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The Relationship between Religiosity and Educational Pursuit and Perception Among College Students at Utah State University

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THE RELATIONSHIP BETWEEN RELIGIOSITY AND EDUCATIONAL PURSUIT AND PERCEPTION AMONG COLLEGE STUDENTS AT UTAH STATE UNIVERSITY

by

Randy LaRose

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ABSTRACT

The Relationship between Religiosity and Educational Pursuit and Perception Among College Students at Utah State University

by

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The purpose of this study was to examine the impact of religiosity on the pursuit of education and the perceptions towards education among college students at Utah State University (USU). The study focused on what religious variables were useful in predicting postsecondary educational pursuit and either positive or negative educational perceptions among students at USU. From a systematic random sample of 1,460 USU students, a correlational research design was used for this study. Multiple linear regression (MLR) techniques were used to determine which of the various measures of religiosity provided the greatest degree of predictive value for ascertaining educational pursuit and educational perception. A stepwise multiple regression model was used to determine statistical significance of the predictors. Survey methods were used to gather the necessary data. From the results of MLR, seven independent variables (gender, religious practice, parental education, marital status, religious affiliation, positive

religious experience, and ethnicity) correlate significantly with four constructs concerning educational perceptions and pursuits (school experience, academic attainments, family pressure, and influences). Of the seven independent variables revealed by MLR to be significant predictors of educational pursuits and perceptions, the measured constructs concerning religiosity were found to be generally less important than the demographic factors.

(177 pages)

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Randy A. LaRose

CONTENTS

Page

Page

LIST OF TABLES

Table Page

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The father of sociology, August Comte (1858), purposed a secularization theory that predicted that by the end of the 20th century, religion would be replaced by science. A main part of his theory purported that well-educated people would be less religious than poorly educated people would. Comte believed that religious people would not have the desire to be educated, and that those who did would eventually abandon their religious beliefs to secular knowledge. His prediction, possibly based on his own personal philosophical bent, raised the question: Do religious people believe in the benefits of education?

Moving ahead past Comte's target date into our century, is there merit to Comte's prediction? Do religious people consistently avoid educational pursuits? Are there elements in the intellectual makeup of these people that would cause them to resist education or to minimize its impact on their own thinking? Or, alternatively, are there benefits to education that are obvious to anyone in today's world, whether religious or not?

Turning to social science, there are many indicators of higher education's effects, for religious or nonreligious persons alike, which would seem to be beneficial. Baum and Payea (2005) reported in their study for the trends in higher education series that students who pursued their postsecondary education gained an array of personal, financial, and other lifelong benefits. Similarly, society as a whole receives a host of direct and indirect

benefits when citizens have access to postsecondary education. Baum and Payea also reported that the benefits of participating in postsecondary education included higher earnings for all racial/ethnic groups and for both men and women. Unless a person held strongly to a belief that contact with modern western society and its values would be detrimental to the person's well-being, it would be hard not to see higher lifetime earnings or greater exposure to people with contrasting values as anything but positive. Researchers Baum and Payea concluded that any college experience produces a measurable benefit when compared with no postsecondary education, but the benefits of completing a bachelor's degree or higher are significantly greater than most other options. Baum and Payea reported additional benefits for higher levels of education, which include the following:

1. Lower levels of unemployment and poverty
2. More contributions to tax revenues
3. Less dependency on social safety-net programs, generating decreased demand on public budgets
4. Lower smoking rates
5. More positive perceptions of personal health
6. Lower incarceration rates than individuals who have not graduated from college
7. Higher levels of civic participation, including volunteer work, voting, and blood donation
8. Higher levels of school readiness indicators for children of college graduates

than children of noncollege graduates

9. Significantly higher levels of college attendance for children of parents who attended college themselves than those who did not.

Nemko (2008) believed that higher education is a wise choice, but is not without some disadvantages as well. He stated that two thirds of high school students who graduated in the bottom 40% of their classes had not earned college diplomas over 8 years later. Nemko also noted that most college dropouts leave with substantial debt and demoralized self-esteem.

Even those who do graduate may find themselves in careers that do not require a college education. Barton (2008) stated that race, ethnicity, socioeconomic status, and geography have a huge impact on who has access to higher education in the USA and who receives its subsequent benefits.

While there are few distinctive disadvantages of higher education, several researchers conclude that the pursuit of postsecondary education does pay, for individuals and society in general. The value of higher education noted makes it essential that religious, educational, and civic leaders work to narrow the educational opportunity gaps in American society, given our democratic and egalitarian ideals as a nation.

What factors influence the decision whether or not to pursue further education after high school? Numerous studies bring up various possible factors affecting college attendance rates. Factors such as parental involvement, finances, academic achievement, access to or lack of information, socioeconomic status, as well as many others have received a lot of attention from researchers over the years. A factor influencing

educational decisions that has received unprecedented attention over the past few decades is religiosity, a term used by religious researchers that embodies one's religious motivation, commitment, and behavior (Cornwall & Cunningham, 1989; Glock & Stark, 1965; Johnstone, 1997; McGuire, 1992). What impact does a person's religiosity have on educational decisions and attitudes? This study examined the facets of that question.

Perspective on the Problem

Each year the National Research Center for College and University Admissions (NRCCUA) implements a postsecondary planning analysis. The purpose of this analysis is to provide an in-depth look at current trends and preferences among college-bound students (NRCCUA, 2006). The NRCCUA reported an average of 60% of the American high school graduation population going on to pursue postsecondary education over the past 6 years. This statistic provides assessments on the collective future needs and activities of a graduating school class. The college attendance rate (CAR) is defined here as "The proportion of seniors graduating from a given high school, during a given year, that will enroll full-time at an academic college sometime during the following year" (Hoover, 1990, p. 4). Given the huge financial and time outlays required to pursue education beyond high school, what factors could explain a 60% college attendance rate for Americans?

A factor that some purport has the greatest influence on pursuing postsecondary education is that of finances. Ekstrom (1991) conducted a study that explored the relationship between high school seniors' attitudes about borrowing for education and the

postsecondary education choices they make. Findings supported her contention that students who are reluctant to borrow are less likely to enroll in postsecondary education. These findings held greater weight over other tested variables such as educational aspirations, tested achievement, influence from others, and socioeconomic status (Ekstrom). Additionally, Robyn (1993) reported factors negatively associated with attending college as “low income, low level of parental education, minority race and ethnicity, lack of college aspirations, poor academic achievement, and lack of information” (p. 18).

Longitudinal data were collected through surveys completed by students in the 9th and 11th grades to determine what factors influence a student's decision for postsecondary education (Shepard, 1992). Several variables were revealed that influence a student’s educational choice in a positive way: parent's change in educational expectations, the importance of status attainment, the amount of time spent thinking about plans after high school, a positive change in grade point average, mothers' and fathers' level of education, and the importance parents place on the student’s maintaining a day job (Shepard).

Although the variables mentioned in the previous paragraph have received extensive attention from researchers over time, the main variable of interest for predicting educational pursuit and perception in a positive way for this study was religiosity. Albrecht (1989) designated Karl Marx among the early founders of the study of religion. He pointed out that Marx often criticized the churches, seeing religion itself as a societal response of a callous world. This feeling describes how many modern researchers

approach the study of religion today. According to Johnson (1997), social scientists, "have long ceased troubling themselves with exclusive investigations of the relationship between formal education and religious belief" (p. 231). Line (2005) pointed out that research attempting to connect religion and education has been the subject of much debate and even clear disparagement from the secular world. Many researchers purported that the industrial world views religion and education as opposing entities, adhering to the assumption that the more religious a person is, the less inclined that person would be academically, as well as the converse (Albrecht, 1989; Chadwick & Top, 2001; Regnerus, 2000; Zern, 1989).

Smith (2003), who is the principal investigator of the National Study of Youth and Religion, mentioned that numerous studies have been done that address the general issue of religion in the lives of American youth. Little work, however, has been done with regards to specific religious minority groups, of which The Church of Jesus Christ of Latter-day Saints (LDS Church) can be considered one (Jeynes, 1999). Within a number of religious studies, the LDS Church is typically placed in the category of either conservative or fundamentalist Protestant religions (Chadwick, Top, & McClendon, in press). Research shows that members of these groups are least likely to attend college, have the least educational pursuit, experience a substantially negative influence on educational pursuit, and are often opposed to secular education because of its threat to religious beliefs (Beyerlein & Smith, 2004; Darrnel & Sherkat, 1997; Keysar & Kosmin, 1995; Lehrer, 1999; Rhodes & Nam, 1970; Sacerdote & Glaser, 2001).

The cultural expectations among the Latter-day Saints in regards to obtaining an

education are quite different from the typical conservative, fundamentalist position expressed above. Rather than being suspicious of academics, the leaders of the LDS Church stress the importance of obtaining an education: “Leaders of this Church have repeatedly emphasized the importance of education. Because of our sacred regard for each human intellect, we consider obtaining an education to be a religious responsibility. Our Creator expects His children everywhere to educate themselves” (Nelson, 1992, p. 6).

Believing “the glory of God is intelligence” (D&C 93:36), the LDS Church has been a strong proponent of both religious and secular instruction of its members. Kimball (1982), then President of the church and an authoritative spokesman, taught:

> One need not choose between the two [education and religion]…for there is opportunity to get both simultaneously. Secular knowledge…can be most helpful to that man who, placing first things first, has found the way to eternal life and who can now bring into play all knowledge to be his tool and servant. (p. 390)

Conversely, that members should pursue higher education has not always been an obvious conclusion to members of the LDS Church. The church’s support of obtaining secular education did bring with it some unexpected spiritual challenges. These challenges are discussed further in the last section of the literature review.

Problem Statement

The purpose of this study was to examine the impact of religiosity on educational pursuit and perceptions among college students at one university, namely Utah State University (USU). The researcher was aware that the demographics of USU were predominantly LDS and that most of the data collected would reflect the LDS culture.

Undertaking this study was done knowingly so as to provide good data and conclusions for a large population of LDS students, and, in addition, to give an overall view of USU students as a whole in regards to their religiosity. Although the purpose of this study was to look at the overall picture of religiosity and education at USU, additional focus was placed on the LDS student picture in anticipation of the large percentage of LDS respondents.

There is a dearth of studies that deal specifically with LDS higher educational pursuit and perceptions, since previous studies have positioned the LDS Church with fundamental or conservative Protestants. Since the LDS Church's educational ideals clearly do not fit in with the fundamentalist or conservative denominations' basic world view and thus promote different patterns of educational aspirations, a study that would include a high percentage of LDS college students would be beneficial for the LDS Church to determine if the educational behaviors and perceptions of its members are truly unique, as predicted. Even though most of the data will come from LDS students, findings from this study should provide valuable information that could serve to encourage the postsecondary pursuits of college students of all faiths, opening the doors of opportunity to numerous lifelong personal and societal benefits.

Research Questions

1. What impact does religiosity have on the decisions of students at USU to pursue their postsecondary education?

2. What other variables, if any, are useful in explaining postsecondary educational pursuit among students at USU?

3. How does religiosity influence the educational perceptions of students at USU?

4. What other variables, if any, are useful in explaining positive or negative educational perceptions among students at USU?

Research Hypotheses

Ho1: All measures of religiosity do not impact the postsecondary educational pursuits of students at USU.

Ho2: All other variables are not useful in explaining postsecondary educational pursuits of students at USU.

Ho3: All measures of religiosity do not influence the educational perceptions of students at USU.

Ho4: All other variables are not useful in explaining positive or negative educational perceptions among students at USU.

Definition of Terms

The following definitions apply as they will be used in this study.

Bishop: A term used in the LDS Church for a man who has been given the overall responsibility for ministering the temporal and spiritual affairs of a single ward or congregation.

Church Educational System (CES): The administrative organization responsible for the weekday religious teaching within The Church of Jesus Christ of Latter-day Saints through seminaries (high school age) and institutes of religion (college age) classes and

programs. This organization was recently changed to Seminaries and Institutes (S&I).

Conservative Protestants: Christians who believe in most or all of the following tenets: the virgin birth of Jesus Christ; the doctrine of Trinity; the doctrine of the deity of Jesus Christ (i.e., that Jesus is fully God and fully man); the literal, physical resurrection and return of Jesus; the belief in both a literal heaven and a literal hell; and the inerrancy and infallibility of the Bible.

Educational aspirations: Individuals' ideas and desires in regards to postsecondary learning.

Educational pursuit: For the purpose of this study, this term refers to a combination of academic achievement, expectations about continuing one's education, and the influences associated with engaging in postsecondary education.

Educational perception: For the purpose of this study, this term refers to the feelings students have in regards to the classroom academic and total college experience, as well as their sense of pressure from parents to do well in school.

Evangelical: Christians who generally believe in the sole authority and inerrancy of the Bible, that salvation is possible only through grace, the bodily resurrection of Jesus, the personal responsibility to share their religious beliefs with non-Christians, and the existence of Satan.

Fundamentalist Protestants: Christians who, in a reaction to modernism, actively affirm a fundamental set of Christian beliefs: the inerrancy of the Bible, the virgin birth of Christ, the doctrine of substitutionary atonement (Jesus died intentionally and willingly as a substitute for sinners), the bodily resurrection of Jesus, and the imminent personal

return of Jesus Christ.

Influences: A range of factors (financial, spiritual, social, personal) that may motivate one to pursue postsecondary education.

LDS Church: Abbreviation used in this study for the organization formally known as The Church of Jesus Christ of Latter-day Saints. Also referred to as "Latter-day Saints" or "LDS" throughout this paper.

LDS Institutes of Religion: Institute of religion programs are established under the direction of LDS religious leaders and CES when there are sufficient numbers of LDS postsecondary students. Institute of religion programs provide weekday religious instruction for single and married postsecondary students.

Pentecostal: Christians who believe that the "manifestations of the Holy Spirit" are alive and available. They believe in the gifts of healing, miraculous powers, discerning of spirits, tongues, and interpretation of tongues. Pentecostal worship is characterized by emotional, lively expressions of belief.

Postsecondary education: (a) actively pursuing at least one day, evening, or correspondence class beyond high school level of a skill-building nature that can lead to a degree, certificate, or diploma; (b) actively pursuing an apprenticeship for which class work is required or there is a formal testing and certification procedure; or (c) involved in active military service.

Private religiosity: A self-reported measure of a student's spiritual behaviors in nonstructured times and places. These covert behaviors include personal prayer, seeking forgiveness from God, striving to live in daily life according to the person's

understanding of religious teachings.

Prophet: Person or persons designated in sacred or authoritative writings or by religious organizations as authorized representatives to speak for God.

Public religiosity: A self-reported measure of a student's spiritual behaviors that are institutional and/or shown in some outward fashion. These overt behaviors for LDS Church members include attendance at church services, paying tithing, sharing beliefs with others, performing service, and so forth.

Religiosity: A comprehensive term used by researchers that embodies one's spiritual ardor, beliefs, experiences, motivation, commitment, and behavior. This term is inclusive of private and public religiosity mentioned above.

Tithing: The practice of giving one-tenth of a person's income to that person's religious organization.

Scriptures: Sacred or authoritative religious writings. The official, canonized scriptures of the LDS Church include the Bible (Old and New Testaments), the Book of Mormon, the Doctrine and Covenants, and the Pearl of Great Price.

Secular learning: An education void of religious dogma, typically based on the principles of science, and physics, dealing with cause and effect.

Stake: A group of LDS congregations or wards, generally about three to five thousand members in five to ten congregations.

CHAPTER II

LITERATURE REVIEW

Introduction

This chapter reviews relevant studies of education and religiosity. A systematic search of the literature on religiosity and education used the following search terms: religiosity, religion, education, LDS, Mormon, postsecondary education, educational pursuit, and educational perception. The following databases were searched electronically: Dissertation Abstracts, Educational Resources Information Clearinghouse (ERIC), American Educational Research Association (AERA) conference proceedings and Journals, Sunstone, Dialogue: a Journal of Mormon Thought, BYU Studies, and the Social Science Citation Index (SSCI). Extensive inquiries were made into numerous scholarly religious journals, including: *The Journal of Religion and Society, Journal for the Scientific Study of Religion, Review of Religious Research, The Religious Educator*, and *American Sociological Review*. The important concepts addressed in this literature review include a review of literature addressing religiosity and religiosity instruments, empirical studies dealing with religiosity and education (with a focus on studies dealing specifically with LDS subjects), and grounding the cultural expectation of education within LDS theology.

Religiosity

Religion plays a prominent role in the social fabric of nations and cultures around the world (Bahr & Forste, 1998). Some of the early founders of the study of religion

include Emile Durkheim, Max Weber, and, as cited earlier, Karl Marx. A substantial record of research has come forth dealing with subjects such as the nature of religious belief systems, the process of religious conversion, and dimensions of religiosity (Thomas & Henry, 1988). These developments have ushered in what Demereth and Roof (1976) called "the most exciting decades since at least the early 1900s in terms of the quantity and quality of research and theory on the social science of religion" (p. 19).

Studies of religiosity have uncovered correlations between religiosity and other variables. Religious adolescents are more likely to avoid risky behaviors (Lippman, Michelsen, & Roehlekepartain, 2004) and to engage in positive activities (Bridges & Moore, 2002). Smith and Faris (2002) indicate that adolescents who see themselves as religious are less likely to take risks or enjoy danger, engage in violent behaviors, or get in trouble with the police. These adolescents are also less likely to skip school and to be suspended, expelled, or sent to detention. Regnerus, Smith, and Fritsch (2003) found that religious youth are more likely than their nonreligious peers to engage in healthy behaviors such as exercising regularly and wearing a seatbelt, and they have better eating and sleeping habits. Religious teens also have lower rates of drug and alcohol abuse (McIntosh, Fitch, Wilson, & Nyburg, 1981; McIntosh & Spilka, 1990; National Center on Addiction and Substance Abuse at Columbia University, 2001). Udry (1988) found that religious youth had decreased levels of sexual activity.

In regards to the effect of religiosity on the family, positive correlations have been made with family stability (Pearce & Axinn, 1998), lower divorce levels (Booth, Branaman, & Sica, 1995), greater parental involvement in family life (Wilcox, 2002), and

decreased domestic violence (Ellison, Bartkowski, & Anderson, 1997). Other positive correlations with religiosity include avoidance of suicide (Donahue & Benson, 1995), the development of social competence (Thomas & Carver, 1990), longer life expectancy (Hummer, Rogers, Nam, & Ellison, 1999), a greater ability to handle stress and traumatic loss (Balk, 1983; Palmer & Nobel, 1986; Seligman, 1991), and higher levels of self-esteem and more optimistic attitudes about life (Smith, 2001).

Conversely, studies have also shown negative correlations associated with religiosity. Shermer (2003) found that religiosity is negatively correlated with educational attainment, parental conflict, interest in science, political liberalism, openness to experience, and openness to change.

The purpose of this section of the literature review was to establish religiosity as a practical variable for research. Religiosity has a number of positive and negative correlations with many other variables. Later in this chapter we will explore what correlations religiosity has with education.

The Challenge of Religiosity Instruments

Stott (1983) stated, “The problems in measuring religiosity are numerous and resist easy solution. Even defining religiosity is a formidable task” (p. 3). Social scientists often disagree on how to define religiosity (Knowles, 2001). Glock and Stark (1965) employed the term “religious commitment.” Johnstone (1997) preferred to define religiosity as the intensity and consistency with which we practice our religion. Cornwall and Cunningham (1989) purported at least three components to religious behavior: knowing (cognition), feeling (affect), and doing (behavior). McGuire (1992) defined

religiosity as the intensity of commitment to an institutionally identifiable belief system, expressed by attitudes and behaviors.

Simel (1996) pointed out that one problem with religious studies is since religious terminology can vary significantly, uniform assessment across religious groups becomes problematic. Another problem is that, traditionally, measures of religiosity looked at observable behaviors, which were almost solely limited to church attendance. Financial support was added by some researchers as another form of observable behavior (Cornwall, Albrecht, Cunningham, & Pitcher, 1986; Glock, 1962). Using only observable behavior to determine religiosity makes it difficult for some people to fit into researchers' set categories. For example, a person can accept the truthfulness of the Bible, but never attend a church or even read the Bible very often. That behavior pattern could work in an opposite sense as well, in that one attends a church but does not hold any particular belief dimension (Albrecht, 1989). Observing behavior as a measure of religiosity would be seriously compromised for these individuals because their behaviors may not fit into the typical, often cubicle definition of religious behavior. It is difficult to look at isolated or even clustered behavioral incidents, especially those that emphasize only the behavioral aspect of religious commitment, and get a true holistic view of a person's religious depth. Not all people are religious in the same way (Johnstone, 1997).

Numerous researchers have addressed the problematic nature of one-dimensional approaches to studying religiosity (Cornwall et al., 1986; Dudley & Muthersbaugh, 1996; Thomas & Carver, 1990). A solution would be to use multiple measures of religiosity that tap different facets of a person's life. Multidimensional approaches to the study of

religiosity have been used by many writers (DeJong, Faulkner, & Warland, 1976; Fichter, 1954; Hoge, Petrillo, & Smith, 1982; King, 1967; King & Hunt, 1975; Lenski, 1953, 1961; Stark & Glock, 1968; Yinger, 1970). Multidimensional approaches tap into different areas of religiosity. Common dimensions used in most typologies developed by foundational researchers of religiosity include the following.

1. Private religious behavior: A self-report of a student's covert religious behaviors done in non-structured times and places.

2. Public religious behavior: A self-report measurement of a student's overt religious behaviors which are institutional and/or outward.

3. Religious beliefs: Points of religious doctrine taught by their associated church in which individuals believe or in which they place their faith.

4. Spiritual experiences: The feeling component of religion. Respondents are queried about their experiences involving the sensation of contact with the divine. This contact may range from feelings of peace and confirmation of truth to visions and revelations.

Other dimensions included by some researchers include devotionalism, associational involvement, and communal involvement by Lenski (1961) and Glock and Stark's (1965) knowledge and consequences dimensions, and King and Hunt's (1975) creedal assent, orientation to growth and striving, and extrinsic orientation. Several studies have explored different components of human religiosity (Brink, 1993; Hill & Hood, 1999). Hill and Hood put together a collection of 124 different measures of religiosity developed from 1929 to 1997. In their book, the treatment of every scale

included the kind of religiosity measured, a description of the measure, norms/ standardization, reliability, validity, location, recent research, and a complete copy of the instrument itself.

This section outlines the challenges of creating a religiosity measurement for research purposes and outlines some of the more common dimensions used in most measures. The numerous measures show that there are many ways of looking at an individual's type and level of religiosity along a wide range of clusters and variables. For the purpose of this study, religiosity will be used as a term that embodies one's spiritual ardor, beliefs, experiences, motivation, commitment, and behavior.

Religiosity and Education

What impact does religiosity have on educational pursuit and perception? Encouraging studies have been and are being conducted that have tried to see if there is a link between religion and education. Studies that have focused on nonspecific denominational samples have shown generally positive correlations between those two categories. According to an analysis of data covering 1976-2005, the Child Trends DataBank (2006) reported that students who plan to complete four years of college are more likely than students who do not plan to attend or finish college to report that religion plays a very important role in their lives. Dai (1996) looked at data accumulated in 1989 from the Monitoring the Future Study of 13,500 high school seniors. He used analysis of variance to compare students who self-reported different levels of attendance at religious services. He found that religious involvement was related to strong aspirations for higher education. This finding held true when controlling for factors such

as race and political orientation. The conceptual rationale for expecting this association was not clearly laid out in this study. It is possible that religious involvement and educational aspirations may be associated because of underlying common causes, rather than having a direct causal link. As mentioned earlier, using a one-dimensional measurement for measuring religiosity (church attendance) emphasizes only the behavioral aspect of religious commitment, rather than a true holistic view of a person's religious makeup.

Trusty and Watts (1999) studied a national sample of 13,000 U.S. high school seniors who were surveyed in 1988 and then again four years later in 1992. Seniors who reported that religion was important were compared to those who felt it was not. Those seniors who reported that religion was important had a better attitude towards school, fewer problems with attendance, spent more time on homework, and did better academically. Using this same study, Muller and Ellison (2001) found that personal religious involvement remained modestly associated with desired behaviors in school.

Jeynes (1999) analyzed data from the same large sample. After controlling for social class, gender, and type of school, he found that religious work ethic fostered higher academic achievement and that religious youth were employed in significantly less risky behavior that jeopardizes academic performance. Using a national sample of 13,500 high school students, Regnerus and Elder (2003) also found that youth who are actively involved in a church keep from engaging in risky behavior that negatively affects schooling.

Astin and Astin (2004) reported that students who read sacred texts and other

religious materials, attend church, and who engage in religious singing have higher-than-expected grades. They also found that students with high religiosity had more satisfaction with their college experience, stronger self-esteem, lower psychological distress, and higher self-rated physical health.

Loury (2004) found a relationship between church activity as a teenager and educational attainment in later life. Longitudinal data collected from a sample of youth in 1979 and then 14 years later found that respondents who were active in their church as teenagers had obtained more education than had those who were not. Loury concluded that both family and religious influences contribute to performance in school. Regnerus et al. (2003) theorized, "Religious service attendance constitutes a form of social integration that has the consequence of reinforcing values conducive to educational attainment and goal setting" (p. 21). Supporting these ideas, Muller and Ellison (2001) felt that religious high school youth generally had higher parental educational expectations, which would influence educational attainment and achievement.

Not all studies have shown positive correlations between religion and education. Rhodes and Nam (1970) looked at census data for the United States and found that children with a Jewish or mainline Protestant mother were most likely to attend college, whereas children with mothers who belonged to more fundamental or conservative denominations were less likely to attend. Another study conducted by Lehrer (1999), using a multivariate model, used data from a large national survey to predict educational attainment. She included religious denomination in her predicting factors. She discovered, when holding various family background variables constant, that those of the

Jewish faith had the most educational achievement, whereas fundamentalist denominations had the least. Sacerdote and Glaser (2001) confirmed this finding in their analysis of data from the General Social Survey (1972-2004). Mainline Protestants and Catholics were in the center of the distribution.

Darrnel and Sherkat (1997) used a national sample of youth to determine the relationship between fundamentalist religious affiliation and educational attainment. Their analysis of the longitudinal data showed that both conservative Protestant and fundamentalist affiliations had a substantially negative influence on educational attainment. Darnel and Sherkat also studied the religious teachings of popular conservative Protestant authors to see if there were any indications that educational achievement was frowned upon in their doctrine. Their findings did in fact show that most of the ministers who were studied opposed “secular” education because it poses a threat to religious beliefs. The Youth-Parent Socialization Panel Study (1965-1982) also showed that youth from more fundamentalist or conservative religions had lower educational aspirations and attainment.

Keysar and Kosmin (1995) studied women across 12 different religious affiliations and found that women ages 18-24 who belonged to more conservative religions were less educated. Conservative religions are clarified as those who adhere to the belief that the Bible is the actual word of God, whereas liberal religions generally believe the Bible is a wide-ranging human document (Barrett, Kurian, & Johnson, 2001). Liberal religionists such as Methodists, Presbyterians, Episcopalians, and Jews had higher rates of academic achievement than conservative groups such as Pentecostals,

Baptists, and Lutherans. Jewish women scored highest (73%) in academic achievement, compared to Pentecostal women scoring the lowest (26%). Beyerlein and Smith (2004) found that persons from mainline and evangelical Protestant denominations were five times more likely to have graduated from college than Pentecostal Protestants and 2½ times more likely than fundamentalist Protestants. One reaction to low college attendance by these denominations has been to maintain their own institutions (e.g., Oral Roberts College).

Although the educational differences between members of various denominations are substantial, other factors may be involved, such as social class and minority culture. Chadwick et al. (in press) pointed out that members of fundamentalist churches tend to be from lower classes and minority populations. This fact, they mentioned, may arguably account for their lower educational attainment rather than their religious affiliation. A strategy they suggested to eliminate these factors was to focus within a single denomination on the relationship between individual religiosity and educational attainment.

Various studies have looked at the positive impact religion has on education. However, the converse relationship that education erodes religious beliefs, commitment, and behavior is also plausible. According to Albrecht (1989), “The data are overwhelming in their consistency in pointing to a negative effect of education on religiosity” (p. 100). Hadaway and Roof (1988) purported that religious beliefs cannot stand in the face of challenges produced by higher education. In their view, the higher the level of education, the greater plausibility of the person abandoning religious beliefs and

practices. Johnson (1997) examined data from the General Social Survey (1988-1993) and found each year of schooling after graduating from high school decreased belief in God among young people in the study. Astin and Astin (2002-2005) conducted a national study of college students over a 3-year period and noted that the percentage of freshmen who attended religious services before entering college (52%) dropped to 29% by their junior year.

Roof (1976), in a study of Episcopalians, looked at the effects of education on church attendance, religious beliefs, personal prayer, and Bible reading. Only church attendance was not negatively correlated to education. King and Hunt (1972) tested urban north Texas Presbyterians, Missouri Lutherans, Methodists, and Disciples of Christ on nine dimensions of religiosity. Only the knowledge dimension did not associate negatively with increased levels of education. Thielbar and Feldman (1972) studied church members of various denominations in the San Francisco Bay area. They tested and found that religious belief, personal prayer, and religious experiences were negatively related to years of education. As in the previous two studies mentioned, however, church attendance and religious knowledge were positively correlated. In two separate studies, the Princeton Religious Research Center (1982, 1989) confirmed these findings by showing a significant negative relationship between religiosity and educational level. The higher the level of education attained, the lower the religious zeal.

The purpose of this section of the literature review was to illustrate how religious beliefs and practices impact educational pursuit and perception. When nonspecific denominational samples were used, there were typically positive correlations found

between religion and education. However, when various denominations were compared to each other, a number of negative correlations were found among conservative and fundamental Protestant religions. A major critique of doing comparison studies among various religious denominations is in using a comprehensive measurement of religiosity (Cardwell, 1980). All denominations do not view and define religious terms, doctrines, and behaviors the same way. The best way to measure a group's religiosity is by using the meanings of that group being studied. Additionally, minority religious groups such as the LDS Church are typically placed in the category of larger denominations because of the low numbers of respondents in many studies. Consequently, these studies do not give us a clear answer as to what impact religiosity has on the educational pursuits and perceptions of individual minority religious groups.

LDS Studies Involving Religiosity

The last two decades (1980-1999) have been a remarkable era for social research concerning the LDS Church (Duke, 1999). Albrecht (1989) stated, "While substantial treatises have been written on a wide variety of historical topics having to do with Mormonism, very little has been done until this period on the broad topic of our sociology" (p. 59). LDS Church membership has grown large enough that LDS people now appear in many studies. Duke pointed out that "BYU has more sociologists writing in the area of the sociology of religion than any other university in the world, and the LDS Church has the strongest research department of any denomination in the world" (p. 1). Albrecht, Chadwick, Cornwall, Duke, Heaton, Judd, and McClendon are among the leading researchers in regards to measuring and correlating religiosity with other

variables within the LDS culture. Their names come up in nearly every secondary source on that subject. Their works and contributions, as well as that of other researchers, will be addressed in this section.

One of the first major LDS studies done in the 1980s involving religiosity was conducted by the LDS Church's research department. This research explored factors that most highly predict young men being ordained to the Melchizedek Priesthood (a priesthood office for those 18 years old and above), engaging in full-time missionary service, and being married in an LDS temple. This study looked at five dimensions of religiosity: religious belief (in God, life after death, the *Book of Mormon*, Joseph Smith's first vision, etc.), religious experience (a sense of closeness to God and of the companionship of the Holy Ghost), private religious behavior (personal prayer and scripture study), public religious behavior (church attendance and program involvement), and religious activity in the home (family prayer, family home evening, family scripture study). Two population samples were used. Data were gathered first from 10,000 LDS men in the United States and Canada. The second sample came from a random sample of young men from 54 stakes (a group of congregations, generally about three to five thousand members) within the United States, as well as their parents and some of their priesthood leaders. In the first sample, data indicated that young men whose parents were married in an LDS temple were three times more likely to receive the Melchizedek priesthood and marry in the temple, five times more likely to engage in full-time missionary service, and one third less likely to marry someone who is not a member of the LDS Church. Private religious behavior and the kinds of religious practice they had

with their parents were the most significant predictors.

The second sample showed that among all the dimensions of religiosity that influence young men to serve a mission and marry in the temple, religious activity in the home had a greater influence than all other factors combined. Private religious behavior and religious experience were far more reliable indicators than religious belief and public religious behavior. Although the young men scored high on the latter two dimensions, they were not sufficient enough in and of themselves to be strong predictors of receiving the Melchizedek priesthood, future missionary service, or temple marriage (News of the Church, 1984, pp. 66-70). The original source of the study done by the Church Research Department is not available outside the research department, and so the *Church News* source is the only printed source available to the public. It would be valuable to have access to this study in order to get a better picture of the methods and procedures used to obtain these results.

In a review of 10 years of research (1985-1995) that examined religiosity and mental health among Latter-day Saints, Judd (1998) found that LDS people who scored high on religiosity scales had significantly greater marital and family stability, personal well-being, higher self-esteem, fewer incidents of premarital sex and delinquency among adolescents, and less substance abuse. A study by Heaton and Goodman (1985) confirmed these findings and added that Latter-day Saints in the United States are less likely to divorce, yet more likely to remarry after a divorce, and are more likely to bear a larger number of children. Albrecht (1989) added that LDS members who do not marry in the temple are five times more likely to divorce than those who marry in the temple.

He also notes that males from part-member LDS homes with nonworshipping parents are 10 ½ times more likely to become religiously inactive.

Albrecht and Bahr (1983) used a five-scale measure of religiosity to compare six groups of respondents: (a) Catholics and Protestants in Utah, (b) former Mormons who have converted to Catholicism or one of the Protestant churches, (c) lifelong Latter-day Saints, (d) converts to the LDS Church, (e) individuals in the sample who indicated no religious identity, and (f) those who indicated no religious identity but who, formerly, were Latter-day Saints. The measures of religiosity used a Likert scale to rate their self-definition of religiosity, church attendance, level of financial donations, and frequency of private and family prayer. Albrecht made three observations from his data. First, Latter-day Saints in Utah scored higher on the religiosity scale than any other religious group, with converts to the LDS Church being slightly more religious than lifelong members are. Second, former Mormons who convert to another faith tend to follow the religious pattern of the group they join. Third, former Mormons who do not convert to another faith tend to largely reject religious involvement altogether.

Results from a recent study led by Christian Smith (2005), and published in *Soul Searching: The Religious and Spiritual Lives of American Teenagers*, showed that LDS youth, when compared to other religious youth in America, are more knowledgeable about their faith, have a greater commitment to it, and have more positive social outcomes associated with their faith. However, one area where LDS youth did not outrank their peers was “belief in God” – 84% said they believe compared with 97% black Protestants, 94% conservative Protestants, and 86% mainline Protestants. Jon

Bartkowski, a Mississippi State University sociology professor who helped conduct the study, also noted that the LDS Church is a rigorous religion that demands a lot from its members, which sometimes results in "unworthy" members feeling ostracized (Smith).

The purpose of this section of the literature review was to show that religiosity has been a viable variable to study specifically within the LDS Church, and that it has a positive impact on many sociological variables. The question of what impact LDS religiosity has on education still remains.

LDS Studies Involving Religiosity and Education

This section summarizes a number of studies which have dealt with education and religiosity specifically within LDS populations. A growing need and interest has arisen to focus within the LDS culture on the relationship between individual religiosity and education. Although religious orthodoxy declines with an increase of educational attainment, Sociologists of religion have found that educational attainment conversely increases religiosity for members of the LDS Church in the United States (Knowlton, 1998). However, Mauss (1994) discovered that the LDS Church tends to follow the national trend of decreased religiosity for those who study the arts, humanities, and social sciences. Mauss believed this finding stems from the fact that most other disciplines "do not confront and challenge traditional religious beliefs, nor do they encourage a relativity about religion" (p. 69). Mauss's sample was small and from a limited period, but he was the first to focus on rates of orthodoxy for different disciplines.

Studies over the past few decades have shown that Latter-day Saints complete

more schooling than the United States population as a whole (Bell, 1992). Albrecht and Heaton (1984) looked at a large national sample of LDS adults (3,500) in the United States and compared their educational achievement to the general population. For the general population of men, 37% had some post-high school education as compared to 54% of LDS men. For the general population of women, 28% had some post-high school education as compared to 44% of LDS women, both percentages significantly above the national average. Religiosity for this study was measured in terms of making financial contributions, rendering service, and attending church meetings. McClendon and Chadwick (2004) showed evidence that LDS youth in the United States have significantly higher educational expectations than their national peers do. Over 57% of LDS young men expect to complete a master's or PhD, or attend professional school, compared to only 15% of the national sample. Data show a clear, positive link between religious activity and education among LDS adults in the United States.

Prevalent social theory often maintains that if any relationship exists between religion and academic performance, it is negative or nonexistent (Albrecht, 1989; Chadwick & Top, 2001; Line, 2005; Zern, 1989). Chadwick and Top studied LDS high school seniors in the United States and found that they received significantly higher grades than the national average. Religiosity appeared as the strongest predictor of academic performance. This finding held true for both males and females, with personal spirituality (personal prayer, scripture study, feelings of closeness to God) being the strongest indicator of academic achievement. These same LDS seniors also showed higher than average expectations for post-high school education.

A more recent study dealing with religiosity, conducted by Line (2005), investigated the relationship between personal religiosity and academic performance among LDS students from LDS Church-affiliated Brigham Young University (BYU). Religiosity was treated as the independent (explanatory) variable and academic performance as the dependent (response) variable. This study used secondary data analysis from a study done by Chadwick and Top (2001). The original sample was obtained from a systematic random sample of some 1,500 students. Completed questionnaires were received from 1,098 students for a response rate of 70%. The researcher sought to examine four dimensions of a person's religiosity: religious belief, private religious behavior, public religious behavior, and religious experience. A correlational design was employed and multiple regression techniques were used to analyze data in an effort to predict perceived relationship among these various variables. Academic performance was assessed by measuring grade point average and the self-reported number of hours spent by students on schoolwork. The independent variables mentioned were not manipulated, and were thus considered classification variables. Control groups were not possible because of the impossibility of changing a student's level of religiosity. Results from this study indicate that public and private behaviors can help in predicting academic performance among LDS college students at BYU. Church meeting attendance was moderately correlated with academic performance, but religious belief had no discernable impact. Private religious behavior was the most helpful in predicting academic performance; particularly, the self-reported variable of frequent scripture study had the highest level of statistical significance.

Line's (2005) study used secondary data analysis using research for other purposes than stated for this study. The researcher was restricted as to the type of research questions that were asked, as well as the latitude of responses elicited by the survey instrument.

McClendon and Chadwick (2004) compared the grades earned by LDS high school seniors to non-LDS seniors in America to explore the relationship between religious affiliation and academic performance. Both the LDS young men and young women reported significantly higher grades than did non-LDS seniors. In their study, McClendon and Chadwick also looked at the educational attitude of students since one of the major reasons students drop out of high school or limit their education is because they report having developed a dislike for school and academics. They found that over 28% of the LDS boys liked school "very much" as compared to only 12.5% of the national sample of men. The difference for the women was 32% for LDS and only 10.3 % for the national sample.

Another educational topic of study within the LDS Church explores religiosity and literacy. The LDS Church sponsors and endorses daily religious education classes (seminary) for high school students. Knowles (2001) explored literacy issues and religiosity in the LDS seminary program by examining attitudes, efforts, and performance of students in relation to their scriptures. The study looked at six aspects of literacy: value of scripture reading, engagement with the scriptures, perception of reading ability, scripture reading proficiency, the number of days per week students read scripture, and the number of minutes per reading occasion. The dimensions of religiosity used in this

study were private religious behavior, public religious behavior, home/family religiosity, strength of belief, and dispositions of character. Private religious behavior and strength of belief were positively correlated to value of scripture reading, engagement with the scriptures, scripture reading proficiency, and the number of days per week students read scripture. Private religious behavior had the strongest statistical significance with engagement with the scriptures and the value of scripture reading.

A similar study was performed by Heiner (2001), but he focused on the 18-30-year old student population of the extended LDS institutes of religion on college campuses in the Utah Valley area. He, too, looked to determine if there was a correlation between one's level of literacy and one's private and public religious behavior. A standardized and nationally norm-referenced reading test was used to measure literacy and a self-report survey was used to measure religiosity. A random cluster sampling was used to obtain the research sample. Multivariate analysis of variance and multiple linear regression procedures showed statistically significant relationships between literacy and two dimensions of religiosity: church commitment ($p = .0097$) and public behavior ($p = .0147$).

Heiner (2001) questioned, however, whether the statistical significance was due to possible indirect factors and asserted that focusing on literacy programs may not be a very effective means of increasing the religiosity of institute students. Another limitation of this study is that the sampling involved students participating in LDS institutes of religion, an expected though optional choice, and these students would likely have higher religiosity scores than those who chose not to attend.

Going back to the theory concerning the putative negative impact that education has on religiosity, researchers have looked within the LDS Church membership to see if that holds true for LDS members as well. Stott (1983) examined the effects of college education on the religious involvement of Latter-day Saints. His study attempted to test O'Dea (1957) and his argument that the strain between education and religion stems from the secularizing influence of education.

> The Mormon appreciation of education emphasized higher education and thereby encouraged contact between Mormon youth and those very elements in modern thought that are bound to act as a solvent on certain aspects of Mormon beliefs…. He has been taught by the Mormon faith to seek knowledge and to value it; yet it is precisely this course, so acceptable to and so honored by his religion, that is bound to bring religious crisis to him and profound danger to his religious belief. The college undergraduate curriculum becomes the first line of danger to Mormonism in its encounter with modern learning. (pp. 226-227)

Prince and Wright (2005) suggested that the institute program for the LDS Church probably developed in response to this argument.

Stott's (1983) probability sample of 500 adult Latter-day Saints was systematically selected from all wards (LDS congregations) in the greater St. Louis area. Of the 500 sampled, 261 (52%) returned usable questionnaires. Of this number, 101 (39%) held college degrees. Research questions explored in this study were, "Is college education detrimental to Mormon faith?" "Is Mormonism, by encouraging educational achievement, latently promoting its own secularism?" "Is the highly educated Mormon less religious than his less educated brothers or sisters?" "Do members of the LDS Church who have graduated from college, especially those who have completed graduate or professional degrees, have a lower rate of church activity than do less educated members?"

Stott (1983) used multiple measures of religiosity that tapped different facets of a religious person. Scales were created to measure private and public religious practice, belief, knowledge, and experience. In addition, an overall measure of religiosity—religious self-identification—was used. For religious self-identification a subjective generic measure was used (very religious, fairly religious, mildly religious, and not very religious). Church attendance (public act) and personal prayer (private act) were selected to measure religious practices. Acceptance of Biblical miracles was used to measure belief in these events (did not happen, can be explained by natural events, uncertain, or did happen). Self-reported spiritual confirmation of the truthfulness of the gospel was used as an indicator of religious experience. The knowledge measure dealt with religious literacy – the extent to which a person is informed about the basic doctrines, practices, and history of his or her faith. Four questions about the Bible were used as an indicator of religious knowledge: (a) Who wrote the most books in the New Testament? (b) Is the Book of Acts an eyewitness account of Christ's ministry? (c) Name the last book of the Old Testament, and (d) Which Gospel narrates most fully the events surrounding the birth of Christ? As a personal side note, these questions did not have anything to do with basic doctrines or practices of the LDS Church, and so I believe they were arbitrary choices to use in this study. Those questions focus solely on Bible knowledge rather than true basic LDS doctrines and practices, as stated in the definition of that measure.

The study showed the following results for each dimension of religiosity:

1. Religious self-identification: Favored those who did attend college, with 60% of them judging themselves to be very religious as compared to 39% of noncollege-

educated respondents.

2. Practices weekly church attendance: Increased with educational level, 63% of those who did not graduate from high school, compared to 84% among those with bachelor's degrees, and 79% among those with graduate degrees. Only a small difference was shown in regards to personal prayer, 67% of college-educated to 60% of noncollege-educated.

3. Belief: Showed a negative correlation, 94% of those who did not graduate from high school believed the miracles did happen, compared to 74% of those with college graduate degrees. This finding suggests that surety of belief in religious tenets diminishes with more education.

4. Experience: College-educated are more likely to have experienced a spiritual confirmation, but the correlation is not significant: 79% of the noncollege-educated compared to 83% for college-educated.

5. Knowledge: Only 11% of the noncollege-educated answered all four questions correctly, compared to 39% of the college educated, showing a positive, significant correlation between religious knowledge and education.

In summary, college-educated Latter-day Saints in the United States were on average more religiously involved than noncollege-educated Latter-day Saints, but were less likely to believe in miracles. Overall, the highly educated Mormon is not less religious than his less educated brothers, and LDS members with advanced degrees have a higher rate of church activity than noncollege-educated members.

In his study, Albrecht (1989) addressed the question of what the relationship is

between the achievement of higher education and religious commitment and behavior among Latter-day Saints. As noted earlier, the national data involving participants in all religions are overwhelming in their consistency in pointing to a negative effect of education on religiosity (Hadaway & Roof, 1988; Princeton Religious Research Center, 1989). In stark contrast to the pattern evident in these national survey data, Albrecht's study of Latter-day Saint samples in the United States demonstrated a strong, positive relationship between level of education and religiosity. For men with only a grade school education, 34% attend church each week, compared to 80% of men with postgraduate experience. Results for the women are much the same with the exception of a slight drop-off in attendance for those with postbaccalaureate experience. Albrecht declares,

> Whether we are talking about personal value placed on religious beliefs, attendance at church, financial contributions, frequency of personal prayer, or frequency of gospel study, the impact of increased education among Latter-day Saints is positive. These relationships also hold when we control for such variables as attendance at church-sponsored schools, geographic area of the country, and so on. The secularizing influence of higher education simply doesn't seem to hold for Latter-day Saints. (p. 103)

More recently, McClendon and Chadwick (2004) compared the educational attainment of men and women from the USA who served LDS missions to that of men and women in American society of the same age. Over 40% of these returned missionaries graduated from college compared to only 18% of the general population the same age. Around 25% of this group completed graduate school compared to 8% of the general population. Additionally, this study looked at data from a very large national sample of high school seniors collected by the Monitoring the Future project and compared the educational level of LDS parents of high school seniors to non-LDS

parents. For the LDS young men, nearly 30% of their fathers had a graduate degree, compared to about 14% for non-LDS young men. For their mothers, significantly more had graduated from college or at least attended some college, but the number of mothers who had completed graduate or professional degrees slightly favored the national sample.

Chadwick et al. (in press), some of the foremost researchers on LDS religiosity, looked at LDS high school students in the United States to ascertain the relationship between religiosity and educational performance and aspirations. The students were asked questions concerning their feelings about school, the importance they placed on getting good grades, and what their educational aspirations were. To explain educational aspirations, seven factors were examined: influence of antischool peers, religiosity, parental connection, parental regulation, the parental granting of psychological autonomy, family structure, and fathers' education. Only two factors emerged to explain educational aspirations. The strength of the relationship between religiosity and educational aspiration was significant. The six dimensions of religiosity used were belief, public religious behavior, private religious behavior, spiritual experience, acceptance in church, and family religious behavior. All six dimensions of religiosity were strongly related to the educational performance and plans of the LDS high school students. The only other factor to contribute was fathers' educational level (the study did not examine mothers' educational level). The results support the hypothesis that individual religiosity is a powerful predictor of education among LDS high school young men and women in the United States.

Chadwick et al. (in press) also studied LDS college students at both the Provo and

Idaho campuses of BYU. Five dimensions of religiosity were used: belief, public behavior, private behavior, spiritual experience, and acceptance in church. Three college attitudes and performance measures were also used: satisfaction with college, cumulative GPA, and educational expectations. After bivariate correlations were computed and several structural equation models tested, private religious behavior was shown to be significantly related to satisfaction about college, cumulative GPA, and educational aspirations. Significant correlations with both satisfaction and GPA were associated with the other four dimensions of religiosity. Chadwick et al. used the data collected from the BYU students to compare with various national studies. Religious beliefs and behaviors were compared to findings from these other studies in an attempt to offer insights about the religiosity of BYU students. Astin and Astin (2002-2005) conducted a longitudinal study of the spiritual development of American college students. A large sample of freshmen (3,680) from 46 colleges and universities across the United States were interviewed. Areas explored were church attendance, prayer, and the strength of their spiritual beliefs. The national average of students attending church weekly was 52%, compared to 95% for BYU students. The national study reported that 77% of the students report engaging in prayer, compared to 99% of BYU students. Lastly, the national study showed that 74% of the students felt that their religious beliefs provided them with strength, support, and guidance. The BYU study showed that 100% of the students "strongly agreed" that they are guided and comforted by their beliefs.

Astin and Astin (2002-2005) found that church attendance and self-reported spirituality drastically declined for the nationwide sample of U.S. freshmen studied by the

time they reached their junior year. Thirty percent acknowledged their spirituality had decreased as compared to their freshmen year. In Chadwick and others' (in press) study, which dealt with an LDS American sample at BYU, all of the significant correlations between religiosity and education were positive. This positive correlation signifies that for BYU students, increased education measured progressively through the college years is associated with stronger religiosity. In another study of LDS men (6,000) and women (4,000) who had served missions, McClendon and Chadwick (2004) used four measures of religiosity to see if any would have a positive correlation with educational attainment. Three of four correlations were positive for the men, and for the women the correlation was positive but not significant. These results show strong support that the spirituality of BYU students does not diminish as they progress further in their education.

In a national study done by Sacerdote and Glaeser (2001), education was found to be positively correlated with higher church attendance, but negatively correlated with religious beliefs. Chadwick et al. (in press) tested Sacerdote and Glaeser's idea that education increases public religious behavior and reduces private religious behavior (personal prayer, personal scripture study, and thinking about religion) with results from their study. This disparity did not emerge from their findings among their BYU sampling. Education was not negatively related to private religious behavior, with three of the four correlations being positive and the fourth not statistically significant. Chadwick et al. declared:

> All these analyses make it absolutely clear that members of the LDS Church [in the U.S.] have significantly more education than the general public. The results demonstrate that among youth individual religiosity is associated with academic success and aspirations. Advanced education does not lead to a decrease in

> religiosity among LDS adults. Education does not replace religious beliefs nor erode religious activities and practices…. For youth to pursue higher education and for adults to make learning a lifelong pursuit will strengthen the religiosity of members of the Church and at the same time will allow them to be of greater service to society. (p. 32)

A major limitation associated with this study and similar studies like it relates to the population being studied. Only a narrow segment of the LDS college population is typically examined: those from BYU. Findings from this study would be difficult to generalize to LDS college students as a whole because of the uniqueness of the types of students that attend BYU and the uniqueness of the experience they have while they are there. Admission criteria favor those students with high levels of outwardly visible religious indicators and high GPAs. In addition to high GPA and ACT/SAT scores, each student who wishes to attend must be given an ecclesiastical clearance from his or her local priesthood leaders. To remain at the university, that endorsement must be maintained by living up to LDS Church standards and the University Honor Code for their duration as a student.

The major limitation with many analyses is that a significantly high number of BYU students have rather high religiosity. A lack of variation in religiosity limits its ability to predict educational outcomes. A research design that would allow for a broader range of respondents of LDS college students from a nonchurch sponsored university or from various universities throughout the United States would produce results more germane to the national LDS population. Do the findings mentioned in these LDS studies hold true for a sample of college students from a university not sponsored by the LDS Church?

Duke (1999) pointed out that there is a significant lack of depth, commitment, real knowledge, real belief, and real obedience among adherents to American religions. Albrecht (1989) felt, “There is a very clear lack of depth in the religious experience of most Americans” (p. 60). He included in his study information about the American religious landscape from a Wall Street Journal/Gallup Survey showing that 92% of Americans state a religious preference, 69% claim a formal church membership, 59% are actually recorded as church members, 55% say religion is very important in their lives, and 40% attend religious services in a typical week. The poll also showed little difference between the churched and the unchurched in regards to certain behaviors like self-reported incidence of cheating and lying. Vander Zanden (1988) called attention to the fact that although nearly every home in the country has at least one Bible, less than half of adult Americans can answer simple, basic questions about its content. He indicated that there is a profound gulf between declared religious standards and actual realities.

This gulf brings up a rather concerning theological problem of hypocrisy, and no one is more condemned in the scriptures than the religious hypocrite (Albrecht, 1989). Christ referred to the Pharisees, a faction of religious leaders at the time, as hypocrites because their professed beliefs and teachings were all too often incongruent with their observable behavior. In a double-edged sword fashion they were also condemned of hypocrisy because they would often participate in outward, observable ordinances and behaviors that would make them appear righteous (Matthew 23:25-26). Dictionary.com defines the Greek word for hypocrite as a play actor or a pretender (http://dictionary .reference.com/browse/hypocrite). It is important to note that believing one thing and yet

displaying something different in ones actions does not necessarily make one a hypocrite. A parent who condemns his child for using a dangerous implement that the parent himself uses is not a hypocrite. A football player who fails to catch a pass is not a hypocrite because he believes he should catch it, yet his actions show differently. A person who believes in being healthy is not a hypocrite if he breaks his leg and goes to the hospital for help or medication. Hypocrisy has more to do with intention and effort than observable behavior. Hypocrisy has been described alongside lack of sincerity, as a characteristic that attracts particular scorn in the modern age (Melzer, 1995). Redekop (as cited in Moberg, 1987) identified the curse of Christianity as "the Christian who can pledge allegiance to Christ and totally disregard His teachings and His life" (p. 168).

How can Latter-day Saints avoid Redekop's (as cited in Moberg, 1987) "curse of Christianity"? According to the numerous studies mentioned, for Latter-day Saints, education may very well be the solution to fill the gulf between declared religious standards and actual realities and then to add more depth to religious allegiance and behavior. "Latter-day Saint theology appears to negate the secularizing impact of education by sacralizing [making it sacred] it and incorporating it into the total religious milieu" (Stott, 1983, p. 8). Positive religious outcomes can result from Latter-day Saints pursuing postsecondary education. It was the goal of this study to ascertain and define the specific religious variables that may be related to increases or decreases in the educational pursuit and educational perception of students at Utah State University, with particular focus on LDS respondents.

Cultural Expectation of Education
Within the LDS Church

Paramount to the significance of this proposed study is an understanding of the cultural expectation in regards to education among the Latter-Day Saints. Without such an understanding, there is at best little motivation to explore the stated research study. LDS theology fosters education. One clear observable sign of the LDS Church's commitment to education is its numerous seminaries and institutes of religion, its church-owned and run elementary and secondary schools in the South Pacific and Mexico, its universities and colleges, and the numerous programs implemented throughout the world to educate those with disabilities and the illiterate. The Church Educational System's yearly budget is second only to the temple and building budget for the church. From its beginnings in a small log cabin on April 6, 1830, in Fayette, New York, to this very day, leaders of the LDS Church have made the promotion and significance of education a priority in their sermons and teachings (Benson, 1988; Burton, 1938; Gates, 1971; Grant, 1939; Hinckley, 1988; Hunter, 1967; Kimball, 1962, 1982; Lee, 1974; McKay, 1953; Nelson, 1992; Packer, 1979, 1994; Smith, 1954a; Taylor, 1883).

Shortly after the construction of a temple in Illinois, the Latter-day Saints undertook the building of the University of the City of Nauvoo. Joseph Smith, first president of the LDS Church, proclaimed this university "will enable us to teach our children wisdom, to instruct them in all the knowledge and learning, in the arts, sciences, and learned professions" (Dahl & Cannon, 1997, p. 205). Similarly, shortly after entering the Great Salt Lake Valley in 1847, the Saints instituted the University of the State of Deseret in Salt Lake City, the forerunner of the University of Utah (Nelson, 1992). LDS

theology views life essentially as an educational process. Mortality is seen as a period of learning and testing. Knowledge and mastery of both self and environment through obedience to divine law is the basis of eternal progression. Thus, education not only helps one in this life, it also assists one in his or her quest for eternal life. Learning or intelligence is the one thing the deceased person takes beyond the grave. This theological emphasis is manifest in many latter-day scriptures (Stott, 1983).

David O. McKay, president of the LDS Church from 1951-1971, was a strong advocate for higher education among its members, instilling into the church "a love of the life of the mind, coupled with a charge to go wherever truth led" (Prince & Wright, 2005, p. 159). His educational mantra was to "learn uphill," meaning, to gradually take on greater intellectual challenges. When debates arose about topics, ideas, or lessons that were thought to be "over their heads," President McKay would respond, "If it's beyond their reach, let them reach for it" (Prince & Wright, p. 160). Knowledge alone was not sufficient, however, in the purpose and pursuit of higher education. McKay (1958, April) taught:

> Character is the aim of true education…. True education seeks to make men and women not only good mathematicians, proficient linguists, profound scientists, or brilliant literary lights, but also, honest men, with virtue, temperance, and brotherly love. It seeks to make men and women who prize truth, justice, wisdom, benevolence, and self-control as the choicest acquisitions of life. (p. 3)

Ernest L. Wilkinson (1953), former president of BYU, instructed his teachers that the teaching of the gospel need not be confined to classes in religion, but in all academic classes. He felt that teaching the gospel in classes like biology and geology was more important than religion classes alone. McKay (1952) taught that receiving a balanced

education of both secular and spiritual knowledge empowers individuals to make "less dense and ineffective the darkness of ignorance, of suspicion, of hatred, of bigotry, avarice and greed that continue to envelop in darkness the lives of men" (p. 10).

Benefits of education. President Gordon B. Hinckley, 15th president of the LDS Church, was a strong advocate of learning. One of the ten neglected virtues, which he addressed in his book *Stand for Something*, is the importance of learning. Hinckley (2000) taught that education converts knowledge to activity when the learning is applied in a practical way. Learning one thing begets a greater capability to learn even more. When learning stops, so does progression. Learning has the ability to add flavor to our lives and empower us with the ability to make a difference in the world. Hinckley (1997) urged LDS youth to be hungry for education and promised that by so doing, they will be doing the will of the Lord:

> Get all the education you can, I wish to say to the young people. Cultivate skills of mind and hands. Education is the key to opportunity. The Lord has placed upon you, as members of this Church, the obligation to study and to learn things spiritual, yes, but of things temporal also. Acquire all of the education that you can, even if it means great sacrifice while you are young. You will bless the lives of your children. You will bless the Church because you will reflect honor to this work. (p. 172)

Opportunities. A common aspect of education that has been mentioned by LDS leaders since its establishment is the great opportunities education can open for each individual. President Hinckley noted that people today stand at the summit of all ages and are the beneficiaries of all the great learning of the past. What took men and women centuries to learn people now have access to and can learn in a short period of time (Hinckley, 1997). At a biregional conference in Pocatello, Idaho, President Hinckley

instructed:

> You young people, the little decisions that you make can so affect your lives. Shall I go to school or not? Shall I continue on with my education? Our doctrine suggests…that the more education you receive, the greater will be your opportunity to serve, and you should never forget that the Lord has placed upon the people of this Church an injunction to learn by study and by faith. (p. 171)

In short, "Education becomes the key of opportunity for everyone in this life" (Hinckley, 2001, p. 8).

Spiritual obligation. Besides the benefits and great opportunities education can unlock for each individual, leaders of the LDS Church have issued an even bolder reason for obtaining an education. Nelson (1992) taught, "Our Creator expects His children everywhere to educate themselves…. It is apparent that those who impulsively 'drop out' and cut short their education not only disregard divine decree but frustrate the realization of their own potential" (p. 6).

Balancing secular and spiritual knowledge. First president and founder of the LDS Church, Joseph Smith, set the educational mantra for the church by saying, "One of the grand fundamental principles of Mormonism is to receive truth, let it come from whence it may" (Smith, 1989, p. 313). Nevertheless, though the LDS Church has been a strong proponent of education since its beginnings, it has not come without some growing pains in regards to how to balance spiritual and secular knowledge. At times the LDS Church has felt strong forces from within its members as well as its own leadership circles that want to fight what some consider the evils of secular learning and the inherent carnal baggage that may come with it (Sessions & Oberg, 1993).

Skepticism about secular learning from members of the church may have been

aided by an early history full of persecution and maltreatment from the "outside world." After escaping persecution in Missouri and Nauvoo, the Latter-day Saints sought a place where they could be gathered apart from the dangers they encountered because of their religious beliefs. The Latter-day Saints, living in the "Great Basin Kingdom," remained virtually insulated from outside influences until the completion of a transcontinental railroad system in 1869 (Brackenridge, 1997). Following that event, a great Protestant effort began to convert the Mormons. When initial missionary efforts failed, day and boarding schools were started in an effort to draw in Mormon children and their siblings and parents. In 1875, however, Brigham Young declared in a major speech that these schools were covertly envisioned as a way to win converts to the Protestant faith (Brackenridge). For many Saints, anything from the secular world was often viewed as a proverbial "Trojan Horse."

In the late 1800s, the LDS Church undertook a major effort to obtain further education for its members. LDS men were called to leave their homes and families to be "art missionaries" in France. Their mission was to study Impressionism for months in the studios and classrooms of the Parisian art masters. Their knowledge gained would serve to help them paint the murals inside the Salt Lake Temple (Swenson, 2008). At an October conference in 1873, Brigham Young declared it was time for Mormon women to study medicine to become doctors (Noall, 1974). During this period, the LDS Church also began to build institutions of higher learning. Brigham Young Academy (forerunner of Brigham Young University) was established in 1875. At that time, Brigham Young, president of the LDS Church, charged that all secular learning at the academy should be

fused with teachings from the scriptures. The Bannock Stake Academy (forerunner of Ricks College, now known as Brigham Young University-Idaho) opened in 1888 in a small log church building in Rexburg, Idaho. In 1955, the Church College of Hawaii was established and began classes in war surplus buildings. Perry (1996) summarized the educational philosophy for all of these institutions:

> If we provide a spiritual foundation for our secular learning, not only will we better understand the laws of nature, but we can gain a depth of understanding never before imagined possible about art, languages, technology, medicine, law, and human behavior. We can see the world around us and understand it through God's eyes. (p. 10)

However, during the early and mid 1900s, the LDS Church began to lose a number of its intellectuals, often referred to as the "lost generation" of Mormon scholars. Conflicts arose among LDS scholars as secular knowledge clashed with church teachings. Tensions arose even among LDS Church leaders, particularly between those with academic backgrounds and those not, about subjects such as organic evolution, the age of the earth, and the fixity of species (Sessions & Oberg, 1993). The challenge for LDS scholars was, and still seems to be, learning how to handle secular knowledge that appears to conflict with divine revelation (either from past or current prophets). Joseph F. Smith (1954b) declared:

> The truth persists, but the theories of philosophy change and are overthrown. What men use today as a scaffolding for scientific purposes from which to reach out into the unknown for truth, may be torn down tomorrow, having served its purpose, but faith is an eternal principle through which the humble believer may secure everlasting solace. It is the only way to find God! (p. 8)

Joseph Fielding Smith (1952), in a conference talk to members of the LDS Church, asserted that any doctrine, whether from religion, science, philosophy, or elsewhere, will

fail if it is in conflict with the revealed word of God. He cautions that all one need do is abide ones time because time levels all things. Only truth will remain when all else has passed away.

Henry Eyring (1967), a renowned scientist and chemist, author of the book *The Faith of a Scientist,* and faithful member of the LDS Church, often disagreed with some church leaders on certain scientific topics. However, he seemed to have no issues with various leaders having differences of opinion when it comes to secular matters. In a letter he wrote to Joseph Fielding Smith, then president of the LDS Church, he stated:

> As far as being disturbed to find that Brother Talmage, Brother Widtsoe and yourself didn't always see scientific matters alike, this situation seems natural and as it should be. It will be a sad day for the Church and its members when the degree of disagreement you brethren expressed is not allowed…. In any case, the Lord created the world and my faith does not hinge on the detailed procedures. (Sessions & Oberg, 1993, p. 148)

As mentioned earlier, seminaries and institutes of religion were established to supplement secular learning with religious instruction. Benson (1986) noted:

> We must balance our secular learning with spiritual learning. You young men should be as earnest in enrolling in seminary and learning the scriptures as you are in working toward high school graduation. Young adults enrolled in universities and colleges or other postsecondary training should avail themselves of the opportunity to take institute of religion courses or, if attending a Church school, should take at least one religion course every term. Joining our spiritual education to our secular learning will help us keep focused on the things that matter most in this life. (p. 45)

The point of this examination of LDS believers and the life of the intellect is simply to say that the marriage of religion and higher education has not always been smooth. However, there is no question that the long-term commitment of the LDS Church and its leaders to higher education has been a strong one.

Summary

The studies discussed in this literature review answer many questions about the relationship between religiosity and education. It is clear that religiosity does have an overall positive impact on educational variables such as academic attainment, plans to finish college, attitude about schooling, educational expectations, and a deterrent effect on risky behaviors that jeopardize academic performance. These findings, however, did not always hold true for certain religious groups or denominations, particularly those of conservative or fundamental Protestant religions. The LDS Church is typically placed within these two categories. There is a scarcity of research that has examined the relationship between religiosity and education among specific religious minority groups such as the LDS Church.

This literature review also attempted to assess the research that has been conducted within the LDS Church. Religiosity within the LDS Church does link with educational variables such as the pursuit of postsecondary education, higher academic performance, higher educational expectations, literacy, and attitude about schooling. The samples used in the studies noted involve LDS adults (already finished with schooling), LDS high school seniors, or BYU students. There is a notable gap in the research for a study that samples current college students from non-LDS sponsored schools. Because the USU student body is predominantly LDS and is not a church-sponsored school, this research will at least partially fill the gap and provide insights into how religiosity impacts educational pursuits and perceptions among current enrolled students.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this research was to study the influence of individual religiosity on the decisions of college student at USU to pursue their postsecondary education and on their educational perceptions. Chapter 3 describes the measures and methodology that were used for this study. Descriptions of the instrument, data gathering, and analysis procedures are also addressed.

The study was designed to answer four research questions.

1. What impact does religiosity have on the decisions of students at USU to pursue their postsecondary education?
2. What other variables, if any, are useful in explaining postsecondary educational pursuit among students at USU?
3. How does religiosity influence the educational perceptions of students at USU?
4. What other variables, if any, are useful in explaining positive or negative educational perceptions among students at USU?

Research Design

Relationship of Variables

The question of which variables were dependent and which variables were

independent was paramount. It could be argued that religiosity is a function of education; however, the paradigm of this investigation was that educational pursuits and perceptions are influenced by religiosity. Therefore this study treated religiosity as the independent, or explanatory, variable (IV) and pursuit of postsecondary education and educational perception as the dependent, or response, variables (DV). The four constructs of the independent variable of religiosity examined were Mormon (LDS), positive religious experience, negative religious experience, and religious practice. Parental education was placed as an independent variable instead of a dependent variable. This decision was made because, in most cases, a student's religiosity would not have influenced their parent's educational choices. Most of the respondents would not have been born yet or would have been infants at the time of their parents' postsecondary schooling. The educational level of the respondents' parents was considered to be an external factor that might influence the educational pursuits and perceptions of the respondents, in addition to religiosity. The independent variables are continuous in nature.

The three constructs of the dependent variable of educational pursuit were academic attainment, educational expectations, and influences. The two constructs of educational perception were school experience and family pressure. Other covariables that can affect the relationship between the dependent and independent variables of primary interest in a regression equation were also taken into consideration: marital status, gender, ethnicity, parents' marital status, and religious affiliation. Figure 1 is a model representing the approach to the definitions, uses, and flows of the variables used. This model takes certain characteristics and influences as possible covariates.

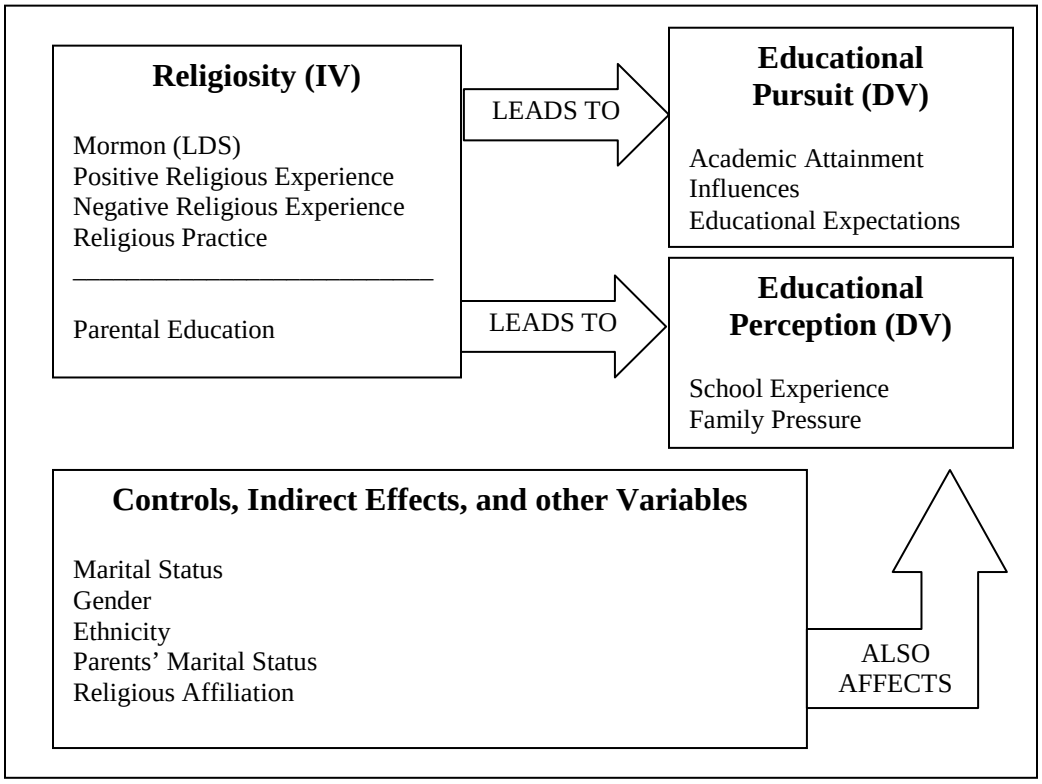

Figure 1. Definition of variables.

Participants

The subjects for this study consisted of undergraduate students from Utah State University, with particular focus on those who marked themselves as LDS on the survey. Busha and Harter (1980) stated that "a *population* is any set of persons or objects that possesses at least one common characteristic" (p. 10). There were several important sampling issues considered in conducting this research. Undergraduate students registered at Utah State University, from both the main and regional campuses, were drawn from the population to form a systematic random sample of 1,460 students.

I first made contact with the registrar's office at USU. After approval of the dissertation proposal by the committee and the Institutional Review Board for the

protection of human participants (IRB), the registrar's office pulled the needed sample from their computerized list of USU students. Initially, the study was going to involve only LDS students at USU. Officials at the registrar's office expressed concern about sending a survey that targeted only LDS students. They felt that some non-LDS students who received the survey might feel excluded. In order to obtain a sampling from USU, the wording on the survey needed to be slightly altered so as to apply to respondents of all faiths. This adaptation of the research is discussed later in this chapter.

A large enough sampling frame was used to account for the inevitable problem of some members of the population being unwilling or unable to respond. Low response rates are among the most difficult of problems in survey research. Creswell (2002) recommended that one should have at least 10 to 20 times as many observations (cases, respondents) as one has variables, otherwise the estimates of the regression line are often unstable and the results are unlikely to be replicated if one were to do the study over. For quantitative analysis, a balance is needed for as large a sample size as possible with constraints based upon cost and time.

The registrar's office was contacted to see if the demographics of the sampling used for this study were comparable to the overall demographics of USU. I was informed that the university does not run any reports off of the student information system, just off surveys. This means the university data then is based on voluntary self-reported data. Table 1 is a comparison between the demographics of the research sample drawn by the registrar's office for this study and the demographics of USU overall. This information shows that the sample used for this study was representative of all USU students.

Table 1

Demographic Comparison of Sample and USU Overall

Demographic	Research sample	USU overall
Gender	51% male	51% male
	49% female	49% female
Ethnicity	91% White	96% White
Religious affiliation	80% LDS	85% LDS
	6% no religious preference	7% no religious preference

The question of whether the 801 respondents were demographically different from the nonrespondents was investigated. The research hypothesis was that the nonrespondents and respondents were a homogeneous group with respect to their demographic characteristics. Three demographic variables were tested: age, gender, and year of study. The ages of the respondents and nonrespondents were compared using an independent samples *t* test. The gender (male or female) and year of study (freshman, sophomore, junior, senior, undergraduate unclassified) of the students were categorical variables and were, therefore, analyzed using chi-square tests.

Sufficient evidence was provided to indicate no difference between the mean ages and the gender of the respondents and nonrespondents at the 0.05 level of significance. The frequency distributions of students classified with respect to their years of study were visually dissimilar when the two groups were compared. In regards to year of study, the *p* value = .001 was less than 0.05, indicating an association between the years of study and the two groups. The proportions of freshman (FR), sophomore (SO), junior (JR), senior (SR), and unclassified (UG) students who did not respond to the survey were different to

the proportions who did respond to the survey. Specifically, there were much higher proportions of FR students and much lower proportions of UG students amongst the respondents compared with the nonrespondents. The respondents and nonrespondents can, therefore, be considered nonhomogeneous with respect to their years of study.

Instrumentation

Denominational differences seem to be the biggest factor in coming up with a comprehensive measurement of religiosity (Cardwell, 1980). Such a measurement would presuppose all denominations view and define religious commitment the same way. Yinger (1970) considered the best way to determine a group's religiosity was by using the meanings of that group being studied. Cornwall et al. (1986) developed and tested a conceptual model of LDS religiosity. The model supported the distinctions between private and public religiosity, family religious observance, and beliefs, attitudes, and behaviors germane to the LDS faith. This model became the base for many further studies of religiosity among various LDS audiences, though most focused on areas of mental health or family relations (Judd, 1998). This instrument seeks to measure the multidimensional nature of LDS religiosity and to define it in terms that echo the unique doctrine and culture found in the LDS Church.

This religiosity model focused on three general components found in social psychology: religious belief (cognitive), religious commitment (affective), and religious behavior (behavioral). Researchers identified an intrinsic and extrinsic level for the behavioral component, which they labeled personal and institutional. The personal level revealed how one privately related and felt committed to the cognitive, affective and

behavioral components of religion. The institutional level revealed how one publicly showed commitment to these components. The results of the research identified five separate dimensions of religiosity, which included traditional orthodoxy and particularistic orthodoxy (belief components), spiritual commitment and church commitment (commitment components), private religious behavior, public religious behavior, and home religious observances. Each component measured separate dimensions of religiosity found within the LDS Church (Cornwall et al., 1986).

Reliability and validity of original religiosity model. This model was an appropriate tool to use in this study since a large number of respondents were LDS. Even though the original religiosity model had to be altered in order to obtain a sampling from USU, it is important to first establish its validity and reliability. Afterwards, the reliability and validity of the modified religiosity model will be discussed. Cornwall et al. (1986) sought to establish the validity of the instrument by wording each item in clear terms that reflected terminology understood by those taking the test. Careful consideration to the construction of a self-report questionnaire is the best way to ensure validity (Morstain & Smart, 1977; Peers, 1996). The scale used in this religiosity model was patterned after those used in the LDS Research Information Division. After frequent administration of the instrument by researchers for the LDS Church, they provided suggestions of modifications that further created confidence in the instrument's face validity and content validity. The developers created construct validity by using factor analysis to demonstrate that each scale item was correlated closely to the other scale items designed to measure the same construct as opposed to items designed to measure different constructs

(Cornwall et al., Heiner, 2001).

The researchers argued, alongside the research of Glock (1962) and Faulkner and DeJong (1966) that the correlation coefficients between dimensions of religiosity would be large because of their religious relationship, but that each dimension would be considered distinct if any two shared less than half of the statistical variance found in their average scores (Heiner, 2001). The correlation coefficients between any two dimensions could not be greater than 0.70. All but two of the correlation coefficients were under 0.70. The range of coefficients with the religious dimensions was from 0.39 to 0.69, with the exceptions of particularistic orthodoxy and church commitment (0.71) and religious behavior and spiritual commitment (0.82). Factor analysis demonstrated that four questions of the religious behavior dimension loaded onto the same factor as the spiritual commitment dimension. The high correlation between the dimensions did not change the number of dimensions used, but rather which questions were associated with the spiritual commitment dimension (Heiner). Table 2 shows the original religiosity model.

The Cronbach's coefficient alpha procedure was used to establish the reliability of the original religiosity model. Ravid (1994) argued that this test is particularly helpful in determining the reliability of items on instruments which use Likert scales. As the coefficient gets larger, the coefficient alpha reveals a stronger consistency. The coefficients associated with the five constructs of religiosity range from 0.76 to 0.92. This instrument offers sufficient reliability to determine if there is a correlation between religiosity and other variables.

Table 2

Original Religiosity Constructs and Items

Construct	Survey items that constitute the construct
Belief	There is life after death. Satan actually exists. The Bible is the word of God. I believe in the divinity of Jesus Christ. I believe that God lives and is real. The president of the LDS Church is a prophet of God. The Book of Mormon is the word of God. The Church of Jesus Christ of Latter-day Saints is Christ's true church on earth. Joseph Smith actually saw God the Father and Jesus Christ.
Commitment	My relationship with the Lord is an important part of my life. The Holy Ghost is an important influence in my life. I love God with all my heart. I am willing to do whatever the Lord wants me to do. Without religious faith, the rest of my life would not have much meaning. Some doctrines of the LDS Church are hard for me to accept. I don't really care about the LDS Church. Church programs and activities are an important part of my life. I do not accept some standards of the LDS Church. The LDS Church puts too many restrictions on its members.
Private religious behavior	I try hard to carry my religion over into all my other dealings in life. I live a Christian life. I share what I have with the poor. I encourage others to believe in Jesus. I seek God's guidance when making important decisions in my life. I forgive others. I admit my sins to God and pray for His forgiveness. Frequency of personal prayer.
Public religious behavior	Frequency of attendance in sacrament meeting. Frequency of attendance at Relief Society/Priesthood meetings. Percent of income paid as tithing.
Home religious observance	Frequency of family prayer (other than blessing the food). Frequency of family religious discussions. Frequency of family Bible reading or reading of other scriptures. Frequency of family discussions about what is right and wrong.

Reliability and validity of modified religiosity model. As mentioned earlier, some of the wording of the 34 questions was altered in order to obtain a sampling from the registrar's office and to accommodate for respondents of all faiths. For the belief subscale, the four questions specific to the LDS culture were moved to a separate part of the survey and only those who marked themselves as LDS were taken to those questions by use of a survey tool called skip logic. Skip logic directs respondents through the survey based on responses to previous questions. This tool allowed the researcher to route respondents to a page of follow-up questions intended only for them. For the commitment subscale, all survey items with the phrase "the Lord" were changed to "God." The statement about the Holy Ghost was removed since those of non-Christian faiths would not be familiar with that concept. Any references to the LDS Church were changed to "my church/religion." For the private religious behavior subscale, the statement "I live a Christian life" was changed to "I live a religious life," and "I encourage others to believe in Jesus" was changed to "I encourage others to believe as I do." The word "His" was removed from "I admit my sins to God and pray for His forgiveness" to avoid stereotyping God as male. Also, the survey item "Frequency of Bible reading or reading of other scriptures" was added to that subscale since there were no questions on the original scale that measured the habit of personal scripture reading. For the public religious behavior sub-scale, "sacrament meeting" was changed to "worship services," and "Relief Society/Priesthood meetings" was changed to "religious meetings other than formal religious services."

Since the original religiosity model was altered, it was imperative to apply

statistical methods to determine if the survey items still loaded onto the same constructs as determined by the model developers. Item (reliability) analysis and factor analysis were the methods used in this investigation to reduce the number of dimensions in the data matrix. These methods were applied to define groups of correlated variables which consistently and reliably measured the same construct, and which could potentially be incorporated into the mathematical models. Cronbach's alpha will be reported later in the findings. A construct is an underlying theme, characteristic, or skill (e.g., categories of personal attitudes, beliefs, abilities, influences, or experiences concerning a particular subject). Item analysis resulted in the computation of the proportions of the variance captured by selected groups of item scales. This proportion is known as Cronbach's α (Cronbach, 1951). Cronbach's α is a classical index, which has been widely applied to interpret multivariate responses in questionnaires (Allen & Yen, 2002).

If a group of item scales consists only of error, and there are no correlations between the items, then the variance of the item scales is the same as the sum of the variances of the individual items, so that $\alpha = 0$. In such a case, a group of item scales is considered to be a completely unreliable and inconsistent measure of a construct. Values of $\propto$ increase when the correlation coefficients between the items increase. If $\alpha = 1$, then a group of item scales is considered to be a perfectly reliable measure of a construct. In this investigation, a subjective decision rule was applied, that the value of Cronbach's α must be 0.5 or higher before a construct could be considered consistently and reliably measured. Ideally, Cronbach's α should be $\geq .7$ to confirm a construct is very reliably and consistently measured by a group of item scales (Allen & Yen, 2002). However, the

decision to go with a Cronbach's α of 0.5 or higher was necessary in order to use the original religiosity model. This model had some constructs with a Cronbach's α value of less than 0.7.

The values of Cronbach's α increase with respect to the correlations between the items, such that a high value of Cronbach's α is generated by a homogeneous group of items which have correlations of similar magnitude. The identification of correlated groups of items using Cronbach's α approximates the extraction of factor variables by means of factor analysis (Gorsuch, 1983). When a group of correlated items is found to consistently and reliably measure the same construct using Cronbach's α (or factor analysis) then the items can reasonably be aggregated together to create a new construct variable.

As the individual religiosity variables were measured in this investigation, four aggregated constructs arose that were different from the religiosity constructs shown in Table 2. The main reason for extracting new constructs (by aggregating the responses to groups of items) was mathematical, and had nothing to do with the original religiosity model. The four new constructs were created to avoid including two or more independent variables in the multiple regression models which were multicolinear. Multicolinearity invalidates a regression model. The underlying mathematical theory requires that the independent variables are not correlated with each other, and that they do not violate the strict theoretical assumptions of multiple regression analysis. The four new aggregated constructs derived from item (reliability) analysis and factor analysis are shown in Table 3.

Table 3

New Religiosity Constructs

Constructs	Survey items that constitute the constructs
Positive religious experience	There is life after death. Satan actually exists. The Bible is the word of God. I believe in the divinity of Jesus Christ. I believe that God lives and is real. My relationship with God is an important part of my life. I love God with all my heart. I am willing to do whatever God wants me to do. Without religious faith, the rest of my life would not have much meaning. Church programs and activities are an important part of my life. I try hard to carry my religion over into my other dealings in life. I live a religious life. I share what I have with the poor. I encourage others to believe as I do. I seek God's guidance when making important decisions in my life. I forgive others. I admit my sins to God and pray for forgiveness.
Negative religious experience	Some doctrines of my church/religion are hard for me to accept. I don't really care about my church/religion. I do not accept some standards of my church/religion. My church/religion puts too many restrictions on its members.
Religious practice	Frequency of personal prayer. Frequency of Bible reading or reading other sacred texts. Frequency of attendance at worship services. Frequency of attendance at religious meetings other than formal religious services. Percent of income paid as tithing. Frequency of family prayer (other than blessing the food). Frequency of family religious discussions. Frequency of family Bible reading or reading of other scriptures. Frequency of family discussions about what is right and wrong.
Mormon (LDS)	The president of the LDS Church is a prophet of God. (LDS) The Book of Mormon is the word of God. (LDS) The Church of Jesus Christ of Latter-day Saints is Christ's true church on the earth. (LDS) Joseph Smith actually saw God the Father and Jesus Christ. (LDS)

Using the new religiosity constructs as separate independent variables, statistical analysis with multiple regression was performed to determine if the dependent variables, educational pursuit and perception, had any relationship with one or more dimensions of religiosity. Religiosity variables were measured using a continuous response category (Likert scale). It ranged from 1 to 5 with 1 being "strongly disagree" and 5 being "strongly agree" and like variations. Since survey takers who want to appear spiritual will quickly get into a response set if all the items are written in a positive spirituality direction, I included four items on the religiosity survey that were reverse coded. Item (reliability) analysis and factor analysis were also used to determine which of the educational variables were found to consistently and reliably measure the same construct and could reasonably be aggregated to create a new construct variable. Questions on the survey that assessed the respondent's educational pursuit and perceptions were (a) highest level of education completed for their father and mother, (b) feelings about attending college, (c) grades in high school, (d) current college GPA, (e) degree of pressure from family to get good grades, (f) level of educational expectations, (g) perceived importance of what they were learning, and (h) kinds and importance of influences on their educational decisions. A pilot test, administered to a small sample, enhanced the reliability and design of the educational section of the survey. Table 4 shows the education questions in section three of the survey, and their respective constructs.

Data Collection

The data for the research were gathered using a survey instrument (see Appendix

Table 4

Education Constructs

Construct	Survey items that constitute the construct
Parental education (used as an independent variable)	Mother's highest level of education Father's highest level of education.
School experience	Feelings about school Importance of classroom academic experience Importance of total college experience
Family pressure	Pressure to get good grades in college from family (of origin)
Educational expectations	Expectations to finish/pursue college
Academic attainment	High school grades College GPA
Influences	Future financial well-being Spiritual prompting Family influence Pressure from friends Personal goal Social opportunities Career advancement Athletic opportunities Cultural/social expectations Spiritual expectation Curiosity Love of learning

A). Following extensive instrument preparation, I e-mailed a 23-question survey to the sampling of 1,460 USU undergraduate students. The introductory e-mail (see Appendix C) explained the study, its importance, and the aim to maintain confidentiality. Respondents were directed to an embedded link to a web-based survey. There were three parts to the instrument. The first part (seven questions) consisted of a brief section used to collect demographic information. The demographic section included questions regarding

such things as marital status, gender, ethnicity, parents' marital status, and religious affiliation. The second part (six questions) was an adaptation of the religiosity model written and tested by Cornwall et al. (1986). The third part (10 questions) consisted of questions dealing with educational pursuit and perception.

An informed consent letter was prepared by Dr. Nick Eastmond and myself (see Appendix B), which was placed at the beginning of the survey, explaining the purpose of the study and the rights of the respondents. Respondents had to agree to the terms specified or they could not proceed to the survey. Each student had a participant's number assigned to ensure a level of confidentiality and to allow for follow-up on nonrespondents. After the first e-mailing was sent out, four follow-up e-mails (see Appendix D, E, F, and G) were sent at one week intervals to those who had not yet completed the survey. In an attempt to increase the response rate, three drawings for $100 Visa gift cards were drawn from names of those who returned completed surveys and indicated they would like to be included in the drawings. Thank-you e-mails and acknowledgement that they had been entered into the drawings (if they chose to participate) were generated automatically through the online computer program Survey Monkey as participants submitted completed surveys. All information was kept on a password-protected computer. All data were destroyed after being analyzed and reported. Respondents were informed that they were free to withdraw from the study at any time if they chose not to participate. Dillman (2000) suggested a 58% response rate is acceptable for electronic surveys. The response rate for this study was about 60%.

Data Analysis

This study used a correlational research design. Continuous variables relating to educational pursuit and perception and religiosity formed the basis for data gathered. Multiple linear regression (MLR) techniques analyzed data in an effort to examine relationships among variables. This type of analysis is widely used in educational research due to its high yield of information relative to relationships among variables. Gall, Gall, and Borg (2003) asserted that the statistical technique of multiple regression has the capacity to handle many of the major quantitative research designs, as well as handle data that are interval, ordinal, or categorical in nature. The general purpose of MLR is to gain more understanding about the relationship between several independent or predictor variables and a dependent variable or criterion variable simultaneously. Creswell (2002) stated, "The variation in the dependent variable is explained by the variance of each independent variable, as well as the combined effect of all independent variables" (p. 376). In this study I attempted to determine which of the various measures of religiosity would provide the greatest degree of explanatory value for ascertaining educational pursuit and educational perception.

The dimensions of religiosity were used as the independent variables and educational pursuit and perception as the dependent variables. The dimensions of religiosity were treated as separate and distinct independent variables as recommended by the model developers (Cornwall et al., 1986). Dillman's tailored design method for surveys was implemented for this study (2000). Data from completed surveys were entered into an Excel spreadsheet and then SPSS statistical software was used to analyze

the data.

Theoretical Assumptions of Multiple Linear Regression

When many potential independent and dependent variables are available to choose from, as in this investigation, an optimum set of variables must be chosen to construct an MLR model. Over-fitting a model by including too many variables must be avoided. The best model must be extracted that includes the least number of independent variables to accurately predict the dependent variables, in a purely objective and mathematical way, without violating any of the many strict rules and assumptions imposed by MLR. For this reason many statisticians and sociologists do not recommend the use of MLR to analyze questionnaire response data, preferring to explore the variables using less restrictive and much easier to perform multivariate techniques (e.g., correspondent analysis, cluster analysis, principal components analysis, and factor analysis). The aim of these techniques is to reduce the number of dimensions in the data matrix, so that the relationships between the response variables can be more easily understood and interpreted in a subjective way. MLR defines the relationship between one Y variable and two or more X variables by means of the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + ... \beta_n X_n$$

where Y = the effect, dependent, or response variable; X = a cause, independent, or predictor variable, β_0 = intercept, β_1, β_2...β_n = partial regression coefficients, and *n* = number of X variables. β_0 represents the average value of Y when all the values of X are 0.

The theoretical assumptions and rules of MLR are very strict, and it is not always possible to construct a valid model from a given data matrix (Chatterjee, Hadi, & Price, 2000). In reality, if the empirical data violate the assumptions of MLR, some of the rules may have to be broken pragmatically, resulting in a model that may efficiently condense and summarize the data matrix, but such a model may not necessarily be valid as a mathematically accurate tool for predictive purposes.

There must be a linear relationship between the Y and each of the X variables in MLR, which implies a significant zero-order correlation occurs between them. Consequently, correlation analysis was performed to identify linear relationships in this investigation. The nature of the causal mechanism underlying a significant correlation between variables may sometimes be the joint influence of one or more common causes (control variables) operating on the original variables in question. A correlation involving a third control variable that jointly causes the correlation between the two original variables is termed partial or spurious correlation. In this investigation, partial correlation analysis was used to identify whether there was an overlap in correlation between X and Y variables due to the influence of a control variable. Partial or spurious correlations were indicated if the partial correlation coefficients were considerably less than the zero-order correlation coefficients (Chatterjee et al., 2000).

One of the theoretical assumptions of MLR is that the X variables should be measured without error, or if not, then the error in X should be much less than the error in Y. The partial regression coefficients are biased if the X variables are subject to error. This investigation may have violated the assumption of no measurement error in the X

variables, since it is not known to what extent the respondents provided honest and accurate answers to all of the items in the questionnaire. Another theoretical assumption of MLR is that the residuals (differences between the predicted and actual values of Y in a MLR equation) should be independent, normally distributed, and have a mean of zero (Chatterjee et al., 2000).

The Kolmogorov-Smirnov test was used to check for normality of residuals in this investigation. The decision rule was to reject the null hypothesis of normality if the significance level (*p* value) of the Kolmogorov-Smirnov *Z* statistic was less than 0.05. The X variables in an MLR equation should not be colinear (i.e., correlated with each other). Colinearity results in changes in the values of the partial regression coefficients when two or more correlated X variables are included in the model. Colinearity increases the values of the standard errors, which reduces the significance levels of the regression coefficients. The regression coefficients of multicolinear X variables may not be significant, even if they are linearly related to the Y variable, and even when the regression model is indicated to be significant by analysis of variance (ANOVA). Consequently, all colinear independent variables, which had VIF (variance inflation factor) statistics > 2 and/or tolerance level statistics < .9 were excluded as far as possible from the MLR equations for the purposes of this investigation. VIF statistics ≤ 5 are conventionally regarded as indicating acceptable colinearity (Chatterjee et al., 2000).

Three methods are available to select an optimum set of X variables in MLR: personal choice, best subsets regression, and stepwise regression. A personal choice of X variables permits the investigator to test his/her own theories and hypotheses, without

being constrained by the automatic variable selection procedures incorporated in SPSS; however, personal choice was not applied in this investigation because it can result in a considerable waste of time and effort. Many nonsignificant MLR models may be constructed, which have to be rejected, because they are not a good fit to the data, and/or because they violate the assumptions of MLR.

Stepwise multiple linear regression was performed using the "Method: Stepwise" option available in the SPSS regression procedure (Chen, Ender, Mitchell, & Wells, 2003). Stepwise regression includes regression models in which the choice of predictive variables is carried out by an automatic procedure, usually a sequence of *F* tests or *t* tests (Draper & Smith, 1981). Each potential X variable was systematically added to, or excluded from, the regression model, and decisions were made using objective statistical criteria as to whether to select or exclude each variable. X variables were selected or excluded on the basis of "tolerance levels" including the values of the correlation coefficients, the values of the coefficients of determination (R^2) the variance ratios (F) obtained by analysis of variance, the results of *t* tests, where the *t* statistic = value of regression coefficient/standard error, and the VIF (variance inflation factor) statistics, which checked for multicolinearity. The significance levels associated with the test statistics were compared against a predetermined significance level of $\alpha = .05$. All nonsignificant X variables were rejected, and only significant variables were retained for inclusion in the optimized MLR models.

Descriptive Statistics

Measures of central tendency and normal dispersion were not meaningful for the

questionnaire response data. It is not a recommended procedure to compute such statistics for nonnormally distributed, highly skewed questionnaire responses based on ordinal and nominal categories. Many of the responses were clustered at one end or the other of the item scales, and there were only a few responses in the center. The standard deviations either side of the mean values would be meaningless, because the frequency distributions are not symmetrical or normal. Some of the item scales not only had very skewed distributions, but they were also nominal categories (i.e., they had no logical numerical order). The descriptive statistic with most relevance to the frequency distributions is the mode (the category with the highest frequency). The modes are clearly visible by looking at the numbers in the frequency distribution tables in Chapter IV.

Creswell's (2002) recommended correlation coefficient based variable scale was used to determine the relationship between the respondents' religiosity and marital status, gender, ethnicity, parents' marital status, and religious affiliation. The appropriate correlation coefficient was used based on the scale of measure (nominal, ordinal, interval, or ratio). Table 5 displays the variables, scales of measure, and type of correlation coefficient used.

Some Underlying Assumptions

A major assumption for this study was that respondents would answer truthfully. Much of the data in this study were obtained through self-report measures, and as such are subject to all the limitations inherent in such data collection. Reverse coding was used to avoid response sets. The positive and negative religiosity questions loaded onto different factors when using factor analysis, thus showing that little response set behavior

Table 5

Correlation Coefficients

	Marital status (nominal)	Gender (nominal)	Ethnic group (nominal)	Parents' marital status (nominal)	Religious affiliation (nominal)
Religiosity & constructs (interval)	Point-Biserial	Point-Biserial	Point-Biserial	Pearson product moment	Point-Biserial

was evident. Another assumption was that the sample from USU was broadly representative of LDS college students. It is my opinion that results from respondents from Utah State University were more indicative of the general membership of the LDS Church when generalizing to the total LDS population than results from LDS Church-sponsored colleges and universities, where abnormally high levels of religiosity skew the statistical results.. Finding a university outside of Utah with a large enough population of LDS college students and the likelihood that they would all be included in a random sampling of that university was beyond the scope and capability of this investigation. Although USU is located in Utah, which is predominantly LDS, I still feel the results from this study can be generalized to the total LDS college student population in the United States.

In regards to using a survey, limitations needed to be considered. Respondents who take an anonymous survey may be less likely to return the survey if they are not being held accountable for doing so. Alfone (1997) described a "social desirability response rate" that can also occur where respondents rate themselves according to what

they perceive as the expectations of others. These false responses can damage the validity and reliability of the instrument. McCamey (2003) pointed out that survey questions can also be misunderstood or misinterpreted by the respondents. Although these threats cannot be completely removed from any survey, effort was spent to minimize their effect on this study by offering an incentive for returning the survey, maintaining confidentiality for the respondents and the researcher, and carefully wording the questions and directions on the survey.

The major conceptual limitation of all regression techniques is that one can ascertain only relationships but never be sure about establishing causality. In real correlation research, alternative causal explanations are often not considered. Read (1979) argued that quantitative analysis of religion cannot truly assess its really important dimensions because it tends not to highlight statistical anomalies in any organization. On the other hand, it can explore aspects of a religion that are reflected in the general body of its membership. It is my hope that this study will lay the foundation and a framework for a much larger study involving a national LDS sampling.

Summary

This chapter presented a discussion on the research design, a description of the variables, selection of participants, and procedures used. It also discussed the instrument used, where it was obtained, and to what extent the instrument was reliable and valid. It closed with a description of the data collection and analysis.

CHAPTER IV

RESULTS

Introduction

The aim of the statistical analysis was to answer the research questions: What impact does religiosity have on the decisions of students at USU to pursue their postsecondary education? How does religiosity influence the educational perceptions of students at USU? What religious variables, if any, are useful in explaining postsecondary educational pursuit among students at USU? What religious variables, if any, are useful in explaining positive or negative educational perceptions among students at USU? Participants for this study were obtained through a systematic random sampling of 1,460 undergraduate students at USU.

The research adopted a positivist approach and assumed that there is such a thing as objective reality based upon mathematics. It was based on numerical observations, and used highly structured methods of data collection, presentation, and statistical parameters to provide new information about the research topic. The researcher acted as an unbiased observer to generate, analyze, and interpret the data. Social or religious pressures to interpret the data in a biased way were minimized and not influential. Positivism is generally linked to an inductive research approach (i.e., starting with a theory, and then moving to the data). For this study a theory or research hypothesis was first developed. In this case, the theory was that religiosity affects educational pursuits and perceptions. The null hypothesis was that religiosity did not influence educational perceptions and pursuits. A strategy was then designed to test this theory. The strategy was to collect

sufficient numerical variables, and then to explain the relationships between them by means of objective statistical analysis, in this case stepwise multiple regression. The findings could, therefore be generalized so that they had external validity (i.e., they applied not only to the sample, but also to the whole population of LDS students).

Findings

The aim was to use SPSS to construct empirical mathematical models from a data matrix consisting of 801 rows (one row for each questionnaire respondent) and 66 columns of variables, concerning different aspects of the religiosity, the demography, and the educational perceptions and pursuits of each of the respondents. The challenge of this analysis was to identify the optimum dependent and independent variables for inclusion in the mathematical models without violating the very strict theoretical assumptions of the statistical techniques. These theoretical assumptions are discussed in the following paragraphs in this chapter.

The analytical strategy was as follows: First, all the variables in the data matrix were functionally classified as quantitative/ordinal (with a logical numerical order) or dummy/nominal (with no logical numerical order). Next, the frequency distributions of these variables were described. Then, item (reliability) analysis and factor analysis were applied to define groups of correlated variables that consistently and reliably measured the same construct and that could potentially be incorporated into the mathematical models. Finally, stepwise multiple regression analysis (MLR) was performed to construct mathematical models describing and summarizing constructs concerning

educational pursuits and perceptions (dependent variables), incorporating an optimum subset of independent variables concerning religiosity and demographic factors.

Demographic Variables

The demographic variables collected from the respondents are listed and classified in Table 6.

Table 6

Demographic Variables

Code	Items	Item scale	Type of variable
D1	What is your marital status?	0 Other (please specify) 1 Never Married 2 Divorced 3 Widowed 4 Separated 5 Married 6 Married with Children	Nominal (no logical numerical order)
D2	Are you male or female?	1 Male 2 Female	Nominal (no logical numerical order)
D3	To which ethnic group do you belong?	0 Other (please specify) 1 White 2 Black 3 Asian 4 Hispanic 5 American Indian 6 Pacific Islander 7 Multi-racial	Nominal (no logical numerical order)
D4	Have your parents divorced?	1 Yes 2 No	Nominal (no logical numerical order)
D5	If your parents divorced, did they marry again?	1 Not applicable, parents still married 2 Father married again 3 Mother married again 4 Both father and mother married again 5 Neither father or mother married again	Nominal (no logical numerical order)
D6	What is your religious affiliation?	1 Other (please specify) 2 Catholic 3 Baptist 4 Presbyterian 5 Mormon 6 Seventh Day Adventist 7 Jewish 8 Islam 9 Undeclared 10 None	Nominal (no logical numerical order)

The frequency distributions of 801 respondents with respect to gender showed that 410 (51.2%) were female and 391 (48.8%) were male. The male:female ratio was approximately 1:1. With respect to marital status, 531 (66.3%) were never married, 179 (22.3%) were married, 66 (8.2%) were married with children, and 23 (2.9%) were divorced. With respect to the divorce status of respondents, 652 (81.4%) of the respondents' parents are not divorced, leaving 149 (18.6%) that are divorced. Out of those parents who are divorced, 72 (47%) of the respondents' fathers and mothers both remarried, 37 (24%) of the respondents' fathers and mothers both never remarried, 26 (17%) of the respondents' fathers only remarried, and 18 (12%) of the respondents' mothers only remarried. The frequency distributions for ethnicity (Table 7) and religious affiliations (Table 8) are tabulated.

Most of the respondents were White (91.3%), unmarried (66.3%), and without divorced parents (81.4%). The ratio of respondents with Mormon (LDS) affiliation to non-Mormon (non LDS) affiliation was approximately 4:1.

The data were cross-tabulated with respect to Mormon (LDS) and non-Mormon

Table 7

Ethnicity of Respondents

Ethnic group	Frequency	Percent
White	731	91.3
Hispanic	37	4.6
Asian	20	2.5
Other	3	0.4
Black	3	0.4
Multiracial	3	0.4
American Indian	2	0.2
Pacific Islander	2	0.2
Total	801	100

Table 8

Religious Affiliations of Respondents

Religious affiliation	Frequency	Percent
Mormon (LDS)	640	79.9
None	46	6.0
Undeclared	29	3.6
Catholic	26	3.2
Baptist	12	1.5
Atheist/Agnostic	10	1.2
Nondenominational Christian	7	0.9
Presbyterian	3	0.4
Buddhist	3	0.4
Seventh Day Adventist	2	0.2
Jewish	2	0.2
Apostolic	2	0.2
Wiccan	2	0.2
Episcopalian	2	0.2
Lutheran	2	0.2
Other Christian	1	0.1
Methodist	1	0.1
Islam	1	0.1
Hindu	1	0.1
Effectivist	1	0.1
Anglican	1	0.1
Greek Orthodox	1	0.1
Evangelical Christian	1	0.1
Messianic Christian	1	0.1
Jehovah's Witness	1	0.1
Multiple affiliations	1	0.1
Total	801	100

(non-LDS) religious affiliations and other demographic factors. Likelihood ratio chi-square (χ^2) tests were performed to test the null hypothesis that there were no associations or dependencies between religious affiliation, gender, ethnicity, marital status, and parental status. Cramer's *V* coefficients were used to determine the strengths of the associations. The conventional interpretation of the magnitude of Cramer's *V* coefficient was applied (i.e., < .1 = little, if any, association; .1-.3 = low association; .3-.5 =

moderate association; > .5 = high association; Agresti, 2007). The decision rule was to reject the null hypothesis if the significance level (*p* value) of the χ^2 and Cramer's *V* statistics were ≤ .01. This level was chosen because of the large number of respondents and to reduce the likelihood of having a false positive.

There was little or no association between gender and religious affiliation (Table 9). Religious affiliation was, however, associated with marital status at the 0.01 level, although the strength of this association was low. Higher proportions of respondents with Mormon affiliation were either married or never married compared with respondents with no Mormon affiliation (Table 10). Religious affiliations and marital status are, therefore, not independent.

Religious affiliation was also associated with the divorce and remarriage status of the respondent's parents at the 0.01 level, although the strengths of these associations were low. Higher proportions of respondents with Mormon affiliation had parents who were not divorced and still married compared with respondents with no Mormon affiliation (Tables 11 and 12). Religious affiliations and the divorce and marriage status of the respondent's parents are therefore not independent.

Table 9

Cross-Tabulation of Religious Affiliation and Gender

		Mormon or non-Mormon religious affiliation					
Variable		Non-Mormon	Mormon	Total	Likelihood ratio chi square χ^2	Cramer's *V*	Significance level *p*
Gender	Male	90	301	391	4.054	0.071	0.044
	Female	71	339	410			
Total		161	640	801			

Table 10

Cross-Tabulation of Religious Affiliation and Marital Status

Variable		Mormon or non-Mormon religious affiliation		Total	Likelihood ratio chi square χ^2	Cramer's *V*	Significance level *p*
		Non-Mormon	Mormon				
Marital status	Other	2	0	2	33.658	0.199	0.001
	Never married	127	404	531			
	Divorced	7	16	23			
	Married	14	165	179			
	Married with children	11	55	66			
Total		161	640	801			

Table 11

Cross-Tabulation of Religious Affiliation and Divorce Status of Parents

Variable		Mormon or non-Mormon religious affiliation		Total	Likelihood ratio chi square χ^2	Cramer's *V*	Significance level *p*
		Non-Mormon	Mormon				
Divorced parents	Yes	49	100	149	16.975	0.153	0.001
	No	112	540	652			
Total		161	640	801			

A moderately strong association between ethnicity and religious affiliation was indicated in Table 13. Ethnic and religious diversity was widely represented by eight ethnic groups and 26 religious affiliations, but the sample was dominated by white respondents with Mormon affiliation. Ethnicity and religious affiliation are, therefore, not independent.

Variables Concerning Educational Pursuits and Perceptions

The 21 response variables concerning educational pursuits and perceptions

Table 12

Cross-Tabulation of Religious Affiliation and Remarriage Status of Parents

Variable		Mormon or non-Mormon religious affiliation		Total	Likelihood ratio chi square χ^2	Cramer's *V*	Significance level *p*
		Non-Mormon	Mormon				
Remarried parents	Not applicable, parents are still married	111	537	648	17.560	0.155	0.002
	Father married again	7	19	26			
	Mother married again	6	12	18			
	Both father and mother married again	25	47	72			
	Neither father or mother married again	12	25	37			
Total		161	640	801			

Table 13

Cross-tabulation of Religious Affiliation and Ethnicity of Respondents

Variable		Mormon or non-Mormon religious affiliation		Total	Likelihood ratio chi square χ^2	Cramer's *V*	Significance level *p*
		Non-Mormon	Mormon				
Ethnicity	Other	1	2	3	68.486	0.328	0.001
	White	124	607	731			
	Black	3	0	3			
	Asian	18	2	20			
	Hispanic	14	23	37			
	American Indian	0	2	2			
	Pacific Islander	0	2	2			
	Multi-racial	1	2	3			
Total		161	640	801			

collected from the respondents are listed and classified in Table 14. The frequency distributions of the responses to these items are presented in Table 15. Responses for questions E1 and E2 that were marked "I Don't Know" were treated as missing data since

Table 14

Response Variables Concerning Educational Pursuits and Perceptions

Code	Item	Item scale	Classification
E1	What is the highest level of education your father completed?	0 Don't know 1 Elementary school 2 High school 3 Trade school 4 Some college 5 Associate's degree 6 Bachelor's degree 7 Master's degree 8 Professional Degree 9 Advanced degree	Ordinal (increasing order of education level)
E2	What is the highest level of education your mother completed?	0 Dont' know 1 Elementary school 2 High school 3 Trade school 4 Some college 5 Associate's degree 6 Bachelor's degree 7 Master's degree 8 Professional Degree 9 Advanced degree	Ordinal (increasing order of education level)
E3	How do you feel about schooling?	1 I like very much 2 I like 3 I have mixed feelings 4 I dislike 5 I dislike very much	Ordinal (decreasing order of liking)
E4	What were your grades in HIGH SCHOOL?	1 Mostly D's or lower 2 C's & D's 3 Mostly C's 4 B's & C's 5 Mostly B's 6 A's and B's 7 Mostly A's	Ordinal (increasing order of grades
E5	What is/was your cumulative COLLEGE GPA?	0, 1, 2, 3, 4	Ordinal (increasing order of GPA)
E6	How much pressure do you receive from your family to get good grades in college?	1 A lot 2 some 3 Little 4 No	Ordinal (decreasing order of pressure)
E7	What are your educational expectations?	0 I am unsure 1 I don't think I will finish college 2 I expect to finish college 3 I expect to go on to an academic graduate 4 I expect to graduate from a professional school	Ordinal (increasing order of expectations)
E8	How important do you think the information you are learning or have learned from your CLASSROOM ACADEMIC EXPERIENCE will be for you later in life?	1 Very 2 Quite 3 Fairly 4 Slightly 5 Not at all	Ordinal (decreasing order of importance)

(table continues)

Code	Item	Item scale	Classification
	Rate the following influences on your decision to attend college.		
E10a	Future financial well being	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order of influence)
E10b	Spiritual prompting	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10c	Family influence	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10d	Pressure from friends	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10e	Personal goal	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10f	Social opportunities	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10g	Career advancement	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10h	Athletic opportunities	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10i	Cultural/social expectations	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10j	Spiritual expectation	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10k	Curiosity	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)
E10l	Love of learning	1 Main 2 Big 3 Moderate 4 Little 5 None	Nominal (decreasing order)

Table 15

Frequency Distributions of Response Variables Concerning Educational Pursuits and Perceptions

Code	Item	0	1	2	3	4	5	6	7	8	9
E1	What is the highest level of education your father completed?	-	11	100	29	137	63	253	134	40	25
E2	What is the highest level of education your mother completed?	-	12	158	21	193	109	230	59	11	5
E3	How do you feel about schooling?	-	400	288	104	8	1	-	-	-	-
E4	What were your grades in HIGH SCHOOL?	-	4	19	23	55	85	282	333	-	-
E5	What is/was your cumulative COLLEGE GPA?	1	1	16	363	350	-	-	-	-	-
E6	How much pressure do you receive from your family to get good grades in college?	-	107	341	214	139	-	-	-	-	-
E7	What are your educational expectations?	14	1	354	354	78	-	-	-	-	-
E8	How important do you think the information you are learning or have learned from your CLASSROOM ACADEMIC EXPERIENCE will be for you later in life?	-	287	289	186	38	1	-	-	-	-
E9	How important do you think the information you are learning or have learned from your TOTAL COLLEGE EXPERIENCE will be for you later in life?	-	448	233	99	21	0	-	-	-	-

(table continues)

Code	Item	0	1	2	3	4	5	6	7	8	9
	Rate the following influences on your decision to attend college.										
E10a	Future financial well being	-	234	408	117	35	7	-	-	-	-
E10b	Spiritual prompting	-	58	274	186	141	142	-	-	-	-
E10c	Family influence	-	62	406	199	91	43	-	-	-	-
E10d	Pressure from friends	-	4	72	133	284	308	-	-	-	-
E10e	Personal goal	-	333	378	67	18	5	-	-	-	-
E10f	Social opportunities	-	44	296	229	145	87	-	-	-	-
E10g	Career advancement	-	142	496	110	37	16	-	-	-	-
E10h	Athletic opportunities	-	7	35	68	161	530	-	-	-	-
E10i	Cultural/social expectations	-	28	171	276	179	147	-	-	-	-
E10j	Spiritual expectation	-	24	171	228	157	221	-	-	-	-
E10k	Curiosity	-	30	193	259	167	152	-	-	-	-
E10l	Love of learning	-	90	343	262	84	22	-	-	-	-

no numerical value could be assigned to them. In question E5, two respondents marked "5" for their college GPA, which is not possible since the college GPA scale only goes up to 4. There were 70 respondents who gave responses to the question about GPA that were not usable (I don't know, N/A, I just started, etc.). These responses were treated as missing data as well.

Cronbach's α for the 21 items in Table 14 and 15 = 0.591, which is greater than the threshold level of 0.5, indicates that the responses to these items were collectively

correlated, and they consistently measured a similar construct concerning educational pursuits and perceptions. However, it was considered necessary to construct subgroups in order to provide a range of dependent variables representing different constructs for analysis by stepwise MLR.

Cronbach's α for the items coded E10a to E10l inclusively = 0.684, which exceeded the threshold value of 0.5, indicated that collectively the response variables for these twelve items were correlated, and consistently measured the same construct concerning influences upon the respondents. Consequently the response variables for these twelve items were summated to create a single new aggregated construct variable named "influences." The purpose of using this construct in this investigation was to show that the greater number of influences to attend college a person has, the greater the likelihood of them pursuing their postsecondary education. For example, if a student has two influences for attending college (e.g., pressure from friends and athletic opportunities, a change in friends or an injury could potentially end that student's desire to pursue or continue to pursue their postsecondary education). If that same student, however, had additional influences to attend college (e.g., future financial well being, spiritual prompting, etc.), then the likelihood of pursuing or continuing to pursue their postsecondary education would be greater. In short, the higher the summated score on the aggregated influences construct the greater the likelihood of pursuing or continuing to pursue postsecondary education.

Cronbach's α for items coded E1 to E9 inclusively = 0.216, which is less than 0.5, indicating that the response variables for these nine items were not collectively

correlated, and so they did not all consistently and reliably measure the same construct.

An inter-item correlation matrix, using Pearson's correlation coefficients was computed, to identify which of these variables were correlated (Table 16).

Items E1 and E2 were positively correlated (r = .378) at the 0.01 level (Table 16). Cronbach's α for E1 and E2 = 0.555, which exceeded the threshold of 0.5, indicating that these two variables measured a similar construct. Accordingly, the ordinal responses to E1 and E2 were summated to create a single new aggregated construct variable named "parental education."

Items E3, E8 and E9 were positively correlated (r = .508) at the 0.01 level (Table 16). Cronbach's α for E3, E8, and E9 = 0.648, exceeding the threshold level of 0.5, indicating that these three variables measured a similar construct. Accordingly, the ordinal responses to E3, E8 and E9 were summated to create a single new aggregated construct variable named "school experience."

Table 16

Interitem Correlation Matrix with Respect to Educational Pursuits and Perceptions

	E1	E2	E3	E4	E5	E6	E7	E8
E2	0.378[a]							
E3	0.074	0.016						
E4	0.191[a]	0.146[a]	-0.100[a]					
E5	0.093	0.063	-0.173[a]	0.352[a]				
E6	-0.173[a]	-0.175[a]	-0.052	-0.115	0.011			
E7	-0.021	-0.082	-0.032	0.030	-0.012	-0.014		
E8	0.041	-0.019	0.293[a]	-0.092	-0.119	0.072	-0.013	
E9	-0.050	-0.083	0.336[a]	-0.149	-0.160	0.084	0.016	0.508[a]

[a] indicates significant correlation at the 0.01 level

Items E4 and E5 were positively correlated (r = .352) at the 0.01 level (Table 16). Cronbach's α for E4 and E5 = 0.521, which is over the threshold level of 0.5, indicating that these two variables measured a similar construct. Accordingly, the ordinal responses to E4 and E5 were summated to create a single new aggregated construct variable named "academic attainments." A weighted scale was used because of the different scales used by E4 (1-7) and E5 (0-4).

E6 and E7 were not highly correlated with any of the other variables (Table 16) and therefore they were not combined with any other variables, but stood alone as individual variables, termed "family pressure" and "educational expectations."

The conclusion of the item (reliability) analysis and factor analysis was that the 21 original response variables were reduced to six variables for analysis by MLR. Five of these variables, representing five different aspects or constructs concerning the educational pursuits and perceptions of the respondents (school experience, academic attainments, family pressure, educational expectations, and influences) were considered to be dependent variables.

As mentioned earlier, parental education was considered to be an independent variable and not a dependent variable for the purpose of MLR. This decision was made because the educational level of the respondents' parents is considered to be an external factor that might influence the educational pursuits and perceptions of the respondents, in addition to religiosity.

Variables Concerning Mormon (LDS) Affiliation

The response variables and their frequency distributions are presented in Tables

17 and 18. The interitem correlation matrix (Table 19) indicated that the responses to the items coded LDS2a, LDS2b, LDS2c, and LDS2d in Table 12 concerning the personal experiences, feelings, and beliefs of respondents with Mormon (LDS) affiliation were all highly positively correlated at the 0.01 level. Cronbach's α for these four items = 0.979, which is very high, reflecting the highly significant values of all the correlation coefficients in Table 19, and indicating that collectively the response variables consistently measured the same construct concerning the experiences, feelings, and

Table 17

Response Variables Concerning Mormon (LDS) Affiliation

Item code	Item	Item scale	Classification
LDS1	Are you a lifelong member of the LDS religion or a convert?	1 Lifelong 2 Convert	Nominal (no logical numerical order)
LDS1long	How long? (please specify number of years)	No categories. Number *f* years are specified	Scale/interval
As a Mormon (LDS), how well do the following statements describe your personal experiences, feelings, or beliefs?			
LDS2a	The president of the LDS Church is a prophet of God.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order of agreement)
LDS2b	The Book of Mormon is the word of God.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order of agreement)
LSD2c	The Church of Jesus Christ of Latter-day Saints is Christ's true church on the earth.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order of agreement)
LDS2d	Joseph Smith actually saw God the Father and Jesus Christ.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order of agreement)

Table 18

Frequency Distributions of Response Variables Concerning Mormon (LDS) Affiliation

Item code	Item	1	2	3	4	5
LDS1	Are you a lifelong member of the LDS religion or a convert?	614	27	-	-	-
LDS1long	How long? (please specify number of years)	24 responses, ranging from 1 to 30 years (24 responses)				
As a Mormon (LDS), how well do the following statements describe your personal experiences, feelings, or beliefs?						
LDS2a	The president of the LDS Church is a prophet of God.	2	7	10	24	598
LDS2b	The Book of Mormon is the word of God.	1	7	11	24	598
LSD2c	The Church of Jesus Christ of Latter-day Saints is Christ's true church on the earth.	1	10	18	17	595
LDS2d	Joseph Smith actually saw God the Father and Jesus Christ.	2	8	12	19	600

beliefs of respondents with Mormon (LDS) affiliation. Consequently the response variables for these four items were summated to create a single new aggregated construct variable named "Mormon (LDS)" for purposes of MLR.

A two-tailed *t* test for independent samples, assuming equal variances, following

Table 19

Interitem Correlation Matrix with Respect to Personal Experiences, Feelings, and Beliefs of Respondents with Mormon (LDS) Affiliation

Question	LDS2a	LDS2b	LDS2c
LDS2b	0.918[a]		
LDS2c	0.867[a]	0.911[a]	
LDS2d	0.930[a]	0.963[a]	0.939[a]

[a] significant correlation at the 0.01 level

the results of Levene's test (F = 1.011; p = .349) was used to test the null hypothesis that there was no significant difference between the mean values of the aggregated construct variable named "Mormon (LDS)" with respect to the variable coded LDS1 (referring to whether the respondent was a lifelong member of the LDS religion or a convert). The null hypothesis was rejected. The results were t (639) = .622; p = .534, indicating no significant difference between the mean values for the life-long members and the converts. Consequently it was not considered necessary to include LDS1 as an independent variable in the MLR.

The item coded LDS2 concerning the lengths of time the respondents were members of the LDS religion had only 24 responses (Table 18). This item was discarded for purposes of MLR, since the sample size was not considered to be sufficiently representative for statistical analysis.

Variables Concerning Personal Feelings, Experiences, and Beliefs about Religion

The response variables and their frequency distributions are presented in Tables

20 and 21. The items in Tables 20 and 21 included negative feelings, beliefs, and experiences (R1j, R1l, R1q, and R1t) concerning difficult or off-putting aspects of religion, for which the frequencies of the responses generally declined across the 1 to 5 scales. They also included positive feelings, beliefs, and experiences (R1a, R1b, R1c, R1d, R1e, R1f, R1g, R1h, R1i, R1k, R1m, R1n, R1o, R1p, R1r, R1s, and R1u) concerning religious ideals for which the frequencies of the responses generally increased across the item scales. Cronbach's α for the group of 4 negative experiences = 0.827. Cronbach's α for the group of 17 positive religious experiences = 0.968. The high values of Cronbach's α indicated that both groups of response variables were highly correlated and consistently measured the same constructs concerning positive and negative aspects of the respondents' experience of religiosity. Consequently the response variables for these items were summated to create two new aggregated construct variables named "negative religious experience" and "positive religious experience."

Variables Concerning Religious Practices and Behavior

The response variables and their frequency distributions are presented in Tables 22 and 23.

The responses to the 9 items coded R2a to R4 inclusively in Tables 22 and 23 concerning religious practices and behavior were highly correlated. The value of Cronbach's α, as an index of the inter-item correlation = 0.923, which is very high, indicating that collectively the response variables consistently measured the same construct concerning religious practices and behavior. Consequently the response

Table 20

Response Variables Concerning Feelings, Experiences, and Beliefs about Religion

Item code	Item	Item scale	Classification
R1a	There is life after death.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order of religiosity)
R1b	Satan actually exists.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1c	The Bible is the word of God.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1d	I believe in the divinity of Jesus Christ.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1e	I believe that God lives and is real.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1f	My relationship with God is an important part of my life.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1g	I love God with all my heart.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1h	I am willing to do whatever God wants me to do.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1i	Without religious faith, the rest of my life would not have much meaning.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1j	I don't really care about my church/religion.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (decreasing order of religiosity)
R1k	Church programs and activities are an important part of my life.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1l	My church/religion	1 Not at all 2 Not much 3 Somewhat 4 Very much	Ordinal (decreasing

(table continues)

Item code	Item	Item scale	Classification
	puts too many restrictions on its members.	5 Exactly	order of religiosity)
R1m	I try hard to carry my religion over into other dealings in my life.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1n	I live a religious life.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1o	I share what I have with the poor.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1p	I encourage others to believe as I do.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1q	Some doctrines of my church/religion are hard for me to accept.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (decreasing order of religiosity)
R1r	I seek God's guidance when making important decisions in my life.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1s	I forgive others.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)
R1t	I do not accept some standards of my church/religion.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (decreasing order of religiosity)
R1u	I admit my sins to God and pray for forgiveness.	1 Not at all 2 Not much 3 Somewhat 4 Very much 5 Exactly	Ordinal (increasing order)

Table 21

Frequency Distributions of Response Variables Concerning Feelings, Experiences, and Beliefs about Religion

Item code	Item	1	2	3	4	5
R1a	There is life after death.	23	21	41	55	661
R1b	Satan actually exists.	45	23	50	53	630
R1c	The Bible is the word of God.	47	34	57	144	519
R1d	I believe in the divinity of Jesus Christ.	42	34	34	34	657
R1e	I believe that God lives and is real.	29	27	32	42	671
R1f	My relationship with God is an important part of my life.	43	36	44	80	598
R1g	I love God with all my heart.	40	32	42	91	596
R1h	I am willing to do whatever God wants me to do.	49	34	67	154	497
R1i	Without religious faith, the rest of my life would not have much meaning.	90	37	100	142	432
R1j	I don't really care about my church/religion.	605	70	40	36	50
R1k	Church programs and activities are an important part of my life.	106	73	116	178	328
R1l	My church/religion puts too many restrictions on its members.	581	106	54	27	33
R1m	I try hard to carry my religion over into other dealings in my life.	86	67	118	193	337
R1n	I live a religious life.	69	48	100	199	385
R1o	I share what I have with the poor.	14	70	242	286	189
R1p	I encourage others to believe as I do.	97	104	238	211	151
R1q	Some doctrines of my church/religion are hard for me to accept.	437	192	72	52	48
R1r	I seek God's guidance when making important decisions in my life.	61	48	71	135	486
R1s	I forgive others.	2	10	71	331	387
R1t	I do not accept some standards of my church/religion.	567	99	60	38	37
R1u	I admit my sins to God and pray for forgiveness.	74	36	69	155	467

Table 22

Response Variables Concerning Religious Practices and Behavior

Item code	Item	Item scale	Classification
R2a	Frequency of personal prayer.	1 Not at all 2 About once a month 3 About once a week 4 A few times a week 5 Every day	Ordinal (increasing frequency)
R2b	Frequency of family prayer (other than blessing the food)	1 Not at all 2 About once a month 3 About once a week 4 A few times a week 5 Every day	Ordinal (increasing frequency)
R2c	Frequency of family religious instruction	1 Not at all 2 About once a month 3 About once a week 4 A few times a week 5 Every day	Ordinal (increasing frequency)
R2d	Frequency of personal Bible reading or reading of other sacred texts	1 Not at all 2 About once a month 3 About once a week 4 A few times a week 5 Every day	Ordinal (increasing frequency)
R2e	Frequency of family Bible reading or reading of other sacred texts	1 Not at all 2 About once a month 3 About once a week 4 A few times a week 5 Every day	Ordinal (increasing frequency)
R2f	Frequency of family discussions about what is right or wrong	1 Not at all 2 About once a month 3 About once a week 4 A few times a week 5 Every day	Ordinal (increasing frequency)
R3a	Frequency of attendance at worship services	1 Never 2 A few times a year 3 About once each month 4 2-3 times each month 5 Every week	Ordinal (increasing frequency)
R3b	Frequency of attendance at religious meetings other than formal religious services	1 Never 2 A few times a year 3 About once each month 4 2-3 times each month 5 Every week	Ordinal (increasing frequency)
R4	Amount donated financially each year to your church/religion	1 None 2 Less than a full tithe 3 A full tithe 4 More than a full tithe	Ordinal (increasing amount)

Table 23

Frequency Distributions of Response Variables Concerning Religious Practices and Behavior

Item code	Item	1	2	3	4	5
R2a	Frequency of personal prayer.	75	62	48	133	483
R2b	Frequency of family prayer (other than blessing the food)	193	73	66	189	280
R2c	Frequency of family religious instruction	180	101	229	196	95
R2d	Frequency of personal Bible reading or reading of other sacred texts	136	88	111	214	252
R2e	Frequency of family Bible reading or reading of other sacred texts	239	126	138	169	129
R2f	Frequency of family discussions about what is right or wrong	96	105	139	306	155
R3a	Frequency of attendance at worship services	73	65	32	73	558
R3b	Frequency of attendance at religious meetings other than formal religious services	108	117	109	206	261
R4	Amount donated financially each year to your church/religion	121	98	390	192	-

variables for these nine items were summated to create a single new aggregated construct variable named “religious practice.”

The conclusion of the item (reliability) analysis and factor analysis was that the 42 original response variables were reduced to four variables for analysis by MLR, representing different aspects or constructs concerning the religiosity of the respondents (Mormon [LDS] experience, negative religious experience, positive religious experience,

and religious practice). These four constructs were considered to be independent variables that may influence the educational perceptions and pursuits of the respondents, in addition to parental education and demographic factors (gender, marital status, divorced parents, remarriage of parents, ethnicity, and religious affiliation).

Construction of Models using Multiple Linear Regression

Stepwise multiple regression analysis was performed using all of the independent and dependent variables specified in Table 24. MLR was applied to test the null hypothesis that there were no relationships between the dependent and independent variables outlined in Table 24. The null hypothesis was rejected if the values of the test statistics were < .05. The stepwise elimination procedure was applied so that only those variables which were within the required statistical threshold were included in the MLR models.

Prediction of School Experience

SPSS built three optimized models from the data matrix using the stepwise elimination procedure to predict school experience. The models are labeled 1 to 3 in Table 25.

The optimum model was considered to be 3, which excluded partially correlated or colinear independent variables, and the Durbin-Watson statistic indicated no autocorrelation. The coefficient of multiple correlation $R = .215$ was significant at the 0.01 level. The *t*-tests on the coefficients generated *p* values < .05, indicating that they were all significantly different from zero at the 0.05 level. ANOVA indicated a highly significant

Table 24

Summary of the Variables Used in Stepwise Multiple Regression Analysis

Independent variables	Values	Classification	Dependent variables	Values	Classification
Mormon (LDS)	4 – 20	Ordinal	School experience	3-15	Ordinal
Positive religious experience	17 – 85	Ordinal	Academic attainments	0 – 10	Ordinal
			Family pressure	1 – 4	Ordinal
Negative religious experience	4- 20	Ordinal	Educational expectations	0 – 4	Ordinal
			Influences	12–60	Ordinal
Religious practice	9 – 44	Ordinal			
Parental education	2 – 18	Ordinal			
Gender	1 Male 2 Female	Nominal			
Marital status	1 Never married 2 Divorced 3 Widowed 4 Separated 5 Married 6 Married with children	Nominal			
Divorced parents	1 No 2 Yes	Nominal			
Remarriage of parents	1 Parents still married 2 Father & mother remarried 3 Neither father or mother remarried 4 Father remarried 5 Mother remarried	Nominal			
Ethnicity	1 White 2 Black 3 Asian 4 Hispanic 5 American Indian 6 Pacific Islander 7 Multi-racial	Nominal			
Religious affiliation	0 = Non-Mormon (LDS) 1 = Mormon (LDS)	Nominal			

Table 25

Multiple Regression Statistics for the Model to Predict School Experience

Model	Variables	Unstandardized coefficients		Standardized coefficients		Significance
		B	Standard error	Beta	*t*	*p*
1	Intercept	6.089	0.232		26.204	0.001
	Gender	-0.571	0.144	-0.155	-3.957	0.001
2	Intercept	7.123	0.421		16.908	0.001
	Gender	-0.579	0.144	-0.157	-4.035	0.001
	Religious practice	-0.030	0.010	-0.114	-2.934	0.003
3	(Constant)	9.859	0.433		15.851	0.001
	Gender	-0.510	0.146	-0.138	-3.504	0.001
	Religious practice	-0.032	0.010	-0.121	-3.126	0.002
	Marital status	0.090	0.036	0.099	2.496	0.013

regression where F (3,637) = 1.292, $p < .001$. Using the standardized regression coefficients (to take account of different scales for each variable) the MLR model can be described as the following:

School experience = 6.859 – 0.138 gender - 0.121 religious practice + 0.099 marital status

This model predicted that school experience (low value = good experience and high value = poor experience) changed significantly with respect to gender (1 = male 2 = female) and religious practice (low value = little religious practice, high value = much religious practice) and marital status (1 never married, 2 divorced, 3 widowed, 4 separated, 5 married, 6 married with children).

The sign for gender is negative. Therefore, when gender = 2 (female), the ordinal scale of school experience decreased from a high value (poor) to a lower value (good);

therefore, female school experience was predicted to be better than male school experience.

The sign for religious practice is negative. The ordinal scale of school experience decreased from a high value (poor experience) to a lower value (good experience) when religious practice decreased from a high value (much religious practice) to a low value (little or no religious practice). Therefore, school experience was better when there was more religious practice.

The sign for marital status is positive. The ordinal scale of school experience decreased from a high value (poor experience) to a lower value (good experience) when marital status increased from a low value (never married or divorced) to a high value (married or married with children). Therefore, school experience was better when the respondents were married.

Diagnostic checks, however, indicated that this model violated the statistical assumptions of MLR. The residuals were not normally distributed at the 0.05 level of significance (Kolmogorov-Smirnov Z statistic = 1.850, p = .002). The distribution of residuals with respect to the predicted values is illustrated in Figure 2.

Visual examination of Figure 2 reveals that the residuals are not evenly distributed around their mean (zero) value, which is an indication of nonhomogeneity of variance. There were many positive outliers, represented by standardized residuals greater in value than 2. Violation of the theoretical assumptions does not imply that MLR model 3 in Table 25 is invalid. This model is a very good fit to the data and provides an adequate summary description of the variables. The violations do, however, imply that

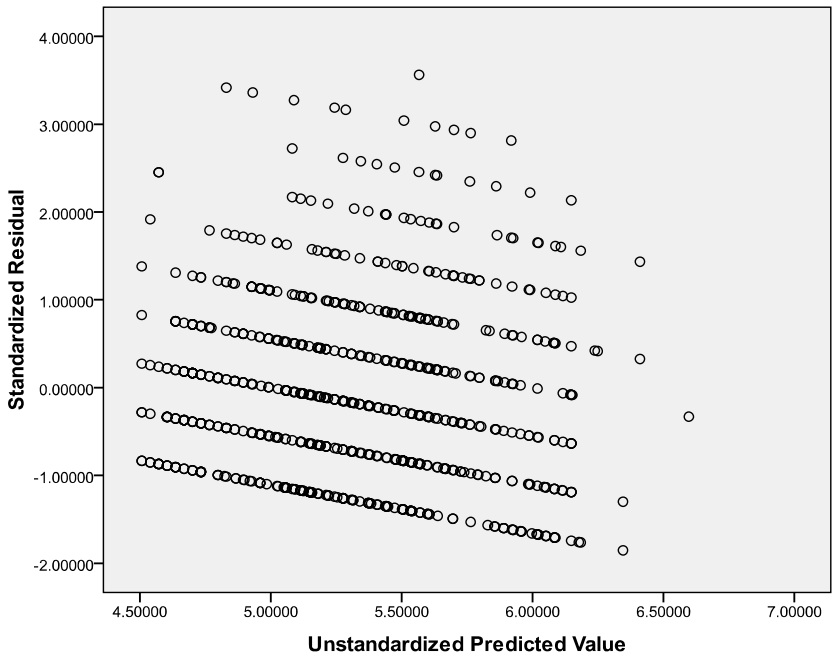

Figure 2. Distribution of residuals for the MLR model to school experience.

the predictive power of the model is not high, and the computation of 95% confidence intervals for the prediction of school experience, which assumes normality of residuals,would be inaccurate. The low predictive power of the model is reflected by thelow adjusted *R* square value = .042, which indicates that only 4.2% of the variance in the dependent variable is explained by the three independent variables, and by the high standard error of the estimate of ± 1.806 (Table 25).

Prediction of Academic Attainments

SPSS extracted three optimized models from the data matrix using the step-wise elimination procedure to predict academic attainments (Table 26).

The optimum model was considered to be 3, which excluded partially correlated or colinear independent variables, and the Durbin-Watson statistic indicated no

Table 26

Multiple Regression Statistics for the Model to Predict Academic Attainments

		Unstandardized coefficients		Standardized coefficients		Significance
Model	Variables	B	Std. error	Beta	*T*	*p*
1	Intercept	7.602	0.348		21.863	0.001
	Religious practice	0.048	0.010	0.184	4.741	0.001
2	Intercept	7.019	0.379		18.539	0.001
	Religious practice	0.039	0.010	0.149	3.749	0.001
	Parental education	0.091	0.025	0.147	3.700	0.001
3	Intercept	9.442	0.336		28.078	0.001
	Religious practice	0.025	0.007	0.132	3.648	0.001
	Parental education	0.099	0.022	0.165	4.568	0.001
	Gender	0.569	0.130	0.156	4.381	0.001

autocorrelation. The coefficient of multiple correlation $R = .269$ was significant at the 0.01 level. The *t* tests on the coefficients generated *p* values < .01, indicating that they were all significantly different from zero at the 0.01 level. ANOVA indicated a highly significant regression where $F(3,637) = 16.50$, $p < .001$.

Using the standardized regression coefficients (to take into account the different scales used for each variable) the MLR model can be described as the following:

academic attainments = 9.442 + 0.132 religious practice + 0.165 parental education + 0.156 gender

This MLR model indicated that academic attainments (low value = poor grades, high value = good grades) changed significantly with respect to religious practice (low value = little religious practice, high value = much religious practice), parental education (low value = limited parental education, high value = advanced parental education), and

gender (1 = male, 2 = female).

The sign for religious practice is positive. This finding implied that academic attainments increased with respect to greater religious practice.

The sign for parental education is positive, which implied that academic attainments increased with respect to greater parental education.

The sign of gender is positive, which implied that academic attainments increased between gender = 1 (male) and gender = 2 (female), i.e. females had better academic attainment than males.

Diagnostic checks indicated that this model violated the statistical assumptions of MLR with respect to residual normality. The residuals were not normally distributed (Kolmogorov-Smirnov Z statistic = 2.410, $p < .001$).

The distribution of residuals with respect to the predicted values is illustrated in Figure 3. Visual examination of Figure 3 revealed that the residuals are not evenly distributed around their mean (zero) value, which is an indication of nonhomogeneity of variance. There were many negative outliers represented by standardized residuals greater in value than -2. Violation of the theoretical assumptions does not imply that MLR model 3 in Table 26 is invalid. This model is a very good fit to the data, and provides an adequate summary description of the variables. The violations do imply, however, that the predictive power of the model is not high, and the computation of 95% confidence intervals for the prediction, which assumes normality of residuals, would be inaccurate. This inaccuracy is indicated by the adjusted R square value = 0.068 (Table 26), implying only a small percentage (6.8%) of the variance in the dependent variable

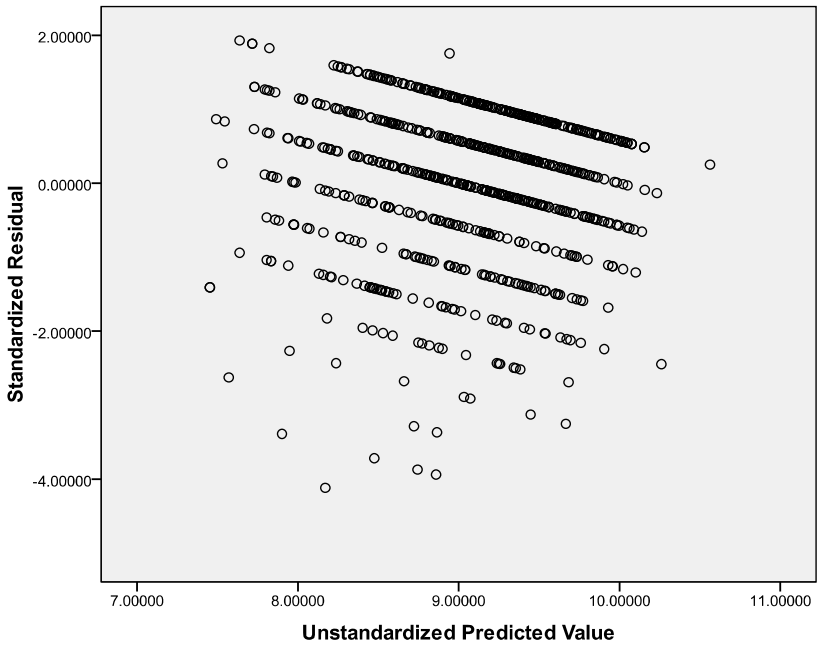

Figure 3. Distribution of residuals for the MLR model to predict academic attainments.

was explained by the three independent variables and the large standard error = 1.742.

Prediction of Family Pressure

Using SPSS, I built three models from the data matrix using the step-wise elimination procedure to predict family pressure (low value of 1 = high pressure, high value of 4 = no pressure; Table 27).

The optimum model was considered to be 3, which excluded partially correlated or colinear independent variables, and the Durbin-Watson statistic indicated no auto-correlation. The coefficient of multiple correlation $R = .322$ was significant at the 0.01 level. The *t*-tests on the partial regression coefficients generated p values $< .05$, indicating that they were all significantly different from zero at the 0.05 level. ANOVA indicated a

Table 27

Multiple Regression Statistics for the Model to Predict Family Pressure

		Unstandardized coefficients		Standardized coefficients		Significance
Model	Variables	β	Standard error	Beta	*t*	*p*
1	Intercept	2.108	0.055		38.618	0.001
	Marital status	0.131	0.017	0.292	7.720	0.001
2	Intercept	2.479	0.137		18.113	0.001
	Marital status	0.122	0.017	0.271	7.075	0.001
	Parental education	-0.035	0.012	-0.113	-2.955	0.003
3	Intercept	1.183	0.627		1.886	0.060
	Marital status	0.124	0.017	0.276	7.217	0.001
	Parental education	-0.036	0.012	-0.114	-2.991	0.003
	Religious affiliation	1.298	0.613	0.080	2.118	0.035

highly significant regression where F (3,637) = 24.640, $p < .001$.

Using the standardized regression coefficients (to take into account the different scales used for each variable) the MLR model can be described as the following:

family pressure = 1.183 + 0.276 marital status - 0.114 parental education + 0.080 religious affiliation

This MLR model indicated that family pressure changed significantly with respect to marital status (from 1 never married to 6 married with children), parental education (low value = limited parental education, high value = advanced parental education), and religious affiliation (0 = non-Mormon (LDS) 1 = Mormon (LDS).

The sign for marital status is positive, which implied that family pressure to get good grades decreased when the respondent was married and was least when the respondent was married with children.

The sign for parental education is negative, which implied that family pressure to get good grades increased with respect to an increase in the level education of the respondent's parents.

The sign for religious affiliation is positive, which implied that if the respondent is affiliated with the Mormon (LDS) church (religious affiliation = 1), then family pressure to get good grades decreases. If the respondent is not affiliated with the Mormon (LDS) church (religious affiliation = 0), then family pressure to get good grades increases.

Diagnostic checks indicated that this model violated the statistical assumptions of MLR with respect to residual normality. The residuals were not normally distributed (Kolmogorov-Smirnov Z statistic = 3.102; $p < .001$).

The distribution of residuals with respect to the predicted values is illustrated in Figure 4. Visual examination of Figure 4 revealed that the residuals are not evenly distributed around their mean (zero) value, indicating nonhomogeneity of variance. There are many positive outliers represented by standardized residuals with values greater than 2. Violation of the theoretical assumptions does not imply that MLR model 3 in Table 27 is invalid. This model is a very good fit to the data, and provides an adequate summary description of the variables. The violations do imply, however, that the predictive power of the model is not high, and the computation of 95% confidence intervals for the prediction, which assumes normality of residuals, would be inaccurate. The low predictive power of the model is reflected by the low adjusted R square value = 0.100, which indicated that only 10% of the variance in the dependent variable is explained by

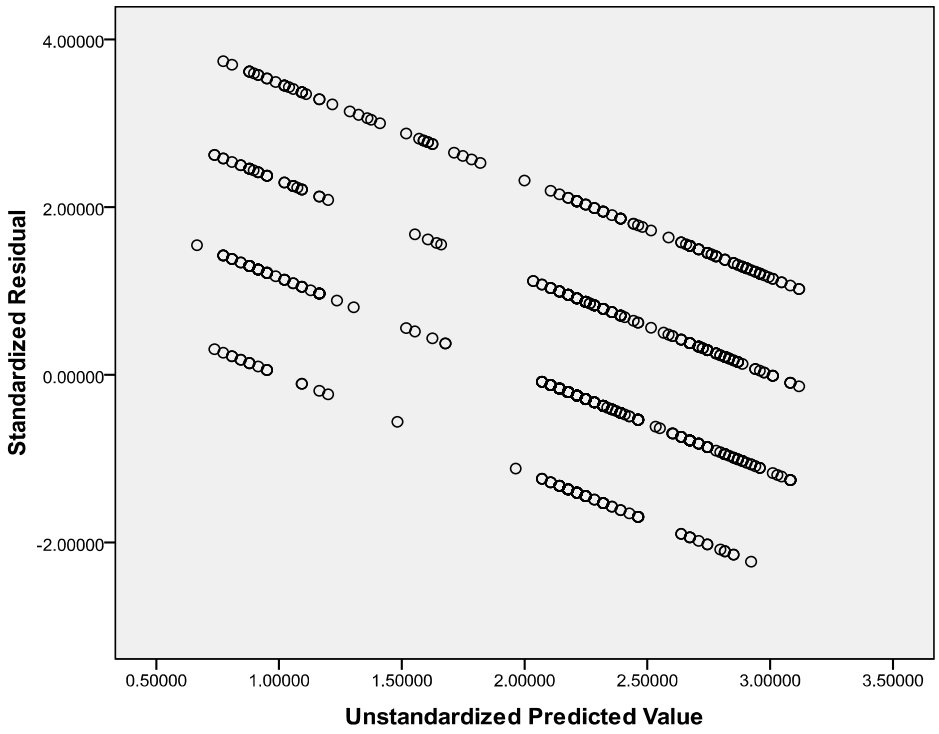

Figure 4. Distribution of residuals for the MLR model to predict family pressure.

the three independent variables, and by the high standard error of the estimate of ± .863 (Table 27).

Prediction of Educational Expectations

SPSS was not able to extract any MLR models from the data matrix using the step-wise procedure to predict educational expectations. There were no significant correlations between educational expectations and any of the ordinal or nominal independent variables in Table 24. None of the correlation coefficients were significant, not even at the 0.1 level (Table 28). A significance level (*p* value) of 0.1 is considered to be the absolute minimum for inclusion in MLR.

Educational expectations were not correlated with any of the other response

Table 28

Nonsignificant Correlations Between Educational Expectations and Independent Variables

Variables concerning religiosity		Educational expectations
Mormon (LDS)	Pearson's coefficient	0.032
	Significance (*p* value)	0.423[ns]
Positive religious experience	Pearson's coefficient	-0.024
	Significance (*p* value)	0.504[ns]
Negative religious experience	Pearson's coefficient	0.001
	Significance (*p* value)	0.969[ns]
Religious practice	Pearson's coefficient	0.005
	Significance (*p* value)	0.895[ns]
Demographic and other variables		
Marital status	Spearman's coefficient	0.023
	Significance (*p* value)	0.515[ns]
Gender	Spearman's coefficient	0.034
	Significance (*p* value)	0.336[ns]
Ethnicity	Spearman's coefficient	-0.041
	Significance (*p* value)	0.251[ns]
Divorced parents	Spearman's coefficient	-0.019
	Significance (*p* value)	0.582[ns]
Religious affiliation	Spearman's coefficient	-0.018
	Significance (*p* value)	0.604[ns]
Parental education	Spearman's coefficient	-0.058
	Significance (*p* value)	0.101[ns]

[ns] No significant correlation at $p < .1$

variables concerning educational pursuits and perceptions (Table 14). Educational expectation (i.e. whether or not the respondent intends to continue his/her education to a higher level) appears to be a unique pursuit or perception of each individual respondent, and cannot be related statistically to any of the other variables measured in this investigation.

Prediction of Influences

SPSS built four optimized models from the data matrix using the stepwise elimination procedure to predict influences. The regression statistics are presented in Table 29.

The optimum model was considered to be 4, which excluded partially correlated variables and the Durbin-Watson statistic indicated no autocorrelation. The VIF statistics > 2.5 indicated colinearity between positive religious experience and religious practice; however VIF values < 5 are generally considered to represent an acceptable level of colinearity. The coefficient of multiple correlation $R = .369$ was significant at the 0.01 level. The *t* tests on the coefficients generated *p* values < .01, indicating that they were all

Table 29

Multiple Regression Statistics for the Model to Predict Influences

		Unstandardized coefficients		Standardized coefficients		Significance
Model	Variables	B	Standard error	Beta	*t*	*p*
1	Intercept	41.254	0.903		45.663	0.001
	Positive religious experience	-0.083	0.012	-0.230	-6.667	0.001
2	Intercept	4.730	0.874		46.576	0.001
	Positive religious experience	-0.101	0.012	-0.280	-8.260	0.001
	Marital status	0.774	0.100	0.262	7.741	0.001
3	Intercept	41.816	0.943		44.322	0.001
	Positive religious experience	-0.104	0.012	-0.289	-8.538	0.001
	Marital status	0.772	0.099	0.261	7.760	0.001
	Ethnicity	-0.686	0.230	-0.099	-2.980	0.003
4	Intercept	41.546	0.946		43.926	0.001
	Positive religious experience	-0.064	0.020	-0.176	-3.200	0.001
	Marital status	0.782	0.099	0.265	7.885	0.001
	Ethnicity	-0.693	0.229	-0.100	-3.020	0.003
	Religious practice	-0.086	0.033	-0.142	-2.602	0.009

significantly different from zero at the 0.01 level. ANOVA indicated a highly significant regression where F (4,796) = 31.306, $p < .001$. The adjusted R square value = 0.132 indicated that only 13.2% of the variance in the dependent variable was explained by the four independent variables.

Using the standardized regression coefficients (to take account of different scales for each variable) the MLR model was: influences = 41.546 - 0.176 positive religious experience + 0.265 marital status - 0.100 ethnicity - 0.142 religious practice.

This model predicted that influences (low value = many important influences and high value = few important influences) changed with respect to positive religious experience (values increasing with respect to positive religious beliefs, experiences, and perceptions) to marital status (from 1 never married up to 6 married with children) and to ethnicity (low value = white up to higher values for other races) and religious practice (low value = little religious practice, high value = much religious practice).

The sign for positive religious experience is negative. The ordinal scale of influences decreased from a high value (no influences) to a lower value (large influences) when positive religious experience decreased from a high value (much religious practice) to a low value (little or no religious practice). Therefore, influences were greater when there was more positive religious experience.

The sign for marital status is positive. Influences (to attend college) decreased from a high value (no influences) to a lower value (large influences) when marital status increased from 1 (never married) up to 6 (married with children). Therefore, influences (to attend college) were less when the respondents were married.

The sign for ethnicity is negative. Influences decreased from a high value (no influences) to a lower value (large influences) when ethnicity increased from a low value (white) up to a higher value (other races). Therefore, influences were less when the respondents were white.

The sign for religious practice is negative. Influences decreased from a high value (no influences) to a lower value (large influences) when religious practice increased from a low value (little religious practice) up to a high value (much religious practice). Therefore, influences were larger for those respondents who had more religious practice.

Diagnostic checks indicated that this model did not violate the statistical assumptions of MLR. The residuals were normally distributed at the 0.05 level of significance (Kolmogorov-Smirnov Z statistic = .834, p = .490). The distribution of residuals with respect to the predicted values is illustrated in Figure 5. Visual examination of Figure 5 reveals that the residuals are relatively evenly distributed around their mean (zero) value (compared to the other models generated by this investigation); however, there were a few negative and positive outliers, represented by standardized residuals greater in value than 2. Analysis of the residuals indicated that the variances appeared to be relatively homogeneous. This model is a very good fit to the data, and provides an adequate summary description of the variables.

In addition to the three constructs concerning religiosity (religious practice, positive religious experience, Mormon (LDS) affiliation), the MLR identified four demographic variables (gender, parental education, marital status, and ethnicity) as significant predictors of educational pursuits and perceptions. The question arises, which

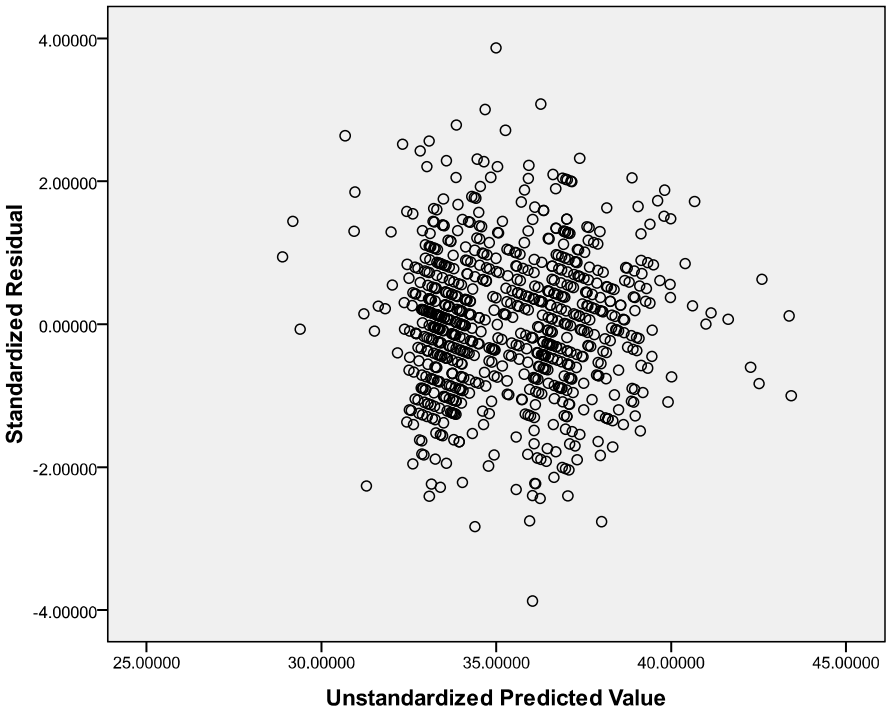

Figure 5. Distribution of residuals for the MLR model to predict influences.

of these variables are more important predictors - those concerning religiosity or those concerning demographic factors? This question can be answered by comparing the relative magnitudes of the standardized (Beta weighted) regression coefficients, as follows:In the model influences = 41.546 - 0.176 positive religious experience + 0.265 marital status - 0.100 ethnicity - 0.142 religious practice.

Marital status (β = 0.265) is more important than positive religious experience (β = 0.176) and religious practice (β = 0.142), whilst ethnicity (β = 0.142) is the least important predictor of influences in this data set.

In the model school experience = 6.859 – 0.138 gender - 0.121 religious practice + 0.089 marital status.

Gender (β = 0.138) is more important than religious practice (β = 0.121) to predict

school experience. Religious practice (β = 0.121), however, is slightly more important than marital status (β = 0.089).

In the model family pressure = 1.183 + 0.276 marital status - 0.114 parental education + 0.080 religious affiliation.

Marital status (β = 0.276) and parental education (β = 0.114) are more important than religious affiliation (β = 0.080) to predict family pressure.

In the model academic attainments = 9.442 + 0.132 religious practice + 0.165 parental education + 0.156 gender.

Religious practice (β = 0.151) has an approximately equal importance to parental education (β = 0.150), whilst gender (β = 0.134) is the least important predictor of academic attainments.

Consequently it can be concluded that, of the seven independent variables revealed by MLR to be significant predictors of educational pursuits and perceptions, the measured constructs concerning religiosity were generally less important than the demographic factors. A summary of the findings is found in Table 30.

Table 30

Summary of MLR Findings

Dependent variable	Optimum independent variables	Significance of findings	Normal distribution?
School experience (feelings about school, classroom academic and total college experience)	Gender	School experience was predicted to be better for females than males	No
	Religious practice	School experience was predicted to be better when there was more religious practice	
	Marital status	School experience was predicted to be better when the respondents were married	
Academic attainment (good grades in high school and college GPA)	Religious practice	Academic attainments increased with respect to greater religious practice	No
	Parental education	Academic attainments increased with respect to greater parental education	
	Gender	Academic attainments increased between genders (females had better than males)	
Family pressure (pressure received from family to get good grades in college)	Marital status	Family pressure to get good grades decreased when the respondent was married and was least when the respondent was married with children	No
	Parental education	Family pressure to get good grades increased with respect to increase in level of education of respondent's parents	
	Religious affiliation	Family pressure to get good grades decreases if affiliated with the LDS Church	
Educational expectations	No significant correlations. Educational expectations was not related statistically to any other variables measured in this study		
Influences (influences on the decision to attend college)	Positive religious experience	Influences to attend college were greater when there was more positive religious experience	Yes
	Marital status	Influences to attend college were less when the respondents were married	
	Ethnicity	Influences to attend college were less when respondents were white (Caucasian)	
	Religious practice	Influences to attend college were greater for those respondents who had more religious practice	

CHAPTER V

SUMMARY AND CONCLUSIONS

Restatement of the Problem

Many researchers purport that religion and education are opposing entities, adhering to the assumption that the more religious a person is, the less inclined that person would be academically, as well as the converse (Albrecht, 1989; Chadwick & Top, 2001; Regnerus, 2000; Zern, 1989). Within a number of religious studies, the LDS Church is typically placed in the category of either conservative or fundamentalist Protestant religions (Chadwick et al., in press). Research shows that members of these groups are least likely to attend college, have the least pursuit of postsecondary education, experience a substantially negative influence while involved in educational pursuits, and often hold a belief structure opposed to secular education because of its threat to their religious beliefs. (Beyerlein & Smith, 2004; Darrnel & Sherkat, 1997; Keysar & Kosmin, 1995; Lehrer, 1999; Rhodes & Nam, 1970; Sacerdote & Glaser, 2001). This study found results quite at odds with this reactionary view.

Addressing this overarching problem were four research questions.

RQ1: What impact does religiosity have on the decisions of students at USU to pursue their postsecondary education?

RQ2: What other variables, if any, are useful in explaining postsecondary educational pursuit among students at USU?

RQ3: How does religiosity influence the educational perceptions of students at

USU?

RQ4: What other variables, if any, are useful in explaining positive or negative educational perceptions among students at USU?

Review of the Purpose

The main purpose of this research was to determine the impact of religiosity on the educational pursuit and perceptions among college students at Utah State University. The cultural expectations among the Latter-day Saints in regards to obtaining an education are generally high, encouraging members to take advantage of any and all relevant educational opportunities. Since the LDS Church's educational ideals do not fit in with the fundamentalist or conservative denominations' educational trends, a study with focus mainly on members of the LDS Church was warranted to determine if the educational behaviors and perceptions of its members matched those ideals stated by Church leaders.

Summary and Discussion of Findings

The results from this investigation conclude that seven independent variables (gender, religious practice, parental education, marital status, religious affiliation, positive religious experience, and ethnicity) were significantly correlated with four constructs concerning educational perceptions and pursuits (school experience, academic attainments, family pressure, and influences). Before going further with the summary of results, it is important to distinguish the difference between correlation and causality

(cause and effect). A statistically significant correlation between variables does not imply a cause and effect relationship. An empirically observed correlation between variables is an essential, but insufficient, condition to conclude causality. Proving causation requires more than statistical analysis; it requires factual interdependence. Nevertheless, if a correlation between variables is found to be nonrandom (i.e., not due to chance, as indicated by a significance level of less than 0.05 for a regression coefficient), then it may be intuitively recognized that some causal mechanism is operative (Holland, 1986).

Religiosity and Educational Pursuit Summary

RQ1: What impact does religiosity have on the decisions of students at USU to pursue their postsecondary education?

RQ2: What other variables, if any, are useful in explaining postsecondary educational pursuit among students at USU?

Educational pursuit was reduced to three aggregated constructs: influences, academic attainment, and educational expectations. The original 42 response variables for religiosity were reduced to four constructs and two of those four constructs, positive spiritual experiences and religious practice, were positively correlated with influences. The first construct, influences, was a combination of twelve intercorrelated responses concerning future financial well being, spiritual prompting, family influence, pressure from friends, personal goals, social opportunities, career advancement, athletic opportunities, cultural, social and spiritual expectations, curiosity, and love of learning. In combination, these variables were assumed to influence the respondents' decisions to attend college. Again, the findings from this study showed that positive religious

experience (e.g., good feelings, beliefs, and experiences concerning religious ideals) and intense religious practice (e.g., frequent prayer, family religious instruction, scripture reading, attendance at religious services and meetings, and financial donations) have a significant impact on the decision to attend college. Two demographic variables were also helpful in explaining postsecondary educational pursuit when it comes to influences: marital status and ethnicity. Influences to pursue postsecondary education were less when the respondents were married and were less when respondents were white (Caucasian). Of the four variables discussed, marital status was the most important predictor of influences to pursue postsecondary education. In regards to the significance of marital status and postsecondary educational pursuit, it is possible that there is a third variable of age that could be influencing those findings. Age, however, was not a part of the data collected for this study.

Looking at my own postsecondary college experience, my marriage (at the beginning of my third year in college) had a significant impact on my motivations for pursuing further education. Influences like future financial well being, family influence, career advancement, spiritual expectation, and love of learning increased dramatically for me. On the other hand, influences such as pressure from friends, social opportunities, athletic opportunities, and cultural/social expectations decreased dramatically. It is not surprising to me that those respondents who were not married had greater influences to pursue higher education. The fact that influences were greater for those who were nonwhite is misleading since less than 10% of the respondents fit that demographic category. The largest nonwhite groups were Hispanics and Asians, but the total

respondents for those groups were 46 (4.6%) and 20 (2.5%) respectively. The largest number of respondents of any other nonwhite background was three. If these findings were to be replicated or tested in more depth, a broader sample with a more even distribution of ethnic backgrounds would allow for more valid comparisons among ethnic groups.

The second construct correlated with religiosity was academic attainment. This construct was a combination of the responses to the items: What were your grades in high school, and what is/was your cumulative college GPA? The findings from this study show that religious practice (e.g., frequent prayer, family religious instruction, scripture reading, attendance at religious services and meetings, and financial donations) has a significant and positive impact on the respondents' academic attainments. The more faithful a person's religious practices, the better grades they attained in both high school and college. Two demographic variables were helpful in explaining postsecondary educational pursuit when it comes to academic attainment: parental education and gender. Grades in high school and in college increased with respect to greater levels of parental education and increased between genders (females increased more than males). Of the three variables discussed, religious practice and parental education were approximately equal in importance in predicting academic attainment.

Again looking to my own experiences as a religious educator for the past 13 years, I have noticed that students whose parents have higher levels of education tend to do better academically in school as well as show more likelihood in pursuing postsecondary education. The fact that LDS females are more likely to pursue higher education than

LDS males follows national trends and was noted by former LDS Church president Gordon B. Hinckley (2006) in a worldwide address to members of the LDS Church:

> Young men are more likely to drop out of school than young women. Women have earned more bachelor's degrees than men every year since 1982 and more master's degrees since 1986. It is plainly evident that young women are exceeding young men in pursuing educational programs. (p. 59)

The third variable for educational pursuit was educational expectations. This variable was based upon the answer to the questionnaire item, "What are your educational expectations?" to which the answers were "I am unsure," "I don't think I will finish college," "I expect to finish college," "I expect to go on to an academic graduate degree," and "I expect to graduate from a professional school." There were no significant correlations between educational expectations and any of the variables tested in this investigation. This means there were no religious experiences, either positive or negative, religious practices, educational, or demographic variables that had any significant impact on educational expectations.

In summary, the null hypotheses that all measures of religiosity do not impact the postsecondary educational pursuits of students at USU, and that all other variables are not useful in explaining postsecondary educational pursuits of students at USU, can be rejected. Students who have positive feelings, beliefs, and experiences concerning religious ideals as well as religious habits of frequent prayer, family religious instruction, scripture reading, attendance at religious services and meetings, and giving of financial donations will have significantly greater likelihood of pursuing postsecondary education. This finding holds especially true for students who are female and white (Caucasian). Likewise, students who have religious habits of frequent prayer, family religious

instruction, scripture reading, attendance at religious services and meetings, and giving of financial donations will have significantly greater academic attainment in high school and college. This finding holds especially true for students who are female and whose parents have higher levels of education.

Religiosity and Educational Perception Summary

RQ3: How does religiosity influence the educational perceptions of students at USU?

RQ4: What other variables, if any, are useful in explaining positive or negative educational perceptions among students at USU?

Educational perception was reduced to two variables: school experience and family pressure. The religiosity variable religious practice was positively correlated with school experience. The first variable for educational perception, school experience, was a combination of highly correlated answers to the questions: How do you feel about schooling? How important do you think the information you are learning or have learned from your classroom experience will be for you later in life? How important do you think the information you are learning or have learned from your total college experience will be for you later in life? The findings from this study implied that for students at USU, liking school and believing in the importance of education were improved when there were higher levels of religious practice. In other words, students who have religious habits of frequent prayer, family religious instruction, scripture reading, attendance at religious services and meetings, and giving of financial donations have significantly more positive perceptions about school and education. Two demographic variables were

helpful in explaining positive educational perception when it comes to school experience: marital status and gender. Positive educational perceptions increased with respect to married students and increased between genders (females increased more than males). Of the three variables discussed, gender was the most important predictor of positive educational perceptions.

The second variable for educational perception was family pressure to get good grades in college. This variable was independent since it did not correlate with any other variables concerning educational perception. The findings from this study did not find any religiosity variables to be significant predictors of family pressure to get good grades in college. However, other demographic and education variables were helpful in predicting family pressure: martial status, parental education, and religious affiliation. Family pressure to get good grades in college decreased when the respondents were married and was least when the respondents were married with children. Family pressure also decreased if the respondents were affiliated with the LDS Church. Lastly, family pressure to get good grades increased with respect to the increase in level of education of respondents' parents. This finding falls in line with results of other studies that show that parents with higher levels of education respond with higher levels of pressure for their children to get good grades in school. I can only conjecture that parents with high levels of education have a greater drive for their children to do well academically so they can receive the ensuing benefits that the parents feel they have received (e.g., greater career options, increased financial gains, more opportunities and experiences). Of the three variables discussed, marital status was the most important predictor of positive

educational perceptions.

In summary, the hypotheses that all measures of religiosity do not influence the educational perceptions of students at USU, and that all other variables are not useful in explaining positive or negative educational perceptions among students at USU, can be rejected. Students who have religious habits of frequent prayer, family religious instruction, scripture reading, attendance at religious services and meetings, and giving of financial donations will have significantly greater positive educational perceptions. This finding holds especially true for female students and students who are married. Students who are LDS, who are married with children, and whose parents have lower levels of education will have significantly lower pressure from family to get good grades in college.

Even though only one of the construct dependent variables (influences) did not violate the assumptions of MLR with respect to residual normality and homogeneity of variance, the other three (academic attainment, family pressure, and school experience, excluding educational expectations) were highly significant fits to the data, and violation of the theoretical assumptions of MLR did not detract from the models being useful to summarize and display correlative relationships between the dependent and independent variables.

Implications of Findings

If there is a predictive relationship between measures of religiosity and educational pursuit and perceptions, and this study asserts that there is, religious educators can be more effective in assessing the impact and implications of their teaching

of religious beliefs and practices to students in their classrooms. This research is thus useful to them by giving them additional insights into the impact that religious behaviors, beliefs, and experiences can have on increased postsecondary pursuit and positive educational perceptions. For the religious college student at USU, religiosity and education are not opposing entities but rather can be mutually reinforcing and complementary.

The findings from this study are interesting and encouraging for a CES teacher/ administrator like me. Leaders and teachers in the LDS Church alike would do well to better understand the potential impact religiosity and its various measures have on education. Both teachers and administrators can be better informed when it comes to making policy decisions, evaluating objectives of various youth programs and organizations, curriculum focus, and other areas of concern where education and religion are present simultaneously.

Results from this study appear to vindicate current LDS Church practice, which blends emphasis on education with religious study and practice. However, leaders and teachers in the LDS Church can gain a greater vision of the importance of basic, common religious practices like personal prayer, scripture study, family religious instruction, and church attendance. These elements are often seen as niceties instead of necessities in the lives of LDS youth. Greater strides can be made to help youth internalize the principles and doctrines of the LDS Church, many of which were included in the belief section of the religiosity instrument used for this study. In my view, only when these principles and doctrines go down deep into their hearts will the congruent religious practices and

expectations follow.

Recommendations for Further Research

While compiling and analyzing the data for this study, a number of possible future research ideas came to mind. Overall, this study should encourage researchers to examine the potential benefits that high measures of religiosity can have in other areas of a person's life besides education (e.g., financial success, career longevity, health, marital success). In regards to the topic studied in this investigation, a study that would include a broader national and even international sample of LDS college students would be very beneficial. For example, with membership in the LDS Church drawing more on peoples of different ethnicities in recent years, it is likely that more conclusive results about the influence of these variables on education could be determined. It is my opinion that the results of this study from respondents at USU are indicative of the general membership of the LDS Church in the United States, but it would be valuable to have additional empirical evidence to support that opinion. To what extent does religiosity have an impact on education outside the United States? Researchers could likewise conduct broader national samples of other faiths in order to test whether or not the difference between religiosity measures are the same as is the case with LDS students. The sample for this study was predominantly LDS, which was no surprise considering the demographics of USU. There were not enough respondents of other faiths to make any kind of valid comparisons with those who were LDS.

Conclusion

Comte's secularization prediction raised the question: Do religious people believe in the benefits of education? Results of this study indicate that religiosity does have a significant impact on educational pursuit and perception. For students at USU, these findings argue against Comte's secularization theory that in the future, religious people would not have the desire to be educated. McKay (1958) taught:

> Members of the Church are admonished to acquire learning by study; also by faith and prayer; and to seek after everything that is virtuous, lovely or of good report, or praiseworthy. In this seeking after truth, they are not confined to narrow limits of dogma, or creed, but are free to launch into the realm of the infinite for they know that 'truth is truth where'er it is found, whether on Christian or on heathen ground'. (p. 5)

LDS canonized scripture teaches, "The glory of God is intelligence, or, in other words, light and truth" (D&C 93:36). Those 13 words have shaped the educational philosophy of the LDS Church, providing a divine mandate for all learning. As shown in numerous studies cited in the literature review, knowledge does bring with it some spiritual risks, but as David O. McKay believed, the response should be to manage the risk rather than proscribe the knowledge (Prince & Wright, 2005). As religious beliefs, behaviors, and knowledge are added to the total educational milieu of the LDS student, it can have an encouraging influence on the learner. This we see evidence of in this study.

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APPENDICES

Appendix A

Survey Instrument

SURVEY INSTRUMENT

Informed Consent Agreement

1. I have read the informed consent and understand the study, possible risks and benefits, and that taking part in the study is completely voluntary.
    a. Yes

Section I (informed consent agreement)

2. What is your marital status?
    a. Never married
    b. Divorced
    c. Widowed
    d. Separated
    e. Married
    f. Married with children
    g. Other (please specify) _____

3. Are you male or female?
    a. Male
    b. Female

4. To which ethnic group do you belong?
    a. White
    b. Black
    c. Asian
    d. Hispanic
    e. American Indian
    f. Pacific Islander
    e. Other (please specify)_____

5. Have your parents divorced?
    a. Yes
    b. No

6. If your parents divorced, did they marry again?
    a. Not applicable, parents are still married
    b. Father married again
    c. Mother married again
    d. Both father and mother married again
    e. Neither father nor mother married again

7. What is your religious affiliation?
    a. Catholic

b. Baptist
c. Methodist
d. Presbyterian
e. Mormon (LDS)
f. Seventh Day Adventist
g. Jewish
h. Islam
i. Undeclared
j. None
k. Other (please specify)_____

(If participants marked themselves "Mormon (LDS)" they were directed to the following two questions. All other participants were sent directly to Section II.)

8. Are you a lifelong member of your religion or a convert?
a. Lifelong
b. Convert (please specify number of years _____)

9. As a Mormon (LDS), how well do the following statements describe your personal experiences, feelings, or beliefs? (Choose one response for each statement.
1 = Not at all
2 = Not much
3 = Somewhat
4 = Very much
5 = Exactly

____ The president of the LDS Church is a prophet of God.
____ The Book of Mormon is the word of God.
____ The Church of Jesus Christ of Latter-day Saints is Christ's true church on the earth.
____ Joseph Smith actually saw God the Father and Jesus Christ.

Section II (religiosity)

10. How well do the following statements describe your personal experiences, feelings, or beliefs? (Choose one number for each blank)
1 = Not at all
2 = Not much
3 = Somewhat
4 = Very much
5 = Exactly

_____ There is life after death.
_____ Satan actually exists.

_____ The Bible is the word of God.
_____ I believe in the divinity of Jesus Christ.
_____ I believe that God lives and is real.
_____ My relationship with God is an important part of my life.
_____ I love God with all my heart.
_____ I am willing to do whatever God wants me to do.
_____ Without religious faith, the rest of my life would not have much meaning.
____ I don't really care about my church/religion.
____ Church programs and activities are an important part of my life.
____ My church/religion puts too many restrictions on its members.
____ I try hard to carry my religion over into other dealings in my life.
____ I live a religious life.
____ I share what I have with the poor.
____ I encourage others to believe as I do.
____ Some doctrines of my church/religion are hard for me to accept.
____ I seek God's guidance when making important decisions in my life.
____ I forgive others.
____ I do not accept some standards of my church/religion.
____ I admit my sins to God and pray for forgiveness.

11. Select the number that corresponds to your behavior in the following practices. In regards to questions about family behavior use your experiences with your family growing up, not your current family.
1 = Not at all
2 = About once a month
3 = About once a week
4 = A few times a week
5 = Every day

____ Frequency of personal prayer.
____ Frequency of family prayer (other than blessing the food)
____ Frequency of family religious instruction
____ Frequency of Bible reading or reading of other sacred texts
____ Frequency of family Bible reading or reading of other sacred texts
____ Frequency of family discussions about what is right or wrong

1. Select the number that corresponds to your behavior in the following practices.
1 = Never
2 = A few times a year
3 = About once each month
4 = 2-3 times each month
5 = Every week

____ Frequency of attendance at worship services
____ Frequency of attendance at religious meetings other than formal religious services

2. Select the number that corresponds to your behavior in the following practice.
1 = None
2 = Less than a full tithe
3 = A full tithe (10% of your income)
4 = More than a full tithe

____ Amount donated financially each year to your church/religion

Section III (educational pursuit & perception)

14. What is the highest level of education your father completed?
a. Elementary school
b. High school
c. Trade school
d. Some college
e. Associate's degree (2 year degree)
f. Bachelor's degree (4 year degree)
g. Master's degree
h. Professional degree (doctor, lawyer, dentist, etc.)
i. Advanced degree (PhD, EdD)
j. Don't know

15. What is the highest level of education your mother completed?
a. Elementary school
b. High school
c. Trade school
d. Some college
e. Associate's degree (2 year degree)
f. Bachelor's degree (4 year degree)
g. Master's degree
h. Professional degree (doctor, lawyer, dentist, etc.)
i. Advanced degree (PhD, EdD)
j. Don't know

16. How do you feel about schooling?
a. I like school very much.
b. I like school.
c. I have mixed feelings about school.

d. I dislike school.
e. I dislike school very much.

17. What were your grades in high school?
a. Mostly D's or lower
b. C's and D's
c. Mostly C's
d. B's and C's
e. Mostly B's
f. A's and B's
g. Mostly A's

18. What is/was your cumulative college GPA? _____

19. How much pressure do you receive from your family to get good grades in college?
a. A lot of pressure
b. Some pressure
c. Little pressure
d. No pressure

20. What are your educational expectations?
a. I don't think I will finish college.
b. I expect to finish college.
c. I expect to go on to an academic graduate degree. (Masters, PhD)
d. I expect to graduate from a professional school in law, medicine, etc.
e. I am unsure of my educational expectations.

21. How important do you think the information you are learning or have learned from your **classroom academic experience** will be for you later in life?
a. Very important
b. Quite important
c. Fairly important
d. Slightly important
e. Not at all important

22. How important do you think the information you are learning or have learned from your **total college experience** will be for you later in life?
a. Very important
b. Quite important
c. Fairly important
d. Slightly important
e. Not at all important

23. Rate the following influences on your decision to attend college.

1 = Main influence (use only once)
2 = Big influence
3 = Moderate influence
4 = Little influence
5 = No influence

_____ Future financial well being

_____ Spiritual prompting

_____ Family influence

_____ Pressure from friends

_____ Personal goal

_____ Social opportunities

_____ Career advancement

_____ Athletic opportunities

_____ Cultural/Social expectations

_____ Spiritual expectation

_____ Curiosity

_____ Love of learning

24. Would you like to view the results of this study after its completion? (A weblink will be sent to you via E-mail where you can view the results)

a. Yes
b. No

25. Would you like to be included in the three drawings for $100 Visa Gift Cards?

a. No
b. Yes (If YES, type in the best e-mail address to contact you if you win _____)

Appendix B

Informed Consent

Date Created: _____

INFORMED CONSENT

The Relationship between Religiosity and Educational Pursuit and Perception among Utah State University Students

Introduction/Purpose Professor Nick Eastmond in the Department of Instructional Technology and Doctoral student Randy LaRose in the Department of Education at Utah State University are conducting a study to find out more about the relationship between religion and education among college students at USU. You have been selected as one of approximately 800 participants randomly chosen from the University.

Procedures If you agree to be in this research study, all you will need to do is complete the online survey. It should take you less than ten minutes to complete. There is no personally identifying information on the survey, although all surveys are given an ID number for follow-up purposes with those who have not yet completed the survey. Once the survey is submitted, your name and the number linking you to this study will be destroyed. If you are interested in participating in the three $100 Visa Gift Card drawings, your name will be linked to your e-mail address only until the drawings are complete. Survey Monkey will provide the researcher with a list of those who wish to participate in the three drawings. E-mail addresses will only be used to notify participants of the results and will be destroyed after the drawing.

New Findings During the course of this research study, you will be informed of any significant new findings (either good or bad), such as changes in the risks or benefits resulting from participation in the research, or new alternatives to participation that might cause you to change your mind about continuing in the study. If new information is obtained that is relevant or useful to you, or if the procedures and/or methods change at any time throughout this study, your consent to continue participating in this study will be obtained again.

Risks There is minimal risk in participating in this study.

Benefits There may or may not be any direct benefit to you from these procedures. The investigator and committee members, however, may learn more about religious beliefs and behaviors that impact educational pursuit and perception.

Explanation & offer to answer questions Professor Nick Eastmond and Doctoral student Randy LaRose have explained this research study to you through this informed consent dpcument. If you have any questions or research-related problems, you may reach Professor Eastmond at (435) 797-2694 or Randy LaRose at (435) 587-3027 or e-mail at laroserj@frontiernet.net.

Extra Cost(s) There are no costs for participating in this study.

Payment All participants who submit completed surveys will be included in three drawings for $100 Visa Gift Cards.

Voluntary nature of participation and right to withdraw without consequence Participation in research is entirely voluntary. You may refuse to participate or withdraw at any time without consequence or loss of benefits. If you choose to withdraw from the study once you have started, all information already entered into the survey will be discarded and not used for this study.

Confidentiality Research records will be kept confidential, consistent with federal and state regulations. Only the investigator will have access to the data which will be kept in a locked file cabinet in a locked room as well as on a password protected computer. Personally identifiable information will be kept until completion of survey data collection, and then it will be destroyed.

IRB Approval Statement The Institutional Review Board for the protection of human participants at USU has approved this study. If you have any pertinent questions or concerns about your rights, or a research-related injury, you may contact the IRB at (435) 797-0567. If you have a concern or complaint about the research and you would like to contact someone other than the research team, you may contact the IRB Administrator to obtain information or to offer input.

Copy of consent You may print this informed consent and retain it for your files.

Agreement of Participant I have read the informed consent and understand the study, possible risks and benefits, and that taking part in the study is completely voluntary.

Signature of PI & student or Co-PI

_____ _____

Signature of PI

Nick Eastmond

Principal Investigator

(435) 797-2694

Signature of student

Randy LaRose

Student Researcher

(435) 587-3027

Appendix C

Formal E-Mail Survey Letter

Dear USU Student,

You have been selected as one of approximately 800 participants randomly chosen from the University to help answer the question:

What impact does a person's religious beliefs and behaviors have on educational attitudes choices?

Your participation is extremely important. Please click on the survey link below to begin. The first page of the survey explains your rights as a participant. It will take you less than 5 minutes to complete. All participants who submit completed surveys will have the option of participating in three drawings for $100 Visa Gift Cards.

Your responses will be held in the strictest confidence and published information will be reported as group data.

If you have other questions or research-related problems, you may reach Professor Eastmond at (435) 797-2694 or Randy LaRose at (435) 587-3027 or e-mail at laroserj@frontiernet.net.

Your participation in this research project is highly appreciated. Please respond to the survey by ____, 2008, or within a week after viewing this e-mail. Thank you.

Sincerely,

Dr. Nick Eastmond
Instructional Technology Department
College of Education
Utah State University

Randy LaRose
Doctoral Student (Curriculum and Instruction)
Monticello Seminary Principal

CLICK HERE TO PROCEED TO THE SURVEY:

Appendix D

E-mail 1st Reminder of Survey

Dear USU Student,

About one week ago we sent you a survey via e-mail. We are asking USU students about the impact their religious beliefs and behaviors have on their educational choices.

We realize that you have a busy schedule; however, we have contacted you and others in hopes of obtaining your input. The survey will take less than 5 minutes. All those who submit completed surveys will be eligible for three $100 Visa Gift Cards. As we mentioned before, answers are confidential and will be combined with others before providing results to this important research. In case the previous survey has been deleted from your e-mail account, we have included the link.

Should you have any questions or concerns, please contact Professor Eastmond at (435) 797-2694 or Randy LaRose at (435) 587-3027 or e-mail at laroserj@frontiernet.net.

Thank you again for your cooperation.

Sincerely,

Dr. Nick Eastmond
Instructional Technology Department
College of Education
Utah State University

Randy LaRose
Doctoral Student (Curriculum and Instruction)
Monticello Seminary Principal

CLICK HERE TO PROCEED TO THE SURVEY:

Appendix E

E-Mail 2nd Reminder of Survey

Dear USU Student,

We are half-way there! About two weeks ago we sent you a survey via e-mail. The comments of those who have already responded include a wide variety of results that we believe will be important to discovering the relationship between religious beliefs and behaviors and educational choices. Yet, we still would love your response. We need about _____ more responses in order to make valid conclusions from the data.

Please click the link below and answer our quick survey (less than 5 minutes). Your insights are essential to this research. As mentioned before, answers are confidential. All participants who submit completed surveys will have the option of being included in three drawings for $100 gift certificates.

If you have questions or concerns, please contact Professor Eastmond at (435) 797-2694 or Randy LaRose at (435) 587-3027 or e-mail at laroserj@frontiernet.net.

Sincerely,

Dr. Nick Eastmond
Instructional Technology Department
College of Education
Utah State University

Randy LaRose
Doctoral Student (Curriculum and Instruction)
Monticello Seminary Principal

CLICK HERE TO PROCEED TO THE SURVEY:

Appendix F

E-Mail 3rd Reminder of Survey

Dear USU Student,

About three weeks ago we sent you a survey via e-mail. We have received numerous response which include a wide variety of results that we believe will be important to discovering the relationship between religious beliefs and behaviors and educational choices. Yet, we still need at least _____ more responses to help validate our findings.

Please click the link below and answer our quick survey (less than 5 minutes). Your insights are essential to this research. As mentioned before, answers are confidential.

If you have questions or concerns, please contact Professor Eastmond at (435) 797-2694 or Randy LaRose at (435) 587-3027 or e-mail at laroserj@frontiernet.net.

All participants who submit completed surveys will have the option of being included in three drawings for $100 Visa Gift Cards.

Sincerely,

Dr. Nick Eastmond
Instructional Technology Department
College of Education
Utah State University

Randy LaRose
Doctoral Student (Curriculum and Instruction)
Monticello Seminary Principal

CLICK HERE TO PROCEED TO THE SURVEY:

Appendix G

E-Mail Last Reminder of Survey

Dear USU Student,

This is our last e-mail asking you to be a part of our study on the relationship between religious beliefs and behaviors and educational choices. We have received numerous responses, but we highly value your input as well. We still need about _____ more responses to help validate our findings.

We respect your busy schedule so our survey is designed to take 5 minutes or less. Please click the below to start the survey. Your insights are essential to this research. As mentioned before, answers are confidential and all who submit completed surveys will be eligible for three $100 Visa Gift Cards.

If you have questions or concerns, please contact Professor Eastmond at (435) 797-2694 or Randy LaRose at (435) 587-3027 or e-mail at laroserj@frontiernet.net.

Sincerely,

Dr. Nick Eastmond
Instructional Technology Department
College of Education
Utah State University

Randy LaRose
Doctoral Student (Curriculum and Instruction)
Monticello Seminary Principal

CLICK HERE TO PROCEED TO THE SURVEY:

VITA

RANDY A. LAROSE

280 S. Northcreek Lane
Monticello, UT 84535
435- 587-3027
435- 587-2494
laroserj@frontiernet.net

Qualifications

Experience

1996 – Present Church Educational System Monticello, UT
Principal and Instructor of the Monticello Seminary

- Ensure the separation of public school and seminary programs while continuing cordial, cooperative relationships with public school personnel and support of public school programs.
- Teaching the gospel on a prescribed four-year repeating cycle, this takes students through all four of the Standard Works. I teach 6 out of the 7 class periods each day and have one administrative prep period.
- Encourage and monitor seminary potential enrollment.
- Student leadership training for seminary class officers and the seminary student council.
- Activity planning and implementation.

1999 – Present CEU San Juan Campus Blanding, UT
Institute Instructor

- Teach a group of 70 to 100 college students from the area. We meet twice each week throughout the summer.
- Lesson preparation and instruction.

1999 – Present Brigham Young University Monticello, UT
Adult Religion Instructor

- Adult religion classes are for those ages thirty-one and over who are not college students. An adult religion class typically consists of two fifty-minute classes per week for a period of ten to fifteen weeks. This program is offered through BYU and all instructors are hired through the university.

- Lesson preparation and instruction.

1994 –1995 Missionary Training Center Provo, UT
Assistant Supervisor

- Teacher supervision and training.
- Developed the two-month training program for learning German and missionary skills.

1992 – 1995 Missionary Training Center Provo, UT
Missionary Training Center Instructor

- Taught German and missionary curriculum to those called to serve in German-speaking missions.

Other professional experience

2001 & 2002 Brigham Young University Provo, UT
Presenter, CES Symposium

- Presented "Visuals that get Students into their Scriptures" to full-time and part-time seminary and institute teachers, as well as early-morning teachers from around the country.

2001 – 2003 U.S. Utah East Area Monticello, UT
Training Council Representative

- The U.S. Utah East Area consists of 60 full-time seminary and institute teachers and administrators. The area is divided into 8 regions with a training council representative selected from each region.
- Attend monthly council meetings to determine and develop training topics and curriculum for region in-services.
- Conduct monthly region training sessions.
- Plan and organize summer in-service curriculum and the summer Area Convention training.

1994 Payson High Seminary Payson, UT
Part-time Seminary Instructor

- Lesson preparation and instruction.
- Student leadership & activities.

1995 Orem High Seminary Orem, UT
Part-time Seminary Instructor

- Lesson preparation and instruction.
- Student leadership & activities

Education

2004 – Current Utah State University Logan, UT
- Doctor of Philosophy in Education
- Curriculum and Instruction with emphasis in Teaching and Learning in Higher Education – Anticipated completion date – May 2009
- Dissertation: The Relationship between Religiosity and Educational Pursuit and Attainment Among LDS College Students at Utah State University

1999 – 2001 Utah State University Logan, UT
- Master of Education in Instructional Technology

1988 – 1995 Brigham Young University Provo, UT
- Bachelor of Education

Certifications

State of Utah – Standard Teaching Certificate (K-8)
Ed-net Instruction Certification – Utah State University