environment including community services, employment and
educational opportunities, and family resources were critical factors that shape an individual's ability to navigate their social settings and make appropriate decisions.

Bronfenbrenner and Morris (1998) describe a detailed model of child development. In the center is the child. The child affects and is affected by all that surrounds him. Family environment is the most important influence as that is where most time is spent and most emotions are generated. Other significant and meaningful influences include extended family, education programs, health care settings, and other community learning sites. "Child development takes place through processes of progressively more complex interaction between an active child and the persons, objects, and symbols in its immediate environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of time" (Bronfenbrenner \& Morris, 1998, p. 996). Bronfenbrenner and Morris' work provides well accepted fundamental concepts for human development and serves as foundational principles in the ecology of child development.

Child development the basic science, is foundational to the applied science of positive youth development. The 6C's are foundational to positive youth development. Attention to youth assets and desirable characteristics rather than deficits precipitated the creation of the 5 C's, later to be known as the 6 C's. Initially the 5 C's of positive youth development were provided by Roth and Brooks-Gunn (2003) and Eccles and Gootman (2002). These were developed to conceptualize positive youth development and integrate all characteristic indicators. Working definitions of the 5C's are as follows:

Competence Positive view of one's actions in domain specific areas including social, academic, cognitive, and vocational. Social competence pertains to interpersonal skills (e.g., conflict resolution). Cognitive competence pertains to cognitive abilities (e.g., decision making). School grades, attendance, and test scores are part of academic competence. Vocational competence involves work habits and career choice explorations.

Confidence An internal sense of overall positive self-worth and selfefficiency; one's global self-regard, as opposed to domain specific beliefs.

Connection Positive bonds with people and institutions that are reflected in bidirectional exchanges between the individual and peers, family, school, and community in which both parties contribute to the relationship.

Character $\quad$ Respect for societal and cultural rules, possession of standards for correct behaviors, a sense of right and wrong (morality), and integrity.

Caring and
Compassion A sense of sympathy and empathy for others.
The sixth C, contribution, was added to make practical use of the original five and increase clarity to the positive youth development framework (Lerner, et al., 2005).

Contribution Giving back to the world and participating in activities that reflect engagement with the world around oneself such as: being a leader in a group, helping friends and neighbors, participation in school government, sports, and religious youth groups and volunteering in the community.

## Community Service and Civic Engagement

Positive youth development programs help youth learn the importance of caring for others, caring for community, and building social responsibility. It is no accident that 4-H programs across the nation concentrate on community service. 4-H community service projects are of many types. Community service may include assisting families in need with food and clothing, organizing town cleanup, presentations to community decision makers, and other beneficial work. The value of these experiences is realized when youth appreciate how their contributions make a positive difference in the lives of others.

Community service encompasses many types of activities but they might not be created equal. Stafford, Boyd, and Lindner (2003) discovered community service projects needed to include a reflection component to increase youth perception of higher gains in leadership life skills. The authors found that a reflection component immediately following the community service activity had a most significant impact on participating youth. This procedure transforms simple community service into service learning. Personal leadership and perceived contribution to the community is substantially enhanced with reflection.

A study conducted in Virginia (Hairston, 2004) examined what youth learned by participating in a community service project that included a reflection component. They gleaned altruism, the importance of helping others and the community. They also learned new skills and information, significance of teamwork, more community service project ideas, resources to assist with project implementation, and ineffective experiences. This study described how community service benefits youth and substantiated the premise that service projects can maximize educational growth and development.

Community service projects involving youth are, in essence, community youth development. Pittman (1996) contends that community and youth development are inextricably related. Youth development must be a product of family, neighbors, and community. Pittman writes that society wants young people to grow up and be good citizens, good parents, and good neighbors. She claims youth problem prevention and treatment models are not enough, vocational and academic competence are not enough, and programs, services and professionals are not enough to grow youth into good productive adults.

Community youth development can take a specific focus in the area of community leadership and civic engagement. Community service projects that build on civic engagement may include such activities as; honoring public servants, contacting elected officials, serving on town boards, and staying aware of public issues. Pennington and Edwards (2006) collected perceptions of former 4-H key club members in Oklahoma. They found that 4-H involvement had a major impact on their civic
engagement life skills, while other sources of giving life skills had less impact.
Respondents indicated these were civic engagement life skills acquired through the 4-H program. Results of this study prompted recommendations to expand 4-H "giving" life skills programming by offering it to the maximum number of 4-H youth possible. The results also showed that the civic engagement experience 4-H provided, transferred to participants later in life and as adults they were engaged in their communities. People that begin their life volunteering are twice as likely to volunteer later in life as adults.

## Risk Behavior

Community service that promotes civic engagement benefits communities and the youth involved. Organized activities that involve youth in projects where they feel a sense contribution can significantly reduce risk behavior.

Youth risk behavior has been monitored by the Centers for Disease Control and Prevention (CDC) via the Youth Risk Behavior Surveillance System (YRBSS). Since 1991, the CDC has administered biennial assessments of 9-12 grade students across the United States to determine the incidence of high-priority health risk behaviors. At present, these risk behaviors include those that contribute to unintentional injuries; those contributing to violence; alcohol and other drug use; sexual behaviors contributing to pregnancy, STDs, and HIV infection; dietary behaviors; inadequate physical activity; being overweight and weight control issues; and other health-related topics. YRBSS results are used by states to establish school health program goals, redirect school health curricula, and support new policies and legislation. The general trend from 1991 though 2005 was a decrease in youth risk behavior. Specific behaviors however, vary across
cities and states, and youth continue to practice behaviors that contribute to morbidity and mortality (Morbidity and Mortality Weekly Report, 2006).

In Nevada, the 2005 Youth Risk Behavior Survey administered a 78-item instrument to over 10,000 public school students in grades six through twelve (Nevada Department of Education, 2006). Results indicated significant changes and progress in injury and violence-related behaviors, use of tobacco, alcohol, and other drugs, and sexual behaviors. Areas of increasing risk included amount of exercise and dietary behaviors. The Youth Risk Behavior Survey is strictly focused on youth behaviors affecting health and potential physical injury. This assessment does not cover subjects such as personal identity, relationships with parents and other adults, leadership activities, or self-perceived character, confidence and empowerment. Speculation of causes related to the observed behavior changed, is not offered.

Risk behaviors of seventh through twelfth graders were studied by Mancini and Huebner (2004). More time spent in structured time-use activities, closer relationship with parents/guardians, greater school success, and more attachment to school were associated to lower risk behavior. Risk behavior in this study included substance abuse, sexual activity and delinquency. Strong predictors of risk behavior were factors such as being older, being male, and having only one good friend. Structured time was defined as extracurricular activities during the school week but not related to sports, non-school related clubs, spiritual activities, school or community based sports teams, and volunteer work. The authors hypothesized structured time-use to be a very important factor in
reducing risk behavior. They found several protective factors in addition to structured time-use, positively influenced risk behavior.

The National Research Council and Institute of Medicine (2004) recommended that communities offer a wide array of developmental programs. Programs should offer a rich diversity of assets recognized to facilitate effective youth development - including, physical, intellectual, psychological, emotional, and social development. According to their research, communities that offer a diverse selection of programs reduce youth risk behavior and increase rates of positive development.

Diverse youth development programming appeals to the various interests of youth today. To attract is to potentially involve, and once youth get involved in structured activities outside of school, many positive outcomes are possible. Participation in structured extracurricular activities has been found to be of benefit to youth in several ways, as summarized by Fredericks and Eccles (2006):

1) Less time to engage in problematic behaviors (Mahoney \& Stattin, 2000; Osgood et al., 1996).
2) An opportunity for youth to explore their identity (Eccles \& Barber, 1999; Larson, 2000).
3) Links youth to supportive adults outside of school (McLaughlin, 2000).
4) Facilitates membership or participation in a prosocial peer group (Eccles \& Barber, 1999)

In a study of 2,701 youth in grades 7 through 12, Mancini and Hueber (2004) found several significant relationships between structured time-use and risk behavior
patterns. Participation in school related, non-sport activities, in school related clubs, volunteer work, spiritual activities, and community and school-based sports, constituted structured time-use. They found that participation in structured time-use, school success, and being female, related to less risk behavior. Time spent in structure time-use activities was found to be one of the most highly predictive factors in positive thriving behaviors in youth. Scales et al. (2000) investigated the contribution of developmental assets on a sample of approximately 6,000 middle and high school youth. Indicators of thriving youth behavior included, leadership, school success, valuing diversity, helping others, physical health, overcoming adversity, and delayed gratification.

The influence of extracurricular, structured time-use activities has been clearly shown to be correlated to lower levels of youth risk behavior. Some differences have also been found in risky behavior of youth between rural and urban settings. Springer, Selwyn, and Kelder (2006) reported that in El Salvador urban youth were significantly more likely to exhibit risk behavior than rural youth. Specifically, differences were found in substance abuse, aggressive behaviors, depression, and suicidal tendencies. No significant difference was found between urban and rural youth in sexual behavior.

In contrast to these results, rural youth were found to partake in particular risk behaviors more than their urban counterparts. A California study (Heck et al., 2004) reported that rural 12-17 years olds were more likely to smoke cigarettes, consume alcohol, and ride in a car with a driver who had consumed alcohol, than same-aged urban youth. However, the study indicated that urban youth were more than twice as likely to drop out of school as rural youth. The study concluded that in California rural youth face
unique challenges, such as fewer community services, fewer job opportunities, and fewer school resources than urban youth.

A study examining tobacco use in urban and rural youth revealed further conflicting results. Monitoring the future data from 1976 to 1992 revealed that urban black females smoked least often and rural white males smoked most often (Sarvela, Cronk, \& Isberner, 1997). These data represented high school senior smoking rates over a wide range of socio-demographic groups.

There appears to be no consistent trend in risk behavior between rural and urban youth. In some cases, urban youth exhibit more risk behaviors, while in other cases rural youth are more at risk. Perkins, LaGreca, and Mullis (2002) found that urban and rural youths exhibit the same problem behaviors, and they share the same concerns.

A variable that stands out to be much more conclusive on influencing at-risk behavior is out-of-school activities. The National League of Cities' Institute for Youth, Education, and Families (Ouellette, 2000), reported that eight million young people, ages 5 to 14 , go home after school to an empty house. Juvenile crime triples within the first hour after school adjourns. This after-school period between 2 and 8 p.m., is the period of highest juvenile crime, including teenage sexual activity, drug use, and automobile accidents. The National League of Cities also reports that youth not involved in afterschool activities are more likely to drink alcohol and smoke cigarettes and are three times more likely to experiment with drugs than youth involved with organized activities. Structured after-school programs can provide a safe environment, one in which youth can participate in activities that are fun and constructive.

Clearly, when youth are engaged in recreational and expanded learning opportunities, they are less likely to participate in risky behaviors. The 4-H program is one of many out-of-school activities that offer safe and fun learning environments for youth. Many impact assessments have been conducted that suggest involvement in 4-H reduces risk behaviors and, in most cases, serves to further develop youth.

## 4-H Program Assessments

A variety of assessment approaches have been implemented to measure impacts of the 4-H program on youth development. Survey instrument designs include those that collect information directly from youth (Cantrell, Heinsohn, \& Doebler, 1989; Boyd, Herring, \& Briers, 1992; Astroth \& Haynes, 2001; Goodwin, et al., 2005a; and Goodwin, Carroll, \& Oliver, 2005b), swine project members (Gamon, \& DehegedusHetzel, 1994), parents and leaders (Boleman, Cummings, \& Briers, 2004; Singletary \& Smith, 2004), alumni (Ladewig \& Thomas, 1987; Fox, Schroeder, \& Lodl, 2003), recent animal science project alumni (Ward, 1996), and senior 4-H and FFA members (Seevers, Dormody, \& Clason, 1995).

In the fall of 2000, Astroth and Haynes developed a 74-question instrument and surveyed 2,500 students representing $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grades in 21 counties and 50 Montana schools. Survey questions originating from New York and Arizona 4-H questionnaires were used as well as questions from the Search Institute, used by permission. Final survey changes were made as a result of three pilot tests. The survey results indicated that youth were involved in 285 different out-of-school activities and that these activities served as a protective factor from risky behaviors. According to

Taylor and Flaherty (2001, p. 1), "how kids spend their time outside of school can make a substantial difference." The researchers also found that youth that were involved as 4H members for a year or more exceeded their peers in risk behavior avoidance, including those who were involved in other organized out-of-school activities. Additionally, 4-H experienced youth were more likely to give time or money to charity, help the poor or sick, get A's in school, assume leadership roles in schools and community, and be looked up to as role models than other kids.

This same study, replicated in Idaho, supported the Montana findings. Goodwin et al. (2005a) found that youth involved in 4-H were more likely to do better in school, take on more leadership roles, help others, and be less likely to engage in risky behaviors such as drinking alcohol, shoplifting, smoking cigarettes, experimenting with drugs, and damaging property than were non 4-H members. The researchers also concluded that the findings supported Boyd et al. (1992) in that 4-H does more than teach skills related to project subject matter, it also teaches youth valuable life skills.

The Montana Out-of-School Time / 4-H Youth Development Impact Study was then replicated in Colorado (Goodwin, Carroll, \& Oliver, 2005b). The instrument was trimmed down to 65 questions by removing some of the redundant questions. The findings supported those found in studies conducted by Astroth and Haynes (2002) and Goodwin et al. (2005a). "Youth who are active in general, and in 4-H Youth Development programs in particular, are less likely to engage in at-risk behaviors and more likely to demonstrate positive characteristics, behaviors, and a world view" (Goodwin, Carroll \& Oliver 2005b, p. 25). The authors encouraged other states to
replicate the study and to aggregate the data so that a stronger case can be made in the name of 4-H youth development effectiveness.

In 2005, Tubbs conducted the study in Utah, the fourth western state to administer the survey instrument in public schools. Similar to the results found in previous studies, Utah's 4-H youth had higher self confidence, empowerment and personal identity. 4-H youth were more likely to volunteer in class to lead activities, hold elected leadership positions, have higher grades, set goals, have good written record keeping skills, and be involved in service projects, than Non 4-H youth. Tubb's research, however, did not reveal any extensive differences in risk behavior between $9^{\text {th }}$ grade $4-\mathrm{H}$ youth and non 4-H youth, as found in the Idaho and Montana studies.

In Nevada, Singletary and Smith (2004) conducted a statewide assessment of 4-H impact. This study used a survey of adult 4-H leaders and parents. The purpose was to determine how well the 4-H program develops youth in the areas of life skills, program management goals and teaching tools, and parent and leader skills. This was an assessment in the eyes of the 4-H adult participant and provides some benchmark for future impact comparison. The results provided Nevada with data that may be used in to improve programming and may useful to compare with other western States if replicated.

## Linking Research with Youth Development

There has been some speculation that the advancement in the practice of youth development needs to be based more on research. This concern stems from the limited amount of research done on critical youth development questions. The majority of
research and associated research funding has been concentrated on youth health such as the Youth Risk Behavior studies conducted the Center for Disease Control and Prevention. The obstacles, as purported by Hamilton and Hamilton (2007), is "the vitality and efficacy of youth development practices requires stronger links between research and practice" (p. 1). Evaluation research is most often used to validate youth development programs. Unfortunately, programs are evaluated as implemented in a unique fashion and replication of that implementation approach is often not possible. In fact, implementations of packaged programs typically take-on a different application to meet the local conditions and resources. These different applications, in most instances, are not comparable to the original program evaluated. Hamilton and Hamilton (2007) recommend that when fairly precise replication is not possible "we need to consider how to base practices in evidence, not just programs" (p. 2).

Eccles and Gootman (2002) have summarized sources of youth development evidence they call features. The seven features include:

- physical and psychological safety
- appropriate structure, supportive relationships
- opportunity to belong
- positive social norms
- support for efficacy and mattering
- opportunities for skill building
- integration of family, school and community efforts

Once these features are legitimized and deemed important by program designers, it is their responsibility to build experiences that operationalize these features in the program. This entails planning to design real life experiences that accentuate the feature characteristics. For example, Eccles and Gootman (2002) state that efficacy relates to an individual's awareness of getting things done and to act on one's own. Mattering is the second half of that feature that's translates to one making a meaningful contribution valued by others. It is their contention that youth development program designers consciously build these seven features into programs to ensure a growth experience.

Michigan State University Extension has seemly adapted the youth development feature-based approach to 4-H programming (Michigan State University Extension, 2007). In the Guiding Principles for Positive Youth Development, seven principles have been developed and matched to head, heart, hands, and health. The principles are described by a statement, and elements of effective practice outline how each principle can be operationalized. Elements of effective practice may be used as indicators of evidence of positive youth development. Michigan's positive youth development principles are as follows:

Head

1) Youth are actively engaged in their own development
2) Youth are considered participants rather than recipients in the learning process
3) Youth develop skills that help them succeed

Heart
4) Youth develop positive relationships with adults and peers
5) Youth recognize, understand and appreciate multiculturalism Hands
6) Youth grow and contribute as active citizens through service and leadership Health
7) Youth are physically and emotionally safe

4-H youth development prepares youth to be productive adults. 4-H is successful because the program is based on solid youth development science. The theoretical framework described is foundational to the design of 4-H programming. This chapter has presented the National 4-H Council's definitions of youth development, Kolb's Experiential Learning Model, and summarized the 6 C's and the 4 H's. Community service and civic engagement were discussed and explanation was given as to how youth involvement in volunteerism and service learning leads to community engagement later in life. Risk behavior is a concern of youth development professionals. More research is necessary to obtain a better understanding of not only why youth practice negative behavior but how to reduce the incidence. Many impact evaluation approaches of 4-H programming have been conducted and all are critical to program continuance and improvement. 4-H programs can be improved when research findings are applied to the practice of youth development.

## CHAPTER III

## METHODS AND PROCEDURES

The primary purpose of this study was to measure impacts of 4-H experience on the lives of Nevada youth. The secondary purpose was to replicate 4-H impact evaluation research projects conducted in Montana, Idaho, Utah, and Colorado; contributing data from another western state. Finally, the study is intended to provide impact data for accountability reporting and the improvement of University of Nevada Cooperative Extension's 4-H youth development programming. Three research questions were addressed to accomplish the purposes:

1) What is a description of study participants based upon: a) extracurricular activity involvement, b) leadership positions held, c) close relationships with adults, d) caring for others, e) amount of negative behavior, f) personal identity, g) positive identity, h) self-confidence, character, and personal empowerment, and i) demographic characteristics and personolgical attributes?
2) How do the subjects differ in terms of; extracurricular activity involvement; leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; self-confidence, character, and personal empowerment; based upon age, gender, 4-H participation, and population density?
3) How does involvement in 4-H programming influence youth?

This chapter addresses how these objectives were approached. The following pages contain descriptions of the research design, population and sampling, instrument
development and testing, data collection, and data analysis procedures. A summary of the research methods utilized concludes the chapter.

## Research Design

This correlational, casual comparative study was designed using Dillman's (2007) Tailored Design Method (TDM). The in-person, in-class written survey approach was the same used in previous studies (Astroth \& Haynes, 2001; Goodwin et al., 2005; Goodwin, Carroll, \& Oliver, 2005; Tubbs, 2005), however, TDM principles were applied to this study to enhance response rate. Specifically, Dillman's recommendation regarding the order of survey questions, and the visual layout were incorporated into the study.

Human subjects' approval (Appendix A) was obtained through the University of Nevada, Reno following a full review by the Institutional Review Board (IRB). Documentation including the IRB approval letter from University of Nevada and the study description were forwarded to Texas A\&M, meeting research proposal requirements under the reciprocity agreements.

Previous studies in Montana, Idaho, Utah, and Colorado, randomly selected counties within Cooperative Extension regions. School districts were then randomly selected within those counties and all $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students in those counties were surveyed. In this study, Nevada schools were selected in a different manner. Rather than selecting schools within Extension region, schools were identified by urban or rural setting. Nevada is known as an urban state. Selfa (2004) differentiates rural from urban at the population mark of 100,000 . Communities with a population of less than 100,000
are rural; those over 100,000 are considered urban. Fully $83 \%$ of the population of Nevada is located in Washoe and Clark Counties, the only two Nevada counties with populations over 100,000. Additionally, Nevada consists of only 17 counties, is fewer than other western states. School districts in Nevada are defined by county boundaries; thus, there are only 17 school districts within the State.

Therefore, stratified random sampling was employed with urban and rural as the two strata. Two school districts were grouped in the urban category, and 15 in the rural category (Table 1). Research Randomizer (2006) was used to randomly prioritize school districts in the urban and rural counties of Nevada. School districts were contacted and asked to participate in the study in this random order.

Access into schools, and securing participation in the study were anticipated to be a serious challenge increasing Dillman's "coverage error" (2007). The State Superintendent of Schools, Nevada Department of Education, informed district superintendents that in the spring of 2007 the Centers for Disease Control and Prevention would be administering their biennial risk behavior survey to all schools across the nation. The State Superintendent was not particularly optimistic about schools welcoming another risk behavior survey. For that reason, the principal investigator requested the State Superintendent provide a letter of support to be included in the initial contact with each school district, and he was kind enough to do so. A copy of the letter is available as Appendix B.

Table 1
Nevada Urban and Rural Counties/School Districts

| Rural Counties/School Districts | Urban Counties/School Districts |  |
| :--- | :--- | :--- |
| Carson City | Lincoln | Clark |
| Churchill | Lyon | Washoe |
| Douglas | Mineral |  |
| Elko | Nye |  |
| Esmeralda | Pershing |  |
| Eureka | Story |  |
| Humboldt | White Pine |  |
| Lander |  |  |

An e-mail was sent to Nevada Extension Educators and 4-H affiliated faculty and staff informing them of the study. They were simply made aware of the research, not asked to assist.

## Population and Sampling

The sampling population for the study consisted of $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students, enrolled in Nevada public schools. Table 2 shows the total population of rural and urban $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students. The sampling unit was Nevada public elementary, middle, and high schools. The number of public schools in Nevada are shown in Table 3. Schools that include $5^{\text {th }}, 7^{\text {th }}$ and $9^{\text {th }}$ grade students are referred to as elementary, middle, and high schools, respectively.

Table 2
Rural and Urban Nevada Public School $5^{\text {th }}, 7^{\text {th }}$ and $9^{\text {th }}$ Grade Student Populations, 2006-2007

| Grade | Rural Schools | Urban Schools | Total Population |
| :--- | :--- | :---: | :---: |
| $5^{\text {th }}$ | 4,157 | 28,940 | 33,097 |
| $7^{\text {th }}$ | 4,276 | 29,429 | 33,705 |
| $9^{\text {th }}$ | 5,255 | 36,042 | 41,297 |

Table 3
Number of Rural and Urban Nevada Public Elementary, Middle and High Schools, 2006-2007

| School | Rural Schools | Urban Schools | Total Schools |
| :--- | :---: | :---: | :---: |
| Elementary | 88 | 264 | 352 |
| Middle | 56 | 73 | 129 |
| High | 43 | 89 | 132 |

The ethnic/race composition of Nevada public school students in grades kindergarten through twelfth are referenced by the Nevada Department of Education (2006) and described in Table 4. The largest race population represented is White at $44.5 \%$, followed by Hispanic $35.2 \%$, Black $11.0 \%$, Asian or Pacific Islander 7.6\%, and American Indian or Alaskan Native 1.6\%.

Table 4
Nevada Public Schools Enrollment of K-12 in 2007 by Race/Ethnicity

| Race/Ethnicity | n | $\%$ |
| :--- | ---: | ---: |
| American Indian | 6,800 | 1.6 |
| Asian/Pacific Islander | 32,406 | 7.6 |
| Hispanic | 150,314 | 35.2 |
| Black | 47,053 | 11.0 |
| White | 189,863 | 44.5 |
| Total | 426,436 | 100.0 |

Instrument Development and Testing
The instrument consisted of 67 questions. The survey format included yes-no, multiple choice, level of agreement, fill-in-the blank, and short essay questions.

The Search Institute (1997) granted permission for use of the questions they authored that had been used in the previous studies.

Pilot testing of the instrument was conducted in one sixth and one eighth grade class in Douglas County. Sixth and eighth grade students were selected because they represented the age groups straddling the center most grade level used in the study. The pilot test sample consisted of 24 sixth grade students and 30 eighth grade students. The pilot test resulted in $\mathrm{r}=.892$, Cronbach's alpha coefficient with demographic variables excluded.

A Spanish version of the instrument was then produced for students with a preference for that language.

The instrument was designed to collect various types of student information as follows: Extracurricular activity involvement during the school week included various types of activities such as, drama, art, dance, choir, sports teams, school clubs, outside clubs, spiritual activities, 4-H or hanging out with friends. Risky or negative behavior included shoplifting, smoking cigarettes, and cheating on a test. Personal identity information included information such as meeting and greeting new people, level of comfort in new situations, and care about other people's feelings. Positive identity information included level of self satisfaction and control over life circumstances. Self confidence, character, and personal empowerment information included self perceived ability in record keeping, managing money, giving speeches, and setting goals. Close relationship with parents/guardian and other adults information included having good length conversations with adults and being willing to talk to adults about topics such as drugs, sex, and alcohol. Information of school leadership positions held included election to a school office or service on a school committee. Information on caring for
others included helping other people not as fortunate or in need of assistance. General demographics information included age, grades earned, gender, and race/ethnicity. 4-H membership information included current 4-H membership status and the impact of 4-H on those with 4-H experience.

The survey was divided into seven sections:

- Section one (Question 1) was designed to gather extracurricular activity.
- Section two (Questions 2-11) was designed to determine the way students perceived themselves regarding their person identity.
- Sections three (Questions 12-18) and four (Questions 19-22 and 24-27) was designed for students to assess their levels of social competency.
- Section five (Questions 28-43) was designed for students to indicate their feeling of self confidence, character and personal empowerment.
- Section six (Question 44) was designed to assess amount of negative behavior.
- Section seven (Questions 23, and 45-47) was designed to determine students’ care for others.
- Seven eight (Questions 48-55) was designed to assess demographics.
- Section seven (Questions 56-67) was designed for students currently or previously involved in the 4-H program to identify ways in which the program impacted their lives. Students with no 4-H experience were instructed not to answer these final questions. The instrument is available in Appendix E.


## Data Collection Methods

Washoe County was randomly selected to represent the urban component. A research review was required by Washoe County School District policy. Following District approval (Appendix C), an e-mail from the District Office was sent to all principals informing them of the research approval, and to expect contact from the researcher to discuss participation in the study.

All Washoe County elementary, middle and high schools (Nevada Department of Education, 2006) were randomly ordered. It was determined that there are four times as many elementary schools as middle and high schools in Washoe County. In an attempt to sample equal numbers of students in each grade level; four elementary schools were randomly selected for each middle and high school in the urban portion of the State.

Urban school principals were contacted by mail. This initial contact included a cover letter (Appendix D), copy of the questionnaire (Appendix E), Washoe County School District research approval, and letter of support from the State Superintendent of Schools (Appendix B). The cover letter informed them to expect a telephone call from the principal investigator to confirm their participation. Contact by U.S. mail was not an effective means of communicating with the urban school principals. When contacted by telephone, very few principals indicated they had received the survey information, nor many were familiar with the study. In many instances, principals were also difficult to contact by telephone. E-mail correspondence was the communication method found to be the most efficient.

The e-mail correspondence consisted of a brief cover letter and attachments including the questionnaire and Letter of Cooperation (Appendix F). The Letter of Cooperation was intended to confirm participation by the school (indicated by the principal's signature), determine the number of English and Spanish instruments needed, and identify the approximate date the questionnaires would be administered.

Once principal approval was secured, the specified number of surveys, parent opt-out consent letters in English (Appendix G) and Spanish (Appendix H), survey instructions (Appendix I), tracking forms (Appendix J), and prepaid return envelopes were mailed to the school. The tracking forms included county, school name, grade level, teacher's or proctor's name, date survey was given, number of questionnaires attached, and comments. The instructions specified that parent opt-out letters were to be sent home via the students at least three days prior to administering the questionnaire. The return envelopes were coded as a backup protocol to identify the school in the event the tracking form was not enclosed with the completed questionnaires.

Fifty-six urban elementary school principals were contacted to participate in the study (Table 5). Participation confirmation was received from 11 principals. Participation is described in Table 5. Those principals that indicated no interest to participating, replied but never committed one way or another, or failed to reply were marked as "decline." Every school that confirmed participation returned some questionnaires. The principals over-estimated the number of questionnaires needed, often by a significant amount. Of the 950 questionnaires requested, only 318 were returned, for a $33 \%$ response rate.

Table 5
Urban Nevada Elementary School Contact and Participation

| District/ Schools Contacted | Participation | Surveys <br> Requested <br> English/Spanish | Surveys <br> Returned <br> English/Spanish | Return <br> Rate |
| :---: | :---: | :---: | :---: | :---: |
| Washoe |  |  |  |  |
| Allen | Confirm | $90 / 15$ | 16 / 0 | 15\% |
| Beck | Decline* |  |  |  |
| Bennett | Decline |  |  |  |
| Booth | Confirm | $50 / 50$ | $35 / 0$ | 35\% |
| Brown | Decline |  |  |  |
| Cannan | Decline |  |  |  |
| Caughlin Ranch | Decline |  |  |  |
| Corbett | Decline |  |  |  |
| Desert Heights | Confirm | 60 / 0 | $9 / 0$ | 15\% |
| Diedrichsen | Confirm | 70 / 0 | $3 / 0$ | 4\% |
| Dodson | Decline |  |  |  |
| Donner Springs | Decline |  |  |  |
| Double Diamond | Confirm | $100 / 25$ | 92 / 0 | 74\% |
| Drake | Decline |  |  |  |
| Duncan | Decline |  |  |  |
| Dunn | Decline |  |  |  |
| Elmcrest | Confirm | 60 / 0 | $26 / 0$ | 43\% |
| Gomm | Confirm | 75 / 0 | 54 / 0 | 72\% |
| Greenbrae | Decline |  |  |  |
| Hall | Decline |  |  |  |
| Hidden Valley | Decline |  |  |  |
| Huffaker | Decline |  |  |  |
| Huntsberger | Decline |  |  |  |
| Hunter Lake | Decline |  |  |  |
| Incline | Decline |  |  |  |
| Juniper | Decline |  |  |  |
| Lemmon Valley | Decline |  |  |  |
| Lenz | Decline |  |  |  |
| Lincoln Park | Decline |  |  |  |
| Loder | Decline |  |  |  |
| Mathews | Confirm | $75 / 35$ | 10 / 0 | 9\% |
| Maxwell | Decline |  |  |  |
| Mitchell | Confirm | 50 / 0 | 12 / 0 | 24\% |
| Moss | Decline |  |  |  |
| Mount Rose | Decline |  |  |  |
| Palmer | Decline |  |  |  |
| Peavine | Decline |  |  |  |
| Pleasant Valley | Decline |  |  |  |

Table 5 continued

| District/ |  | Surveys | Surveys |  |
| :---: | :---: | :---: | :---: | :---: |
| Schools |  | Requested | Returned | Return |
| Contacted | Participation | English/Spanish | English/Spanish | Rate |
| Risley | Decline |  |  |  |
| Sepulveda | Decline |  |  |  |
| Sierra Vista | Decline |  |  |  |
| Silver Lake | Decline |  |  |  |
| Smith, Alice | Confirm | 120 / 0 | 16 / 0 | 13\% |
| Smith, Kate | Decline |  |  |  |
| Smithridge | Decline |  |  |  |
| Spanish Springs | Decline |  |  |  |
| Stead | Decline |  |  |  |
| Sun Valley | Decline |  |  |  |
| Taylor | Decline |  |  |  |
| Towles | Decline |  |  |  |
| Van Goder | Decline |  |  |  |
| Veterans Memorial | Decline |  |  |  |
| Warner | Confirm | 75 / 0 | 45 / 0 | 60\% |
| Westergard | Decline |  |  |  |
| Whitehead | Decline |  |  |  |
| Winnemucca | Decline |  |  |  |
| Total |  | $825 / 125$ | 318 / 0 | 33\% |

Thirteen urban middle school principals were contacted to participate (Table 6).
Two schools confirmed participation. These middle schools principals requested 815 English and Spanish surveys, and returned a total of 197 surveys, for a response rate of 24\%.

Eleven urban high school principals were contacted to participate in the study (Table 7). Three principals confirmed participation and eight declined. A $46 \%$ response rate was achieved (427 completed instruments were returned, 934 were requested).

Table 6
Urban Nevada Middle School Contact and Participation

| District/ |  | Surveys | Surveys |  |
| :---: | :---: | :---: | :---: | :---: |
| Schools |  | Requested | Returned | Return |
| Contacted | Participation | English/Spanish | English/Spanish | Rate |
| Washoe |  |  |  |  |
| Billinghurst | Confirm | $320 / 25$ | $0 / 0$ | 0 |
| Clayton | Decline* |  |  |  |
| Cold Springs | Decline |  |  |  |
| Dilworth | Decline |  |  |  |
| Incline | Decline |  |  |  |
| Mendive | Decline |  |  |  |
| O'Brien | Decline |  |  |  |
| Pine | Confirm | 450 / 20 | $187 / 10$ | 42\% |
| Shaw | Decline |  |  |  |
| Sparks | Decline |  |  |  |
| Swope | Decline |  |  |  |
| Traner | Decline |  |  |  |
| Vaughn | Decline |  |  |  |
| Total |  | 770 / 45 | 187 / 10 | 24\% |

* Decline $=$ Principal declined participation, never confirmed or did not reply

Table 7
Urban Nevada High School Contact and Participation

| District/ |  | Surveys | Surveys |  |
| :---: | :---: | :---: | :---: | :---: |
| Schools |  | Requested | Returned | Return |
| Contacted | Participation | English/Spanish | English/Spanish | Rate |
| Washoe |  |  |  |  |
| Damonte Ranch | Decline* |  |  |  |
| Galena | Decline |  |  |  |
| Hug | Decline |  |  |  |
| Incline | Decline |  |  |  |
| McQueen | Confirm | 210 / 0 | 166 / 0 | 79\% |
| North Valleys | Decline |  |  |  |
| Reed | Decline |  |  |  |
| Reno | Decline |  |  |  |
| Spanish Springs | Confirm | 264 / 20 | 56 / 0 | 20\% |
| Sparks | Decline |  |  |  |
| Wooster | Confirm | 400 / 40 | 205 / 0 | 46\% |
| Total |  | 874 / 60 | 427 / 0 | 46\% |

* Decline $=$ Principal declined participation, never confirmed or did not reply

Superintendents in the rural districts were contacted by e-mail with a cover letter, the University of Nevada IRB approval, the letter of support from the Nevada State Superintendent of Schools, and the survey instrument. If no e-mail or telephone response was received within seven days, a follow-up phone call was made to the district superintendent. A telephone script was used when talking to district superintendents (Appendix K). Rural superintendents were asked if they would approve the research and grant permission for the principal investigator to contact their school principals. One superintendent suggested the principal investigator send schools the survey materials along with mention of his permission. Table 8 describes the rural school superintendents contacted to approve school district participation. Eleven of the 15 rural school districts were contacted in random order. Six of the 11 school districts approved the study. Five of the six rural school districts approving participation had schools participate and return questionnaires.

Table 8
Nevada Rural School District Contact and Participation

| School <br> District | Superintendent <br> Contacted | Participation | Returned <br> Surveys |
| :--- | :--- | :--- | :--- |
| Carson City | No | --- | --- |
| Churchill | Yes | Decline* | --- |
| Douglas | No | --- | --- |
| Elko | Yes | Decline | --- |
| Esmeralda | Yes | Decline | --- |
| Eureka | Yes | Approve | Yes |
| Humboldt | Yes | Approve | No |
| Lander | Yes | Approve | Yes |
| Lincoln | Yes | Approve | Yes |
| Lyon | No | --- | --- |
| Mineral | Yes | Decline | -- |
| Nye | Yes | Approve | Yes |
| Pershing | Yes | Decline | --- |
| Storey | No | --- | --- |
| White Pine | Yes | Approve | Yes |

* Decline $=$ Superintendent declined participation, never confirmed, or school district required special review

Nineteen rural elementary schools were contacted to participate and nine confirmed (Table 9). Principals requested 692 English and Spanish instruments, and returned 145 , for a response rate of $21 \%$.

Table 9
Rural Nevada Elementary School Contact and Participation

| District / |  | Surveys | Surveys |  |
| :---: | :---: | :---: | :---: | :---: |
| Schools |  | Requested | Returned | Return |
| Contacted | Participation | English/Spanish | English/Spanish | Rate |
| Eureka |  |  |  |  |
| Eureka | Confirm | $16 / 0$ | 14 / 0 | 88\% |
| Humboldt |  |  |  |  |
| French Ford | Confirm | 264 / 20 | $0 / 0$ | 0 |
| Lander |  |  |  |  |
| Austin | Decline* |  |  |  |
| Eleanor Lamaire | Decline |  |  |  |
| Eliza Pierce | Decline |  |  |  |
| Mary Black | Decline |  |  |  |
| Lincoln ${ }^{1}$ |  |  |  |  |
| Caliente | Confirm | $20 / 3$ | 15 / 0 | 65\% |
| Pahranagat Valley | Confirm | $15 / 2$ | $0 / 0$ | 0 |
| Panaca | Confirm | 18/2 | $0 / 0$ | 0 |
| Pioche | Confirm | $14 / 4$ | $0 / 0$ | 0 |
| Nye |  |  |  |  |
| Manse | Confirm | $80 / 10$ | $38 / 0$ | 42\% |
| Round Mountain | Decline |  |  |  |
| Johnson | Decline |  |  |  |
| Tonopah | Decline |  |  |  |
| Hafen | Decline |  |  |  |
| Mt. Charleston | Confirm | 110 / 2 | $0 / 0$ | 0 |
| White Pine |  |  |  |  |
| Lund | Confirm | $20 / 0$ | 17 / 0 | 85\% |
| McGill | Confirm | $20 / 0$ | 7 / 0 | 35\% |
| Norman | Confirm | 69 / 3 | 54 / 0 | 75\% |
| Total |  | 646 / 46 | 145 / 0 | 21\% |

* Decline = Principal declined participation, never confirmed or did not reply
${ }^{1}$ Superintendent confirmed participation

Table 10 shows the rural middle schools contacted to participate. Six out of the seven schools contacted confirmed their participation. Schools returned a total of 216 questionnaires of the 607 mailed out, achieving a $36 \%$ response rate.

Table 10
Rural Nevada Middle School Contact and Participation

| District / <br> Schools <br> Contacted | Participation | Surveys <br> Requested <br> English/Spanish | Surveys <br> Returned <br> English/Spanish | Return <br> Rate |
| :--- | :--- | :--- | :---: | :---: |
| Humboldt <br> Winnemucca <br> Lander | Confirm | $234 / 20$ | $0 / 0$ | 0 |
| Battle Mountain <br> Lincoln | Confirm | $100 / 25$ | $84 / 0$ | $67 \%$ |
| Meadow Valley <br> Pahranagat | Confirm | $35 / 2$ | $0 / 0$ | 0 |
| Nye | Confirm | $20 / 2$ | $14 / 0$ | $64 \%$ |
| Clarke <br> Tonopah | Decline* |  |  |  |
| White Pine <br> White Pine | Confirm | $69 / 0$ | $30 / 0$ | $43 \%$ |
| Total | $100 / 0$ | $88 / 0$ | $88 \%$ |  |

* Decline = Principal did not reply
${ }^{1}$ Superintendent confirmed participation

Five rural high schools, of the eight contacted, confirmed participation in the study (Table 11). A 45\% response rate was achieved when 165 instruments were returned of the 368 mailed.

Table 11
Rural Nevada High School Contact and Participation

| District / |  | Surveys | Surveys |  |
| :---: | :---: | :---: | :---: | :---: |
| Schools |  | Requested | Returned | Return |
| Contacted | Participation | English/Spanish | English/Spanish | Rate |
| Humboldt |  |  |  |  |
| Lowry | Decline* |  |  |  |
| Lander |  |  |  |  |
| Battle Mountain | Confirm | 120 / 10 | 97 / 0 | 75\% |
| Lincoln ${ }^{1}$ |  |  |  |  |
| Lincoln | Confirm | 60 / 5 | 45 / 0 | 69\% |
| Pahranagat Valley | Confirm | $25 / 2$ | $0 / 0$ |  |
| Nye |  |  |  |  |
| Beatty | Decline |  |  |  |
| Pahrump | Decline |  |  |  |
| Tonopah | Confirm | 44 / 2 | $22 / 1$ | 50\% |
| White Pine |  |  |  |  |
| White Pine | Confirm | 100 / 0 | 0 / 0 | 0 |
| Total |  | 349 / 19 | 164 / 1 | 45\% |

* Decline = Principal declined participation, never confirmed or did not reply
${ }^{1}$ Superintendent approved participation

Urban and rural school principals willing to participate in the study were asked to complete and sign the Letter of Cooperation. On rare occasion, principals followed that practice. Most often principals simply indicated the number of surveys they needed via e-mail communication and did not complete the Letter of Cooperation.

Extensive and systematic sampling and data collection efforts were employed, yet as the results of the data collection process indicate, working with children in public school environments limited the researcher's ability to control important sources of error in the study. The potential for error due to Dillman's (2007), Coverage and Nonresponse threats severely limit the generalizability of the findings. The reader should use caution when transferring these results to other populations.

## Data Analysis Methods

A total of 4,041 English and 327 Spanish surveys were requested by Nevada school principals and 1,481 English and 11 Spanish surveys were returned, resulting in a $36.65 \%$ English survey response, and a $3.36 \%$ Spanish survey response. The overall response rate was $34.16 \%$. The potential for error due to Dillman's (2007), Coverage and Nonresponse threats severely limit the generalizability of the findings. It was impossible to accurately differentiate the amount of coverage and nonresponse error. Principals estimated the number of students matching the sample selection criteria and selected classes they thought would provide the greatest access to students in each age group. Without direct access to the students in each school, the research was unable to control this source of coverage error. If a principal over-estimated the number of students matching the selection criteria, that would artificially inflate the festinate of coverage error. If a student did not respond because the principal did not provide him with an instrument, that would contribute to coverage error. If the student received an instrument, but failed to return it, that would contribute to nonresponse error. Students were anonymous at all times in this study. Lindner, Murphy, and Briers (2001) methods for statistically controlling nonresponse were considered and rejected due to the nature of the data collection process, the inaccessibility and anonymity of the respondents, and the fact that "late" respondents to this study were not truly "late respondents" in that they did not procrastinate but were simply provided the instruments at a date later than early respondents. The researcher was not able to sustain the required logical proposition by

Lindner, Murphy, and Briers (2001) that "late respondents" in this study were more like non-respondents than "early respondents."

Returned surveys were stored in a locked file cabinet in the principal investigator's office at the University of Nevada Cooperative Extension Office, 1329 Waterloo Lane, Gardnerville, Nevada. Data were coded and entered into SPSS. Nominal variables, Yes - No responses, were coded $1=$ yes, $2=$ no. Level of agreement responses were converted to numeric classes, $1=$ strongly agree, $2=$ agree, $3=$ neutral, $4=$ disagree, $5=$ strongly disagree. Frequency scale responses were converted to numeric classes, $1=$ never, $2=$ once, $3=$ a few times, $4=$ frequently.

Data were analyzed with SPSS 15.0 for Windows. Descriptive statistics, percentages and frequencies were compiled on the following; extracurricular activity involvement, school leadership positions held, close relationship with adults, care for others, 4-H participation, age, grade, gender, household size, location of family living unit, family types, and impact of 4-H youth development on members. Means were compiled on amount of negative behavior, personal identity, positive identity, and selfconfidence, character and empowerment.

Age groups, gender, 4-H participation, and population density were used as the independent variables. Age groups were established using 10-12 years old to represent $5^{\text {th }}$ grade students, 13-14 years old representing $7^{\text {th }}$ grade students, and $15-18$ years old representing $9^{\text {th }}$ grade students. Gender was determined by survey question \#50, are you female or male. 4-H participation was determined by survey question \#56, have you ever belonged to a 4-H club that meets formally outside of school. Population density was
determined by location of school where the respondent resided. As data were inputted, each respondents' data entry was coded as rural or urban depending on the location of the school.

The survey designers in 2000 essentially determined constructs, representing like attributes, proficiencies, abilities, practices, or skills and defined by established theories. Constructs were divided into two groups based on measurement indicators, indices and scales. Index constructs are composite measures, based on multiple nominal-level indicators. Index constructs included, extracurricular activity involvement, school leadership positions held, close relationship with adults, and caring for others. Scale constructs are composite measures, based on multiple continuous-level indicators. Scale constructs included, amount of negative behavior, personal identity, positive identity, and self-confidence, character and empowerment.

## Methods Summary

Nevada public school, $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students, enrolled in urban and rural schools were surveyed to assess the impact of 4-H on their lives. The survey instrument, previously used in four western states, was pilot tested and reformatted to determine reliability and enhance response rate. Schools within randomly selected rural and urban school districts were invited to participate. Principals at each school estimated the number of students matching the sample criteria and selected classes they thought would provide the greatest response without duplication. A total of 4,368 questionnaires were mailed to Nevada schools and 1,492 surveys were returned, resulting in a $34 \%$ overall response rate. The potential for error due to Dillman's (2007), Coverage and

Nonresponse threats severely limit the generalizability of the findings. The reader should use caution when transferring these results to other populations.

## CHAPTER IV

## FINDINGS AND DISCUSSION

The purposes of this study were to measure the impacts of $4-\mathrm{H}$ programming on Nevada youth, replicate an impact evaluation research project, and obtain data for use to improve University of Nevada Cooperative Extension's 4-H programming. The research questions were the following:

1) What is a description of study participants based upon: a) extracurricular activity involvement, b) school leadership positions held, c) close relationships with adults, d) caring for others, e) amount of negative behavior, f) personal identity, g) positive identity, h) self-confidence, character, and personal empowerment, and i) demographic characteristics and personolgical attributes?
2. How do the subjects differ in terms of; extracurricular activity involvement; school leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; selfconfidence, character, and personal empowerment; based upon age, gender, 4-H participation, and population density?
3. How does involvement in 4-H programming influence youth?

This chapter discusses the results of a survey entitled, You and Your Free Time: A Survey of Nevada $5^{\text {th }}, 7^{\text {th }}$ and $9^{\text {th }}$ Grade Students, administered in 2007, and presented in the order of the research questions. Description of study participants is discussed, followed by independent variable comparisons by construct. Independent variables are discussed in the order of age, gender, 4-H participation, and population density.

Summated construct means scores for independent variables is followed by the Analysis of variance for each construct. The final section of this chapter discusses the perceptions of 4-H program impact.

## Description of Study Participants

Frequencies and percentages were used to describe study participants in the constructs; extracurricular activity involvement, school leadership positions held, close relationships with adults, and caring for others. These constructs were composed of survey questions requiring a yes or no, dichotomous response. Means and standard deviations were used to describe study participants in the constructs; amount of negative behavior, personal identity, positive identity, and self-confidence, character and empowerment. These constructs were composed of survey questions requiring a Likert type, multiple level response. Frequencies and percentages were used, at the end of this section, to describe the demographic characteristics of the study participants.

Involvement in extracurricular activities of students during the school week is reported in Table 12. The most commonly practiced activity is spending time with friends without anything special to do $(81.2 \%, \mathrm{n}=1,135)$. The next most commonly practiced activity is spending time on school or community sports teams $(51.9 \%, \mathrm{n}=$ 720). 4-H club activities or projects was reported to occupy the time of the fewest number of students ( $10.8 \%, \mathrm{n}=145$ ).

Participation in a school leadership capacity is represented in Table 13. Some type of school leadership position was held by $13.8 \%$ of the students within the past
year. Elected positions were held by $12.5 \%$ of the students, while $10.5 \%$ participated as a committee member and $6.1 \%$ served as a committee chairperson.

## Table 12

Frequencies and Percentages of Extracurricular Activity Involvement of Nevada Public School Students During the School Week

| Activities | $\%$ | n |
| :--- | :---: | :---: |
| Drama, Art, Music | 39.5 | 544 |
| Sports Teams | 51.9 | 720 |
| School Clubs | 19.4 | 263 |
| 4-H | 10.8 | 145 |
| Outside School Clubs | 21.5 | 293 |
| Spiritual | 25.0 | 338 |
| Nothing Special To Do | 81.2 | 1135 |

Table 13
Frequencies and Percentages of School Leadership Positions Held by Nevada Public School Students

| Leadership Position Type | $\%$ | $n$ |
| :--- | ---: | ---: |
| Elected to a leadership position | 12.5 | 176 |
| Held a leadership position | 13.8 | 194 |
| Served as a committee chair | 6.1 | 89 |
| Served as a committee member | 10.5 | 154 |

Close relationships with parents/guardians and other adults is show in Table 14. Most respondents (85.9\%) indicated that within the last month, they have had a good conversation with one parent/guardian that lasted 10 minutes or more. The discussion between child and parent/guardian on the topic of sex was the relationship indicator practiced by the fewest number of students $(57.5 \%, \mathrm{n}=817)$.

Table 14
Frequencies and Percentages of Nevada Public School Students with Close Relationships with Parents/Guardians and Other Adults

| Relationship | $\%$ | $n$ |
| :--- | :---: | ---: |
| If you had an important question about your life, <br> is there an adult (other than a parent/guardian) |  |  |
| $\quad$whom you feel comfortable going to for help? | 65.4 | 954 |
| In the last month, did you have a good conversation |  |  |
| $\quad$ with one of your parents/guardians that lasted 10 |  |  |
| $\quad$ minutes or more? | 85.9 | 1256 |
| In the last month, did you have a good conversation |  |  |
| $\quad$ with an adult (other than a parent/guardian) that |  |  |
| $\quad$ lasted 10 minutes or more? | 73.2 | 1072 |
| Discussed drugs with parents/guardians | 75.0 | 1074 |
| Discussed alcohol with parents/guardians | 74.0 | 1061 |
| Discussed sex with parents/guardians | 57.5 | 817 |
| Discussed other issues with parents/guardians | 76.9 | 1096 |

Students caring for others in need, is reported in Table 15. Most students (85.8\%, $\mathrm{n}=1,264)$ claim to have helped others at school in the past year. Fewer than half the students indicated they have been involved in a project to make life better for other people $(48 \%, n=696)$, and to have given money or time to a charity or organization that helps people $(49.9 \%, \mathrm{n}=723)$. The fewest number of students $(39.3 \%, \mathrm{n}=566)$ claimed to have spent time helping people who are poor, hungry, sick or unable to care for themselves.

Table 15
Frequencies and Percentages of Nevada Public School Students Caring for Others

| Type of Help | $\%$ | $n$ |
| :--- | :---: | :---: |
| Helped Others in School | 85.8 | 1264 |
| Help Project to Make Life Better | 48.0 | 696 |
| Time or Money to Charity | 49.9 | 723 |
| Helped Sick, Poor, Hungry | 39.3 | 566 |

Amount of negative behavior practiced by students is shown in Table 16. Negative behaviors included cheating on a test, drinking alcohol without parents permission, shoplifting, using drugs, riding in a car with a driver who has been drinking or using drugs, damaging property just for the fun of it, smoking cigarettes, using smokeless tobacco, participating in any type of sexual activity, and skipping or cutting class without parent permission. Responses were on a frequency scale of 1 through 4, where $1=$ never, $2=$ once, $3=$ a few times, and $4=$ frequently. The most commonly practiced negative behavior was cheating on a test $(M=1.91, S D=.965)$. The least practiced negative behavior was the use of smokeless tobacco $(M=1.12, S D=.501)$.

Table 16
Amount of Negative Behavior Means for Nevada Public School
Students, ( $n=1,492$ )

| Negative Behavior | $M^{*}$ | $S D$ |
| :--- | :---: | :---: |
| Cheat on a Test | 1.91 | .965 |
| Drank Alcohol | 1.61 | .980 |
| Shoplifted | 1.34 | .763 |
| Used Drugs | 1.33 | .813 |
| Rode with DUI | 1.50 | .886 |
| Damaged Property | 1.47 | .828 |
| Smoked Cigarettes | 1.31 | .765 |
| Used Smokeless Tobacco | 1.12 | .501 |
| Sexual Activity | 1.54 | .990 |
| Skip or Cut Class | 1.45 | .843 |

*Mean of frequency scale responses ( $1=$ never, $2=$ once, 3 = a few times, $4=$ frequently)

Personal identity means for Nevada public school students are shown in Table 17. Personal identity included statements such as; I am good at planning ahead; I care about other people's feeling; and I feel really sad when one of my friends is unhappy.

Students were asked to indicate a level of agreement to the personal identity statements on a Likert scale of $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree. All statements were phrased positively. Agreement or strong agreement was indicative of high personal identity. The statement receiving the highest score, or the strongest personal identity characteristic was, saying no when asked to do something wrong $(M=4.16, S D=1.05)$. The personal identity statement receiving the lowest score was, volunteer in class to lead activities $(M=2.80, S D=1.12)$.

## Table 17

Personal Identity Means for Nevada Public School Students, ( $n=1,492$ )

| Identity Characteristic | $M^{*}$ | $S D$ |
| :--- | :---: | ---: |
| Good at planning ahead | 3.34 | .96 |
| Care about other's feelings | 4.02 | .94 |
| Sad when friends are unhappy | 3.74 | 1.03 |
| Good at making and keeping friends | 4.03 | .91 |
| Say no when asked to do something wrong | 4.16 | 1.05 |
| Stay away from people that get me in trouble | 3.53 | 1.11 |
| Volunteer in class to lead activities | 2.80 | 1.12 |
| Meet and greet new people easily | 3.53 | 1.01 |
| Comfortable in new situations | 3.26 | .96 |
| Others kids look up to me | 3.13 | 1.09 |

*Mean of Likert scale responses ( $1=$ strongly disagree, 2 = disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree)

Table 18 shows the positive identity means for public school students. Positive identity included statements such as; when things don't go well for me, I am good at finding a way to make things better; I have little control over the things that will happen in my life; and on the whole, I like myself. Students were asked to indicate a level of agreement to the positive identity statements on a Likert scale of $1=$ strongly disagree, 2
$=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree. Four of the seven statements were negatively phrased. Disagreement or strong disagreement to negatively phrased statements was indicative of high positive identity. Agreement or strong agreement to the three positively phrased statements was indicative of high positive identity. The highest positive identity mean of the positively phrased statements was, all in all, I am glad I am me $(M=4.14, S D=.96)$. The lowest mean of the four negatively phrased statements was, I feel I do not have much to be proud of $(M=2.19, S D=1.17)$.

Table 18
Positive Identity Means for Nevada Public School Students, ( $n=1,492$ )
Statements $M^{*} \quad S D$

When things don't go well for me, I am good at finding a way to make things better 3.52 . 94
I have little control over things that will $\begin{array}{lll}\text { happen in my life } & \\ \text { n } & 2.69 & 1.23\end{array}$
On the whole I like myself. $\quad 3.95$ 1.01
At times, I think I am no good at all ${ }^{\mathrm{n}} \quad 2.89$
All in all, I am glad I am me 4.14 . 96
I feel I do not have much to be proud of ${ }^{\mathrm{n}} \quad 2.19 \quad 1.17$
Sometimes I feel like my life has no purpose ${ }^{\mathrm{n}} \quad 2.30 \quad 1.30$
*Mean of Likert scale responses ( $1=$ strongly disagree,
$2=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree)
${ }^{n}$ Negatively phrased statements

Self-confidence, character, and empowerment means for students are displayed in Table 19. Self-confidence, character, and empowerment included statements such as; I can do things on my own; I set goals; ten years from now, I think I will be very happy; and I am responsible for my actions. Students were asked to indicate a level of agreement to the self-confidence, character and empowerment statements on a Likert
scale of $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree.
One statement was negatively phrased; adults in my town or city don't care about people my age. Disagreement or strong disagreement to this statement was indicative of high self-confidence, character and empowerment. The positively phrased statement receiving highest level of agreement was, I am responsible for my actions ( $M=4.18, S D=.83$ ).

The lowest level of agreement of the positively phrased statements was for the statement, I have good written record keeping skills ( $M=2.50, S D=1.22$ ).

Table 19
Self-Confidence, Character and Empowerment Means for Nevada Public School Students, ( $n=1,492$ )

| Statements | $M^{*}$ | $S D$ |
| :--- | :---: | :---: |
| I can do things on my own | 4.00 | .89 |
| I set goals | 3.74 | .98 |
| Ten years from now, I think I will be very happy | 4.07 | .93 |
| I am responsible for my actions | 4.18 | .83 |
| I like to try new things | 4.05 | .86 |
| I am a good organizer | 3.15 | 1.18 |
| I am a good money manager | 3.33 | 1.16 |
| Adults in my town or city make me feel important | 3.26 | 1.06 |
| Adults in my town or city listen to what I have to say | 3.11 | 1.09 |

Adults in my town or city don't care about people my age $^{\text {n }} \quad 2.53 \quad 1.13$
In my town or city, I feel like I matter to people $3.30 \quad 1.03$
In my family I feel useful and important $\quad 3.85 \quad 1.06$
I'm given lots of chances to help make my town $\begin{array}{lll}\text { or city a better place to live } & 2.97 & 1.09\end{array}$
Students help decide what goes on at my school $3.29 \quad 1.08$
I have good written record keeping skills $\quad 2.50 \quad 1.22$
I am comfortable giving a speech or demonstration $\quad 2.81 \quad 1.29$
*Mean of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree)
${ }^{\text {n }}$ Negatively phrased statement

Table 20 shows that just over half, $50.9 \%$, of the 1,492 survey participants, were female, and $46.3 \%$ were male. As indicated in Table 21, $63.1 \%$ of the survey respondents were from the urban school district, while $36.9 \%$ were from the rural districts. 4-H involvement was determined by the survey question asking if the student ever belonged to a 4-H Club that meets formally outside of school (Question 56). One hundred sixty six students, $11.1 \%$ of the respondents, indicated they had been involved in 4-H (Table 22). The majority of students, $83.5 \%$, never belonged to $4-\mathrm{H}$.

Table 20
Frequencies and Percentages by Gender

| Gender | \% | n |
| :--- | ---: | ---: |
| Male | 46.3 | 691 |
| Female | 50.9 | 759 |
| Missing | 2.8 | 42 |
| Total | 100.0 | 1492 |

Table 21
Frequencies and Percentages of Urban and Rural Youth

|  | $\%$ | n |
| :--- | ---: | ---: |
| Urban | 63.1 | 941 |
| Rural | 36.9 | 551 |
| Total | 100.0 | 1492 |

Table 22
Frequencies and Percentages of 4-H Participation

| 4-H Participation | $\%$ | n |
| :--- | :---: | ---: |
| 4-H Youth | 11.1 | 166 |
| Non 4-H Youth | 83.5 | 1246 |
| Missing | 5.4 | 80 |
| Total | 100.0 | 1492 |

Table 23 shows there were $5079^{\text {th }}$ grade students, $4715^{\text {th }}$ grade students and 382 $7^{\text {th }}$ grade students. Nine percent of the 1,492 returned surveys were from students in grades other than $5^{\text {th }}, 7^{\text {th }}$, or $9^{\text {th }}$, or from students not identifying grade level.

Table 23
Frequencies and Percentages by Grade

| Grade | $\%$ | n |
| :--- | ---: | ---: |
| $5^{\text {th }}$ | 31.6 | 471 |
| $7^{\text {th }}$ | 25.6 | 382 |
| $9^{\text {th }}$ | 34.0 | 507 |
| Other Grades | 4.7 | 68 |
| Missing | 4.3 | 64 |
| Total | 100.0 | 1492 |

Table 24 describes the age distribution of the student respondents. Ages ranged from 10 to 18 years. The mean age was 13.04 years and the median age was 13.0 years. Race/ethnic breakdown of the student sample is illustrated in Table 25. Whites were the largest race/ethnic group represented by $56.6 \%$ of the students in the study, followed by $22.4 \%$ Hispanic, $11 \%$ other, $3.8 \%$ Native American, and 2.3\% African American. The sample population demographics roughly mirror the Nevada student ethnicity/race composition at $44.5 \%$ White students, $35.2 \%$ Hispanic, $11 \%$ African American, and 1.6\% Native American (Nevada Department of Education, 2006).

Table 24
Frequencies and Percentages by Age

| Age (years) | $\%$ | n |
| :--- | ---: | ---: |
| 10 | 9.2 | 137 |
| 11 | 19.5 | 291 |
| 12 | 8.7 | 130 |
| 13 | 16.9 | 252 |
| 14 | 10.3 | 153 |
| 15 | 23.7 | 354 |
| 16 | 3.7 | 55 |
| 17 | 1.4 | 21 |
| 18 | .9 | 13 |
| Missing | 5.8 | 86 |
| Total | 100.0 | 1492 |

Table 25
Frequencies and Percentages by Race/Ethnicity

| Ethnicity | $\%$ | n |
| :--- | ---: | ---: |
| African American | 2.3 | 34 |
| Native American | 3.8 | 56 |
| Hispanic | 22.4 | 334 |
| White/Caucasian | 56.6 | 844 |
| Other | 11.0 | 164 |
| Missing | 4.0 | 60 |
| Total | 100.0 | 1492 |

Living setting is illustrated in Table 26. A large majority of the students lived in town, $62.0 \%$, while the remainder lived in a large city, $22.1 \%$, in the country not on a farm, $5.5 \%$, and on the farm, $4.2 \%$.

Table 26
Frequencies and Percentages by Living Setting

| Living Setting | $\%$ | n |
| :--- | ---: | ---: |
| On a Farm | 4.2 | 63 |
| In the Country, Not on a Farm | 6.5 | 97 |
| In Town | 62.0 | 924 |
| Large City | 22.1 | 329 |
| Missing | 5.2 | 78 |
| Total | 100.0 | 1492 |

Number of other youth, less than 18 years old, living in the same household is represented in Table 27. The range of youth living in the same household was 0 to 23 . The median number of other youth was 2 , and the mean was 2.26 .

Table 27
Frequencies and Percentages of Number of Other Youth in the Household

| Number of Youth | $\%$ | n |
| :--- | ---: | ---: |
| None | 12.3 | 183 |
| 1 | 27.9 | 417 |
| 2 | 19.2 | 287 |
| 3 | 14.5 | 216 |
| 4 | 7.6 | 113 |
| 5 | 5.4 | 80 |
| 6 | 2.9 | 43 |
| 7 | 1.3 | 19 |
| 8 | .4 | 6 |
| 9 | .4 | 6 |
| 10 or more | .5 | 9 |
| Missing | 7.6 | 113 |
| Total | 100.0 | 1492 |

Parent and guardian status is shown in Table 28. Most of the student respondents, $60.6 \%$ live with both parents, while $12.2 \%$ live with just their mother, $11.1 \%$ live with one parent and one step-parent, and $8.1 \%$ live sometimes with mother or father.

Table 28
Frequencies and Percentages of Parent/Guardian Status

| I live with my... | $\%$ | n |
| :--- | ---: | ---: |
| Two parents | 60.6 | 866 |
| Mother | 12.2 | 182 |
| Father | 2.5 | 38 |
| Sometimes mother or father | 8.1 | 121 |
| One parent + one step-parent | 11.1 | 166 |
| Grandparents | 1.3 | 20 |
| Guardian, relative, or other person | 2.5 | 37 |
| Missing | 4.2 | 62 |
| Total | 100.0 | 1492 |

Frequencies and percentages of grades earned by respondents are displayed in Table 29. Over one quarter of the youth (25.1\%) claimed to earn half A's and half B's. Mostly A's were earned by $24.5 \%$ and half B's and half C's were earned by $20.1 \%$ of the youth.

Table 29
Frequencies and Percentages of Grades Earned

| Grades | $\%$ | n |
| :--- | ---: | ---: |
| Mostly A's | 24.5 | 366 |
| About half A's and half B's | 25.1 | 375 |
| Mostly B's | 6.9 | 103 |
| About half B's and half C's | 20.1 | 300 |
| Mostly C's | 4.8 | 71 |
| About half C's and half D's | 8.7 | 130 |
| Mostly D's | 2.5 | 38 |
| Mostly below D's | 3.4 | 50 |
| Missing | 4.0 | 59 |
| Total | 100.0 | 1492 |

## Comparison of Age Groups

Three age groupings were created, 10-12 year olds, 13-14 year olds, and 15-18 year olds. Age group comparisons were made in; extracurricular activity involvement; school leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; and self-confidence, character and empowerment.

Table 30 shows the age group comparison in extracurricular activity involvement. Statistical differences between age groups was found in the involvement in drama, art, music, school clubs, 4-H, outside clubs, spiritual, and nothing special to do activities. Significantly more $10-12$ year olds $(46.7 \%, \mathrm{n}=243)$ were involved in drama, art, music, than 13-14 year olds $(39.0 \%, \mathrm{n}=144)$ and $15-18$ year olds $(30.7 \%, \mathrm{n}=127)$ and involvement of 13-14 year olds was significantly higher than 15-18 year olds. Age group 13-14 $(21.8 \%, \mathrm{n}=80)$, were significantly more involved in school sports than age group 15-18 $(16.1 \%, \mathrm{n}=66)$. Involvement in 4-H was significantly higher for the 10-12
year olds $(16.1 \%, \mathrm{n}=82)$ than for the $13-14$ year olds $(8.3 \%, \mathrm{n}=30)$ and $15-18$ year olds $(5.7 \%, n=23)$. Age group 10-12 $(26.4 \%, n=136)$ was significantly more involved in outside school clubs than 13-14 age group (19.8\%, $\mathrm{n}=72$ ) and age group 15-18 ( $16.8 \%, \mathrm{n}=69$ ). Significantly more $10-12$ year olds $(28.3 \%, \mathrm{n}=144)$ were involved in spiritual activities than $15-18$ year olds $(22.3 \%, \mathrm{n}=92)$. Age group 15-18 $(83.9 \%, \mathrm{n}=$ 355) was significantly more involved with spending time with friends without anything special to do than age group 10-12 $(78.6 \%, \mathrm{n}=411)$.

Table 30
Age Group Comparison in Extracurricular Activity Involvement

|  | $10-12$ |  | $13-14$ |  | $15-18$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Years Old |  | Years Old |  | Years Old |  |
| Activities | $46.7^{\mathrm{a}}$ | 243 | $39.0^{\mathrm{b}}$ | 144 | $\%$ | $n$ |
| Drama, Art, Music | 50.3 | 262 | $56.7^{\mathrm{c}}$ | 127 |  |  |
| Sports Teams | $20.5^{\mathrm{ab}}$ | 105 | $21.8^{\mathrm{a}}$ | 80 | 50.2 | $16.1^{\mathrm{b}}$ |
| School Clubs | $16.1^{\mathrm{a}}$ | 82 | $8.3^{\mathrm{b}}$ | 30 | 56 |  |
| 4-H | $26.4^{\mathrm{a}}$ | 136 | $19.8^{\mathrm{b}}$ | 72 | $16.8^{\mathrm{b}}$ | 23 |
| Outside School Clubs | $28.3^{\mathrm{a}}$ | 144 | $24.2^{\text {ab }}$ | 87 | $22.3^{\mathrm{b}}$ | 92 |
| Spiritual | $78.6^{\mathrm{a}}$ | 411 | $82.4^{\text {ab }}$ | 310 | $83.9^{\mathrm{b}}$ | 355 |
| Nothing Special To Do |  |  |  |  |  |  |

${ }^{\text {a }}$ differing letters in a row $p<.05$

Age group comparison in school leadership positions held is shown in Table 31. Significantly more $10-12$ year olds $(17.1 \%, \mathrm{n}=91)$ were elected to a leadership position than 13-14 year olds $(10.4 \%, \mathrm{n}=40)$ and $15-18$ year olds $(9.0 \%, \mathrm{n}=13)$. Age group 10$12(18.6 \%, \mathrm{n}=99)$ held significantly more school leadership positions than age group 13-14 $(13.6 \%, \mathrm{n}=52)$ and age group $15-18(8.3 \%, \mathrm{n}=11)$, and involvement of 13-14 year olds was significantly higher than 15-18 year olds. Significantly more 10-12 year
olds $(9.9 \%, \mathrm{n}=54)$ served as school committee chair than the $13-14$ year olds $(3.5 \%, \mathrm{n}=$ $14)$ and the $15-18$ year olds $(3.5 \%, n=8)$. Age group $10-12(15.2 \%, n=83)$ served on school committees significantly more than age group 13-14 (7.0\%, $\mathrm{n}=28)$ and age group 15-18 $(6.8 \%, \mathrm{n}=30)$.

Table 31
Age Group Comparison in School Leadership Positions Held

|  | $10-12$ |  | $13-14$ |  | $15-18$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Years Old |  | Years Old |  | Years Old |  |
| Leadership Position Type | $\%$ | $n$ | $\%$ | $n$ | $\%$ | $n$ |
| Elected to a leadership position | $17.1^{\mathrm{a}}$ | 91 | $10.4^{\mathrm{b}}$ | 40 | $9.0^{\mathrm{b}}$ | 13 |
| Held a leadership position | $18.6^{\mathrm{a}}$ | 99 | $13.6^{\mathrm{b}}$ | 52 | $8.3^{\mathrm{c}}$ | 11 |
| Served as a committee chair | $9.9^{\mathrm{a}}$ | 54 | $3.5^{\mathrm{b}}$ | 14 | $3.5^{\mathrm{b}}$ | 8 |
| Served as a committee member | $15.2^{\mathrm{a}}$ | 83 | $7.0^{\mathrm{b}}$ | 28 | $6.8^{\mathrm{b}}$ | 30 |

${ }^{\text {a }}$ differing letters in a row $p<.05$

Age group comparison in close relationships with adults is shown in Table 32.
Significantly more $10-12$ year olds $(88.2 \%, \mathrm{n}=479)$ had a good 10 minute conversation with a parent/guardian than 13-14 year olds $(83.8 \%, \mathrm{n}=334)$. Age group 15-18 (81.2\%, $\mathrm{n}=359)$ had significantly more good 10 minute conversations with an adult other than a parent than age group 10-12 $(69.0 \%, \mathrm{n}=377)$ and age group 13-14 $(71.8 \%, \mathrm{n}=288)$. Significantly more $10-12$ year olds $(81.6 \%, \mathrm{n}=435)$ discussed drugs with parents/guardians than 13-14 year olds $(74.7 \%, \mathrm{n}=289)$ and $15-18$ year olds $(70.3 \%, \mathrm{n}$ $=306)$. That same trend was found in willingness to discuss alcohol and sex.

Significantly more of the 10-12 year olds $(80.6 \%, n=429)$ discussed alcohol with parents than $13-14$ year olds $(73.3 \%, \mathrm{n}=285)$ and $15-18$ year olds $(69.6 \%, \mathrm{n}=303)$. The younger youth, 10-12 year olds $(67.6 \%, \mathrm{n}=355)$ were significantly more willing to
discuss sex with parents than the older youth, 13-14 year olds $(55.4 \%, \mathrm{n}=216)$ and $15-$ 18 year olds $(49.8 \%, \mathrm{n}=214)$.

Table 32
Age Group Comparison in Close Relationship with Adults

| Relationship | $\begin{gathered} 10-12 \\ \text { Years Old } \end{gathered}$ |  | $\begin{gathered} \hline 13-14 \\ \text { Years Old } \end{gathered}$ |  | $\begin{gathered} 15-18 \\ \text { Years Old } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | n | \% | n | \% | n |
| If you had an important question about your |  |  |  |  |  |  |
| life, is there an adult (other than a parent/guardian) whom you feel comfortable going to for help? | 67.4 | 368 | 64.6 | 257 | 64.8 | 284 |
| In the last month, did you have a good |  |  |  |  |  |  |
| Conversation with one of your parents/guardians that lasted 10 minutes or more? | 88.2 ${ }^{\text {a }}$ | 479 | $83.8{ }^{\text {b }}$ | 334 | $86.2^{\text {ab }}$ | 380 |
| In the last month, did you have a good |  |  |  |  |  |  |
| Conversation with an adult (other than a parent/guardian) that |  |  |  |  |  |  |
| lasted 10 minutes or more? | $69.0{ }^{\text {a }}$ | 377 | $71.8{ }^{\text {a }}$ | 288 | $81.2{ }^{\text {b }}$ | 359 |
| Discussed drugs with parents/guardians | $81.6^{\text {a }}$ | 435 | $74.7{ }^{\text {b }}$ | 289 | $70.3{ }^{\text {b }}$ | 306 |
| Discussed alcohol with parents/guardians | $80.6{ }^{\text {a }}$ | 429 | $73.3{ }^{\text {b }}$ | 285 | $69.6{ }^{\text {b }}$ | 303 |
| Discussed sex with parents/guardians | $67.6{ }^{\text {a }}$ | 355 | $55.4{ }^{\text {b }}$ | 216 | $49.8{ }^{\text {c }}$ | 214 |
| Discussed other issues with parents/ guardians | 80.7 | 428 | 75.8 | 292 | 76.9 | 334 |

${ }^{\text {a }}$ differing letters in a row $p<.05$

Age group comparison in caring for others is shown in Table 33. Significantly more $10-12$ year olds $(93.1 \%, \mathrm{n}=514)$ help others in school than 13-14 year olds (84.3, $\mathrm{n}=339)$ and $15-18$ year olds $(78.0 \%, \mathrm{n}=334)$, and significantly more $13-14$ year olds help others in school than 15-18 year olds. Younger youth, the 10-12 year olds (53.4\%, n $=295)$ were also found to be significantly more involved in projects to make life better for others than the older youth, 13-14 year olds ( $45.8 \%, \mathrm{n}=184$ ) and $15-18$ year olds
( $44.7 \%, \mathrm{n}=197$ ). Significantly more $10-12$ year olds $(56.5 \%, \mathrm{n}=313)$ give time or money to charity than $13-14$ year olds $(42.9 \%, \mathrm{n}=173)$ and $15-18$ year olds $(49.0 \%, \mathrm{n}=$ 216). Age group 10-12 $(48.2 \%, \mathrm{n}=263)$ were significantly more engaged in helping the sick, poor, and hungry than age group 13-14 $(36.7 \%, \mathrm{n}=147)$ and age group 15-18
$(31.3 \%, \mathrm{n}=138)$.

Table 33
Age Group Comparison in Caring for Others

|  | $10-12$ |  | $13-14$ |  | $15-18$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Years Old |  | Years Old |  | Years Old |  |
| Type of Help | $\%$ | n | $\%$ | n | $\%$ | n |
| Helped Others in School | $93.1^{\mathrm{a}}$ | 514 | $84.3^{\mathrm{b}}$ | 339 | $78.0^{\mathrm{c}}$ | 334 |
| Help Project to Make Life Better | $53.4^{\mathrm{a}}$ | 295 | $45.8^{\mathrm{b}}$ | 184 | $44.7^{\mathrm{b}}$ | 197 |
| Time or Money to Charity | $56.6^{\mathrm{a}}$ | 313 | $42.9^{\mathrm{b}}$ | 173 | $49.0^{\mathrm{b}}$ | 216 |
| Helped Sick, Poor, Hungry | $48.2^{\mathrm{a}}$ | 263 | $36.7^{\mathrm{b}}$ | 147 | $31.3^{\mathrm{b}}$ | 138 |

${ }^{\text {a }}$ differing letters in a row $p<.05$

Age group comparison in amount of negative behavior is shown in Table 34. Age group 15-18 $(M=2.26, S D .983)$ cheat on tests at a significantly higher frequency than age group 13-14 $(M=1.98, S D=.983)$ and age group 10-12 $(M=1.53, S D=.765)$, and age group 13-14 cheats on significantly more tests than age group 10-12. Older youth, age group 15-18 $(M=2.12, S D=1.136)$ drink alcohol without parent permission at a significantly higher frequency than age group 13-14 $(M=1.64, S D=.974)$ and age group 10-12 $(M=1.15, S D=.490)$, and 13-14 years olds drink alcohol without parents permission at significantly higher frequency than 10-12 year olds. Age group 15-18 ( $M=$ $1.49, S D=.876)$ shoplift at a significantly higher frequency than age group 13-14 $(M=$ $1.32, S D=.728)$ and age group $10-12(M=1.17, S D=.547)$, and 13-14 year olds
practice significantly more shoplifting than 10-12 year olds. Age group 10-12 ( $M=1.07$, $S D=.373)$ use drugs at a significantly lower frequency age group 13-14 $(M=1.29, S D=$ .737) and age group 15-18 $(M=1.61, S D=1.038)$, and $13-14$ year olds practice significantly less drug use than 15-18 year olds. Age group 15-18 $(M=1.71, S D=.995)$ ride with a driver who has been drinking or using drugs at a significantly higher frequency than age group 13-14 $(M=1.50, S D=, 875)$ and age group $10-12(M=1,27$, $S D=.682$ ), and 13-14 year olds rode with a driver who had been drinking at a significantly higher frequency than the 10-12 year olds. Age group 10-12 $(M=1.27, S D$ $=.643)$ damaged property at a significantly lower frequency than age group 13-14 $(M=$ $1.51, S D=.850)$ and age group 15-18 $(M=1.61, S D=.925)$. Age group 15-18 $(M=$ $1.51, S D=.974)$ smoke cigarettes at a significantly higher frequency than age group 13$14(M=1.31, S D=.736)$ and age group $10-12(M=1.11, S D=.434)$, and 13-14 year olds smoke cigarettes at a significantly higher frequency than 10-12 year olds. Age group 15-18 $(M=1.18, S D=.617)$ use smokeless tobacco at a significantly higher frequency than age group 13-14 $(M=1.10, S D=.407)$ and age group 10-12 $(M=1.06$, $S D=.340)$. Age group 15-18 $(M=2.02, S D=1.181)$ engage in sexual activities at a higher frequency than age group 13-14 $(M=1.45, S D=.927)$ and age group 10-12 $(M=$ $1.15, S D=.560$ ), and 13-14 year olds engage in significantly more sexual activity than 10-12 year olds. Age group 15-18 $(M=1.91, S D=1.034)$ skip or cut class without parent permission at a significantly higher frequency than age group 13-14 ( $M=1.35$, $S D=.738)$ and age group $10-12(M=1.11, S D=.457)$, and $13-14$ year olds skip class at a higher frequency than 10-12 year olds.

Table 34
Age Group Comparison in Amount of Negative Behavior

|  | $10-12$ |  | $13-14$ |  | $15-18$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Years Old |  | Years Old |  | Years Old |  |
| Negative Behavior | $M^{\mathrm{z}}$ | $S D$ | $M$ | $S D$ | $M$ | $S D$ |
| Cheat on a Test | $1.53^{\mathrm{a}}$ | .765 | $1.98^{\mathrm{b}}$ | .983 | $2.26^{\mathrm{c}}$ | .983 |
| Drank Alcohol | $1.15^{\mathrm{a}}$ | .490 | $1.64^{\mathrm{b}}$ | .974 | $2.12^{\mathrm{c}}$ | 1.136 |
| Shoplifted | $1.17^{\mathrm{a}}$ | .547 | $1.32^{\mathrm{b}}$ | .728 | $1.49^{\mathrm{c}}$ | .876 |
| Used Drugs | $1.07^{\mathrm{a}}$ | .373 | $1.29^{\mathrm{b}}$ | .737 | $1.61^{\mathrm{c}}$ | 1.038 |
| Rode with DUI | $1.27^{\mathrm{a}}$ | .682 | $1.50^{\mathrm{b}}$ | .875 | $1.71^{\mathrm{c}}$ | .995 |
| Damaged Property | $1.27^{\mathrm{a}}$ | .643 | $1.51^{\mathrm{b}}$ | .850 | $1.61^{\mathrm{b}}$ | .925 |
| Smoked Cigarettes | $1.11^{\mathrm{a}}$ | .434 | $1.31^{\mathrm{b}}$ | .736 | $1.51^{\mathrm{c}}$ | .974 |
| Used Smokeless Tobacco | $1.06^{\mathrm{a}}$ | .340 | $1.10^{\mathrm{a}}$ | .407 | $1.18^{\mathrm{b}}$ | .617 |
| Sexual Activity | $1.15^{\mathrm{a}}$ | .560 | $1.45^{\mathrm{b}}$ | .927 | $2.02^{\mathrm{c}}$ | 1.181 |
| Skip or Cut Class | $1.11^{\mathrm{a}}$ | .457 | $1.35^{\mathrm{b}}$ | .738 | $1.91^{\mathrm{c}}$ | 1.034 |
| Z |  |  |  |  |  |  |

${ }^{\mathrm{z}}$ Means of frequency scale responses ( $1=$ never, $2=$ once, $3=$ a few times, $4=$ frequently)
${ }^{\text {a }}$ differing letters in a row $p<.05$

Age group comparison in personal identity is presented in Table 35. Age group 10-12 $(M=3.90, S D=.989)$ had significantly stronger agreement with the statement, $I$ feel really sad when one of my friends is unhappy, than age group 13-14 $(M=3.68, S D=$ $1.042)$ and age group 15-18 $(M=3.64, S D=1.008)$. Age group 10-12 $(M=4.36, S D=$ .990) had significantly strong agreement with the statement, I know how to say no when someone wants me to do things that are wrong or dangerous, than age group 13-14 ( $\mathrm{M}=$ 4.13, $S D=1.080)$ and age group 15-18 $(M=3.98, S D=1.022)$, and 13-14 year olds had significantly stronger agreement with that statement than 15-18 year olds. Age group 10$12(M=3.87, S D=1.031)$ had significantly stronger agreement with the statement, $I$ stay away from people who might get me in trouble, than age group 13-14 $(M=3.50, S D$ $=1.153)$ and age group $15-18(M=3.19, S D=1.006)$, and $13-14$ year olds had significantly stronger agreement than the 15-18 year olds. The younger age group, 10-12
years old ( $M=3.04, S D=1.424$ ) had significantly stronger agreement with the statement, I volunteer in class to lead activities, than the 13-14 age group ( $M=2.77, S D$ $=1.094)$ and the $15-18$ age group $(M=2.58, S D=1.058)$, and the $13-14$ year olds had significantly stronger agreement with the statement than the 15-18 year olds. Older youth, age group 15-18 $(M=3.15, S D=1.057)$, had significantly stronger agreement with the statement, I am comfortable in new situations, than the younger age group 10$12(M=3.20, S D=.981)$.

Table 35
Age Group Comparison in Personal Identity

| Identity Characteristic | $10-12$ <br> Years Old |  | $13-14$ <br> Years Old |  | $\begin{gathered} 15-18 \\ \text { Years Old } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $M^{2}$ | $S D$ | M | SD | M | $S D$ |
| Good at planning ahead | 3.32 | . 991 | 3.30 | . 924 | 3.42 | . 947 |
| Care about other's feelings | 4.07 | . 936 | 4.02 | . 922 | 4.02 | . 914 |
| Sad when friends are unhappy | $3.90{ }^{\text {a }}$ | . 989 | $3.68{ }^{\text {b }}$ | 1.042 | $3.64{ }^{\text {b }}$ | 1.008 |
| Good at making and keeping friends | 4.04 | . 952 | 4.05 | . 855 | 4.03 | . 848 |
| Say no when asked to do something wrong | $4.36{ }^{\text {a }}$ | . 990 | $4.13{ }^{\text {b }}$ | 1.080 | $3.98{ }^{\text {c }}$ | 1.022 |
| Stay away from people that get me in trouble $\qquad$ $3.87^{\text {a }}$ <br> 1.031 <br> $3.50^{\text {b }}$ <br> 1.153 <br> $3.19^{c} 1.006$ |  |  |  |  |  |  |
| Volunteer in class to lead activities | $3.04{ }^{\text {a }}$ | 1.424 | $2.77^{\text {b }}$ | 1.094 | $2.58^{\text {c }}$ | 1.058 |
| Meet and greet new people easily | 3.49 | 1.027 | 3.53 | . 992 | 3.57 | . 997 |
| Comfortable in new situations | $3.20{ }^{\text {a }}$ | . 981 | $3.26{ }^{\text {ab }}$ | . 915 | $3.35{ }^{\text {b }}$ | . 971 |
| Others kids look up to me | 3.18 | 1.098 | 3.09 | 1.094 | 3.15 | 1.057 |
| ${ }^{7}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree) <br> ${ }^{\text {a }}$ differing letters in a row $p<.05$ |  |  |  |  |  |  |

Table 36 shows age group comparison in positive identity. Age group 10-12 (M $=2.95, S D=1.245$ ) expressed significantly stronger agreement and less positive identity to the negatively phrased statement, I have little control over the things that will happen
in my life, than age group 13-14 $(M=2.50, S D=1.203)$ and age group $15-18(M=2.51$, $S D=1.164)$. Age group 10-12 $(M=3.01, S D=1.257)$ had significantly stronger agreement and less positive identity to the negatively phrased statement, at times I think I am no good at all, than age group 13-14 $(M=2.81, S D=1.268)$ and age group 15-18 $(M=2.79, S D=1.200)$.

Table 36
Age Group Comparison in Positive Identity

|  | $10-12$ |  | $13-14$ |  | $15-18$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Years Old | Years Old | Years Old |  |  |  |
| Statements | $M^{z}$ | $S D$ | $M$ | $S D$ | $M$ |  |$) S D$

When things don't go well for me, I am good at finding a way to make things better $3.55 \quad .957 \quad 3.53 \quad .875 \quad 3.49 \quad .953$
I have little control over things that will
happen in my life ${ }^{\mathrm{n}} \quad 2.95^{\mathrm{a}} \quad 1.245 \quad 2.50^{\mathrm{b}} \quad 1.2032^{2.51^{\mathrm{b}}} \begin{aligned} & 1.164\end{aligned}$
$\begin{array}{llllllll}\text { On the whole I like myself. } & 4.01 & 1.009 & 3.96 & .990 & 3.91 & 1.022\end{array}$
$\begin{array}{llllllll}\text { At times, I think I am no good at all } \\ & & & 3.01^{\mathrm{a}} & 1.257 & 2.81^{\mathrm{b}} & 1.268 & 2.79^{\mathrm{b}}\end{array} \quad 1.200$
$\begin{array}{llllllll}\text { All in all, I am glad I am me } & 4.16 & .980 & 4.15 & .928 & 4.13 & .914\end{array}$
$\begin{array}{lllllll}\text { I feel I do not have much to be proud of }{ }^{n} & 2.25 & 1.227 & 2.16 & 1.183 & 2.11 & 1.075\end{array}$
Sometimes I feel like my life has
$\begin{array}{lllllll}\text { no purpose }^{\mathrm{n}} & 2.29 & 1.318 & 2.31 & 1.320 & 2.26 & 1.253\end{array}$
${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree)
${ }^{n}$ Negatively phrased statements
${ }^{\text {a differing letters in a row } p<.05}$

Age group comparison in self-confidence, character and empowerment is shown in Table 37. Age group 10-12 $(M=3.84, S D=.940)$ had significantly weaker agreement with the statement, I can do things on my own, than age group 13-14 ( $M=4.06, S D .840)$ and age group 15-18 $(M=4.16, S D=.795)$. Age group 10-12 $(M=3.67, S D=1.008)$ had significantly weaker agreement with the statement, I set goals, than age group 13-14
$(M=3.79, S D=.941)$ and age group $15-18(M=3.79, .977)$. Age group $10-12(M=$ $3.95, S D=.937$ ) had significantly weaker agreement with the statement, I like to try new things, than age group 13-14 $(M=4.07, S D=.831)$ and age group 15-18 $(M=4.17, S D$ $=.763)$. Age group $10-12(M=3.43, S D=1.067)$ has significantly stronger agreement with the statement, adults in my town or city make me feel important, than age group 13$14(M=3.20, S D=1.058)$ and age group $15-18(M=3.10, S D=.984)$. Age group 10-12 $(M=3.30, S D=1.100)$ had a significantly stronger agreement with the statement, adults in my town or city listen to what I have to say, than age groups 13-14 $(M=3.00, S D=$ 1.074 $)$ and age group 15-18 $(M=3.00, S D=1.043)$. Age group $10-12(M=2.28, S D=$ 1.123) had a significantly weaker agreement to the negatively phrase statement, adults in my town or city don't care about people my age, than the 13-14 age group ( $M=2.68, S D$ $=1.157)$ and age group 15-18 $(M=2.71, S D=1.47)$. Age group $10-12(M=3.43, S D=$ 1.057) had a significantly stronger agreement to the statement, in my town or city I feel like I matter to people, than age group 13-14 $(M=3.27, S D=1.006)$ and age group 15$18(M=3.16, S D=.982)$. Age group $10-12(M=3.99, S D 1.010)$ had a significantly stronger agreement to the statement, in my family I feel useful and important, than age group 13-14 $(M=3.78, S D=1.089)$ and age group 15-18 $(M=3.77, S D=1.043)$. Age group 10-12 $(M=3.14, S D=1.135)$ had a significantly stronger agreement with the statement, I'm given lots of chances to help make my town or city a better place to live, than age group 13-14 $(M=2.89, S D=1.054)$ and age group 15-18 $(M=2.81, S D=$ 1.017). Age group 10-12 $(M=3.17, S D=1.114)$ had a significantly weaker agreement with the statement, students help decide what goes on at my school, than age group 13-
$14(M=3.33, S D=1.079)$ and age group $15-18(M=3.46, S D=.991)$. Age group 10-12
( $M=2.77, S D 1.310$ ) had a significantly stronger agreement with the statement, I have good record keeping skills, than age group 13-14 $(M=2.40, S D=1.157)$ and age group $15-18(M=2.27, S D=1.092)$.

Table 37
Age Group Comparison in Self-Confidence, Character and Empowerment

|  | $\begin{gathered} 10-12 \\ \text { Years Old } \end{gathered}$ |  | $\begin{gathered} 13-14 \\ \text { Years Old } \end{gathered}$ |  | $\begin{gathered} 15-18 \\ \text { Years Old } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statements | $M^{\text {z }}$ | SD | M | SD | M | SD |
| I can do things on my own | $3.84{ }^{\text {a }}$ | . 940 | $4.06{ }^{\text {b }}$ | . 840 | $4.16{ }^{\text {b }}$ | . 795 |
| I set goals | $3.67{ }^{\text {a }}$ | 1.008 | $3.79{ }^{\text {b }}$ | . 941 | $3.79{ }^{\text {b }}$ | . 977 |
| Ten years from now, I think I will be very happy | 4.07 | . 954 | 4.10 | . 898 | 4.10 | . 858 |
| I am responsible for my actions | 4.18 | . 834 | 4.18 | . 818 | 4.26 | . 734 |
| I like to try new things | $3.95{ }^{\text {a }}$ | . 937 | $4.07{ }^{\text {b }}$ | . 831 | $4.17{ }^{\text {b }}$ | . 763 |
| I am a good organizer | 3.16 | 1.166 | 3.12 | 1.228 | 3.18 | 1.162 |
| I am a good money manager | 3.32 | 1.199 | 3.30 | 1.161 | 3.36 | 1.115 |
| Adults in my town or city make me feel important | $3.43{ }^{\text {a }}$ | 1.076 | $3.20{ }^{\text {b }}$ | 1.058 | $3.10{ }^{\text {b }}$ | . 984 |
| Adults in my town or city listen to what I have to say | $3.30{ }^{\text {a }}$ | 1.100 | $3.00^{\text {b }}$ | 1.074 | $3.00^{\text {b }}$ | 1.043 |
| Adults in my town or city don't care about people my age ${ }^{\mathrm{n}}$ | $2.28{ }^{\text {a }}$ | 1.123 | $2.68{ }^{\text {b }}$ | 1.157 | $2.71{ }^{\text {b }}$ | 1.047 |
| In my town or city, I feel like I matter to people | $3.43{ }^{\text {a }}$ | 1.057 | $3.27{ }^{\text {b }}$ | 1.006 | $3.16{ }^{\text {b }}$ | . 982 |
| In my family I feel useful and important | $3.99^{\text {a }}$ | 1.010 | $3.78{ }^{\text {b }}$ | 1.089 | $3.77^{\text {b }}$ | 1.043 |
| I'm given lots of chances to help make my town or city a better place to live | $3.14{ }^{\text {a }}$ | 1.135 | $2.89{ }^{\text {b }}$ | 1.054 | $2.81{ }^{\text {b }}$ | 1.017 |
| Students help decide what goes on at my school | $3.17{ }^{\text {a }}$ | 1.114 | $3.33{ }^{\text {b }}$ | 1.079 | $3.46{ }^{\text {b }}$ | . 991 |
| I have good written record keeping skills | $2.77^{\text {a }}$ | 1.310 | $2.40{ }^{\text {b }}$ | 1.157 | $2.27{ }^{\text {b }}$ | 1.092 |
| I am comfortable giving a speech or demonstration | 2.84 | 1.324 | 2.87 | 1.273 | 2.73 | 1.296 |

${ }^{\bar{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree)
${ }^{\text {a }}$ differing letters in a row $p<.05$
${ }^{n}$ Negatively phrased statement

## Comparison of Gender

Gender comparisons were made in; extracurricular activity involvement; school leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; and self-confidence, character and empowerment. Gender comparison in extracurricular activity involvement is presented in Table 38. Significantly more females $(47.6 \%, \mathrm{n}=340)$ participated in drama, art, and music than males ( $29.8 \%, \mathrm{n}=186$ ). Conversely, significantly more males $(57.7 \%, \mathrm{n}=$ $365)$ participated in sports teams, than females $(46.7 \%, n=335)$. Significantly more females $(22.2 \%, \mathrm{n}=156)$ participated in school clubs than males $(15.7 \%, \mathrm{n}=98)$.

Table 38
Gender Comparison in Extracurricular Activity Involvement

|  | Female Youth |  | Male Youth |  |
| :--- | :---: | ---: | ---: | ---: |
| Activities | $\%$ | n | $\%$ | n |
| Drama, Art, Music | $* 47.6$ | 340 | $* 29.8$ | 186 |
| Sports Teams | $* 46.7$ | 335 | $* 57.7$ | 365 |
| School Clubs | $* 22.2$ | 156 | $* 15.7$ | 98 |
| 4-H | 11.9 | 83 | 9.0 | 56 |
| Outside School Clubs | 21.3 | 150 | 21.7 | 135 |
| Spiritual | 27.0 | 190 | 22.5 | 139 |
| Nothing Special To Do | 83.0 | 606 | 79.3 | 501 |

*p $<.05$

Gender comparison in school leadership positions held is shown in Table 39.
Significantly more females $(15.8 \%, \mathrm{n}=114)$ held school leadership positions than males $(11.1 \%, n=73)$. Significantly more female students $(12.6 \%, n=94)$ occupied school committee positions than male students $(8.1 \%, \mathrm{n}=55)$.

Table 39
Gender Comparison in School Leadership Positions Held

|  | Female Youth |  | Male Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Position Type | $\%$ | n | $\%$ | n |
| Elected Leadership | 13.3 | 96 | 11.1 | 73 |
| Held Leadership Position | $* 15.8$ | 114 | $* 11.1$ | 73 |
| Committee Chair | 6.4 | 48 | 5.4 | 37 |
| Committee Member | $* 12.6$ | 94 | $* 8.1$ | 55 |

* $p<.05$

Gender comparison in close relationship with adults is shown in Table 40.
Females $(76.9 \%, \mathrm{n}=575)$ had significantly more good 10 minute conversations with an adult other than a parent/guardian than males $(70.1 \%, \mathrm{n}=480)$. Females $(78.6 \%, \mathrm{n}=$ 570) were significantly more prone to discuss drugs with parents/guardians than males $(72.1 \%, \mathrm{n}=487)$. Female students $(77.9 \%, \mathrm{n}=565)$ were significantly more likely to discuss the subject of alcohol with a parent/guardian than male students (70.8, $\mathrm{n}=479$ ). Females $((61.3 \%, n=442)$ were significantly more likely to discuss the subject of sex with a parent/guardian than males $(54.3 \%, \mathrm{n}=363)$. Females $(81.3 \%, \mathrm{n}=587)$ were also significantly more likely to discuss other issues with parents/guardians than males (73.3\%, $n=493)$.

Table 40
Gender Comparison in Close Relationship with Adults

|  | Female Youth |  | Male Youth |  |
| :---: | :---: | :---: | :---: | :---: |
| Relationship | \% | n | \% | n |
| If you had an important question about your life, is there an adult (other than a parent/guardian) whom you feel comfortable going to for help? | 67.6 | 503 | 63.1 | 429 |
| In the last month, did you have a good conversation with one of your parents/guardians that lasted 10 minutes or more? | 86.3 | 641 | 85.7 | 589 |
| In the last month, did you have a good conversation with an adult (other than a parent/guardian) that lasted 10 minutes or more? | *76.9 | 575 | *70.1 | 480 |
| Discussed drugs with parents/guardians | *78.6 | 570 | *72.1 | 487 |
| Discussed alcohol with parents/guardians | *77.9 | 565 | *70.8 | 479 |
| Discussed sex with parents/guardians | *61.3 | 442 | *54.3 | 363 |
| Discussed other issues with parents/guardians | *81.3 | 587 | *73.4 | 493 |

*p $<.05$

Table 41 shows gender comparison in caring for others. Females $(89.2 \%, \mathrm{n}=$ 699) helped others in school this past year significantly more than males $(82 \%, n=564)$.

Females ( $53.8 \%, \mathrm{n}=405$ ) were significantly more likely to donate time or money to charity or organizations that help people than males $(46.2 \%, n=315)$. Females $(43.1 \%$, $\mathrm{n}=322$ ) were significantly more likely to spend time helping people who are poor, hungry, sick or unable to care for themselves than males $(73.4 \%, \mathrm{n}=240)$.

Table 41
Gender Comparison in Caring for Others

|  | Female Youth |  | Male Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Type of Help | $\%$ | n | $\%$ |  |
| Helped Others in School | $* 89.2$ | 699 | $* 82.0$ | 564 |
| Help Project to Make Life Better | 50.0 | 374 | 46.6 | 319 |
| Time or Money to Charity | $* 53.8$ | 405 | $* 46.2$ | 315 |
| Helped Sick, Poor, Hungry | $* 43.1$ | 322 | $* 35.4$ | 240 |

*p<.05

Gender comparison in amount of negative behavior is reported in Table 42. Male students $(M=1.97, S D=1.010)$ have cheated on a test significantly more often within the past year than female students $(M=1.85, S D=.913)$. Males $(M=1.41, S D .815)$ practiced significantly more shoplifting in the past year than females $(M=1.26, S D=$ .679). Male students $(M=1.36, S D=.851)$ have used drugs like marijuana, methamphetamines or cocaine, or sniffed glue or other fumes to get high, significantly more often than females $(M=1.28, S D=.748)$. Male youth $(M=1.61, S D=.923)$ damage property just for the fun of it, significantly more often than female youth ( $M=$ $1.33, S D=.689)$. In the past year, males $(M=1.18, S D=.596)$ used smokeless tobacco significantly more often than females $(M=1.06, S D=.343)$. Males $(M=1.61, S D=$ 1.028) were found to be significantly more sexual active than females $(M=1.46, S D=$ .936). In the past year, male students $(M=1.50, S D=.886)$ skip or cut class without parent permission significantly more often than female students $(M=1.38, S D=.782)$.

Table 42
Gender Comparison in Amount of Negative Behavior

|  | Female Youth |  | Male Youth |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Negative Behavior | $M^{z}$ | $S D$ | $M$ |  | $S D$ |
| Cheat on a Test | $* 1.85$ | .913 | $* 1.97$ | 1.010 |  |
| Drank Alcohol | 1.60 | .983 | 1.62 | .968 |  |
| Shoplifted | $* 1.26$ | .679 | $* 1.41$ | .815 |  |
| Used Drugs | $* 1.28$ | .748 | $* 1.36$ | .851 |  |
| Rode with DUI | 1.47 | .851 | 1.50 | .894 |  |
| Damaged Property | $* 1.33$ | .689 | $* 1.61$ | .923 |  |
| Smoked Cigarettes | 1.30 | .746 | 1.31 | .772 |  |
| Used Smokeless Tobacco | $* 1.06$ | .343 | $* 1.18$ | .596 |  |
| Sexual Activity | $* 1.46$ | .936 | $* 1.61$ | 1.028 |  |
| Skip or Cut Class | $* 1.38$ | .782 | $* 1.50$ | .886 |  |

${ }^{\mathrm{z}}$ Means of frequency scale responses $(1=$ never, $2=$ once, $3=$ a few times, $4=$ frequently)
*p $<.05$

Table 43 shows gender comparison in personal identity. Females ( $M=3.44, S D$ $=.941)$ had significantly stronger agreement than males $(M=3.24, S D=.960)$ with the statement, I am good at planning ahead. Female students $(M=4.25, S D=.858)$ had significantly stronger agreement with the statement, I care about other people's feelings, than male students $(M=3.78, S D=.949)$. Females $(M=4.07, S D=.905)$ felt significantly stronger about the statement, I feel really sad when one of my friends is unhappy, than males $(M=3.38, S D=1.031)$. Females $(M=4.26, S D=.980)$ had significantly stronger agreement with the statement, I know how to say no when someone wants me to do things I know are wrong or dangerous, than males ( $M=4.06, S D=$ 1.108). Female youth ( $M=3.64, S D=1.072$ ) had significantly stronger agreement with the statement, I stay away from people who get me in trouble, than male youth ( $M=$ 3.41, $S D=1.136)$. Females $(M=2.89, S D=1.117)$ expressed significantly stronger
agreement than males $(M=2.70, S D=1.119)$ with the statement, $I$ volunteer in class to lead activities. Females $(M=3.20, S D=1.051)$ had significantly stronger agreement with the statement, I feel other kids look up to me and follow my example, than males (M $=3.06, S D=1.130)$.

Table 43
Gender Comparison in Personal Identity

|  | Female |  | Youth | Male Youth |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Identity Characteristic | $M^{z}$ | $S D$ | $M$ | $S D$ |  |
| Good at planning ahead | $* 3.44$ | .941 | $* 3.24$ | .960 |  |
| Care about other's feelings | $* 4.25$ | .858 | $* 3.78$ | .949 |  |
| Sad when friends are unhappy | $* 4.07$ | .905 | $* 3.38$ | 1.031 |  |
| Good at making and keeping friends | 4.06 | .885 | 4.00 | .926 |  |
| Say no when asked to do something wrong | $* 4.26$ | .980 | $* 4.06$ | 1.108 |  |
| Stay away from people that get me in trouble | $* 3.64$ | 1.072 | $* 3.41$ | 1.136 |  |
| Volunteer in class to lead activities | $* 2.89$ | 1.117 | $* 2.70$ | 1.119 |  |
| Meet and greet new people easily | 3.57 | 1.027 | 3.48 | .984 |  |
| Comfortable in new situations | 3.24 | .963 | 3.27 | .959 |  |
| Others kids look up to me | $* 3.20$ | 1.051 | $* 3.06$ | 1.130 |  |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree)

* $p<.05$

Gender comparison in positive identity is shown in Table 44. Males ( $M=2.76$, $S D=1.251$ ) expressed significantly more disagreement to the negatively phrased statement, at times I think I am no good at all, than females $(M=2.98, S D=1.224)$.

Table 44
Gender Comparison in Positive Identity

|  | Female Youth |  | Male Youth |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Statements | $M^{\mathrm{z}}$ | $S D$ | $M$ | $S D$ |  |
| When things don't go well for me, I am good |  |  |  |  |  |
| $\quad$ at finding a way to make things better | 3.53 | .952 | 3.50 | .913 |  |
| I have little control over things that will |  |  |  |  |  |
| $\quad$ happen in my life |  | 2.71 | 1.236 | 2.66 | 1.225 |
| On the whole I like myself $^{\text {At times, I think I am no good at all }}{ }^{\mathrm{n}}$ | 3.92 | 1.021 | 4.01 | .990 |  |
| All in all, I am glad I am me | $* 2.98$ | 1.224 | $* 2.76$ | 1.251 |  |
| I feel I do not have much to be proud of $^{\mathrm{n}}$ | 4.15 | .993 | 4.15 | .914 |  |
| Sometimes I feel like my life has no purpose $^{\mathrm{n}}$ | 2.15 | 1.150 | 2.22 | 1.190 |  |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree)
${ }^{n}$ Negatively phrased statements

* $p<.05$

Gender comparison in self-confidence, character and empowerment is shown in Table 45. Females $(M=3.80, S D=.958)$ had significantly stronger agreement to the statement, $I$ set goals, than males $(M=3.69, S D=1.016)$. Female students $(M=4.27$, $S D=.786)$ had significantly stronger agreement than male students $(M=4.11, S D=$ .848) with the statement, I am responsible for my actions. Female youth ( $M=3.31, S D=$ 1.195) had significantly stronger agreement with the statement, I am a good organizer, than male youth $(M=2.98, S D=1.141)$. Males $(M=3.41, S D=1.154)$ had significantly stronger agreement with the statement, I am a good money manager, than females ( $M=$ 3.26, $S D=1.166)$. Females $(M=3.03, S D=1.070)$ had significantly stronger agreement than males $(M=2.90, S D=1.117)$ with the statement, I'm given lots of chances to help make my town or city a better place to live. Females $(M=3.36, S D=1.070)$ had significantly stronger agreement than males $(M=3.21, S D=1.087)$ with the statement,
students help decide what goes on at my school. Females ( $M=2.90, S D=1.212$ ) had significantly stronger agreement than males $(M=2.06, S D=1.032)$ with the statement, $I$ have good record keeping skills.

Table 45
Gender Comparison in Self-Confidence, Character and Empowerment

| Statements | FemaleYouth |  | Male Youth |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $M^{\text {z }}$ | SD | M | $S D$ |
| I can do things on my own | 3.39 | . 888 | 4.04 | . 882 |
| I set goals | *3.80 | . 958 | *3.69 | 1.016 |
| Ten years from now, I think I will be very happy | 4.12 | . 921 | 4.03 | . 933 |
| I am responsible for my actions | *4.27 | . 786 | *4.11 | . 848 |
| I like to try new things | 4.08 | . 854 | 4.02 | . 869 |
| I am a good organizer | *3.31 | 1.195 | *2.98 | 1.141 |
| I am a good money manager | *3.26 | 1.166 | *3.41 | 1.154 |
| Adults in my town or city make me feel important | 3.27 | 1.092 | 3.25 | 1.016 |
| Adults in my town or city listen to what I have to say | 3.12 | 1.097 | 3.13 | 1.080 |
| Adults in my town or city don't care about people my age ${ }^{\text {n }}$ | 2.49 | 1.113 | 2.58 | 1.156 |
| In my town or city, I feel like I matter to people | 3.32 | 1.036 | 3.28 | 1.032 |
| In my family I feel useful and important | 3.85 | 1.076 | 3.87 | 1.023 |
| I'm given lots of chances to help make my town or city a better place to live | *3.03 | 1.068 | *2.90 | 1.117 |
| Students help decide what goes on at my school | *3.36 | 1.070 | *3.21 | 1.087 |
| I have good written record keeping skills | *2.90 | 1.212 | *2.06 | 1.032 |
| I am comfortable giving a speech or demonstration | 2.75 | 1.323 | 2.87 | 1.267 |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree)
*p $<.05$
${ }^{n}$ Negatively phrased statement

## Comparison of 4-H Participation

Youth who have been involved in a 4-H Club that meet formally outside of school were compared to those that have never been involved in 4-H. 4-H participation was determined by survey question 56 , have you ever belonged to a $4-\mathrm{H}$ club that meets formally outside of school? 4-H participation comparisons were made in; extracurricular activity involvement; school leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; and self-confidence, character and empowerment.

4-H participation comparison in extracurricular activity involvement is shown in Table 46. 4-H youth $(48.1 \%, \mathrm{n}=75)$ were found to be significantly more involved in drama, art and music activities than non 4-H youth ( $37.4 \%, \mathrm{n}=430$ ). 4-H youth ( $67.7 \%$, $\mathrm{n}=107)$ were significantly more active in school and community sports teams than non 4-H youth ( $49.7 \%, \mathrm{n}=576$ ). 4-H youth $(29.4 \%, \mathrm{n}=45)$ were significantly more involved in school clubs than non 4-H youth (17.7\%, $\mathrm{n}=202$ ). 4-H youth ( $43.6 \%, \mathrm{n}=$ 68) were significantly more involved in $4-\mathrm{H}$ than non $4-\mathrm{H}$ youth $(5.8 \%, \mathrm{n}=65)$. The discrepancy in this finding may have been caused by confusion between in-school and outside-of-school 4-H programming. 4-H youth $(35.2 \%, \mathrm{n}=55)$ were involved in significantly more outside school clubs than non 4-H youth $(18.9 \%, \mathrm{n}=215) .4$ - H youth $(31.8 \%, \mathrm{n}=49)$ were active in significantly more spiritual activities than non 4-H youth $(24.2 \%, n=274)$.

Table 46
4-H Participation Comparison in Extracurricular Activity Involvement

|  | Non $4-\mathrm{H}$ Youth |  | $4-\mathrm{H}$ Youth |  |
| :--- | :---: | ---: | :---: | ---: |
| Activities | $\%$ | n | $\%$ | n |
| Drama, Art, Music | $* 37.4$ | 430 | $* 48.1$ | 75 |
| Sports Teams | $* 49.7$ | 576 | $* 67.7$ | 107 |
| School Clubs | $* 17.7$ | 202 | $* 29.4$ | 45 |
| 4-H | $* 5.8$ | 65 | $* 43.6$ | 68 |
| Outside School Clubs | $* 18.9$ | 215 | $* 35.2$ | 55 |
| Spiritual | $* 24.2$ | 274 | $* 31.8$ | 49 |
| Nothing Special To Do | 81.4 | 953 | 82.8 | 130 |
| $p<.05$ |  |  |  |  |

4-H participation comparison in school leadership positions held is displayed in Table 47. 4-H youth $(20.1 \%, \mathrm{n}=32)$ were elected to significantly more school leadership positions than non $4-\mathrm{H}$ youth $(11.4 \%, \mathrm{n}=136)$. $4-\mathrm{H}$ youth $(20.1 \%, \mathrm{n}=32)$ held significantly more school leadership positions than non 4-H youth $(12.9 \%, \mathrm{n}=$ 153). 4-H youth $(9.8 \%, \mathrm{n}=16)$ served as chair of significantly more school committees, than non 4-H youth $(5.1 \%, \mathrm{n}=63)$. 4-H youth $(15.9 \%, \mathrm{n}=26)$ served as a member on significantly more school committees than non 4-H youth $(9.3 \%, \mathrm{n}=115)$.

Table 47
4-H Participation Comparison in School Leadership Positions Held

|  | Non 4-H Youth |  | 4-H Youth |  |
| :--- | :---: | ---: | :---: | :---: |
| Position Type | $\%$ | n | $\%$ | n |
| Elected Leadership | $* 11.4$ | 136 | $* 20.1$ | 32 |
| Held Leadership Position | $* 12.9$ | 153 | $* 20.1$ | 32 |
| Committee Chair | $* 5.1$ | 63 | $* 9.8$ | 16 |
| Committee Member | $* 9.3$ | 115 | $* 15.9$ | 26 |

* $p<.05$

Table 48 shows 4-H participation comparison in close relationships with adults. 4-H youth $(72.7 \%, \mathrm{n}=120)$ were significantly more comfortable than non 4-H youth $(64.2 \%, \mathrm{n}=786)$ to seeking help from an adult, other than a parent/guardian, regarding an important question about life. 4-H youth $(82.4 \%, \mathrm{n}=136)$ had significantly more good 10 minute conversations with an adult other than a parent/guardian than non 4-H youth (72.4\%, n=893).

## Table 48

4-H Participation Comparison in Close Relationships with Adults

|  | Non 4-H Youth | $4-\mathrm{H}$ Youth |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Relationships | $\%$ | n | $\%$ | n |

If you had an important question about your life, is there an adult (other than a parent/guardian)
whom you feel comfortable going to for help? $\quad * 64.2 \quad 786 \quad * 72.7 \quad 120$
In the last month, did you have a good conversation
with one of your parents/guardians that lasted 10
minutes or more?
$\begin{array}{llll}85.9 & 1059 & 87.7 & 143\end{array}$
In the last month, did you have a good conversation
with an adult (other than a parent/guardian) that lasted 10 minutes or more?
*72.4 893 *82.4 136
$\begin{array}{llllll}\text { Discussed drugs with parents/guardians } & 75.6 & 910 & 74.5 & 120\end{array}$
$\begin{array}{llllll}\text { Discussed alcohol with parents/guardians } & 74.1 & 893 & 75.2 & 121\end{array}$
$\begin{array}{llllll}\text { Discussed sex with parents/guardians } & 57.0 & 681 & 63.1 & 101\end{array}$
$\begin{array}{llllll}\text { Discussed other issues with parents/guardians } & 77.2 & 926 & 78.1 & 125\end{array}$

* $p<.05$

4-H participation comparison in caring for others is shown in Table 49. 4-H
youth $(92.1 \%, \mathrm{n}=152)$ helped significantly more people in school than non 4-H youth $(85.0 \%, \mathrm{n}=1052) .4-\mathrm{H}$ youth $(62.8 \%, \mathrm{n}=103)$ were involved in significantly more projects to make life better for others, than non $4-\mathrm{H}$ youth $(45.9 \%, \mathrm{n}=566) .4-\mathrm{H}$ youth $(58.2 \%, \mathrm{n}=96)$ were significantly more engaged in giving money and time to charity or
organizations that help people than non 4-H youth $(48.4 \%, \mathrm{n}=595)$. $4-\mathrm{H}$ youth $(52.4 \%$, $\mathrm{n}=86$ ) spent significantly more time helping people who are poor, sick, hungry, or unable to help themselves than non 4-H youth $(36.8 \%, \mathrm{n}=450)$.

Table 49
4-H Participation Comparison in Caring for Others

|  | Non 4-H Youth |  | 4-H Youth |  |
| :--- | :---: | :---: | :---: | :---: |
| Type of Help | $\%$ | n | $\%$ | n |
| Helped Others in School | $* 85.0$ | 1052 | $* 92.1$ | 152 |
| Help Project to Make Life Better | $* 45.9$ | 566 | $* 62.8$ | 103 |
| Time or Money to Charity | $* 48.4$ | 595 | $* 58.2$ | 96 |
| Helped Sick, Poor, Hungry | $* 36.8$ | 450 | $* 52.4$ | 86 |

*p < . 05

Table 50 shows 4-H participation comparison in amount of negative behavior.
No significant differences were found between 4-H and non 4-H youth in the frequency within which they engage in negative behaviors.

Table 50
4-H Participation Comparison in Amount of Negative Behavior

|  | Non 4-H Youth |  | 4-H Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Negative Behavior | $M^{\mathrm{z}}$ | $S D$ | $M$ | $S D$ |
| Cheat on a Test | 1.91 | .968 | 1.91 | .949 |
| Drank Alcohol | 1.62 | .976 | 1.58 | .998 |
| Shoplifted | 1.33 | .747 | 1.35 | .801 |
| Used Drugs | 1.32 | .800 | 1.35 | .845 |
| Rode with DUI | 1.49 | .979 | 1.53 | .932 |
| Damaged Property | 1.46 | .824 | 1.43 | .796 |
| Smoked Cigarettes | 1.31 | .759 | 1.31 | .793 |
| Used Smokeless Tobacco | 1.11 | .470 | 1.17 | .572 |
| Sexual Activity | 1.54 | .988 | 1.51 | .989 |
| Skip or Cut Class | 1.45 | .840 | 1.42 | .875 |

${ }^{\mathrm{z}}$ Means of frequency scale responses $(1=$ never, $2=$ once, $3=$ a few times, $4=$ frequently)

4-H participation comparison in personal identity is shown in Table 51. 4-H youth $(M=3.00, S D=1.208)$ expressed significantly stronger agreement to the statement, I volunteer in class to lead activities, than non 4-H youth $(M=2.76, S D=$ 1.099).

Table 51
4-H Participation Comparison in Personal Identity

|  | Non 4-H Youth | $4-\mathrm{H}$ Youth |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Identity Characteristic | $M^{z}$ | $S D$ | $M$ | $S D$ |
| Good at planning ahead | 3.34 | .946 | 3.35 | .998 |
| Care about other's feelings | 4.04 | .911 | 3.99 | 1.015 |
| Sad when friends are unhappy | 3.74 | 1.005 | 3.77 | 1.133 |
| Good at making and keeping friends | 4.04 | .901 | 3.95 | .892 |
| Say no when asked to do something wrong | 4.14 | 1.060 | 4.26 | .950 |
| Stay away from people that get me in trouble | 3.53 | 1.099 | 3.53 | 1.140 |
| Volunteer in class to lead activities | $* 2.76$ | 1.099 | $* 3.00$ | 1.208 |
| Meet and greet new people easily | 3.53 | .994 | 3.47 | 1.096 |
| Comfortable in new situations | 3.25 | .954 | 3.34 | .976 |
| Others kids look up to me | 3.12 | 1.080 | 3.23 | 1.105 |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree)

* $p<.05$

4-H participation comparison in positive identity is shown in Table 52. No
significant differences were found between 4-H and non 4-H youth within the items used to measure positive identity.

Table 52
4-H Participation Comparison in Positive Identity

|  | Non 4-H Youth |  |  | 4-H Youth |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Statements | $M^{z}$ | $S D$ | $M$ | $S D$ |  |
| When things don't go well for me, I am good |  |  |  |  |  |
| $\quad$ at finding a way to make things better | 3.52 | .925 | 3.45 | 1.005 |  |
| I have little control over things that will |  |  |  |  |  |
| $\quad$ happen in my life |  | 2.68 | 1.226 | 2.59 | 1.200 |
| On the whole I like myself. $^{\text {At times, I think I am no good at all }}{ }^{\mathrm{n}}$ | 3.96 | 1.018 | 4.01 | .975 |  |
| All in all, I am glad I am me | 2.89 | 1.232 | 2.82 | 1.283 |  |
| I feel I do not have much to be proud of $^{\mathrm{n}}$ | 4.15 | .942 | 4.15 | .988 |  |
| Sometimes I feel like my life has no purpose $^{\mathrm{n}}$ | 2.17 | 1.153 | 2.20 | 1.198 |  |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree)
${ }^{n}$ Negatively phrased statements

4-H participation comparison in self-confidence, character and empowerment is shown in Table 53. $4-\mathrm{H}$ youth $(M=3.46, S D=1.110)$ had significantly stronger agreement than non 4-H youth $(M=3.22, S D=1.047)$ with the statement, adults in my town make me feel important. 4-H youth ( $M=3.49, S D 1,033$ ) expressed significantly stronger agreement to the statement, in my town or city I feel like I matter to people, than non 4-H youth $(M=3.26, S D=1.024)$. 4-H youth $(M=3.44, S D=1.084)$ had stronger agreement to the statement, I'm given lots of chances to help make my town or city a better place to live, than non 4-H youth ( $M=2.89, S D=1.077$ ). 4-H youth ( $M=2.82$, $S D=1.243)$ had significantly stronger agreement than non 4-H youth $(M=2.44, S D=$ 1.210) to the statement, I have good written record keeping skills.

Table 53
4-H Participation Comparison in Self-Confidence, Character and Empowerment

|  | Non 4-H Yout |  | 4-H Youth |  |
| :---: | :---: | :---: | :---: | :---: |
| Statements | $M^{\text {z }}$ | SD | M | SD |
| I can do things on my own | 4.00 | . 872 | 4.03 | . 913 |
| I set goals | 3.73 | . 987 | 3.84 | . 989 |
| Ten years from now, I think I will be very happy | 4.08 | . 912 | 4.07 | 1.061 |
| I am responsible for my actions | 4.18 | . 815 | 4.24 | . 859 |
| I like to try new things | 4.04 | . 868 | 4.08 | . 829 |
| I am a good organizer | 3.14 | 1.178 | 3.21 | 1.212 |
| I am a good money manager | 3.30 | 1.154 | 3.46 | 1.179 |
| Adults in my town or city make me feel important | *3.22 | 1.047 | *3.46 | 1.110 |
| Adults in my town or city listen to what I have to say | 3.09 | 1.076 | 3.22 | 1.135 |
| Adults in my town or city don't care about people my age ${ }^{\text {n }}$ | 2.53 | 1.118 | 2.48 | 1.210 |
| In my town or city, I feel like I matter to people | *3.26 | 1.024 | *3.49 | 1.033 |
| In my family I feel useful and important | 3.84 | 1.058 | 3.94 | 1.016 |
| I'm given lots of chances to help make my town or city a better place to live | *2.89 | 1.077 | *3.44 | 1.084 |
| Students help decide what goes on at my school | 3.28 | 1.077 | 3.29 | 1.144 |
| I have good written record keeping skills | *2.44 | 1.210 | *2.82 | 1.243 |
| I am comfortable giving a speech or demonstration | 2.80 | 1.296 | 2.86 | 1.262 |
| ${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disa $3=$ neutral, $4=$ agree, $5=$ strongly agree) *p $<.05$ | $\text { ree, } 2$ | disa |  |  |
| ${ }^{\mathrm{n}}$ Negatively phrased statement |  |  |  |  |

## Comparison of Population Density

School district location was used to determine urban/rural designation.
Questionnaires returned from Washoe county schools were coded urban. All other returned questionnaires were coded rural. Population density is synonymous to comparison between urban and rural. Urban and rural comparisons were made in; extracurricular activity involvement; school leadership positions held; close relationships
with adults; caring for others; amount of negative behavior; personal identity; positive identity; and self-confidence, character and empowerment.

Table 54 shows urban and rural comparison in extracurricular activity involvement. Rural youth ( $43.2 \%, \mathrm{n}=224$ ) were significantly more involved in drama, art and music activities than urban youth $(37.3 \%, \mathrm{n}=320)$. Rural youth $(58.3 \%, \mathrm{n}=305)$ were significantly more involved in school and community sports teams than urban youth $(48.1 \%, \mathrm{n}=415)$. Rural youth $(23.2 \%, \mathrm{n}=118)$ were significantly more active in school clubs than urban youth $(17.1 \%, n=145)$. Rural youth $(13.2 \%, n=67)$ were significantly more involved in 4-H than urban youth $(9.3 \%, \mathrm{n}=78)$. Rural youth $(29.2 \%$, $\mathrm{n}=149)$ were significantly more involved in spiritual activities than urban youth $(22.5 \%, \mathrm{n}=189)$.

Table 54
Urban and Rural Comparison in Extracurricular Activity Involvement

|  | Urban Youth |  | Rural Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Activities | $\%$ | n | $\%$ | n |
| Drama, Art, Music | $* 37.3$ | 320 | $* 43.2$ | 224 |
| Sports Teams | $* 48.1$ | 415 | $* 58.3$ | 305 |
| School Clubs | $* 17.1$ | 145 | $* 23.2$ | 118 |
| 4-H | $* 9.3$ | 78 | $* 13.2$ | 67 |
| Outside School Clubs | 20.4 | 173 | 23.4 | 120 |
| Spiritual | $* 22.5$ | 189 | $* 29.2$ | 149 |
| Nothing Special To Do | 81.3 | 711 | 81.1 | 424 |

* $p<.05$

Urban and rural comparison in school leadership positions held is represented in Table 55. Rural youth $(12.7 \%, \mathrm{n}=69)$ were significantly more involved as members of school committees than urban youth $(9.2 \%, \mathrm{n}=85)$.

## Table 55

Urban and Rural Comparison in School Leadership Positions Held

|  | Urban Youth |  | Rural Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Position Type | $\%$ |  | n | 14.4 |
| Elected Leadership | 11.3 | 99 | 15.2 | 77 |
| Held Leadership Position | 12.9 | 133 | 7.0 | 38 |
| Committee Chair | 5.5 | 51 | $* 12.7$ | 69 |
| Committee Member | $* 9.2$ | 85 |  |  |

* $p<.05$

Table 56 shows urban and rural comparison in close relationships with adults.
Rural youth ( $61.0 \%, \mathrm{n}=317$ ) were significantly more willing to discuss the subject of sex with a parent/guardian than urban youth $(55.6 \%, \mathrm{n}=500)$.

Table 56
Urban and Rural Comparison in Close Relationships with Adults

|  | Urban Youth |  | Rural Youth |  |
| :---: | :---: | :---: | :---: | :---: |
| Relationship | \% | n | \% | n |
| If you had an important question about your life, is there an adult (other than a parent/guardian) whom you feel comfortable going to for help? | 65.8 | 605 | 64.9 | 349 |
| In the last month, did you have a good conversation with one of your parents/guardians that lasted 10 minutes or more? | 86.0 | 792 | 85.6 | 464 |
| In the last month, did you have a good conversation with an adult (other than a parent/guardian) that lasted 10 minutes or more? | 72.0 | 663 | 75.3 | 409 |
| Discussed drugs with parents/guardians | 74.6 | 678 | 75.7 | 396 |
| Discussed alcohol with parents/guardians | 74.3 | 674 | 73.6 | 387 |
| Discussed sex with parents/guardians | *55.6 | 500 | *61.0 | 317 |
| Discussed other issues with parents/guardians | 76.8 | 903 | 77.0 | 402 |

*p $<.05$

Urban and rural comparison in caring for others is shown in Table 57. Urban youth $(41.9 \%, \mathrm{n}=380)$ spend significantly more time helping people who are poor, hungry, sick or unable to care for themselves than rural youth $(34.9 \%, \mathrm{n}=186)$.

Table 57
Urban and Rural Comparison in Caring for Others

|  | Urban Youth |  | Rural Youth |  |
| :--- | ---: | :---: | :---: | :---: |
| Type of Help | $\%$ | n | $\%$ | n |
| Helped Others in School | 84.7 | 787 | 87.5 | 477 |
| Help Project to Make Life Better | 46.5 | 424 | 50.6 | 272 |
| Time or Money to Charity | 52.2 | 477 | 45.9 | 246 |
| Helped Sick, Poor, Hungry | $* 41.9$ | 380 | $* 34.9$ | 186 |

*p < . 05

Table 58 shows urban and rural comparison in amount of negative behavior. Urban youth $(M=1.39, S D=.804)$ practiced a significantly higher frequency of shoplifting than rural youth $(M=1.26, S D=.680)$. Rural youth $(M=1.56, S D=.920)$ rode in a car with a driver who had been drinking or using drugs significantly more often than urban youth $(M=1.46, S D=.864)$. Urban youth $(M=1.51, S D=.848)$ damaged property significantly more often than rural youth $(M=1.40, S D=.790)$. Rural youth ( $M$ $=1.38, S D=.860)$ smoked cigarettes significantly more frequently than urban youth $(M$ $=1.27, S D=.700)$. Rural youth $(M=1.16, S D=.567)$ claimed to have used smokeless tobacco significantly more often than urban youth $(M=1.10, S D=.457)$. Urban youth $(M=1.53, S D=.900)$ skip or cut class without parent permission at a significantly higher frequency than rural youth $(M=1.31, S D=.720)$.

Table 58
Urban and Rural Comparison in Amount of Negative Behavior

|  | Urban Youth |  | Rural Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Negative Behavior | $M^{z}$ | $S D$ | $M$ |  |
| $S D$ |  |  |  |  |
| Cheat on a Test | 1.95 | .972 | 1.85 | .950 |
| Drank Alcohol | 1.60 | .961 | 1.63 | 1.011 |
| Shoplifted | $* 1.39$ | .804 | $* 1.26$ | .680 |
| Used Drugs | 1.35 | .836 | 1.29 | .772 |
| Rode with DUI | $* 1.46$ | .864 | $* 1.56$ | .920 |
| Damaged Property | $* 1.51$ | .848 | $* 1.40$ | .790 |
| Smoked Cigarettes | $* 1.27$ | .700 | $* 1.38$ | .860 |
| Used Smokeless Tobacco | $* 1.10$ | .457 | $* 1.16$ | .567 |
| Sexual Activity | 1.56 | 1.009 | 1.50 | .954 |
| Skip or Cut Class | $* 1.53$ | .900 | $* 1.31$ | .720 |

${ }^{\mathrm{z}}$ Means of frequency scale responses $(1=$ never, $2=$ once, $3=$ a few times, $4=$ frequently)
*p $<.05$

Urban and rural comparison in personal identity is shown in Table 59. Urban youth $(M=4.06, S D=.956)$ had significantly stronger agreement than rural youth $(M=$ $3.96, S D=.900)$ with the statement, I care about other people's feelings. Urban youth $(M=2.86, S D=1.099)$ had significantly stronger agreement with the statement, $I$ volunteer in class to lead activities, than rural youth $(M=2.72, S D=1.158)$. Urban students $(M=3.60, S D=.980)$ had significantly stronger agreement than rural students $(M=3.40, S D=1.045)$ with the statement, I meet and greet new people easily. Urban youth $(M=3.31, S D=.923)$ had significantly stronger agreement with the statement, $I$ am comfortable in new situations, than rural students $(M=3.18, S D=1.021)$.

Table 59
Urban and Rural Comparison in Personal Identity

|  | Urban Youth |  | Rural Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Identity Characteristic | $M^{2}$ | $S D$ | $M$ | $S D$ |
| Good at planning ahead | 3.35 | .972 | 3.32 | .935 |
| Care about other's feelings | $* 4.06$ | .956 | $* 3.96$ | .900 |
| Sad when friends are unhappy | 3.78 | 1.009 | 3.67 | 1.057 |
| Good at making and keeping friends | 4.03 | .909 | 4.02 | .902 |
| Say no when asked to do something wrong | 4.17 | 1.029 | 4.13 | 1.094 |
| Stay away from people that get me in trouble | 3.53 | 1.079 | 3.53 | 1.157 |
| Volunteer in class to lead activities | $* 2.86$ | 1.099 | $* 2.72$ | 1.158 |
| Meet and greet new people easily | $* 3.60$ | .980 | $* 3.40$ | 1.045 |
| Comfortable in new situations | $* 3.31$ | .923 | $* 3.18$ | 1.021 |
| Others kids look up to me | 3.16 | 1.048 | 3.07 | 1.161 |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, 5 = strongly agree)

* $p<.05$

Table 60 shows urban and rural comparison in positive identity. Urban youth ( $M$ $=3.57, S D=.911)$ expressed significantly stronger agreement than rural youth $(M=$ 3.42, $S D=.973$ ) with the statement, when things don't go well for me I am good at finding a way to make things better. Urban students $(M=4.01, S D=.974)$ had significantly stronger agreement with the statement, on the whole I like myself, than rural students $(M=3.85, S D=1.074)$. Urban youth $(M=4.19, S D=.933)$ had significantly more agreement than rural youth $(M=4.05, S D=1.000)$ with the statement, all in all $I$ am glad I am me. Urban youth $(M=2.15, S D=1.147)$ expressed significantly stronger disagreement than rural youth $(M=2.27, S D=1.209)$ with the negatively phrased statement, I feel I do not have much to be proud of. Urban youth $(M=2.23, S D=1.297)$ had significantly stronger disagreement than rural youth $(M=2.41, S D=1.303)$ with the negatively phrased statement, sometimes I feel like my life has no purpose.

Table 60
Urban and Rural Comparison in Positive Identity

| Statements | Urban Youth |  | Rural Youth |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $M^{\text {z }}$ | $S D$ | M | SD |
| When things don't go well for me, I am good at finding a way to make things better | *3.57 | . 911 | *3.42 | . 973 |
| I have little control over things that will happen in my life ${ }^{\text {n }}$ | 2.70 | 1.212 | 2.68 | 1.259 |
| On the whole I like myself | *4.01 | . 974 | *3.85 | 1.074 |
| At times, I think I am no good at all ${ }^{\text {n }}$ | 2.87 | 1.231 | 2.93 | 1.266 |
| All in all, I am glad I am me | *4.19 | . 933 | *4.05 | 1.000 |
| I feel I do not have much to be proud of ${ }^{\text {n }}$ | *2.15 | 1.147 | *2.27 | 1.209 |
| Sometimes I feel like my life has no purpose ${ }^{\text {n }}$ | *2.23 | 1.297 | *2.41 | 1.303 |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree)

* $p<.05$
${ }^{n}$ Negatively phrased statements

Urban and rural comparison in self-confidence, character and empowerment is shown in Table 61. Urban youth $(M=3.23, S D=1.165)$ had significantly stronger agreement than rural youth $(M=3.03, S D=1.191)$ with the statement, $I$ am a good organizer. Urban youth ( $M=3.90, S D=1.037$ ) had a significantly stronger agreement than rural youth $(M=3.78, S D=1.084)$ with the statement, in my family I feel useful and important. Urban youth ( $M=2.90, S D=1.274$ ) had a significantly stronger agreement than rural youth $(M=2.65, S D=1.310)$ with the statement, I am comfortable giving a speech or demonstration in front of people.

Table 61
Urban and Rural Comparison in Self-Confidence, Character and Empowerment

| Statements | Urban Youth |  | Rural Youth |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $M^{2}$ | SD | M | SD |
| I can do things on my own | 3.99 | . 898 | 4.00 | . 879 |
| I set goals | 3.74 | . 995 | 3.75 | . 967 |
| Ten years from now, I think I will be very happy | 4.09 | . 902 | 4.05 | . 965 |
| I am responsible for my actions | 4.17 | . 826 | 4.20 | . 826 |
| I like to try new things | 4.06 | . 856 | 4.04 | . 871 |
| I am a good organizer | *3.23 | 1.165 | *3.03 | 1.191 |
| I am a good money manager | 3.31 | 1.150 | 3.35 | 1.181 |
| Adults in my town or city make me feel important | 3.25 | 1.017 | 3.26 | 1.120 |
| Adults in my town or city listen to what I have to say | 3.15 | 1.078 | 3.05 | 1.109 |
| Adults in my town or city don't care about people my age ${ }^{\text {n }}$ | 2.53 | 1.127 | 2.54 | 1.143 |
| In my town or city, I feel like I matter to people | 3.31 | 1.015 | 3.27 | 1.067 |
| In my family I feel useful and important | *3.90 | 1.037 | *3.78 | 1.084 |
| I'm given lots of chances to help make my town or city a better place to live | 3.01 | 1.062 | 2.90 | 1.143 |
| Students help decide what goes on at my school | 3.27 | 1.077 | 3.32 | 1.094 |
| I have good written record keeping skills | 2.53 | 1.232 | 2.45 | 1.208 |
| I am comfortable giving a speech or demonstration | *2.90 | 1.274 | *2.65 | 1.310 |

${ }^{\mathrm{z}}$ Means of Likert scale responses ( $1=$ strongly disagree, $2=$ disagree, $3=$ neutral, $4=$ agree, $5=$ strongly agree)
*p $<.05$
${ }^{\mathrm{n}}$ Negatively phrased statement

## Summated Construct Index and Scale Scores

Summated construct scores were calculated for the independent variables, age, gender, 4-H participation, and population density. Constructs represent the grouping of items respective to dependent variables; extracurricular activity involvement; school leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; and self-confidence, character and
empowerment. Data were transformed and recoded into new variables that represent composite dependent construct variables.

Constructs, extracurricular activity involvement, school leadership positions held, close relationships with adults, and caring for others, were dichotomous response scale questions. Dichotomous scale data were inputted using $1=$ no, and $2=$ yes. These summated constructs were referred to as index scores and analyzed by comparing sums.

Constructs, amount of negative behavior, personal identity, positive identity, and self-confidence, character and empowerment, were multiple level response scale questions. Multiple scale data were inputted using $1=$ never, $2=$ once, $3=$ a few times, 4 $=$ frequently for amount of negative behavior, and $1=$ strongly disagree, $2=$ disagree, 3 $=$ neutral, $4=$ agree, $5=$ strongly agree for dependent variables personal identity, positive identity, and self-confidence, character and empowerment. Negatively phrased question responses were recoded as $5=$ strongly disagree, $4=$ disagree, $3=$ neutral, $2=$ agree, and $1=$ strongly agree. These summated constructs were referred to as scale scores and analyzed by comparing means.

Survey questions used to create the constructs were:

- Extracurricular activity involvement, Question 1
- School leadership positions held, Questions 19-22
- Close relationships with adults, Questions 24-27
- Caring for Others, Questions 23, and 45-47
- Amount of negative behavior, Question 44
- Personal identity, Questions 2-11
- Positive identity, Questions 12-18
- Self-confidence, character and empowerment, Questions 28-43

Construct reliability is reported in Table 62. Reliability ranged from a low of . 448 Cronbach's alpha for extracurricular activity involvement construct, to a high of .888 Cronbach's alpha for school leadership positions held construct.

Table 62
Construct Reliability

| Construct | Number of <br> Items | Cronbach's <br> Alpha Coefficient |
| :--- | :---: | :---: |
| Extracurricular Activity Involvement | 7 | .448 |
| School Leadership Positions Held | 4 | .888 |
| Close Relationships with Adults | 7 | .692 |
| Caring for Others | 4 | .635 |
| Amount of Negative Behavior | 10 | .882 |
| Personal Identity | 10 | .748 |
| Positive Identity | 7 | .776 |
| Self-Confidence, Character and Empowerment | 16 | .812 |

Summated construct index scores for age groups is shown in Table 63. Age group 10-12 $(\operatorname{Sum}=4665, \mathrm{n}=484)$ and age group 13-14 $(\mathrm{Sum}=3285, \mathrm{n}=346)$ were significantly more involved in extracurricular activities than age group 15-18 (Sum $3678, \mathrm{n}=399)$. Age group 10-12 $(\mathrm{Sum}=2377, \mathrm{n}=519)$ held significantly more school leadership positions than age group 13-14 (Sum = 1634, $\mathrm{n}=377$ ), and age group 15-18 (Sum $=1798, n=421)$. Age group 10-12 $(\operatorname{Sum}=6141, n=497)$ had significantly closer relationships with adults than age group 13-14 $(\mathrm{Sum}=4467, \mathrm{n}=372)$, and age group 15$18(\mathrm{Sum}=5063, \mathrm{n}=422)$. Age group 10-12 $(\mathrm{Sum}=3489, \mathrm{n}=537)$ were significantly
more involved in caring for others than age group 13-14 (Sum = 2403, $\mathrm{n}=395$ ), and age group 15-18 $(\operatorname{Sum}=2639, n=438)$.

Table 63
Summated Construct Index Scores for Age Groups

|  | $10-12$ years |  | $13-14$ years |  | $15-18$ years |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Sum | n | Sum | n | Sum | n |
| Construct | $4665^{\mathrm{a}}$ | 484 | $3285^{\mathrm{a}}$ | 346 | $3678^{\mathrm{b}}$ | 399 |
| School Leadership Positions Held | $2377^{\mathrm{a}}$ | 519 | $1634^{\mathrm{b}}$ | 377 | $1798^{\mathrm{b}}$ | 421 |
| Close Relationships with Adults | $6141^{\mathrm{a}}$ | 497 | $4467^{\mathrm{b}}$ | 372 | $5063^{\mathrm{b}}$ | 422 |
| Caring for Others | $3489^{\mathrm{a}}$ | 537 | $2403^{\mathrm{b}}$ | 395 | $2639^{\mathrm{b}}$ | 438 |

${ }^{\text {a }}$ differing letters in a row $p<.05$

Table 64 shows summated construct scale scores for age groups. Age group 15$18(M=17.47, S D=6.523)$ were significantly more engaged in negative behavior than age group 13-14 $(M=14.47, S D=5.535)$, and age group $10-12(M=11.93, S D=$ 3.603), and age group 13-14 practiced significantly more negative behavior than age group $10-12$. Age group $10-12(M=36.53, S D=5.495)$ were significantly higher in personal identity than age group 13-14 $(M=35.39, S D=5.580)$, and age group 15-18 $(M=34.94, S D=5.556)$. Age groups $13-14(M=11.38, S D=2.028)$, and $15-18(M=$ 11.46, $S D=2.052$ ) were significantly higher in positive identity than age group 10-12 $(M=11.09, S D=1.853)$.

Table 64
Summated Construct Scale Scores for Age Groups

|  | $10-12$ years |  | $13-14$ |  | years | $15-18$ |  | years |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Construct | $M$ | $S D$ | $M$ | $S D$ | $M$ | $S D$ |  |  |
| Amount of Negative Behavior | $11.93^{\mathrm{a}}$ | 3.603 | $14.47^{\mathrm{b}}$ | 5.535 | $17.47^{\mathrm{c}}$ | 6.523 |  |  |
| Personal Identity | $36.53^{\mathrm{a}}$ | 5.495 | $35.29^{\mathrm{b}}$ | 5.580 | $34.94^{\mathrm{b}}$ | 5.556 |  |  |
| Positive Identity | $11.09^{\mathrm{a}}$ | 1.853 | $11.38^{\mathrm{b}}$ | 2.028 | $11.46^{\mathrm{b}}$ | 2.052 |  |  |
| Self-Confidence, Character and <br> $\quad$ Empowerment | 24.50 | 3.560 | 24.40 | 3.404 | 24.26 | 3.285 |  |  |

${ }^{\text {a }}$ differing letters in a row $p<.05$
Summated construct index scores for gender are shown in Table 65. Female youth (Sum $=6371, \mathrm{n}=667$ ) were significantly more involved in extracurricular activities than male youth $(\operatorname{Sum}=5607, n=600)$. Female students $(\operatorname{Sum}=3173, n=$ 710) held significantly more school leadership positions than male students ( $\mathrm{Sum}=$ $2800, n=646)$. Female youth $(\operatorname{Sum}=8494, n=690)$ had significantly more close relationships with adults than male youth ( $\mathrm{Sum}=7641, \mathrm{n}=642$ ). Females $(\mathrm{Sum}=4647$, $n=732$ ) were significantly more caring of others than males $(S u m=4105, n=674)$.

Table 65
Summated Construct Index Scores for Gender

|  | Female Youth |  | Male Youth |  |
| :--- | :---: | :---: | :---: | :---: |
| Construct | Sum | n | Sum | n |
| Extracurricular Activity Involvement | $* 6371$ | 667 | $* 5607$ | 600 |
| School Leadership Positions Held | $* 3173$ | 710 | $* 2800$ | 646 |
| Close Relationships with Adults | $* 8494$ | 690 | $* 7641$ | 642 |
| Caring for Others | $* 4647$ | 732 | $* 4105$ | 674 |

* $p<.05$

Table 66 shows summated construct scale score for gender. Male youth ( $M=$ $15.09, S D=6.194$ ) practiced significantly more negative behaviors than female youth
$(M=14.01, S D=5.397)$. Female youth $(M=36.61, S D=5.344)$ had significantly higher personal identity than male youth $(M=34.42, S D=5.737)$. Females $(M=24.56, S D=$ 3.400) had significantly higher self-confidence, character and empowerment than males $(M=24.18, S D=3.430)$.

Table 66
Summated Construct Scale Scores for Gender

|  | Female Youth |  | Male Youth |  |
| :--- | :---: | :---: | :---: | :---: |
| Construct | $M$ | $S D$ | $M$ | $S D$ |
| Amount of Negative Behavior | $* 14.01$ | 5.397 | $* 15.09$ | 6.194 |
| Personal Identity | $* 36.61$ | 5.344 | $* 34.42$ | 5.737 |
| Positive Identity | 11.22 | 1.916 | 11.37 | 2.019 |
| Self-Confidence, Character and |  |  |  |  |
| $\quad$ Empowerment | $* 24.56$ | 3.400 | $* 24.18$ | 3.430 |
| ${ }_{p p<05}$ |  |  |  |  |

* $p<.05$

Summated construct index scores for 4-H participation are shown in Table 67. 4H youth (Sum = 1522, $\mathrm{n}=148$ ) were involved in significantly more extracurricular activities than non 4-H youth $(\mathrm{Sum}=10122, \mathrm{n}=1085) .4-\mathrm{H}$ youth $(\mathrm{Sum}=732, \mathrm{n}=157)$ held significantly more school leadership positions than non 4-H youth (Sum $=5097$, n $=1167)$. 4-H youth $(\mathrm{Sum}=1076, \mathrm{n}=162)$ practiced significantly more care for others than non 4-H youth $(\mathrm{Sum}=7436, \mathrm{n}=1209)$.

Table 67
Summated Construct Index Scores for 4-H Participation

|  | Non 4-H Youth |  | 4-H Youth |  |
| :--- | :---: | :---: | :---: | :---: |
| Construct | Sum | n | Sum | n |
| Extracurricular Activity Involvement | $* 10122$ | 1085 | $* 1522$ | 148 |
| School Leadership Positions Held | $* 5097$ | 1167 | $* 732$ | 157 |
| Close Relationships with Adults | 13842 | 1147 | 1929 | 156 |
| Caring for Others | $* 7436$ | 1209 | $* 1076$ | 162 |

* $p<.05$

Table 68 shows summated construct scores for 4-H participation. 4-H youth ( $M=$ 25.30, $S D=6.107$ ) had significantly higher self-confidence, character and empowerment than non 4-H youth $(M=24.24, S D=5.842)$.

Table 68
Summated Construct Scale Scores for 4-H Participation

|  | Non 4-H Youth |  | 4-H Youth |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Construct | $M$ | $S D$ | $M$ | $S D$ |
| Amount of Negative Behavior | 14.57 | 5.842 | 14.56 | 6.107 |
| Personal Identity | 35.49 | 5.526 | 35.84 | 6.183 |
| Positive Identity | 11.30 | 1.970 | 11.33 | 1.973 |
| Self-Confidence, Character and Empowerment | $* 24.24$ | 5.842 | $* 25.30$ | 6.107 |
| $* p<.05$ |  |  |  |  |

Summated construct index scores for population density are shown in Table 69. Rural youth (Sum $=4694, n=486)$ were involved in significantly more extracurricular activities than urban youth $(\operatorname{Sum}=7556, n=809)$. Rural youth $(\operatorname{Sum}=2374, n=528)$ held significantly more school leadership positions than urban youth (Sum = 3733, $\mathrm{n}=$ 857).

Table 69
Summated Construct Index Scores for Population Density

|  | Urban Youth |  | Rural Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Construct | Sum | n | Sum | n |
| Extracurricular Activity Involvement | $* 7556$ | 809 | $* 4694$ | 486 |
| School Leadership Positions Held | $* 3733$ | 857 | $* 2374$ | 528 |
| Close Relationships with Adults | 10394 | 862 | 6059 | 499 |
| Caring for Others | 5585 | 895 | 3247 | 526 |
| $\boldsymbol{* p < . 0 5}$ |  |  |  |  |

Table 70 shows summated construct scale scores for population density. Urban youth $(M=35.89, S D=5.485)$ had significantly higher personal identity than rural youth $(M=34.98, S D=5.876)$. Urban youth $(M=11.39, S D=1.941)$ had significantly higher positive identity than rural youth $(M=11.07, S D=2.003)$.

Table 70
Summated Construct Scale Scores for Population Density

|  | Urban Youth |  | Rural Youth |  |
| :--- | ---: | ---: | ---: | ---: |
| Construct | $M$ | $S D$ | $M$ | $S D$ |
| Amount of Negative Behavior | 14.73 | 5.904 | 14.38 | 5.897 |
| Personal Identity | $* 35.89$ | 5.485 | $* 34.98$ | 5.876 |
| Positive Identity | $* 11.39$ | 1.941 | $* 11.07$ | 2.003 |
| Self-Confidence, Character and Empowerment | 24.45 | 3.363 | 24.28 | 3.505 |

*p<.05

Effects of Age Groups, Gender, 4-H Participation, and Population Density
Analysis of variance (ANOVA) was conducted on eight constructs by the independent variables; age groups, gender, 4-H participation (4-H/Non 4-H), and population density (urban/rural).

ANOVA was used to avoid experiment-wise error. The pooled variance in ANOVA produces a more valid test than individual t -tests.

ANOVA for the extracurricular activities construct by age groups, gender, 4-H participation, and population density is displayed in Table 71. Significance was found in variables, age groups $(\mathrm{F}=3.974, p=.019), 4-\mathrm{H}$ participation $(\mathrm{F}=49.881, p=.000)$, and population density $(\mathrm{F}=7.826, p=.005)$, in the amount of extracurricular activities youth engage in during the school week. Although the ANOVA showed these mean differences, the effect size was very small. The partial Eta squared was .007 for age groups, .022 for 4-H participation, and .007 for population density, demonstrating a very low contribution to the overall variance in predicting the amount of extracurricular activities youth engage in during the school week, by each of these factors alone. Table 63 showed extracurricular activities for age group 15-18 ( $\mathrm{Sum}=3678, \mathrm{n}=399$ ) was statistically lower than age group 13-14 ( $\mathrm{Sum}=3285, \mathrm{n}=346$ ) and age group 10-12 (Sum $=4665, n=484)$. Table 67 showed $4-H$ youth $(S u m=1522, n=148)$ were significantly more engaged in extracurricular than non 4-H youth $(\mathrm{Sum}=10122, \mathrm{n}$ 1085). Table 69 showed rural youth $(\mathrm{Sum}=4694, \mathrm{n}=486)$ participated in significantly more extracurricular activity engagement than urban youth $(\operatorname{Sum}=7556, n=809)$. Additionally, Table 70 shows the interactions of age groups, gender, and population density $(\mathrm{F}=5.669, p=.004)$, and the 4-way interaction of age, gender, 4-H participation and population density $(\mathrm{F}=3.183, p=.042)$ were significant and explain $1 \%$ and $0.5 \%$ of the variance in extracurricular activity engagement, respectively.

Table 71
ANOVA for Extracurricular Activity Involvement Construct Index Scores by
Age Groups, Gender, 4-H Participation, and Population Density

|  | Sum of |  |  |  | Mean |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Source | Squares | df | Square | F | Sig. | Squared |
| A | 14.995 | 2 | 7.477 | 3.974 | .019 | .007 |
| B | 1.695 | 1 | 1.695 | .901 | .343 | .001 |
| C | 49.881 | 1 | 49.881 | 26.512 | .000 | .022 |
| D | 14.725 | 1 | 14.725 | 7.826 | .005 | .007 |
| A x B | .003 | 2 | .001 | .001 | .999 | .000 |
| A x C | 5.020 | 2 | 2.510 | 1.334 | .264 | .002 |
| B x C | .001 | 1 | .001 | .000 | .985 | .000 |
| A x B x C | .236 | 2 | .118 | .063 | .939 | .000 |
| A x D | 2.136 | 2 | 1.068 | .568 | .567 | .001 |
| B x D | 2.089 | 1 | 2.089 | 1.110 | .292 | .001 |
| A x B x D | 21.332 | 2 | 10.666 | 5.669 | .004 | .010 |
| C x D | 4.765 | 1 | 4.765 | 2.532 | .112 | .002 |
| A x C D D | 1.832 | 2 | .916 | .487 | .615 | .001 |
| B x C x D | 1.956 | 1 | 1.956 | 1.040 | .308 | .001 |
| A x B x C x D | 11.977 | 2 | 5.989 | 3.183 | .042 | .005 |
| Error | 2174.994 | 1156 | 1.881 |  |  |  |
| Corrected |  |  |  |  |  |  |
| Total | 2370.149 | 1179 |  |  |  |  |
| A A | 10 |  |  |  |  |  |

A = Age groups 10-12 years, 13-14 years, 15-18 years
B = Gender
$\mathrm{C}=4-\mathrm{H}$ participation
$\mathrm{D}=$ Population density

Table 72 shows the ANOVA for leadership positions construct by age groups, gender, 4-H participation and population density variables. Statistical significance was found for the variables; age groups $(\mathrm{F}=6.459, p=.002)$, 4-H participation $(\mathrm{F}=5.009, p$ $=.025)$, and population density $(\mathrm{F}=4.287, p=.039)$. Partial Eta squared shows that variation in the construct may be explained by age groups (1\%), population density $(0.3 \%)$, and $4-\mathrm{H}$ participation $(0.4 \%)$. Table 63 showed that age group 10-12 $(\mathrm{Sum}=$ 2377, $n=519$ ) held significantly more school leadership positions than age group 13-14
$(\operatorname{Sum}=1634, \mathrm{n}=377)$ and age group 15-18 $(\mathrm{Sum}=1798, \mathrm{n}=421) .4-\mathrm{H}$ youth $(\mathrm{Sum}=$ $732, \mathrm{n}=157$ ) were found to be statistically more likely to participate in school leadership positions than non 4-H youth $(\mathrm{Sum}=5097, \mathrm{n}=1167)$, as presented in Table 67. Table 69 showed that rural students $(\operatorname{Sum}=2374, \mathrm{n}=528)$ were statistically more likely to be involved in school leadership than urban students $(\operatorname{Sum}=3733, \mathrm{n}=857)$.

Table 72
ANOVA for School Leadership Positions Held Construct Index Scores by
Age Groups, Gender, 4-H Participation, and Population Density

|  | Sum of | Mean |  |  | Partial Eta |  |  |
| :--- | :---: | ---: | :---: | ---: | :---: | :---: | :---: |
| Source | Squares | df | Square | F | Sig. | Squared |  |
| A | 9.062 | 2 | 4.531 | 6.459 | .002 | .010 |  |
| B | 2.569 | 1 | 2.569 | 3.663 | .056 | .003 |  |
| C | 3.513 | 1 | 3.513 | 5.009 | .025 | .004 |  |
| D | 3.007 | 1 | 3.007 | 4.287 | .039 | .003 |  |
| A x B | .336 | 2 | .168 | .239 | .787 | .000 |  |
| A x C | 3.177 | 2 | 1.588 | 2.264 | .104 | .004 |  |
| B x C | .063 | 1 | .063 | .090 | .764 | .000 |  |
| A x B x C | .395 | 2 | .198 | .282 | .755 | .000 |  |
| A x D | 3.594 | 2 | 1.797 | 2.562 | .078 | .004 |  |
| B x D | .048 | 1 | .048 | .069 | .793 | .000 |  |
| A x B x D | 3.716 | 2 | 1.858 | 2.649 | .071 | .004 |  |
| C x D | 2.045 | 1 | 2.045 | 2.915 | .088 | .002 |  |
| A x C x D | 1.367 | 2 | .683 | .974 | .378 | .002 |  |
| B x C x D | .333 | 1 | .333 | .475 | .491 | .000 |  |
| A x B x C x D | 3.941 | 2 | 1.970 | 2.809 | .061 | .004 |  |
| Error | 872.662 | 1244 | .701 |  |  |  |  |
| Corrected |  |  |  |  |  |  |  |
| Total | 942.874 | 1267 |  |  |  |  |  |
| A = Age groups 10-12 years, 13-14 years, $15-18$ years |  |  |  |  |  |  |  |
| B = Gender |  |  |  |  |  |  |  |
| C = 4-H participation |  |  |  |  |  |  |  |
| D = Population density |  |  |  |  |  |  |  |

The ANOVA for close relationships with adults by age groups, gender, 4-H participation, and population density variables is shown in Table 73. Statistical
significance was found in the interaction of 4-H participation and gender $(\mathrm{F}=3.844, p=$ .050). Partial Eta squared value for the interaction was .003 , indicating minimal predictive power. Figure 2 shows the interaction between gender and $4-\mathrm{H}$ participation. 4-H youth had more close relationships with adults than non 4-H youth. Female 4-H and non 4-H youth were very similar in relationship closeness. Relationship closeness was much higher for 4-H youth than non 4-H youth. The vast difference in male youth relationship closeness may be the primary factor attributing to the interaction.

Table 73
ANOVA for Close Relationships with Adults Construct Index Scores by Age Groups, Gender, 4-H Participation, and Population Density

|  | Sum of | Mean |  |  |  | Partial Eta |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Source | Squares | df | Square | F | Sig. | Squared |  |
| A | 1.710 | 2 | .855 | .229 | .795 | .000 |  |
| B | .188 | 1 | .188 | .050 | .823 | .000 |  |
| C | 13.041 | 1 | 13.041 | 3.491 | .062 | .003 |  |
| D | .001 | 1 | .001 | .000 | .985 | .000 |  |
| A x B | 1.035 | 2 | .518 | .139 | .871 | .000 |  |
| A x C | 6.380 | 2 | 3.190 | .854 | .426 | .001 |  |
| B x C | 14.356 | 1 | 14.465 | 3.844 | .050 | .003 |  |
| A x B x C | 9.582 | 2 | 4.791 | 1.283 | .278 | .002 |  |
| A x D | .300 | 2 | .150 | .040 | .961 | .000 |  |
| B x D | .298 | 1 | .298 | .080 | .778 | .000 |  |
| A x B x D | 8.274 | 2 | 4.137 | 1.108 | .331 | .002 |  |
| C x D | 2.033 | 1 | 2.033 | .544 | .461 | .000 |  |
| A x C x D | 2.298 | 2 | 1.149 | .308 | .735 | .001 |  |
| B x C x D | 3.869 | 1 | 3.869 | 1.036 | .309 | .001 |  |
| A x B x C x D | .948 | 2 | .515 | .127 | .881 | .000 |  |
| Error | 4556.778 | 1220 | 3.735 |  |  |  |  |
| Corrected |  |  |  |  |  |  |  |
| Total | 4709.312 | 1243 |  |  |  |  |  |
| A = Age groups 10-12 years, 13-14 years, $15-18$ years |  |  |  |  |  |  |  |
| B = Gender |  |  |  |  |  |  |  |
| C = 4-H participation |  |  |  |  |  |  |  |
| D = Population density |  |  |  |  |  |  |  |



Figure 2. Close relationships with adults construct interaction between gender and 4-H participation.

The ANOVA for caring for others construct by age groups, gender, 4-H participation, and population density is shown in Table 74. One variable was found to be significant in predicting the likelihood of youth helping others in need, 4-H participation $(\mathrm{F}=13.198, p=.000)$. Variance in the caring for others construct may be attributed to 4H participation (1\%). Table 67 showed that 4-H youth ( $\mathrm{Sum}=1076, \mathrm{n}=162$ ) were statistically more likely to care for others in need than Non 4-H youth $(\mathrm{Sum}=7436, \mathrm{n}=$ 1209).

Table 74
ANOVA for Caring for Others Construct Index Scores by Age Groups, Gender, 4-H Participation, and Population Density

|  | Sum of | Mean |  |  | Partial Eta |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Source | Squares | df | Square | F | Sig. | Squared |  |
| A | 8.430 | 2 | 4.215 | 2.692 | .068 | .004 |  |
| B | 3.010 | 1 | 3.010 | 1.922 | .166 | .001 |  |
| C | 20.665 | 1 | 20.665 | 13.198 | .000 | .010 |  |
| D | 1.771 | 1 | 1.771 | 1.131 | .288 | .001 |  |
| A x B | 2.887 | 2 | 1.444 | .922 | .398 | .001 |  |
| A x C | 4.885 | 2 | 2.443 | 1.560 | .211 | .002 |  |
| B x C | .215 | 1 | .215 | .137 | .711 | .000 |  |
| A x B x C | 1.074 | 2 | .537 | .343 | .710 | .001 |  |
| A x D | .962 | 2 | .481 | .307 | .736 | .000 |  |
| B x D | 3.876 | 1 | 3.876 | 2.476 | .116 | .002 |  |
| A x B x D | 4.377 | 2 | 2.189 | 1.398 | .247 | .002 |  |
| C x D | .001 | 1 | .001 | .001 | .978 | .000 |  |
| A x C x D | 1.357 | 2 | .679 | .433 | .648 | .001 |  |
| B x C x D | .153 | 1 | .153 | .098 | .755 | .000 |  |
| A x B x C x D | 2.102 | 2 | 1.051 | .671 | .511 | .001 |  |
| Error | 2030.790 | 1297 | 1.566 |  |  |  |  |
| Corrected |  |  |  |  |  |  |  |
| Total | 2172.012 | 1320 |  |  |  |  |  |
| A = Age groups 10-12 years, 13-14 years, 15-18 years |  |  |  |  |  |  |  |
| B = Gender |  |  |  |  |  |  |  |
| C = 4-H participation |  |  |  |  |  |  |  |
| D = Population density |  |  |  |  |  |  |  |

The amount of negative behavior construct is composed of youth responses to ten types of negative practices such as cheating on a test, shoplifting, and damaging property. The ANOVA for negative behavior by age groups, gender, 4-H participation, and population density variables is shown in Table 75. Age groups ( $\mathrm{F}=42.038, p=$ $.000)$ and the interaction of gender and 4-H participation ( $\mathrm{F}=5.214, p=.023$ ) were found to be significant predictors of risk behavior in youth. Age groups variable was found to explain $6.1 \%$ of the variance in negative behavior, while the gender and $4-\mathrm{H}$
participation interaction explained $0.4 \%$. Table 64 showed that as age increases, youth were statistically more likely to engage in negative behavior (age group 10-12, $M=$ 11.93, $S D=3.603$; age group $13-14, M=14.47, S D=5.535$; age group $15-18, M=$ 17.47, $S D=6.523$ ). Amount of negative behavior construct interaction between gender and 4-H participation is shown in Figure 3. Amount of negative behavior of female 4-H youth is higher than female non 4-H youth. Conversely, the amount of negative behavior of male non 4-H youth is higher than male 4-H youth.

Table 75
ANOVA for Amount of Negative Behavior Construct Scale Scores by Age Groups, Gender, 4-H Participation, and Population Density

|  | Sum of |  |  | Mean |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Source | Squares | df | Square | F |  | Sig. |
| Squal Eta |  |  |  |  |  |  |
| A | 2312.049 | 2 | 1156.024 | 42.038 | .000 | .061 |
| B | 24.515 | 1 | 24.515 | .891 | .345 | .001 |
| C | 10.886 | 1 | 10.886 | .396 | .529 | .000 |
| D | 4.855 | 1 | 4.855 | .177 | .674 | .000 |
| A x B | 36.253 | 2 | 18.127 | .659 | .517 | .001 |
| A x C | 4.938 | 2 | 2.469 | .090 | .914 | .000 |
| B x C | 143.372 | 1 | 143.372 | 5.214 | .023 | .004 |
| A x B x C | 16.679 | 2 | 8.339 | .303 | .738 | .000 |
| A x D | 40.974 | 2 | 20.487 | .745 | .475 | .001 |
| B x D | 2.458 | 1 | 2.458 | .089 | .765 | .000 |
| A x B x D | 57.454 | 2 | 28.727 | 1.045 | .352 | .002 |
| C x D | 3.543 | 1 | 3.543 | .129 | .720 | .000 |
| A x C D | 42.706 | 2 | 21.353 | .776 | .460 | .001 |
| B x C x D | 42.758 | 1 | 42.758 | 1.555 | .213 | .001 |
| A x B x C x D | 28.031 | 2 | 14.015 | .510 | .601 | .001 |
| Error | 35337.225 | 1285 | 27.500 |  |  |  |
| Corrected |  |  |  |  |  |  |
| Total | 42867.066 | 1308 |  |  |  |  |
| A = Age groups 10-12 years, 13-14 years, 15-18 years |  |  |  |  |  |  |
| B = Gender |  |  |  |  |  |  |
| C = 4-H participation |  |  |  |  |  |  |
| D = Population density |  |  |  |  |  |  |



Figure 3. Amount of negative behavior construct interaction between gender and 4-H participation.

The personal identity construct included items such as; meet and greet new people easily; comfortable in new situations; and other kids look up to me. Table 76 describes the ANOVA for personal identity by age groups, gender, 4-H participation, and population density variables. Statistical significance was found in variables gender $(\mathrm{F}=10.350, p=.001)$, and population density $(\mathrm{F}=5.929, p=.015)$, in the prediction of personal identity of Nevada $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students. Partial Eta squared calculations showed that $0.5 \%$ of the variation in the way youth feel about their personal identity may be explained by population density, while gender was found to explain $0.8 \%$ of the variation. Table 70 showed that urban youth had statistically higher personal
identity $(M=35.89, S D=5.485)$ than rural youth $(M=34.98, \mathrm{SD}=5.876)$. Table 66 showed that females had statistically higher personal identity $(M=36.61, S D=5.344)$ than males $(M=34.42, S D=5.737)$.

Table 76
ANOVA for Personal Identity Construct Scale Scores by Age Groups, Gender, 4-H Participation, and Population Density

|  | Sum of |  |  | Mean |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Partial Eta |  |  |  |  |  |  |
| Source | Squares | df | Square | F | Sig. | Squared |
| A | 167.410 | 2 | 83.705 | 2,845 | .058 | .004 |
| B | 304.473 | 1 | 304.473 | 10.350 | .001 | .008 |
| C | 9.476 | 1 | 9.476 | .322 | .570 | .000 |
| D | 174.420 | 1 | 174.420 | 5.929 | .015 | .005 |
| A x B | 49.757 | 2 | 24.879 | .846 | .430 | .001 |
| A x C | 13.475 | 2 | 6.737 | .229 | .795 | .000 |
| B x C | 27.666 | 1 | 27.666 | .940 | .332 | .001 |
| A x B x C | 35.628 | 2 | 17.814 | .606 | .546 | .001 |
| A x D | 6.974 | 2 | 3.487 | .119 | .888 | .000 |
| B x D | .323 | 1 | .323 | .011 | .917 | .000 |
| A x B x D | 2.920 | 2 | 1.460 | .050 | .952 | .000 |
| C x D | 32.003 | 1 | 32.003 | 1.088 | .297 | .001 |
| A x C D D | 4.127 | 2 | 2.064 | .070 | .932 | .000 |
| B x C x D | 1.774 | 1 | 1.774 | .060 | .806 | .000 |
| A x B x C x D | 16.674 | 2 | 8.337 | .283 | .753 | .000 |
| Error | 37684.778 | 1281 | 29.418 |  |  |  |
| Corrected |  |  |  |  |  |  |
| Total | 40118.593 | 1304 |  |  |  |  |
| A = Age groups 10-12 years, 13-14 years, $15-18$ years |  |  |  |  |  |  |
| B = Gender |  |  |  |  |  |  |
| C = 4-H participation |  |  |  |  |  |  |
| D = Population density |  |  |  |  |  |  |

Positive identity construct includes items such as; all in all, I am glad I am me; and when things don't go well for me, I am good at finding a way to make things better. The ANOVA for positive identity by age groups, gender, 4-H participation, and
population density is displayed in Table 77. Gender ( $\mathrm{F}=3.962, p=.047$ ), and population density $(\mathrm{F}=4.016, p=.045)$ were found to have statistical significance in predicting youth positive identity. Gender and population density were each found to explain $0.3 \%$ in how Nevada youth describe their positive identity. The positive identity construct mean for males $(M=11.37, S D=2.019)$ was not found to be statistically higher than the mean for females $(M=11.22, S D=1.916)$, as presented in Table 66. Table 70 showed the urban youth construct mean for positive identity $(M=11.39, S D=$ 1.941) was statistically higher than the rural youth construct mean $(M=11.07, S D=$ 2.003).

Table 78 illustrates the ANOVA for self-confidence, character and empowerment construct by age groups, gender, 4-H participation, and population density variables. This construct is composed of youth responses to statements such as; I can do things on my own; I set goals; and adults in my town or city make me feel important. One variable, 4-H participation, was found to be statistically significant $(\mathrm{F}=8.155, p=.004)$ and contribute $0.6 \%$ to the variance in the self-confidence, character and empowerment construct. Table 68 showed that 4-H youth $(M=25.30, S D=6.107)$ had statistically higher self-confidence, character and empowerment than non 4-H youth ( $M=24.24, S D$ $=5.842$ ).

Table 77
ANOVA for Positive Identity Construct Scale Scores by Age Groups, Gender,
4-H Participation, and Population Density

|  | Sum of |  |  | Mean |  |  |
| :--- | ---: | :--- | ---: | ---: | ---: | :---: |
| Source | Squares | df | Square | F |  | Sig. |
| A | Squared |  |  |  |  |  |
| A | 17.965 | 2 | 8.982 | 2.333 | .097 | .004 |
| B | 15.253 | 1 | 15.253 | 3.962 | .047 | .003 |
| C | 5.561 | 1 | 5.561 | 1.444 | .230 | .001 |
| D | 15.463 | 1 | 15.463 | 4.016 | .045 | .003 |
| A x B | 11.626 | 2 | 5.813 | 1.510 | .221 | .002 |
| A x C | 1.309 | 2 | .655 | .170 | .844 | .000 |
| B x C | 4.697 | 1 | 4.697 | 1.220 | .270 | .001 |
| A x B x C | 5.597 | 2 | 2.798 | .727 | .484 | .001 |
| A x D | 1.040 | 2 | .520 | .135 | .874 | .000 |
| B x D | 1.180 | 1 | 1.180 | .306 | .580 | .000 |
| A x B x D | 6.722 | 2 | 3.361 | .873 | .418 | .001 |
| C x D | 1.596 | 1 | 1.596 | .415 | .520 | .000 |
| A x C D D | .205 | 2 | .102 | .027 | .974 | .000 |
| B x C x D | 6.963 | 1 | 6.963 | 1.808 | .179 | .001 |
| A x B x C x D | 13.932 | 2 | 6.966 | 1.809 | .164 | .003 |
| Error | 4924.245 | 1279 | 3.850 |  |  |  |
| Corrected |  |  |  |  |  |  |
| Total | 5073.257 | 1302 |  |  |  |  |

A = Age groups 10-12 years, 13-14 years, 15-18 years
B = Gender
$\mathrm{C}=4-\mathrm{H}$ participation
$\mathrm{D}=$ Population density

Table 78
ANOVA for Self-Confidence, Character and Empowerment Construct Scale
Scores by Age Groups, Gender, 4-H Participation, and Population Density

|  | Sum of | Mean |  |  | Partial Eta |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Source | Squares | df | Square | F | Sig. | Squared |
| A | .164 | 2 | .082 | .007 | .993 | .000 |
| B | 3.221 | 1 | 3.221 | .275 | .600 | .000 |
| C | 95.479 | 1 | 95.479 | 8.155 | .004 | .006 |
| D | 2.641 | 1 | 2.641 | .226 | .635 | .000 |
| A x B | 11.238 | 2 | 5.619 | .480 | .619 | .001 |
| A x C | .457 | 2 | .229 | .020 | .981 | .000 |
| B x C | .206 | 1 | .206 | .018 | .895 | .000 |
| A x B x C | 6.891 | 2 | 3.445 | .294 | .745 | .000 |
| A x D | 24.584 | 2 | 12.292 | 1.050 | .350 | .002 |
| B x D | 2.083 | 1 | 2.083 | .178 | .673 | .000 |
| A x B x D | 20.076 | 2 | 10.038 | .857 | .425 | .001 |
| C x D | .131 | 1 | .131 | .011 | .916 | .000 |
| A x C x D | 11.962 | 2 | 5.981 | .511 | .600 | .001 |
| B x C x D | 7.323 | 1 | 7.323 | .625 | .429 | .000 |
| A x B x C x D | 36.370 | 2 | 18.185 | 1.553 | .212 | .002 |
| Error | 14670.102 | 1253 | 11.708 |  |  |  |
| Corrected |  |  |  |  |  |  |
| Total | 15034.572 | 1276 |  |  |  |  |
| A = Age groups 10-12 years, 13-14 years, 15-18 years |  |  |  |  |  |  |
| B = Gender |  |  |  |  |  |  |
| C = 4-H participation |  |  |  |  |  |  |
| D = Population density |  |  |  |  |  |  |

## Perceptions of 4-H Impact

Youth who had ever belonged to 4-H were asked to indicate the level of impact 4-H has had on their lives. Impact of 4-H programming comparison by age groups is presented in Table 79. No significant differences were found between the three age groups in perceptions of how 4-H impacted their lives. Table 80 shows the impact of 4H programming by gender. No significant differences were found in perceptions of 4-H impact were found between females and males. With regard to the seven statements,
however, females felt that 4-H programming had a greater impact on their lives, than males. Impact of 4-H programming comparison by population density is shown in Table 81. No significant differences in perceptions of 4-H impact were found between urban and rural youth. The statement resulting in the highest rating or strongest agreement in the comparison by age groups, gender, and population density was, 4-H provides a safe place for learning and growing. The statement resulting in the lowest rating or weakest agreement in the three comparisons was, if it weren't for 4-H there would be few other activities of interest to me outside school time.

Table 79
Impact of 4-H Programming Comparison by Age Groups

|  | $\begin{gathered} 10-12 \\ \text { Years Old } \end{gathered}$ |  | $13-14$ <br> Years Old |  | $\begin{gathered} 15-18 \\ \text { Years Old } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statements | M | $S D$ | M | SD | M | $S D$ |
| My Participation in 4-H has been critical to my success in life | 3.00 | 1.287 | 3.20 | 1.040 | 2.97 | 1.121 |
| 4-H has made a positive difference in my life | 3.12 | 1.244 | 3.42 | 1.048 | 3.19 | 1.120 |
| 4-H has made a positive difference in my family life | 3.09 | 1.244 | 3.10 | 1.026 | 3.03 | 1.121 |
| If it weren't for 4-H, there would be few other organized activities of interest to me outside school time | 2.91 | 1.309 | 2.75 | 1.062 | 2.72 | 1.143 |
| 4-H provides a safe place for learning and growing | 3.44 | 1.191 | 3.49 | 1.101 | 3.62 | 1.158 |
| 4-H Clubs are supportive environments where |  |  |  |  |  |  |
| I feel accepted for who I am | 3.32 | 1.303 | 3.53 | 1.174 | 3.34 | 1.096 |
| In 4-H, I can explore my own interests | 3.47 | 1.218 | 3.45 | 1.062 | 3.55 | 1.028 |

Table 80
Impact of 4-H Programming Comparison by Gender

|  | Female Youth |  | Male Youth |  |
| :---: | :---: | :---: | :---: | :---: |
| Statements | M | SD | M | SD |
| My Participation in 4-H has been critical to my success in life | 3.08 | 1.143 | 2.96 | 1.208 |
| 4-H has made a positive difference in my life | 3.30 | 1.142 | 3.06 | 1.190 |
| 4-H has made a positive difference in my family life | 3.08 | 1.133 | 3.08 | 1.186 |
| If it weren't for 4-H, there would be few other organized activities of interest to me outside school time | 2.89 | 1.144 | 2.70 | 1.295 |
| 4-H provides a safe place for learning and growing | 3.54 | 1.186 | 3.38 | 1.078 |
| 4-H Clubs are supportive environments where I feel accepted for who I am | 3.47 | 1.212 | 3.28 | 1.231 |
| In 4-H, I can explore my own interests | 3.56 | 1.060 | 3.34 | 1.192 |

Table 81
Impact of 4-H Programming Comparison by Population Density

| Statements | Urban Youth |  | Rural Youth |  |
| :---: | :---: | :---: | :---: | :---: |
|  | M | $S D$ | M | SD |
| My Participation in 4-H has been critical |  |  |  |  |
| to my success in life | 3.07 | 1.069 | 3.03 | 1.212 |
| 4-H has made a positive difference in my life | 3.27 | 1.113 | 3.19 | 1.181 |
| 4-H has made a positive difference in my family life | 3.22 | 1.150 | 3.01 | 1.138 |
| If it weren't for 4-H, there would be few other organized activities of interest to me outside school time | 2.87 | 1.260 | 2.81 | 1.181 |
| 4-H provides a safe place for learning and growing | 3.58 | 1.117 | 3.45 | 1.168 |
| 4-H Clubs are supportive environments where I feel accepted for who I am | 3.38 | 1.194 | 3.43 | 1.227 |
| In 4-H, I can explore my own interests | 3.51 | 1.136 | 3.45 | 1.099 |

Youth involved in 4-H were asked to identify the best and worst part of 4-H programming. Qualitative data was categorized using the Constant Comparative Method
(Glaser \& Strauss, 1967). Tables 82, 83, and 84, summarize the best part of 4-H as indicated by $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade youth, respectively. The most common responses regarding the best part of 4-H across grade levels were those associated to skill building and learning new things. The next most common response was in the category of meeting with friends and new people. Helping the community was also a best part of 4H response category that was found in each grade level.

Table 82
The Best Part of 4-H According to $5^{\text {th }}$ Grade Students

| Number of <br> Responses | Response <br> Category |
| :---: | :--- |
| 22 | Skill building and learning new things |
| 8 | Meeting with friends and new people |
| 6 | Fun |
| 3 | Helping others and the community |
| 3 | Activities and exercise |
| 3 | Nothing |
| 2 | Food and eating |
| 1 | Great teachers |
| 1 | Fair |

Table 83
The Best Part of 4-H According to $7^{\text {th }}$ Grade Students

| Number of <br> Responses | Response <br> Category |
| :---: | :--- |
| 10 | Skill building and learning new things |
| 8 | Meeting with friends and new people |
| 8 | Fun |
| 6 | Activities and exercise |
| 4 | Making money |
| 2 | Nothing |
| 2 | Fair and 4-H Camp |
| 1 | Great teachers |
| 1 | Having goals to achieve |
| 1 | Leadership |
| 1 | Safe place |
| 1 | Support |
| 1 | Help the community |
| 1 | Working with leaders |

Table 84
The Best Part of 4-H According to $9^{\text {th }}$ Grade Students

| Number of <br> Responses | Response <br> Category |
| :---: | :--- |
| 10 | Skill building and learning new things |
| 4 | Meeting with friends and new people |
| 4 | Activities and exercise |
| 3 | Leadership opportunities |
| 3 | Helping the community |
| 2 | Recognition and awards |
| 2 | Fun |
| 2 | Support |
| 2 | 4-H Camp |
| 1 | Nothing |
| 1 | Making money |
| 1 | Freedom of choice |

The worst part of $4-\mathrm{H}$ as indicated by $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students is reported in
Tables 85,86 , and 87 , respectively. Worst part responses were more difficult to
categorize than best part responses as they lacked similarity. Nothing or don't know, was the most often response indicated by $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students.

Table 85
The Worst Part of 4-H According to $5^{\text {th }}$ Grade Students

| Number of <br> Responses | Response <br> Category |
| :---: | :--- |
| 8 | Nothing / don't know |
| 6 | Not enough time and time competes with other interests |
| 5 | Mean kids that make fun of you |
| 3 | Given orders to follow |
| 3 | Too hot |
| 2 | Rules |
| 2 | Chores |
| 2 | No food |
| 2 | Boring |
| 1 | Failing |
| 1 | Not fun |
| 1 | Bathrooms |
| 1 | Picture taking |
| 1 | Can't say what you want to say |
| 1 | Helmets |
| 1 | No activity |
| 1 | Fair |

Table 86
The Worst Part of 4-H According to $7^{\text {th }}$ Grade Students

| Number of <br> Responses | Response <br> Category |
| :---: | :--- |
| 8 | Nothing / don't know |
| 5 | Some people make fun of you, bullies |
| 3 | Keeping track of money, record keeping |
| 2 | Failing and embarrassment |
| 2 | Time of day and missing other activities |
| 1 | No activity |
| 1 | No horse to work with |
| 1 | No friends in it |
| 1 | Smell |
| 1 | Guns that kick |
| 1 | Saying goodbye to your animal |
| 1 | Making a horse ride with a bit |
| 1 | Getting into trouble for things you didn't do |
| 1 | No cooperation |
| 1 | Too much time |
| 1 | Scooping poop |

Table 87
The Worst Part of 4-H According to $9^{\text {th }}$ Grade Students

| Number of <br> Responses | Response <br> Category |
| :---: | :--- |
| 10 | Nothing / don't know |
| 6 | Boring, not fun |
| 3 | Dirty, work |
| 2 | Time of day and missing other activities |
| 1 | People not friendly |
| 1 | Selling animals |
| 1 | Not many members |
| 1 | Leaders not organized |
| 1 | Sanding wood |
| 1 | Songs and meetings |
| 1 | Nothing for older kids |
| 1 | Doing things the way you are told |
| 1 | Reporting your absence |
| 1 | Studying |

## CHAPTER V

## CONCLUSIONS AND RECOMMENDATIONS

## Summary

The purposes of this study were to replicate a 4-H impact evaluation study conducted previously in four western States, measure the impact of 4-H programming on the lives of Nevada youth, and to provide accountability and program improvement data for University of Nevada Cooperative Extension. The objectives were to describe the study participants based upon demographic characteristics and dependent variables; determine how the subjects differed by independent variables, age groups, gender, 4-H participation, and population density; and determine how 4-H programming influences youth. Specifically, this study addressed the research questions:

1) What is a description of study participants based upon: a) extracurricular activity involvement, b) school leadership positions held, c) close relationships with adults, d) caring for others, e) amount of negative behavior, f) personal identity, g) positive identity, h) self-confidence, character, and personal empowerment, and i) demographic characteristics and personolgical attributes?
2. How do the subjects differ in terms of; extracurricular activity involvement; school leadership positions held; close relationships with adults; caring for others; amount of negative behavior; personal identity; positive identity; selfconfidence, character, and personal empowerment; based upon age, gender, 4-H participation, and population density?
3. How does involvement in $4-\mathrm{H}$ programming influence youth?

Results indicate that youth who have ever been involved in Nevada 4-H programming have some character and behavior traits that differ from youth who have never been involved in 4-H. In particular, youth involved in 4-H are more likely to engage in other organized activities in and out of school, participate in more school leadership roles, care and contribute to the well-being of more people in need and have higher self-confidence, character and empowerment than youth that have never been involved in 4-H.

Statistically more 4-H youth participate in drama, art, music, sports teams, school clubs, outside school clubs, and spiritual activities during the school week, than non 4-H youth. 4-H youth seem to be attracted to organized activities more so than non 4-H youth. Ouellette (2000) reports that youth not involved in after-school activities are more likely to engage in risky behavior. Strangely enough, this trend was not supported in this study. No significant difference was found between 4-H and non 4-H youth in the engagement in ten types of negative behavior. This finding was similar to the results in Colorado (Goodwin et al., 2005b) and in Utah (Tubbs, 2005). More research is needed to determine if a minimum amount of organized youth activities is needed for youth to avoid risky behavior. Additionally, rural youth were statistically more likely to participate in activities during the week, than urban youth. These activities include drama, art, music, sports teams, school clubs, $4-\mathrm{H}$, and spiritual. One would expect that urban schools and communities have more activities to choose from during the school week, than rural schools and communities. The National Research Council and Institute of Medicine (2004) reported that communities offering a wide range of organized youth
programs experience less risk behavior. The results of this study do not strongly support this trend. Rural youth, participating in more organized activities, were more likely to ride in a car with a driver who had been drinking or using drugs, smoke cigarettes, and use smokeless tobacco, than urban youth.

4-H youth were more likely to participate in school leadership positions than non 4H youth. Statistically more 4-H youth than non 4-H youth are elected to school leadership positions, hold school leadership positions, serve as chair on school committees, or serve as members of school committees. This finding is supported in other studies (Astroth \& Hayes, 2001; Goodwin, Carroll, \& Oliver, 2005b; Goodwin et. al., 2005a; Tubbs, 2005). As expected, 4-H programming promotes leadership skill building and offers many opportunities for youth to participate in leadership roles.

Another dramatic distinction between 4-H and non 4-H youth was found in the concern youth show for other students and other people in the community. 4-H youth are more likely to help others in school, participate in a project to make life better for others, donate time or money to charity, and help people who are poor, hungry, sick, or unable to care for themselves than non 4-H youth. This trend is not surprising as $4-\mathrm{H}$ programming typically includes a substantial community service component. It appears that Nevada 4-H youth have a stronger inclination toward helping others and community service participation than non 4-H youth.

Also consistent with other studies (Astroth \& Haynes, 2001; Goodwin et al., 2005a), 4-H youth described a higher level of self-confidence, character, and empowerment, than non 4-H youth. Results indicate 4-H youth agree or strongly agree more than non 4-H
youth to the statements; I am a good money manager, adults in my town make me feel important, in my town or city, I feel like I matter to people, I'm given lots of chances to help my town or city a better place to live, and I have good record keeping skills. Again, these results are not surprising in that 4-H programming has a long history of involving youth in community service and building record keeping skills.

Only one of the personal identity statements was found to stand out in the comparison between 4-H and non 4-H. Statistically more 4-H youth were likely to volunteer in class to lead activities, than non 4-H youth. This difference was also found to be true by Tubbs in 2005. This characteristic could logically be grouped with the other leadership traits, and as expected, 4-H youth appears to have a strong leadership tendency.

Meaningful differences between urban and rural youth were found in personal identity, positive identity, extracurricular activity engagement, and leadership positions held. Urban youth were found to express a higher level of personal identity than rural youth. Urban youth cared more about other's feelings, volunteered in class to lead activities more frequently, claimed to meet and greet new people more easily, and were more comfortable in new situations, than rural youth. Urban youth were also found to have a stronger positive identity than rural youth in agreement with the statements; when things go wrong for me, I am good at finding a way to make things better; on the whole I like my self; and all in all, I am glad I am me; and in disagreement with the statement; sometimes I feel like life has no purpose.

Differences in the amount of negative behavior were split with urban youth practicing some behavior types and rural youth practicing more of others. Rural youth were more likely to ride in a car with a driver who has been drinking or using drugs, smoke cigarettes, and use smokeless tobacco, than urban youth. Urban youth were more likely to shoplift, damage property, and skip or cut class, than rural youth. These results may suggest that urban and rural youth exhibit the same problem behaviors and share the same concerns as found by Perkins, LaGreca, and Mullis (2002). However, the results are supportive of Springer, Selwyn, and Kelder's (2006) findings with no significant differences in sexual activities between urban and rural youth.

In other significant distinctions between rural and urban youth, rural youth were more likely to serve as a member of a school committee, and discuss the subject of sex with a parent/guardian, than urban youth. Urban youth, on the other hand, claim to be better organizers, were more comfortable giving a speech, and more likely to help people who are poor, hungry, sick or unable to care for themselves, than rural youth. No differences were noted between urban and rural youth in closeness of relationships with parents/guardians and other adults. Population density appears to not be a reliable variable and is not a consistent influencing factor in youth development.

Differences between female and male youth were most prevalent in the construct of personal identity. Females were more likely to be good at planning, care about other's feelings, feel sad when a friend is unhappy, say no when asked to do something wrong, stay away from people who get them in trouble, volunteer in class to lead activities, and
think other kids look up to them and follow their example, than males. Previous studies in Wyoming, Idaho, Colorado and Utah did not test gender differences.

Age was a variable that had considerable influence on youth development. As youth get older they practice more negative behavior. This risk behavior trend is consistent with the Youth Risk Behavior Survey results for Nevada (2005). The incidence of risk behavior was found to be higher for high school students than middle school students in each risk behavior measured.

In summary, the following trends were observed:
Youth involved in 4-H were more likely than non 4-H youth to:

- Engage in organized extracurricular activities
- Participate in school leadership roles
- Care for others in need
- Possess higher self-confidence, character and empowerment

Urban youth are more likely than rural youth to:

- Possess higher personal identity
- Possess higher positive identity

Rural youth are more likely than urban youth to:

- Engage in organized extracurricular activities
- Participate in school leadership roles

Female youth are more likely than male youth to:

- Possess higher personal identity

Male youth are more likely than female youth to:

- Possess higher positive identity

Older youth are more likely than younger youth to:

- Practice negative behavior

Younger youth are more likely than older youth to:

- Engage in organized extracurricular activities
- Engage in school leadership positions


## Conclusions and Recommendations

These data show that youth involved in 4-H programming have an advantage over youth not involved in 4-H. Specifically, 4-H youth appear to have a disposition to involve themselves in organized activities. Active involvement in activities that promote growth and development is a healthy alternative to idle time. Although there was no difference shown between 4-H and non 4-H youth spending time with friends without anything special to do, the amount of time youth devote to this activity was not measured. It may be found the 4-H youth spend time with friends without anything to do, but to a lesser extent than non 4-H youth. Logically, youth involved in such a large number of extracurricular activities don't have too much time doing nothing.

4-H youth were also found to be more likely to be involved with leadership activities at school than non 4-H youth. Our country needs citizens to engage in democracy. The trend today across the nation shows a drastic decline in citizen participation. It would be interesting to investigate the percentage of local, state, and national leaders who got their start in 4-H. 4-H programming produces individuals that involve themselves in our communities. A longitudinal study conducted by Heinz and

Youniss (2006) revealed that adolescents who were involved in community service work with people in need, felt they had made meaningful contributions which influenced their self-awareness. Later in life these individuals were found to be more likely to volunteer and be civically engaged.

Youth involved with 4-H possess a social conscious. Concern for others, particularly those in need, is a noteworthy characteristic. This study shows that youth involved in 4-H care for fellow students, and others less fortunate. Social responsibility and community service are a few of the life skills 4-H members learn. University of Nevada Cooperative Extension youth development programming teaches these skills and in turn, Nevada youth are contributing to community well being. Safrit and Auck (2003) state "America's youth need to be actively engaged in their communities through volunteerism and service that allows them to actively participate in decisions affecting themselves and their families, schools, workplaces, and communities" (p. 1). They recognized that 4-H is in a unique position to provide community service, volunteerism, and service-learning opportunities to youth.

## Recommendations for Additional Research

1. Merge and analyze data sets from western state studies.

Composite analysis of data from studies in Montana, Idaho, Colorado, Utah, and Nevada should be conducted. New Mexico is nearing completion of the same study and should be included. Care was taken with the Nevada study to remain true to the original survey design used in the previous investigations. Nevada survey question order was slightly modified using Dillman's (2007) Tailored Design Method (TDM).to improve
response rate. There have been other minor changes made to the instrument over time including elimination of nine questions by Goodwin et al. in 2005. Variation in data analysis has also occurred over time. In the Utah study, 4-H participation was determined from responses indicating 4-H involvement for two or more years, whereas in Nevada, participation was determined by youth responding to the question; have you ever belonged to a 4-H Club that meets formally outside of school. Risk behavior of only $9^{\text {th }}$ grade youth was used in the Utah study, whereas risk behavior of all youth was used in the Nevada study. This study grouped questions into constructs and analyzed them by age groups, gender, 4-H participation and population density. ANOVA was not performed in previous studies, however, the manner with which questions were grouped remained consistent. Composite analyses could potentially investigate other youth development influences such as, race/ethnicity differences. Investigators of composite data will need to prepare data sets and make necessary adjustments to insure a valid analysis.
2. Hone instrument to improve construct validity and reliability.

Negatively phrased questions may be confusing to students, particularly younger youth. Pilot testing should be conducted and questions should be modified if optimum student understanding is not apparent. Further work needs to be done to improve the construct validity of the instrument. For instance, the question regarding; volunteer in class to lead activities, should be merged within the leadership positions held construct. Researchers should investigate if questions are best suited to measure the various
constructs this instrument intends to measure. Also, questions that determine personality type may be useful in predicting youth characteristics and behaviors.
3. Investigate other impact evaluation approaches less taxing on school time.

It may be likely, continued use of this instrument is short lived. Future research using the same student survey approach may confront reluctance from schools. A 34\% response rate was achieved in the Nevada study from schools agreeing to participate. A total of 115 Nevada schools were contacted and 76 schools, $66 \%$, declined to participate. The relatively low response rate of schools agreeing to participate and the high percentage of schools declining to participate is a problem caused by several factors. A collection of reasons given by school administrators for not participating is presented in Appendix L. In summary, schools are inundated with survey requests and many surveys are administered. The CDC's Youth Risk Behavior Survey is administered throughout the country in public secondary schools every two years. In some cases, request to give another similar survey is too much to ask. Surveys compete with class time and required testing. Number of school days is limited by the State Legislature. A few teachers are not willing to sacrifice time needed to cover materials to administer another survey. Fortunately, the University of Nevada Institutional Review Board allowed the use of a parent opt-out consent form. In the future it is likely that more stringent requirements will be imposed mandating parents to sign a consent form prior to participation. This requirement may significantly decrease response rate further by burden school teachers and administrators with additional responsibilities they may not be willing to assume. It
is recommended that other evaluation approaches be investigated to streamline data collection and improve 4-H impact evaluation efforts.

## Recommendation for Practice

Safrit and Auck (2003) make sound recommendations to improve our 4-H programming by capitalizing upon which $4-\mathrm{H}$ seems to excel, leadership and community service. Their recommendations include:

1. Encourage volunteers to conduct community service and connect project work with service opportunities. 4-H programming typically encourages community service but thought is seldom given to making the connection between project and service. Community service that makes this connection may promote more enthusiastic participation by 4-H members. Making this connection may require more creative brainstorming on the part of members, parents, and leaders. More time spent on the front end of community service produces added benefits in the long term. When youth understand that their involvement in a particular field has application to the larger community, a feeling of contribution should result.
2. Youth development professionals develop and share community service learning materials. 4-H leaders need help understanding the value of community service and the inherent educational opportunity. Community service must be conveyed as not just another Extension office expectation but a purposeful means of youth development. Materials must be developed and made available to 4-H leaders describing how learning is optimized through community service. Also, training should be provided to increase the likelihood of community service learning material use.
3. Link statewide events to learning opportunities in volunteerism, community service, and service learning. State events can set the standard for community service learning and be a model for county programs to emulate.
4. Develop partnerships with schools and youth organizations by sharing curriculum and community service opportunities and essentially bring community service learning to all youth not just those identified as 4-H members. 4-H programs can expand their reach and collaborate with other youth entities within the community. Opportunity to identify service related to community needs, and opportunity to involve a more diverse youth work force spanning various interest groups, may result in more impact full service projects.
5. In addition to Safrit and Auck's (2003) recommendations, study results should be summarized and made available to legislators, school officials, and community leaders. It is the responsibility of the University of Nevada Cooperative Extension to disseminate accountability information. Community decision-makers need to be made aware of how 4-H programming and how their investments pay long term dividends in the growth and development of our youth.

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## APPENDIX A



Office of Human Research Protectis 205 Ross Hall/331
Reno, Nevada 89557-0246
(775) 327-2368

FAX: (775) 327-2369
www.unr.edu/ohrp

## MEMORANDUM

TO: Steven Lewis
UNCE / Minden
FROM: Susan Ford Publicover, CIP
Director
SUBJECT: Certification of Protocol SA06/07-049 "You and Your Free Time In and Out of School: A Survey of Nevada 5th, 7th and 9th Grade Students" (Sponsor: none)

On December 7, 2006, the University of Nevada, Reno, Social Behavioral Institutional Review Board reviewed and approved the above referenced protocol, pending receipt and approval of minor revisions of the protocol. Revisions of the protocol (01/10/07 ver.) were given final approval on January 18,2007 , so the research may now proceed. Please note that a waiver of signed assent and parental permission was granted for this protocol.

This protocol expires on December 7,2007 unless renewed prior to that date.
The Principal Investigator is responsible for advising the Board of any changes in the protocol* or unanticipated risks that may arise during the course of research within ten (10) working days. (For appropriate forms see http:www.unr.edu/ohrp) [*If you wish to close this protocol prior to the expiration date, please notify the Board by submitting a completed "Request to Modify Protocol" form indicating "closure" and include a final progress report, a summary of all activities since the protocol was approved.]

This institution has a human subjects assurance of compliance on file with the Department of Health and Human Services, Office of the Secretary, Office for Human Research Protections. The assurance number is FWA00002306.

If any additional information is necessary, please contact Holly Koontz or me at 775-3272368.

## APPENDIX B



## MEMORANDUM

TO: $\quad$ Nevada School District Superintendents and Selected Nevada School Principals

FROM: Keith Rheault, Superintendent of Public Instruction Nevada Department of Education

SUBJECT: Letter of Support - Doctoral Survey of Selected Nevada School Students

I have had the opportunity to review the planned student survey of Mr. Steve Lewis, Doctoral Candidate at the University of Nevada, Reno. The study examines the influences of organized extracurricular activities on student risk behaviors and replicates similar studies that have been conducted in Montana, Idaho, Colorado and Utah. The results of the survey would provide an excellent resource that would supplement the Youth Risk Behavior Survey information conducted every two years by the state.

I have known Steve for about 20 years through his work with the University of Nevada Cooperative Extension Service and know that he has always had a strong interest in the success of our youth through his many years of public service with 4-H youth. I would encourage you, when asked by Steve, to participate in the "Survey of Nevada $5^{\text {th }}, 7{ }^{\text {th }}, 9^{\text {th }}$ Grade Students Out-OfSchool Time Survey."

If you have any questions regarding the information in this Memorandum, please do not hesitate to give me a call at 687-9217.

## APPENDIX C

Washoe County School District Approval Letter

Steven Lewis of the University of Nevada Cooperative Extension Service has been granted permission to conduct a research study within the District entitled, "You and Your Free Time In and Out-of School: A Survey of Nevada 5th, 7th, 9th Grade Students." This student-level survey will examine the influence of organized extracurricular activities on risk behaviors.

A letter of support for this project from Dr. Keith Rheault, Superintendent of Public Instruction, Nevada Department of Education, is attached.

Mr. Lewis will be contacting Principals directly if their school is selected to participate. As with all approved research, participation is voluntary. Principals, teachers, parents and students may decline to participate for any reason.

If you have any questions about the research project, please feel free to email or call.

Janette M. Hall, M.A., M.S.
Data Analyst
Public Policy, Accountability \& Assessment Washoe County School District
425 East Ninth Street
Reno, Nevada 89520
775.325.2081

## APPENDIX D


(cover letter, initial superintendent/principal contact)
(insert date)
(insert superintendent/principal name)

University of Nevada Cooperative Extension is conducting a research project to determine the influence of in and out of school time activities on the quality of life of Nevada youth. Your assistance in this effort is requested.

Enclosed, please find a survey copy, a letter of support from the state superintendent, a letter of cooperation, and UNR's Institutional Review Board approval.

Information from the 20 -minute survey of $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ grade students will be used to determine the effectiveness of various out of school time activities, such as $4-\mathrm{H}$. The survey also looks at the avoidance of "at risk" behaviors and the enhancement of positive youth development. This study was previously conducted in Montana, Idaho, Utah and Colorado. With your help, we have an opportunity to collect data specific to Nevada. This information will guide many youth development efforts in the future for our state.

I will be contacting you by phone in about a week to answer questions you might have and to ask if your school district is willing to participate. Your assistance in working with University of Nevada to conduct this study is greatly appreciated.

Sincerely your,

Steven R. Lewis, Extension Educator

[^0]
## APPENDIX E

## You and Your free Time in and OUT OF SCHOOL: A survey of Nevada $5^{T H}, 7^{\pi+}, \& 9^{T H}$ Grade STUDENTS



This is not a test. There are no right or wrong answers. This is a survey about the activities you are involved with in and outside of school. Your participation in this survey is strictly voluntary. This means you don't have to take it if you don't want to. Also, you have the option of leaving blank any question you prefer not to answer. If you choose not to take the survey, you will be asked to read quietly or do homework, (teacher discretion). Your answers will be kept private. Your answers will not be read by your teacher or anyone else at school. Your name will not show anywhere on the survey, and your answers will not be identified with you individually. Your survey will only be combined with all the other student surveys completed in Nevada. Thank you for taking the time to complete this survey

1. During the school week, do you spend time. (Circle your answers.)

- in drama, art, dance, band, choir, orchestra, music lessons, practicing voice or an instrument?
- playing on or helping with sports teams at school or in the community?
- in other school clubs or organizations (for example, school newspaper, student

Yes No government, school plays, language clubs,
hobby clubs, debate, etc.)?

- in 4-H club activities or projects?

Yes No

- in clubs or organizations (other than sports) outside of school (such as Scouts, Boys

Yes No and Girls Clubs, YWCA, YMCA, etc.)?

- attending services, groups, or programs of a spiritual nature?
- with your friends without anything special to do?

Yes No
Yes No

## How do you rate yourself on the following statements? (circle

 best response)2. I am good at planning ahead?
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

3. I care about other people's feelings.

| Strongly |
| :---: |
| Disagree | Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

4. I feel really sad when one of my friends is unhappy.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

5. I am good at making and keeping friends.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

6. I know how to say "no" when someone wants me to do things I know are wrong or dangerous.
Strongly Disagree Neutral Agree $\left.\begin{array}{c}\text { Strongly } \\ \text { Disagree }\end{array}\right]$
7. I stay away from people who might get me in trouble.

Strongly Disagree Neutral Agree | Strongly |
| :---: |
| Disagree |

8. I volunteer in class to lead activities.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

9. I can meet and greet new people easily.

| Strongly |
| :---: |
| Disagree | Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

10.I am comfortable in new situations.

Strongly Disagree Neutral Agree | Strongly |
| :---: |
| Disagree |

11. I feel other kids look up to me and follow my example.

Strongly
Disagree
Disagree Neutral
Agree
Strongly
Agree

How much do you agree or disagree with the following statements? (Circle one answer per statement)
12. When things don't go well for me, I am good at finding a way to make things better.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

13. I have little control over the things that will happen in my life.

| Strongly <br> Disagree | Disagree $\quad$ Neutral $\quad$ Agree | Strongly <br> Agree |
| :--- | :--- | :--- |

14. On the whole, I like myself.

| Strongly |
| :--- |
| Disagree | Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

15. At times, I think I am no good at all.

| Strongly |  |
| :--- | :--- | :--- |
| Disagree | Disagree $\quad$ Neutral AgreeStrongly <br> Agree |

16. All in all, I am glad I am me.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

17. I feel I do not have much to be proud of.

| Strongly |  |
| :--- | :--- | :--- |
| Disagree | Disagree $\quad$ Neutral AgreeStrongly <br> Agree |

18. Sometimes I feel like my life has no purpose.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

Please check one answer per question.
19. Were you elected to a leadership position in your school this past year?
$\square \mathrm{NO}$
No
YesNot possible in my grade or school
20. Did you hold any leadership position in your school this past year?
$\square$ No $\square$
YesNot possible in my grade or school
21. Did you serve as a committee chairperson in your school this past year?No
Yes
Not possible in my grade or school
22. Did you serve as a committee member in your school this past year?YesNot possible in my grade or school
23. Did you help others in your school this past year?

ㅁ No
$\square$ Yes
V If yes, how often?
$\square$ Once $\square$ Afew times $\square$ Frequently
24. If you had an important question about something going on in your life, is there an adult (not counting your parents/ guardians) to whom you felt comfortable going to for help?
ㅁ No
ㅁ Yes
M If yes, how often?
ㅁ Once
-
A few times
Frequently
25. In the last month, did you have a good conversation with one of your parents/guardians that lasted 10 minutes or more?
ㅁ NeverOnceA few timesFrequently
26. In the last month, did you have a good conversation with an adult(not a parent/guardian) that lasted 10 minutes or more?
$\square$ NeverOnce A few timesFrequently
27. If you had an important concern about the following issues, would you talk to your parents/guardians about it? (check one response for each issue)

|  | Would Talk to Parent? |  |
| :--- | :--- | :--- |
| Drugs | $\square$ Yes | $\square$ No |
| Alcohol | $\square$ Yes | $\square$ No |
| Sex | $\square$ Yes | $\square$ No |
| Any other serious issue | $\square$ Yes | $\square$ No |

## How much do you agree or disagree with the following statements? (circle one answer per statement)

28 . I can do things on my own.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

29. I set goals.
$\begin{array}{lll}\text { Strongly } & \text { Disagree Neutral Agree } \begin{array}{c}\text { Strongly } \\ \text { Agree }\end{array}\end{array}$
30. Ten years from now, I think I will be very happy.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

## 31. I am responsible for my actions.

Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

32. I like to try new things.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

33. I am a good organizer.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

34.I am a good money manager.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

35. Adults in my town or city make me feel important.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

36. Adults in my town or city listen to what I have to say.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

37. Adults in my town or city don't care about people my age.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

38. In my town or city, I feel like I matter to people.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

39. In my family, I feel useful and important.
Strongly
Disagree
Disagree Neutral
Agree
Strongly
40. I'm given lots of chances to help make my town or city a better place to live.

| Strongly |
| :--- |
| Disagree | Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

41. Students help decide what goes on at my school.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

42. I have good written record keeping skills (such as keeping a journal or diary).
Strongly
Disagree
Disagree
Neutral
Agree
Strongly
Agree
43. I am comfortable giving a speech or demonstration in front of people.

| Strongly |
| :--- |
| Disagree | Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

## Please check approximately how many times

44. During the past year did you . . .
a) cheat on a test?
$\square$ Never $\square$ Once $\square$ A few times $\square$ Frequently
b) drink alcohol without your parents permission?Never
OnceA few timesFrequently
c) shoplift?NeverOnceA few times
Frequently
d) use drugs like marijuana, methamphetamines or cocaine; or sniff glue or other fumes to get high?
$\square$ Never $\square$ Once $\square$ A few times $\square$ Frequently
e) ride in a car with a driver who had been drinking or using drugs?

NeverOnceA few timesFrequently
f) damage property just for the fun of it?Never
OnceA few timesFrequently
g) smoke cigarettes?Never $\square$ OnceA few timesFrequently
h) use smokeless tobacco (like Copenhagen/Skoal)?
$\square$ NeverOnce
A few timesFrequently
i) participate in any type of sexual activity?NeverOnceA few timesFrequently
j) skip or cut class without permission from your parents?

NeverOnceA few timesFrequently

## During the last 12 months, have you...

45. been involved in a project to help make life better for other people?
$\square$ No
$\square$ Yes
46. given money or time to a charity or organization that helps people?
$\square$ No
$\square$ Yes
47. spent time helping people who are poor, hungry, sick or unable to care for themselves?


ㅁ Yes

## Please fill in the blanks.

48. How old are you? $\qquad$ years old
49. What grade are you in this year?$5^{\text {th }}$ grade
$\square 8^{\text {th }}$ grade
$\square 6^{\text {th }}$ grade$9^{\text {th }}$ grade$7^{\text {th }}$ grade$10^{\text {th }}$ grade

## 50. Are you female or male?

$\square$ Female
$\square$ Male
51. Which ethnic group do you most closely identify yourself? (Check only one.)
$\square$ African-American $\square$ Native-American
$\square$ Hispanic
$\square$ White
$\square$ Other $\qquad$
52. Where does your family now live? (check only one.)
$\square$ On a farm
$\square$ In the country, not on a farm

- In town
$\square$ Large city

53. What kinds of grades do you earn in school? (check only one.)
$\square$ Mostly A's
$\square$ About half A's and half B's
$\square$ Mostly B's
$\square$ About half B's and half C's

- Mostly C's
$\square$ About half C's and half D's
$\square$ Mostly D's
$\square$ Mostly below D's

54. How many others ( 18 years old or younger) besides yourself usually live in your home?
$\qquad$ number of others that live at home
55. Which statement best describes your family? (check only one answer.)
$\square$ I live with my parents.
$\square$ I live with only my mother.
$\square$ I live with only my father.
$\square$ Sometimes I live with my mother and sometimes I live with my father.
$\square$ I live with one parent and one step-parent.
$\square$ I live with my grandparents.
$\square$ I live with a guardian, relative, or other person(s).
56. Have you ever belonged to a 4-H Club that meets formally outside of school?
$\square$ No
$\square$ Yes

- If YES, continue with the next question- If NO, turn page and go to END.

57. How many years have you been or were you in 4-H? $\qquad$
58 . Do you currently belong to a 4-H Club?
$\square$ No
$\square$ Yes
58. My participation in 4-H has been critical to my success in life.

| Strongly |
| :--- |
| Disagree | Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

60.4-H has made a positive difference in my life.
Strongly
Disagree
Disagree
Neutral
Agree
Strongly
Agree
61.4-H has made a positive difference in my family life.
Strongly
Disagree
Disagree
Neutral
Agree
Strongly Agree
62. If it weren't for 4-H, there would be few other organized activities of interest to me outside of school time in my community.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

63.4-H provides a safe place for learning and growing.
Strongly

Disagree Disagree Neutral Agree | Strongly |
| :---: |
| Agree |

64.4-H clubs are supportive environments where I feel accepted for who I am.

| Strongly |  |
| :---: | :---: |
| Disagree | Disagree Neutral AgreeStrongly <br> Agree |

65. In 4-H, I can explore my own interests.
Strongly Disagree Neutral Agree $\left.\begin{array}{c}\text { Strongly } \\ \text { Agree }\end{array}\right)$
66. What is the best part of 4-H? (Please write in the space below.)
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
67. What is the worst part of $4-\mathrm{H}$ ? (Please write in the space below.) $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## END OF SURVEY

## Thank you for helping with this study.

[^1]
## APPENDIX F

# Letter of Cooperation 

## (Insert Date)

Steve Lewis
University of Nevada Cooperative Extension
PO Box 338
Minden, NV 89423-0338
775-782-9960
775-782-9968 fax
lewiss@unce.unr.edu

This letter
Insert School Name
acknowledges that
agrees to participate in You and Your Free Time In and Out of School: A Survey of Nevada $5^{\text {th }}, 7^{\text {th }}, \mathbf{9}^{\text {th }}$ Grade Students, a study conducted by the University of Nevada Cooperative Extension.

We have been thoroughly briefed by Steve Lewis, Extension Educator, about the processes involved in cooperating with this effort. We are satisfied that the students to be involved in this study are adequately protected as human subjects. We understand that the subjects' participation is completely voluntary. We also understand that the data from individuals or individual schools will not be analyzed or reported separately.

We plan to have the survey implemented in our school on or close to $\qquad$ , 2007.

We will need $\qquad$ copies of the survey instrument in English and
$\qquad$ copies of the instrument in Spanish.

We look forward to receiving the statewide results and sharing them with our staff, students, parents and community.

Sincerely,

## APPENDIX G



## University of Nevada Cooperative Extension

Dear Parent or Guardian:
The University of Nevada Cooperative Extension (UNCE) is conducting a study to assess the impact of 4H and other out-of-school youth programs on Nevada's children. The results will reveal some important information about our youth that may be used by school administrators and community decision-makers to help youth avoid risky behavior and increase their chance to succeed in life. UNCE is investigating how young people spend their time, the extracurricular activities in which they are involved, and what experiences have had the greatest impact on their character, confidence and competence.

The school in which your son/daughter is enrolled has been randomly selected for participation in this statewide study. The survey will only take about 20 minutes or less to complete because the questions have check boxes with a response scale that ranges from "Strongly Agree" to "Strongly Disagree." This is an anonymous and confidential survey. Your child's name will not appear anywhere on the form or in the printed results.

Participation in this study is completely voluntary. Each child who participates will also be given the option of leaving blank any question she/he prefers not to answer. The decision to participate is up to you and your child. Please remember that this survey offers your child the opportunity to share his or her confidential opinions on some very important issues facing all Nevada youth. If you decline, your son or daughter will be allowed to read or study while classmates are taking the survey.

You may ask about your child's rights as a human subject or you may report (anonymously if you so choose) any comments, concerns, or complaints to the University of Nevada, Reno Social Behavioral Institutional Review Board, telephone number 775-327-2368, or by addressing a letter to the Chair of the Board, c/o Office of Human Research Protection, 205 Ross Hall/331, University of Nevada, Reno; Reno, NV 89557. UNR protocol number, SA06/07-049.

Please let the school know only if you do not wish your son or daughter to participate in this study. You may do so by filling out the bottom of this letter and returning it (via your child) to his/her teacher. Feel free to call me if you have any questions about this important study.

Sincerely,


Steven R. Lewis, Extension Educator

## APPENDIX H

Estimado Padre / Estimada Madre o Persona Responsable de la Custodia:
La Extensión Cooperativa de la Universidad de Nevada (University of Nevada Cooperative Extensión, por sus siglas en inglés UNCE) está llevando a cabo un estudio para evaluar el impacto en los jóvenes de Nevada del programa 4-H y de otros programas para niños que se realizan fuera del horario de las escuelas. Los resultados revelarán cierta cantidad de información importante acerca de nuestros jóvenes que podrán usarlos los administradores de las escuelas y las personas de la comunidad a cargo de tomar decisiones para ayudar a los jóvenes a evitar conductas riesgosas y aumentar sus posibilidades de tener éxito en la vida. UNCE está investigando como los niños pasan sus tiempos, las actividades extracurriculares en las cuales participan y cuales son las experiencias que han tenido el mayor impacto en el carácter y temperamento, nivel de confianza y capacidades de los jóvenes.

La escuela a la cual está yendo su hijo o hija ha sido seleccionada para participar en este estudio de todo el Estado de Nevada. La encuesta se podrá completar en aproximadamente solo 20 minutos, o quizás menos, porque las preguntas tienen casillitas con una escala de respuestas que va deSDe "Estoy firmemente de Acuerdo" a "Estoy firmemente en Desacuerdo." Esta encuesta es anónima y confidencial. El nombre de su hijo o hija no aparecerá en ningún lugar del formulario ni tampoco en los resultados que se lleguen a imprimir.

La participación en este estudio es completamente voluntaria. Cada niño o niña que participe también tendrá la opción de dejar cualquier pregunta en blanco, que él o ella prefiera no responder. La decisión de participar queda a cuenta suya y de su niño o niña. Por favor recuerde que esta encuesta le ofrecerá a su hijo o hija la oportunidad de compartir confidencialmente sus opiniones con respecto a asuntos importantes que enfrentan todos los jóvenes en Nevada. Si no desea participar, a su hijo o hija se le permitirá que lea algo o estudie mientras que los demás compañeros se encuentren tomando la encuesta.

Usted podrá hacer preguntas acerca de los derechos de su niño o niña como participante del estudio o podrá reportar (anónimamente si escoge hacerlo) cualquier comentario, inquietud o queja al Comité de Repaso de la Conducta Social Institucional de la Universidad de Nevada, Reno (conocido como Social Behavioral Institutional Review Board), llamando al número de teléfono 775-327-2368, o escribiendo una carta al Oficial Responsable del Consejo de la siguiente manera: Chair of the Board, c/o Office of Human Research Protection, 205 Ross Hall/331, University of Nevada, Reno; Reno, NV 89557. UNR protocol number, SA06/07-049.

Por favor infórmele a la escuela solamente si no desea que su hijo o hija participe en este estudio. Usted puede completar la parte de debajo de esta carta y enviarla (por medio de su hijo o hija) al maestro. Por favor siéntase plenamente a gusto de llamarme si tiene alguna pregunta acerca de este estudio tan importante.

Sinceramente,


Steven R. Lewis, Educador de la Extensión

## APPENDIX I



## University of Nevada Cooperative Extension

## INSTRUCTIONS

## You and Your Free Time In and Out of School: A Survey of Nevada ${ }^{\text {th }}, 7^{\text {th }}, 9^{\text {th }}$ Grade Students

Thank you for helping administer this survey. The results will reveal some important information about our youth that may be used to help them avoid risky behavior and increase their chance to succeed in life!

What does this packet include?

- Instructions (you are reading them right now)
- Surveys (English and Spanish versions)
- Parent/Guardian Letter (English and Spanish versions)
- Tracking Form
- Return Envelope

1) What do you do first?

Send the Parent/Guardian Letter home with your students at least a couple days prior to giving the survey. This letter explains the purpose of the survey, and instructs them to act if they don't want their child to participate. Remind the students to return the form if their parents don't want them to participate.

Make sure that you have enough surveys. I included a few extras but if you need more please call early on so I have time to get them to you.

## 2) Day of the survey

Please distribute one survey to each student and then read the following instructions which also appears at the top of each survey form:

This is not a test. There are no right or wrong answers. This is a survey about the activities you are involved with in and outside of school. Your participation in this survey is strictly voluntary. This means you don't have to take it if you don't want to. Also, you have the option of leaving blank any question you prefer not to answer. If you choose not to take the survey, you will be asked to read quietly or do homework, (teacher discretion). Your answers will be kept private. Your answers will not be read by your teacher or anyone else at school. Your name will not show anywhere on the survey, and your answers will not be identified with you individually. Your survey will only be combined with all the other student surveys completed in Nevada. Thank you for taking the time to complete this survey.

- Inform students choosing not to take the survey, what they will be doing, such as reading quietly or doing homework. This may also be instructive to students who complete the survey early.
- Instruct students (completing the Spanish and English survey versions) to turn their survey over on their desk when completed. Once all surveys are completed, instruct students to take their survey and physically place it inside the one return envelope provided per class. This procedure is critically important to insure anonymity.
- Then, please complete the tracking form, insert it in the same return envelope containing all the surveys, seal the envelope, and mail it as soon as possible.

You should encourage students to work through the survey in a focused way, not spending too much time thinking about the answer to any particular question. For most children the survey will take only 20 minutes to complete. Some children will have more trouble reading the survey questions than others. For slower readers, you may have to allow them extra time. If you have an in-class aide, you might be able to have this person read the questions to the students. If any student struggles too much with completing the survey, instruct them to turn it in together with all the other students at the end of 30 minutes, even if incomplete.

I encourage you to foster a serious atmosphere where students do not work together on answers to the questions. Please try to keep students focused on finishing the questionnaire and concentrating on answering to the best of their ability. If any students have questions, feel free to try and help them understand the questions.


#### Abstract

Thanks again very much for your help! Steve Lewis, University of Nevada Cooperative Extension, PO Box 338, Minden, NV 89423, 775-782-9960. If you have any questions about your rights as a volunteer in this research, contact University of Nevada Reno, Social Behavioral Institutional Review Board at (775) 327-2368 or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall/331, University of Nevada Reno, Reno, NV 89557.


[^2]
## TRACKING FORM

You and Your Free Time In and Out of School: A Survey of Nevada $5^{\text {th }}, 7^{\text {th }}, 9^{\text {th }}$ Grade Students

County:

School Name:

Grade Level:

Proctor's Name:

Date Survey was Given:

Number of Surveys Attached:

Comments:
(please complete and enclose with surveys in the pre-paid self addressed envelope) Thank You!!!
Steve Lewis, University of Nevada Cooperative Extension, PO Box 338, Minden, NV 89423, 775-782-9960. If you have any questions about your rights as a volunteer in this research, contact University of Nevada Reno, Social Behavioral Institutional Review Board at (775) 327-2368 or by addressing a letter to the Chair of the Board, c/o UNR Office of Human Research Protection, 205 Ross Hall/331, University of Nevada Reno, Reno, NV 89557.

## APPENDIX K

## Phone Script for Public School District Superintendents and Principals

Hello, I'm Steve Lewis, with University of Nevada Cooperative Extension. Thanks for taking my call.

About a week ago I sent you some information on a student survey we are conducting across the state - You and Your Free Time In and Out of School: A Survey of Nevada $5^{\text {th }}, 7^{\text {th }}$, and $9^{\text {th }}$ Grade Students. Did you receive the materials?

## Script for District Superintendent

(If answer is no) - I'd be happy to drop another copy in the mail for you to review (check mailing address).
(If answer is yes) - I'd like to know if you have any questions about the survey or the process? Also, I'm calling to see if you will grant approval for me to contact your principals to see if they are willing to participate.
(If answer is no) - Thank you for taking the time to review the materials.
(If the answer is yes) - Thank you, I will be contacting your principals with the same packet of information I sent you. I will also mention that I've spoken to you and you have given me permission to speak to them.

## Script for School Principals

(If answer is no) - I'd be happy to drop another copy in the mail for you to review (check mailing address).
(If answer is yes) - I'd like to know if you have any questions about the survey or the process? Also, I'm calling to see if you will grant approval for me to conduct this survey at your school.
(If answer is no) - Thank you for taking the time to review the materials.
(If answer is yes) - Fantastic, thank you! Please complete the cooperation letter indicating your willingness to participate. Also, identify the date you intend to give the survey and the number of surveys you will need. Please be aware that the parent opt out letter needs to go out at least 2 weeks prior to giving the survey. Thanks again!

## APPENDIX L

## Reasons Why Schools Did Not Participate

We will see what we can do, we have been surveyed to death this school year.
We have recently completed a very similar survey for the state. We are not interested in administering a similar instrument to our students again this year. If you have questions regarding surveys you should direct them to Katherine Louden in the substance abuse/ share office.

I am sorry but Reno High School will not be able to conduct your survey. We have had a great number of surveys this school year and I do not wish to conduct any more surveys this school year. Again, I am sorry. Thank You.

I'm sorry...we really can't do this....right in the middle of testing....just finished several surveys for the state.

We are giving a risk survey to our students this week. We would not be interested in participating in another survey. Sorry.

Sorry, but we are not going to participate in this survey.
I am sorry but we are off track right now and will not come back on track for another two weeks. We are down to crunch time and my teachers cannot handle one more thing. Thank you anyway!

Sorry, our teachers and students have been tested and surveyed to death. With all the things we are expected to accomplish this is just one more. We will not be participating this year. Thanks.

You are right we are inundated with surveys and I have promised my teachers no more. I apologize but we just have so much to accomplish and so little time. I hope that you find your answers through some other avenues.

At this time, our teachers are too busy to do a survey. We have done so may already. Sorry.

I am so sorry but it is impossible for me to help with anything at this point. Evaluations, budget and the accountability report are killing me. I worked all Friday night, Saturday and Sunday (until midnight) and I am still not close to having my work done. Sorry.

We will be unable to assist you with your survey. Thank you for thinking of us.
Sorry, but we are inundated with far too much and too little time for teaching.
I understand and have been so willing to do this in the past. However, we are a 5-8 school and have been inundated with testing. We are a brand new school and the teachers/students have had to endure too much up to this point.

While we find this survey to be extremely valuable and will consider this in the next few years....we just are unable to do this now. I am very sorry and want you to know we will try in the future, just not now. Thank you.

We do have many things going on. We also don't have a large 4-H population at Galena. I don't think we are the correct group to be surveying.

I have spoken with the teachers and the principal. Our students are test weary. They have participated in many tests this year and still have one school wide test to take. Additionally, at this point in the year, our time is very limited. Is it possible to administer the survey at the beginning of the 07-08 school year? I believe we would get more accurate results from the students, and there would be a more positive attitude toward the project. Thank you.

I spoke with Mr. Roberts, Principal PVHS and he is not interested in participating in the Risk Behavior Survey at this time.

I wrote to you on your first request, but it sounds like it didn't return to you. I attempted to cal today at about 1:00 because of your messages (I wasn't here yesterday, hence returning this e-mail today), but the long-distance code wouldn't work. We are absolutely buried with end-of-the-year activities, both scheduled and non-scheduled, and I'm not sure how much more my staff can take with "extras." Not to diminish your study or the importance of the survey, but we can't do it right now. I'm sorry, it's just lousy timing for us.

Our Associate Superintendent got back to me concerning the permission slips to take the survey, he said that we would not give the survey without an OK in hand from the parents. I do not have the time to collect and review these material at this time of the year. Thanks

We have done several surveys this school year for UNR. At this time we will be unable to participate. Thank you.

## VITA

Name: $\quad$ Steven Richard Lewis
Address: P.O. Box 338, Minden, NV 89423
E-mail Address: lewiss@unce.unr.edu
Education: Master of Science, University of Nevada Reno
May 1982, Animal Science
Bachelors of Science, University of Nevada Reno December 1978, Renewable Natural Resources, Range Management

Prof. Experience: Extension Educator, Associate Professor, University of Nevada Cooperative Extension, Douglas County, July 1990 to present

Interim Western Area Director, Associate Professor, University of Nevada Cooperative Extension, April 2000 - December 2000

Extension Educator, Assistant Professor, University of Nevada Cooperative Extension, Eureka County, April 1984 to June 1990

Range Conservationist, Bureau of Land Management, Carson City District March 1979 to March 1980

Scholarship: $\quad$ Over $\$ 1,000,000$ in collaborative extramural funding, 87 peer reviewed publications, facilitated over 200 planning sessions

Awards: Honorary Associates Degree, Western Nevada College Senatorial Certificate of Congratulations from John Ensign

Distinguished Service Award, National Association of County Agricultural Agents

FFA Blue and Gold Award, Nevada FFA Association.


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