

ABSTRACT

Parental Religiosity and Adolescent Grades and College Aspirations: The Role of Parenting Characteristics, Adolescent Social Settings, and Adolescent Personality

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Previous research indicates that parental religiosity influences the morals, skills, and social ties adolescents establish. Adolescents then apply cultural capital, skills, and social capital in educational settings. However, it is unclear if parenting characteristics, adolescent social settings, and adolescent personality traits mediate the effect of parental religious service attendance on adolescent academic outcomes such as grades received and expectations for a bachelor's degree or higher. Using data from the 2017-18 National Survey of Moral Formation, regression analysis reveals that parental religious service attendance influences the grades adolescents receive and their aspirations to earn a college degree, even in the presence of other relevant factors. Mediation analysis reveals that the effect of parental religious service is partially mediated by parenting characteristics for both outcomes. These findings confirm the complicated nature of religion's influence on adolescent academic outcomes, which merits continued exploration.

Parental Religiosity and Adolescent Grades and College Aspirations: The Role of Parenting Characteristics, Adolescent Social Settings, and Adolescent Personality

by

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A Thesis

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Submitted to the Graduate Faculty of
Baylor University in Partial Fulfillment of the
Requirements for the Degree
of
Master of Arts

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Accepted by the Graduate School

May 2023

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TABLE OF CONTENTS

LIST OF FIGURES	vi
LIST OF TABLES	vii
ACKNOWLEDGMENTS	viii
DEDICATION	ix
CHAPTER ONE	1
Introduction.....	1
CHAPTER TWO	4
Literature Review	4
Parent Religiosity and Adolescent Academic Outcomes.....	4
Parenting Characteristics, Adolescent Social Settings, and Personal Attributes	9
The Current Study.....	12
CHAPTER THREE	13
Data and Methods	13
Sample.....	13
Key Measures.....	13
Plan of Analysis	18
CHAPTER FOUR.....	23
Results.....	23
Parental Religious Service Attendance and Grades Received by Teenagers.....	23
Parental Religiosity and Aspirations for a Bachelor’s Degree or Higher	32

CHAPTER FIVE	42
Discussion and Conclusion.....	42
APPENDIX.....	49
BIBLIOGRAPHY.....	50

LIST OF FIGURES

Figure A.1: Grades Received by Religious Service Attendance.....	49
Figure A.2: Aspirations for a Bachelor's Degree or Higher by Parental Religious Service Attendance.....	49

LIST OF TABLES

Table 3.1: Descriptive Statistics Unweighted.....	22
Table 4.1: Grades Adolescents Received Regressed on Independent Variables.....	28
Table 4.2: Mediation Effect on Parent Religious Attendance	32
Table 4.3: Adolescent Expectations by Independent Variables with Odds Ratios	38
Table 4.4: Mediation Effects on Parent Religious Attendance with Logit Coefficients	42

ACKNOWLEDGMENTS

I would like to thank my thesis committee members Dr. Jeremy Uecker, Dr. Laura Upenieks, and Dr. Stephanie Boddie. Dr. Uecker was helpful and gentle throughout this research process. He believed in this project and supported me every step of the way. Dr. Upenieks also gave helpful feedback in this process, and I appreciate her willingness to be on my thesis committee. I offer a special thank you to Dr. Stephanie Boddie for agreeing to join my thesis committee on short notice, and providing helpful insights to this process. A special thank you to my colleagues who have given me ideas and read drafts of my thesis both in the Baylor Sociology Department and outside of it. I offer a special thank you to Dr. Patricia Snell Herzog and Dr. Ilana Horwitz for their interest and support for this project. Their mentoring and research interests were beneficial in the creation of this thesis. I also would like to acknowledge the support of my close friends and family, specifically my Mom, my Dad, my brother Scott, and my best friend Natalie. Thank you for being an example to me of loving kindness and being supportive of my academic journey and for the sacrifices each of you have made. The idea of loving, religious parents making sacrifices for their children influenced this research topic, and I will be forever grateful to my parents, brother, and countless individuals who have sacrificed of their time, talents, and energy for me and others to succeed.

DEDICATION

This thesis is dedicated to my parents and all parents who strive to live by moral principles and instill those values in their children.

CHAPTER ONE

Introduction

Many Americans believe education is a launching pad for better life outcomes. However, adolescents experience numerous barriers to academic success including unsafe neighborhoods (Barrett 2010; Regnerus and Elder 2003), poverty (Downey, von Hippel, and Broh 2004; Langenkamp and Carbonaro 2018; Snell 2011), and insufficient knowledge to navigate educational systems (Tough 2019). Adolescents need social support and community to navigate life and make decisions (Glanville, Sikkink, and Hernandez 2008; Smith 2003). As a potential source of community, support, and socialization, the influence of religion merits consideration.

Understanding the effect of religion on educational outcomes is challenging because the influence of religion on academic outcomes can vary by social circumstances (Pearce, Uecker, and Denton 2019; Smith 2003; Wilde 2018; Wilde and Glassman 2016; Wilde and Tevington 2017). For example, scholars propose that the effect of religious participation on low-income students is more significant versus their peers living in high socioeconomic-status households for education outcomes (Horwitz 2022; Regnerus and Elder 2003). Educational attainment may also differ by religious affiliation (Beyerlein 2004; Darnell and Sherkat 1997; Sherkat and Darnell 1999; Fitzgerald and Glass 2012; Lehrer 1999; Regnerus 2003). Even within religious traditions, there may be gendered effects. For example, Conservative Protestant (CP) women, but not CP men, are less likely to enroll in selective colleges (Uecker and Pearce 2017). In each of these varying

circumstances, parental religiosity merits consideration because parental religiosity influences the transmission of religious and cultural values (Stokes 2010).

In comparison to adolescent religiosity, parental religiosity is a stronger predictor of adolescent academic outcomes and may influence the process of academic success even if the child is not religiously engaged (Eirich 2012; Stokes 2010). Parental religiosity is linked with multiple behaviors, including child religiosity (Regnerus 2007; Stokes 2010), authoritative parenting (Eirich 2012; Wilcox 1998; Wilcox 2002), and making sacrifices to help children (Bartkowski, Xu, and Levin 2008; Eirich 2012; Mahoney, Pargament, Tarakeshwar, and Swank 2001). Furthermore, parents are fundamental in the mentoring, social connections, culture, and skills adolescents form, and children can apply these religious values to academic social settings (Horwitz 2022; Horwitz, Matheny, Laryea, and Schnabel 2022; Smith 2003). However, the direct mechanism under which parental religiosity influences adolescent academic outcomes remains uncertain.

Eirich's (2012) study of parental religiosity and educational attainment accounts for parenting characteristics such as parental school involvement but does not account for the role of adolescent characteristics such as conscientiousness and other personality traits. Tirre (2017) reports that adolescent academic outcomes are partially mediated by conscientiousness but does not examine parenting characteristics. To the best of my knowledge, no other study accounts for parenting characteristics, adolescent social settings, and adolescent personality traits as potential mediators of the association between parental religiosity and adolescent academic outcomes in the same study.

The current study uses the 2017-18 National Survey of Moral Formation, a nationally representative survey in the United States, to address this gap in the literature. I assess how parental religiosity predicts academic outcomes and seek to confirm previous theoretical perspectives (Barrett 2010; Horwitz 2022; Smith 2003) which propose a positive association between religiosity and educational outcomes. This study seeks to better understand whether parent religious service attendance influences adolescent academic outcomes such as grades and aspirations for a bachelor's degree or higher and how that association may be explained by other social factors (Smith 2003).

CHAPTER TWO

Literature Review

Parent Religiosity and Adolescent Academic Outcomes

A challenge in examining the influence of religion on academic outcomes is identifying empirical mechanisms in this process and how they operate (Cotton, Zebracki, Rosenthal, Tsevat, and Drotar 2006; Regnerus 2003). Smith's (2003) theoretical perspective is beneficial for identifying religious mechanisms and explaining how they are associated with prosocial outcomes such as education (Barrett 2010). Smith proposes three religious mechanisms for prosocial behavior: moral order, learned competencies, and social and organizational ties. Though Smith proposes these mechanisms to explain the association between adolescent religiosity and prosocial behavior, they may also explain the association between parental religiosity and prosocial behavior, as explained below.

Moral order refers to the concept of right and wrong, which is independent of the individual and rooted in religion (Smith 2003). Moral behavior includes respect for authority, reading religious texts, praying, avoiding pre-marital sex, avoiding drug use, and abiding by religious rules. In religious settings, adolescents are encouraged to be respectful, conscientious, agreeable, and engaged, and these attributes are also applicable to thriving in educational settings (Barrett 2010; Byfield 2008; Horwitz 2022). These attributes are especially instilled in individuals who are more actively engaged in their religion which creates a sense of identity and community for adolescents compared to

those who are less engaged with their religion (Horwitz, Domingue, and Harris 2020; Horwitz 2022; Pearce and Denton 2011). The instilling of the moral order also creates religious restraint which encourages adolescents to avoid behaviors such as drug use and premarital sex, which are a by-product of increased religious activity and identity (Cotton et al. 2006; Hayward 2019; Hodge, Cardenas, and Montoya 2001; Horwitz et al. 2022; Horwitz 2022). Consequently, these adolescents avoid behaviors detrimental to academic success (Glanville et al. 2008; Muller and Ellison 2001).

Learned competencies are skills that improve an individual's life chances (Smith 2003). Religious participation provides numerous skills and values for education including how to interact with adults, community and leadership skills, coping skills, and the value of education itself (Barrett 2010; Smith 2003). An important aspect of learned competencies is cultural capital, which is the beliefs, values, and behaviors associated with a group that is utilized to obtain social rewards. For example, being religious is associated with being conscientious and agreeable which is also associated with academic success (Hardy and Carlo 2005; Horwitz 2020; Saroglou 2010; Shariff and Norenzayan 2007). The hidden curriculum in classroom settings may also favor religious students (see Horwitz 2020). Adolescents' decisions may be influenced by cultural values and thought processing (Vaisey and Valentino 2020). For example, religious adolescents may experience adversity such as being poor but rely on a religious community's values and social support to cope. The cultural values of pleasing God and respect for authority can influence adolescents to be conscientious in schoolwork, and consequently, perform well (Horwitz 2022). The skills adolescents form to succeed in classroom settings are also influenced by social and organizational ties.

Social and organizational ties refer to adolescents' attachment to religion through personal relationships, specifically, social capital and mentors. Religious service attendance provides intergenerational relationships, activities, and resources which may be difficult to obtain independent of religion (Glanville et al 2008). Religious participation and organizations may connect adolescents with information about scholarships, job openings, and educational expectations (Barrett 2010; Coleman 1988; Wilkinson, Santoro, and Major 2017). One of the potential benefits for religious teenagers is access to mentors who guide them in multiple areas of life (Erickson and Phillips 2012). Religious adults are encouraged to invest time and resources in the development of adolescents, and religious mentoring may encourage adolescents to align their interests and goals with those mentors (Erickson and Phillips 2012; Mueller and Ellison 2001). One source of religious mentoring that merits consideration is parents themselves.

Smith's (2003) theoretical perspective on adolescent religiosity can be extended to parental religiosity. Parents also can be sources of cultural capital, skill formation, and social capital which are rooted in religious identity. Stokes (2010) suggests three possible explanations for how parental religiosity may predict adolescent academic success. First, parental religiosity may predict adolescent religiosity, which adolescents then use as a source of cultural capital while forming their own identity compatible with educational settings. Second, adolescents may obtain the cultural capital which comes from religious parents even when the adolescent is not religious. Third, the religiosity of the child and the parent work jointly to influence the academic outcomes of the adolescent. However, Stokes (2010) does not explain how this process occurs or under what mechanisms the

influence of parental religiosity may be mediated by other factors. Consequently, uncertainty exists concerning the mechanisms by which parental religiosity influences adolescent academic outcomes.

Another important aspect of parent religion is religious affiliation. Research indicates potential differences between religious affiliations in academic outcomes. Jews have been identified as the top academic achievers among religious affiliations with Mainline Protestants and Catholics as the middle groups and CPs on the low end of achievement (Beyerlein 2004; Darnell and Sherkat 1997; Glass and Jacobs 2005; Lehrer 1999; Mazur 2016; Mohanty 2016; Wilde et al. 2018). However, other studies have challenged this notion. When Beyerlein (2004) separated CPs by religious affiliation, no differences between evangelicals and Catholics were found. Uecker and Pearce (2017) reveal that differences between CPs and enrollment in selective colleges are gendered effects. This gendered effect is believed to result from greater emphasis on having families over education, which may be a cultural norm instilled by parents. This example of CPs suggests that parental religious values may influence the educational expectations of adolescents.

The worldview of nonreligious parents has implications for academic outcomes. Manning (2015) identifies four different worldviews for nonreligious parents: unchurched believers, spiritual seekers, philosophical secularism, and indifferent. First, unchurched believers are those who do not identify with a religious affiliation but hold religious beliefs and values. Next, spiritual seekers identify as spiritual but not religious, do not reject the notion of a higher power, and are eclectic in the formation of knowledge and values. Third, philosophical secularists are similar to atheists as they embrace free

thinking and secularism as a source of meaning and decision-making. Finally, indifferent parents simply ignore or pay minimal attention to the subject of religion.

Nonreligious parents address the concept of religion through a religious community, an alternative community, themselves, or do nothing. The way nonreligious parents encourage their adolescents to create meaning has implications for their learning. For instance, nonreligious adolescents tend to have high levels of critical thinking, intelligence, and material rationalism which are applied in social settings (Baker and Smith 2015; Gervais and Norenzayan 2012; Pennycock, Cheyne, Koehler, Fugelsang 2013). Horwitz (2022) describes nonreligious adolescents as curious, creative, intellectual, critical thinkers, more likely to have educated parents, and intrinsically motivated, which facilitates academic achievement. Furthermore, differences within nonreligious adolescents may exist in academic achievement. Nonreligious adolescents who use critical thinking and exploration to create to address religion may have an academic advantage over nonreligious adolescents who do nothing to address religion. The process of how culture is instilled by religious and nonreligious parents suggests similarities and differences in pathways to academic success.

The influence of religion may be limited or replaced by other social factors in association with prosocial outcomes (Smith 2003). The influence of parental religiosity on academic outcomes may be a reverse causal effect (Regnerus and Smith 2005; Uecker, Regnerus, and Vaaler 2007) or the result of selection bias (Fredricks and Eccles 2006; Gardner, Roth, and Brooks-Gunn 2008; Mahoney, Cairns, and Farmer 2003). Tirre's (2017) study reports that the influence of Bible literacy and parental religiosity is partially accounted for through adolescent conscientiousness. Glanville et al. (2008)

report that the influence of religion on adolescent education outcomes is partially mediated through extracurricular activities and social capital. Eirich's (2012) study reveals that parental religiosity is a stronger predictor of adolescent education outcomes than adolescent religiosity. Although parent education, parental optimism, and house tidiness are included, other parenting characteristics merit consideration as an extension of Eirich's (2012) study. Potentially, the influence of parental religiosity may operate through parenting characteristics, adolescent social settings, and adolescent personality traits.

Parenting Characteristics, Adolescent Social Settings, and Personal Attributes

Some parenting characteristics correspond with parental religiosity, which influences adolescent academic outcomes. Authoritative parenting involves strict boundaries but encourages autonomy, independent thought, and warm relationships to shape children's behavior (Abar, Carter, and Winsler 2009; Bengtson, Putney, and Harris 2013; Grolnick and Ryan 1989). As adolescents interact in authoritative parenting settings, social control and prosocial values are instilled (Baumrind 1991; Bourdieu 1990), which is similar to religious mentoring and parenting (Eirich 2012; Smith 2003; Stokes 2010). Religious adolescents also have structured time which instills religious identity and religious restraint and instills culture, which adolescents use in educational settings (Eirich 2012; Horwitz 2022). The use of authoritative parenting is also applicable to religious none parents who create warm and loving relationships with their children but also a sense of direction. As most parents desire meaningful relationships with their children, adolescents' academic success may reflect a stable home and loving relationships between parents and children. Parents who are educated provide knowledge

for navigating the education system, which is an advantage many nonreligious parents tend to have (Horwitz 2022; Manning 2015). However, some adolescents may prioritize family formation over schooling after high school (Uecker and Pearce 2017), which may originate from parent religious values. Therefore, the influence of parental religiosity on adolescent academic outcomes in various ways may be explained through parenting characteristics.

Multiple studies have explored whether the influence of religious participation is explained by religious or social factors (Glanville et al. 2008; McKune and Hoffman 2009; Muller and Ellison 2001). As mentioned previously, adolescent religiosity may be a by-product of parental religiosity. Religious adolescents may be more likely to be involved with nonreligious clubs compared to their less religious peers (Glanville et al. 2008; Regnerus and Smith 2005). Consequently, religious adolescents may be more comfortable associating with high-achieving students and avoid deviant behaviors which hinder academic performance. Private school attendance may be facilitated by parental religiosity (Cohen-Zada and Sander 2008) and religious students in those settings may have compatible social and cultural capital. However, research is mixed on the influence of school type on academic performance. Horwitz and Spector (2005) report a slight positive difference in college GPA between adolescents who attended religious high schools versus public or private schools. Research is mixed on the influence on school type as some studies suggest that school resources do not make much of a difference in adolescent education outcomes (Hanushek 1997; von Hippel, Workman, and Downey 2018) while others suggest that school resources can decrease academic success even within school districts (Condrón and Roscigno 2003), which implies the potential

influence of peers and parents. Adolescents who attend religious schools may also consequently value their religion more which may be associated with academic outcomes (Uecker 2008).

As an additional social factor, the influence of social media is mixed with educational outcomes. Adolescents use social media to socialize, but the use of social media may have potentially negative effects on adolescent religiosity (Uecker and McClure 2022) or be a time waster that makes adolescents less productive with schoolwork (Hietajarvi, Salmela-Aro, Tuominen, Hakkarainen, and Lonka 2019). Social media may also be a tool for collaborating with school projects and making connections with peers, which can facilitate positive academic performance.

Adolescent personality characteristics are also linked with academic outcomes. Adolescent conscientiousness involves perseverance and engagement with tasks, which can be preceded by parental religiosity (Eirich 2012; Stokes 2010; Tirre 2017). Religious teenagers tend to be conscientious, agreeable, and respectful of authority which translates into academic success. Intellectual curiosity, creativity, critical thinking, and self-confidence are predictors of reading and math ability, and these attributes are characteristic of non-religious youth (Horwitz 2022; Malanchini, Englehardt, Grotzinger, Harden, and Tucker-Drob 2019). These personality characteristics may also influence academic outcomes differently. Grades often measure diligence and the ability to function well in a classroom environment. Aspirations for college are likely more influenced by parents as knowledge to navigate higher education and expectations. Furthermore, college encourages intellectual curiosity and independent thought. However, the expectation that adolescents have for college may also be influenced by the

grades they receive (Horwitz et al. 2020), which may mediate the association between adolescent religiosity and expectations. In other words, grades are predicted more by adolescent personality characteristics such as conscientiousness, and educational expectations are predicted more by parent expectations.

The Current Study

Previous research reports a positive association between parental religiosity and grades received and years of schooling completed (Eirich 2012; Tirre 2017). However, it is unclear to what extent the association between parental religious service attendance and academic outcomes, specifically grades and aspirations for a bachelor's degree or higher, are fully or partially mediated by parenting characteristics, adolescent social settings, and adolescent personality traits. Parental religious service attendance is beneficial because it is a means for predicting adolescent religiosity and instilling cultural capital which is then applied to academic settings. This study seeks to confirm previous theoretical frameworks (Barrett 2010; Smith 2003) and understand how the association between parental religiosity and adolescent academic outcomes may be mediated. The following hypotheses are investigated:

H1: An increase in parent religious service attendance will be associated with higher grades and educational expectations for adolescents.

H2: Adolescents with Jewish or nonreligious parents will have higher grades and educational expectations than those with Catholic parents.

H3: The effects of parental religious service attendance and parental religious affiliation on grades and educational expectations will be mediated by parenting characteristics, adolescent social settings, and adolescent personality traits.

CHAPTER THREE

Data and Methods

Sample

This study used the National Survey of Moral Formation (NSMF) with respondents obtained through the Gallup Panel. This survey was beneficial to the current study because it surveyed both parents and their teenage children on religious and academic behaviors. The purpose of this survey was to evaluate the moral formation of teenagers about their social settings and personal characteristics. To accomplish this purpose, 3,033 parent-teenager dyads are surveyed to analyze teenagers' moral and character formation in the United States. The national survey is representative of all teenagers between the ages of thirteen and nineteen and parents between the ages of 21 and 80 in the United States. Data for the sample were collected between November 2017 and January 2018. Among the completed surveys, 86.8% were completed online.

Key Measures

Academic Outcomes

Grades and aspirations to graduate with a bachelor's degree or higher are the selected measures for academic outcomes. To measure academic performance, teenage respondents were asked, "Which of the following best describes your overall academic performance during the current school year?." Responses included (1) 'A' student, (2) 'A/B' student, (3) 'B' student, (4) 'B/C' student, (5) 'C' student, (6) 'C/D' student, (7)

'D' student, and (8) Failing. The responses were reverse coded to range from (1) Failing to (8) 'A' student. Next, to examine educational aspirations, the teenagers were asked, "What is the highest level of education or degree you currently plan to attain?" Responses included (1) Less than a high school diploma, (2) High school graduate [or equivalent], (3) Technical, trade, vocational or business school or program after high school, (4) Some college – college, university, or community college -- but no degree, (5) Two-year associate degree from a college, university, or community college, (5) Four-year bachelor's degree from a college or university (e.g., BS, BA, AB), and (6) Postgraduate or professional degree, including master's, doctorate, medical, or law degree (e.g., MA, MS, Ph.D., MD, JD). These responses were recoded to create two categories: (0) No bachelor's degree and (1) Bachelor's degree or higher.

Religious Measures

The influence of adult religious participation is measured through the parent's religious affiliation and parental religious service attendance. To measure the parent's religious affiliation, parents were asked, "What is your current religion, if any? Religious groups included (1) Christian (Catholic), (2) Christian (not Catholic), (3) Jewish, (4) Muslim, (5) Buddhist, (6) Hindu, (7) Nothing in particular, (8) Agnostic, (9) Atheist, and (10) Something else. Respondents were asked a follow-up question, "Do you consider yourself an Evangelical or born-again Christian?" Individuals who did not identify as Christian were not asked this question. The responses to these questions were combined to create the following categories for religious affiliation identification: (1) Catholic, (2) Christian (not Catholic/Born-again), (3) Born-again (not Catholic), (4) Jewish, (5) Something else, (6) Nothing in particular, (7) Agnostic, and (8) Atheist. Muslim,

Buddhist, and Hindu were low counts and combined with the “Something else” category. To assess parent religious service attendance, parents were asked “Aside from weddings and funerals, how often do you typically attend religious services?” Responses included (1) Never, (2) Several times a year, (3) About once a month, (4) 2 or 3 times a month, (5) Once a week, (6) Several times a week, and (7) Daily.

Parent and Child Controls

To account for other factors that may influence the association between parental religious service attendance and academic outcomes demographic variables such as age, household income, racial identity, marital status, and the region of the United States in which they live. The age of the parents ranged from 21 to 80 years old. Next, household income values included (1) Less than \$25,000, (2) \$25,000 to \$49,999, (3) \$50,000-\$74,999, (4) \$75,000-\$99,999, (5) \$100,000-\$249,999, (6) \$250,000-\$500,000, and (7) More than \$500,000. For racial identity, parents identified as (1) White (non-Hispanic), (2) Black(non-Hispanic), (3)Marital status identities included (1) Married, (2) Separated, (3) Divorced, (4) Widowed, and (5) Single/Never Married. The response categories for regions included: (1) New England. (2) Mid-Atlantic, (3) East-North Central, (4) West-North Central, (5) South Atlantic, (6) East-South Central, (7) West-South Central, (8) Mountain, and (9) Pacific. Lastly, gender response categories were (0) Male and (1) Female. For teenage respondents, ages ranged between 13 and 19 years, and gender categories included (0) Male and (1) Female.

Parenting Factors/Parental Influences

Parent characteristics are assessed by measuring the parent's education, the scheduling of their teen's time, and educational expectations for their teen. Parents were asked, "What is the highest level of school you have completed or the highest degree you have received?" Responses included (1) Less than a high school graduate, (2) High school graduate (with a diploma or GED certificate), (3) Technical, vocational, or business school after high school, (4) Some college or university - but no degree, (5) Two-year associate degree from a college, university, or community college, (6) Four-year bachelor's degree from a college or university (e.g., BS, BA, AB), (7) Some postgraduate or professional schooling after college, but no postgraduate degree (some graduate school), and (8) Postgraduate or professional degree, including master's, doctorate, medical, or law degree (e.g., MA, MS, Ph.D., MD, JD). The responses were recoded as (1) high school or less, (2) Some college or post-high school, (3) Bachelor's degree, and (4) Post-bachelor's degree. The educational expectations of parents were assessed by asking, "What is the highest level of formal education you hope to see your teen complete or receive?" These responses were also recoded as (0) Less than a bachelor's degree and (1) Bachelor's degree. Finally, parents were asked to identify on a scale of 1 to 7 if their "Teen has a lot of free time" or if their "teen's time is highly scheduled." A "1" signified that their teen had a lot of free time while a "7" signified highly scheduled time.

Adolescent Social Settings

Teen social settings constituted the type of school the teenage respondents attended, the level of comfort in associating with high achieving "A" students, the

number of friends who consumed alcohol unsupervised, and time spent on screen during a school day. Parents were asked multiple questions to identify the type of school their teenager currently attends. These included (1) public, (2) Catholic, (3) Christian, (4) Private, and (5) Home. Teens were asked to assess their level of comfort with various groups and specifically, very high achieving “A” students. The scale of responses ranged from (0) Very uncomfortable to (10) Very Comfortable. Teens were also asked, “During the past year, about how many of your close friends have done the following things?” In regards to consuming alcohol unsupervised, responses included (1) None at all, (2) Less than half, (3) About half, (4) Most of them, and (5) Nearly all of them. Teenager responses that indicated “Don’t know” were treated as missing. Lastly, teenage respondents were asked, “On a normal school day, how much time do you spend before or after school doing each of the following,” which included time on screens such as tv, video games, movies, and using social media. Responses included (1) No time, (2) Less than 30 minutes, (3) 30 minutes to an hour, (4) About 1-2 hours, (5) About 3-4 hours, and (6) 5 or more hours.

Teenager Personality Characteristics

Teenager personality characteristics include being inquisitive, intelligent, and engaged; and having grit and a sense of direction. Grit was assessed by asking teenagers how well the following statements described them: “New ideas and projects sometimes distract me from previous ones,” “Setbacks don’t discourage me,” “I am diligent. I never give up,” “I have difficulty staying focused on projects that take more than a few months to complete,” “I often set a goal but later choose to pursue (follow) a different one,” “I whatever I begin,” and “I am a hard worker.” Responses to these measures included (1)

Not at all like me, (2) Not much like me, (3) Somewhat like me, (4) Much Like Me, and (5) Very much like me. Some of the measures of grit were reverse coded to reflect a positive scale for grit. To measure a sense of direction, teenagers confirmed how much they agree or disagree with the following statement: “I feel that I have a sense of direction in my life.” Responses included (1) Strongly disagree, (2) Mostly disagree, (3) Slightly disagree, (4) Neither agree or disagree, (5) Slightly agree, (6) Mostly agree, and (7) Strongly agree. Teenagers were additionally asked, “Thinking about your hopes for your future, how important is it to you that you become each of the following as an adult?” These questions were asked regarding being intelligent and inquisitive as an adult. Response categories were (1) Not important at all, (2) Not very important, (3) Fairly important, (4) Very important, and (5) Absolutely essential. Finally, engagement with tasks was assessed by asking teens how much they agree or disagree with the following: “I am engaged and interested in my daily activities.” The responses ranged from (1) Strongly disagree to (7) Strongly agree.

Plan of Analysis

I used ordinary least squares regression (OLS) with robust standard errors to test the association between parental religious participation and the grades of their children. Next, I used logistic regression to examine the association between parental religious participation and aspirations for a bachelor’s degree or higher. All regression models were estimated by using 20 imputed datasets using imputations by chained equations in Stata (Royston 2005). In the sample, about 13.6% of the respondents were missing, and the imputation yielded a total sample size of 3,032. After each regression analysis, I tested for mediation effects using Karlson-Holm-Breen (khb) analysis to uncover indirect

effects of parenting characteristics, adolescent social settings, and adolescent personality attributes on the association of parental religious attendance and academic outcomes, specifically grades received and adolescent aspirations for a bachelor's degree or higher.

Table 1.1 presents a summary of all the variables. The average grade score for respondents is 6.74, between being a B student and an A/B student. About 70% of teenagers aspire to complete a bachelor's degree or higher. The most common religious affiliation is Christian (not Catholic or Born-again), but among the nonreligious groups, 6.86% identify as Nothing in Particular, 6.3% as Agnostic, and 7.85% as Atheists. The percent of parents who identify as Jewish is 2.64%. On average, parents have a religious service attendance score of 3.03, which is about once a month.

The average age of our parent respondents is about 48 years old, and 53.45% identify as female. Among them, 84.34% identify as White, 4.91% identify as Black, 6.07% identify as Hispanic, 1.29% identify as Asian, 1.81% identify as Native American, and 1.58% identify as "Other" race/ethnicity. Most parents are married (82.3%) and live in the South Atlantic region of the United States (16.92%). Four teenage participants, a bit over half are female (51.1%), and the average age is about 15 years old.

Looking at education variables, the average level of education score for parents is 2.85, which is between some education post-high school and a bachelor's degree. Most parents (83.2%) expect their children to complete a bachelor's degree or higher.

Secondly, the average score for structuring a teen's time is 4.02, which means that most parents lean slightly toward scheduling their teen's time.

Over three quarters of the parents (82.92%) report that their teen attends public school in comparison to Catholic (5.18%), Christian school (2.9%), Private school

(2.8%), and home school (6.2%). On average, teenagers report a level of comfort of 7.81 with high achieving “A” students, which suggests that they are relatively comfortable with high achieving peers. Finally, teenagers have an average screen time score of 4.27, or one to two hours per day.

Among teenager personality characteristics, teenagers, on average, identify the trait of “being inquisitive” as important with a score of 3.87; the average grit score for teenagers is 24.97. Secondly, on average, teenagers identify as having a sense of direction with a score of 5.17, which is between neutral and slightly agree. Third, adolescents, on average, agree that being intelligent as an adult is essential with a score of 4.29. Finally, for engagement with daily tasks, teenagers, on average, report a 5.43 score, which indicates that they are engaged in daily tasks.

Table 3.1: Descriptive Statistics Unweighted

Variable	Mean	Counts	Min.	Max.
<i>Grades</i>	6.74	3,033	1= Failing	8= A student
<i>Teen Educational Goals</i>		3,033	0= Less than Bachelor's	1= Bachelor's or higher
Less Than Bachelor's		895(29.51%)		
Bachelor's or Higher		2,138(70.49%)		
<i>Parent Religious Attendance</i>	3.03	3,014	1=Never	7=Daily
<i>Religious Identity</i>		3,033	1=Catholic	8= Atheist
Catholic		604(19.91%)		
Christian(not Catholic)		822(27.1%)		
Born Again Christian		671(22.16%)		
Jewish		80(2.64%)		
Something Else		219(7.22%)		
Nothing in Particular		208(6.86%)		
Agnostic		191(6.3%)		
Atheist		238(7.85%)		
<i>Parent Controls</i>				
<i>Parent Age</i>	48.16	3,033	21	
<i>Teen's Age</i>	15.09	3,033	13	
<i>Household Income</i>	4.11	3,033	1= Less than \$25,000	
<i>Parent Race and Ethnicity</i>		3,033	1= White(Nonethnic)	6= Other race
White		2558(84.34%)		
Black		149(4.91%)		
Hispanic		184(6.07%)		
Asian		39(1.29%)		
<i>Marital Status of Parent</i>		3,033	1=Married	5= Single/Never Married
Married		2,493(82.3%)		
Separated		69(2.27%)		
Divorced		303(9.99%)		
Widowed		55(1.81%)		
Single/Never Married		113(3.73%)		
<i>Region</i>		3,033	1=New England	
New England		201(6.63%)		
Mid-Atlantic		307(10.13%)		
East-North Central		519(17.12%)		
West-North Central		281(9.27%)		

South Atlantic		513(16.92%)		
East South Central		149(4.91%)		
West South Central		299(9.86%)		
Mountain		322(10.62%)		
Pacific		441(14.54%)		
<i>Teen Gender</i>		3,033	0=Male	
Male		1,483(48.9%)		
Female		1,550 (51.1)		
<i>Parent Gender</i>		3,033	0=Male	
Male		1,412(46.55%)		
Female		1,621(53.45%)		
<i>Parent Education Level</i>	2.85	3,033	1= High school or less	
<i>Educational Expectations of Parent</i>		3,033	0= Less than Bachelor's	1= Bachelor's or more
<i>Structured Time</i>	4.02	3,033	1= Teen has free time	7=Highly structured
Adolescent Social Settings				
<i>School Type</i>		3,033	1=Public School	5=Home school
Public school		2,515(82.92%)		
Catholic school		157(5.18%)		
Christian school		88(2.9%)		
Private school		85(2.8%)		
Home school		188(6.2%)		
<i>Comfort with A students</i>	7.81	3,033	0=Very uncomfortable	10=Completely Comfortable
<i>Screen Time</i>	4.27	3, 033	1= No time	6= 5 or 6 hours
<i>Unsupervised Friends Drink Alcohol</i>	1.69	3,033	1= None at all	5= Nearly all of them
Adolescent Personality Traits				
<i>Inquisitive</i>	3.87	3,033	1= Not at all important	5= Absolutely essential
<i>Grit Score</i>	24.97	3,033	9	40
<i>Direction</i>	5.17	3,033	1= Completely Disagree	7= Completely Agree
<i>Intelligent</i>	4.29	3,033	1= Not at all important	5= Absolutely essential
<i>Engaged</i>	5.43	3,033	1= Completely Disagree	7= Completely Agree

*used mi xeq 20 in Stata

CHAPTER FOUR

Results

Parental Religious Service Attendance and Grades Received by Teenagers

As preparation for regression analysis, I calculate the predictive values of the grades adolescents receive as predicted by parent religious service attendance as shown by Figure A1. Figure A1 shows a positive association between parents' religious service attendance and the adolescents' grades and accounts for parenting characteristics, adolescent social settings, and adolescent personality characteristics. Parents who never attended religious services predict an adolescent grade score of 6.43, a 'B' student ($p < .001$). The highest predicted value for adolescent grades is when parents' religious service attendance is daily, with a predicted day score of 6.83. Parental religious service attendance is expected to be a stronger predictor of adolescent grades than parent religious affiliation, and it is the focal relationship of this study.

Table 4.1 presents the OLS regression of grades received by adolescents with parents' religious service attendance as the primary variable of interest. Model 1 examines the association between parental religious affiliation and adolescents' grades, with added controls. Having a Christian (not Catholic) parent is positively associated with adolescents receiving higher grades, although it is not statistically significant ($b=0.166$), while having a parent who identifies as a Born-again Christian (Not Catholic) is positively associated with adolescents receiving higher grades ($b=0.345$, $p < .05$). The association between having a Jewish parent and adolescent grades are positive ($b=0.621$,

$P < .05$). The presence of having a parent who identifies as something else, nothing in particular, agnostic or atheist is positively associated with the grades adolescents receive, but these associations are not statistically significant.

Model 2 adds parents' religious service attendance to academic performance, measured by grades received for adolescents. An increase in the parents' religious service attendance is positively associated with the grades of the adolescents ($b = 0.12$, $p < .001$). Having a Jewish parent is positively associated with academic outcomes of the adolescent ($b = 0.614$, $p < .05$). When a teenager has an agnostic parent, there is an increase in the grades adolescents receive ($b = 0.434$, $p < .05$). Compared to having a Catholic parent, having a parent who identifies as nothing in particular is positively associated with adolescent grades, but is not statistically significant. Lastly, having an atheist parent is negatively associated with the grades adolescents received, but this association is also not statistically significant.

Parenting characteristics are added to the analysis of the association between the parents' religious service attendance and the grades adolescents receive as shown in Model 3. The influence of religious service attendance persists even when account for parenting characteristics ($b = 0.083$, $p < .01$). Having a parent who identifies as a born-again Christian (Not Catholic) is positively associated with higher grades ($b = 0.299$, $p < .05$). Net of parenting characteristics, the association between having a Jewish parent and adolescent grades is positive but not statistically significant. Having an agnostic parent is positively associated with higher grades ($b = 0.482$, $p < .01$). An increase in parent's education predicts higher grades for adolescents ($b = 0.089$, $p < .05$). Parental expectations are positively linked to the grades adolescents receive ($b = 0.697$, $p < .001$). As parents

schedule their children's time more, the grades adolescents receive also increase (b=0.203, p< .001).

Model 4 adds adolescent social settings to the analysis of the association between parental religiosity and adolescent grades. Parents' religious service attendance continues to positively predict adolescent grades (b=0.102, p< .01). Compared to attending a public school, attending a Christian school is associated with higher grades for teenagers (b=0.5096, p< .001). Adolescents who are more comfortable associating with high-achieving students are also linked to having better grades (b=0.139, p< .001). However, an increase in screen time is negatively associated with adolescent grades (b=-0.087, p< .05). Lastly, an increase in the number of friends who drink alcohol unsupervised is negatively associated with adolescent grades, but not statistically significant.

Personality characteristics are added to evaluate the between the parents' religious service attendance and grades in Model 5. The positive influence of the parents' religious service attendance remains even after accounting for the adolescent personality characteristics in association with adolescent grades (b=0.104, p< .001). An increase in the value of being inquisitive for adolescents is associated with a positive increase in the grades they receive (b=0.151, p< 0.01). Additionally, a positive increase in adolescent grit is positively linked with higher grades for adolescents (b=0.049, p< 0.001).

Model 6 is the full model which accounts for the parent's religious service attendance, religious affiliation, parenting characteristics, adolescent social settings, and adolescent personality characteristics. The parent's religious service attendance continues to be positively associated with adolescent grades (b=0.068, p< 0.05). Having a Jewish parent predicts higher grades for adolescents while having an agnostic parent is also

linked to increased grades for adolescents ($b=0.429$, $p<.01$). Net of parenting characteristics, the educational expectations of parents and the extent to which parents schedule teenager time are positively associated with the grades adolescents receive. Moreover, the influence of an adolescent attending a Christian school and being comfortable with high-achieving students continues to be positively associated with adolescent grades. When considering adolescent personality traits, having grit and a sense of direction are linked to higher grades for adolescents.

Table 4.2 presents the KHB analysis of how parenting characteristics, adolescent social settings, and adolescent personality traits mediate the association between parents' religious service attendance and the grades reported by adolescents. The effect of parents' religious service attendance is partially mediated by parenting characteristics. The strongest indirect predictor is the extent to which parents schedule their teenager's time. The amount to which parents structure their children's time explains 59.04% of the indirect effect of parenting characteristics on the association between parents' religious service attendance and the grades adolescents received ($p<.001$). Adolescent social settings and adolescent personality traits are associated with the grades adolescents receive. However, the indirect effects are not statistically significant, therefore, the effect of parents' religious service attendance on the grades received by adolescents is not mediated by adolescent social settings and personality characteristics.

Table 4.1: Grades Adolescents Received Regressed on Independent Variables

Variables	Model 1	Model 2	Model 3
Parent Religious Attendance		0.12(0.029)***	0.083(0.028)**
<i>Parent Religious Affiliation</i>			
Christian (Not Catholic)	0.166(0.146)	0.145(0.144)	0.211(0.132)
Born Again (Not Catholic)	0.345(0.145)*	0.196(0.144)	0.299(0.135)*
Jewish	0.621(0.256)*	0.614(0.261)*	0.392(0.209)
Something Else	0.331(0.203)	0.377(0.194)	0.438(0.188)*
Nothing in Particular	0.122(0.208)	0.333(0.218)	0.364(0.2)
Agnostic	0.22(0.172)	0.434(0.183)*	0.482(0.178)**
Atheist	0.223(0.222)	-0.003(0.23)	0.064(0.217)
<i>Parent and Child Controls</i>			
Parent Age	-0.239(0.182)	-0.004(0.006)	-0.008(0.006)
Child Age	-0.056(0.028)	-0.054(0.028)	-0.034(0.025)
Household Income	0.208(0.039)***	0.202(0.038)***	0.081(0.042)
<i>Parent's Race</i>			
			-
Black, non-Hispanic	-0.239(0.182)	-0.278(0.181)	0.442(0.176)*
Hispanic	-0.191(0.174)	-0.237(0.169)	-0.226(0.16)
Asian non-Hispanic	0.578(0.212)**	0.485(0.206)*	0.375(0.203)
Native American	-1.22(0.742)	-1.216(0.709)	-1.047(0.577)
"Other Race"	-0.526(0.384)	-0.489(0.374)	-0.519(0.343)
<i>Marital Status</i>			
Separated	-0.122(0.195)	-0.108(0.185)	-0.092(0.196)
Divorced	0.046(0.188)	0.115(0.184)	-0.008(0.172)
Widowed	0.066(0.359)	0.131(0.375)	0.048(0.348)
Single/Never Married	-0.04(0.227)	-0.021(0.221)	0.065(0.211)

<i>Region</i>			
Mid-Atlantic	-0.067(0.191)	-0.082(0.186)	0.088(0.166)
East-North Central	-0.297(0.162)	-0.319(0.159)	-0.194(0.156)
West-North Central	-0.161(0.171)	-0.189(0.169)	-0.007(0.164)
South Atlantic	-0.062(0.156)	-0.084(0.152)	0.02(0.144)
East South Central	-0.138(0.265)	-0.158(0.254)	-0.004(0.256)
West South Central	-0.156(0.17)	-0.209(0.166)	-0.08(0.155)
Mountain	-0.218(0.196)	-0.313(0.195)	-0.319(0.189)
Pacific	-0.177(0.165)	-0.183(0.162)	-0.066(0.151)
Female Teen	0.434(0.089)***	0.426(.087)***	0.312(0.084)***
Female Parent	-0.265(0.086)**	-0.288(0.085)**	-0.203(0.079)**
Parent Factors			
Parent Education Level			0.089(0.043)*
Constant	6.748	4.762	5.258
N	3,032	3,032	3,032
Adjusted R-Squared	0.1119	0.127	0.2269

Variables	Model 4	Model 5	Model 6
Parent Religious Attendance	0.102(0.029)**	0.104(0.028)***	0.068(0.027)*
<i>Parent Religious Affiliation</i>			
Christian (Not Catholic)	0.078(0.142)	0.134(0.129)	0.151(0.127)
Born Again (Not Catholic)	0.109(0.151)	0.221(0.138)	0.228(0.139)
Jewish	0.0452(0.237)	0.739(0.206)***	0.479(0.186)*
Something Else	0.292(0.187)	0.4(0.19)*	0.501(0.179)**
Nothing in Particular	0.251(0.216)	0.335(0.202)	0.354(0.192)
Agnostic	0.366(0.174)*	0.405(0.164)*	0.429(0.161)**
Atheist	-0.097(0.236)	0.138(0.226)	0.093(0.222)
<i>Parent and Child Controls</i>			
Parent Age	0.0002(0.006)	-0.002(0.006)	-0.003(0.005)
Child Age	-0.019(0.028)	-0.064(0.028)*	-0.018(0.025)
Household Income	0.16(0.037)***	0.161(0.036)***	0.053(0.037)
<i>Parent's Race</i>			
Black, non-Hispanic	-0.318(0.183)	-0.404(0.179)*	-0.523(0.168)**
Hispanic	-0.257(0.172)	-0.203(0.166)	-0.22(0.155)
Asian non-Hispanic	0.303(0.207)	0.573(0.28)*	0.3(0.2)
Native American	-1.268(0.609)*	-0.967(0.644)	-0.933(0.503)
"Other Race"	-0.484(0.327)	-0.517(0.375)	-0.554(0.327)
<i>Marital Status</i>			
Separated	-0.02(0.173)	0.0001(0.168)	0.01(0.181)
Divorced	0.195(0.18)	0.154(0.177)	0.077(0.167)
Widowed	-0.014(0.348)	0.062(0.32)	-0.07(0.313)
Single/Never Married	0.036(0.218)	-0.1(0.205)	-0.01(0.199)
<i>Region</i>			
Mid-Atlantic	-0.059(0.173)	-0.081(0.169)	0.052(0.154)
East-North Central	-0.3(0.156)	-0.247(0.165)	-0.193(0.153)
West-North Central	-0.186(0.162)	-0.116(0.164)	-0.009(0.155)
South Atlantic	-0.114(0.148)	-0.033(0.153)	-0.022(0.141)
East South Central	-0.082(0.249)	-0.014(0.257)	0.06(0.255)
West South Central	-0.153(0.171)	-0.079(0.171)	-0.009(0.16)
Mountain	-0.252(0.189)	-0.217(0.188)	-0.244(0.183)
Pacific	-0.165(0.156)	-0.179(0.159)	-0.112(0.146)
Female Teen	0.429(0.084)***	0.414(0.083)***	0.343(0.08)***
Female Parent	-0.232 (0.081)**	-0.265(0.081)**	-0.191(0.075)*
<i>Parent Factors</i>			
Parent Education Level			0.109(0.042)
Educational Expectations			0.592(0.126)***
Time Structured			0.142(0.027)***

Social Characteristics

School Type

Catholic school	0.084(0.15)		0.036(0.133)
Christian School	0.506(0.142)***		0.502(0.139)***
Private school	0.091(0.298)		0.026(0.208)
Home school	-0.155(0.191)		-0.056(0.202)
Comfort with A students	0.139(0.019)***		0.077(0.021)***
Screen time	-0.087(0.035)*		0.008(0.033)
Amount of Friends who Drink Alcohol	-0.076(0.046)		-0.056(0.202)

Teen Characteristics

Inquisitive		0.151(0.056)**	0.079(0.057)
Grit		0.049(0.009)***	0.038(0.008)***
Direction		0.101(0.03)**	0.094(0.027)**
Intelligent		0.136(0.063)*	0.06(0.064)
Engaged		0.055(0.037)	0.007(0.034)

Constant	5.369	3.45	2.64
N	3,032	3,032	3,032
Adjusted R-Squared	0.1962	0.2218	0.3086

*The *mi estimate command* in Stata was used

*p<.05, **p< .01, ***p< .001

Table 4.2: Mediation Effect on Parent Religious Attendance

	(Model 3)	(Model 4)	(Model 5)
Total	0.12(0.026)***	0.12(0.028)***	0.123(0.027)***
Direct	0.085(0.026)**	0.103(0.029)***	0.105(0.027)***
Indirect	0.035(0.011)**	0.018(0.009)	0.017(0.01)
	Indirect Effects	Indirect Effects	Indirect Effects
Parent Education	21.28		
Parent Expectations	19.68		
Time Structured	59.04***		
<i>School Type</i>			
Catholic		1.91	
Christian		19.89	
Private		-2.03	
Home		-10.58	
Comfort with A students		45.12	
Screen time		17.94	
Friends Drink Alcohol		27.75	
Inquisitive			6.92
Grit			22.4
Direction			43
Intelligent			4.89
Engaged			22.79

*p<.05, **p< .01, ***p< .001

*The *mi xeq 20* command was used.

Parental Religiosity and Aspirations for a Bachelor's Degree or Higher

The predicted probabilities of aspirations for a bachelor's degree or higher are examined with parental religious service attendance as the predictor while controlling for parenting characteristics, adolescent social settings, and adolescent personality characteristics (see Figure A2). For adolescents with parents who never attend religious services, the probability that adolescents aspire to a bachelor's degree or higher is 0.459, and increases with each level of parental religious service attendance. On the other hand, the predicted probability of aspiring for a bachelor's degree or higher for adolescents with parents who attend religious services daily is 0.887. In contrast to the results from examining grades received, the difference between those who attend religious services and those who do not is noteworthy. The predictive probabilities of college aspirations is a preliminary test to logistic regression which examines the association between parental religious service attendance and adolescent expectations for a bachelor's degree or higher and accounts for relevant social factors.

Table 4.3 presents the odds ratios of logistic regression for the association between parents' religiosity and expectations to graduate with a bachelor's degree or higher. Model 1 shows the association between parents' religious affiliation and college aspirations. Having a Christian (not Catholic) parent negatively predicts adolescent aspirations for a bachelor's degree or higher (OR=0.928), despite not being significant. Furthermore, having a born-again Christian parent (not Catholic) is negatively associated with teenagers' expectations to receive a bachelor's degree or higher (OR= 0.833) but is also not statistically significant. Next, having a Jewish parent is negatively associated with the expectations of adolescents to receive a bachelor's degree or higher (OR=0.554);

this is not statistically significant. The association between a parent identifying as “Nothing in particular” for religious identity and a teenager’s expectations to graduate with a bachelor’s degree or higher is negative (OR=0.486, $p < .05$). On the contrary, when a parent identifies as agnostic, there is a positive increase in the odds of adolescents expecting to receive a bachelor’s degree or higher, although it is not statistically significant (OR=1.218). Finally, having an atheist parent is negatively associated with adolescent expectations to receive a bachelor’s degree or higher (OR=0.778).

Model 2 adds parents’ religious service attendance in the analysis of adolescent expectations for a bachelor’s degree or higher. Parents’ religious service attendance is positively associated with teenagers’ expectations to receive a bachelor’s degree or higher (OR=1.112, $p < .05$). The religious and secular identities of parents are negatively associated with adolescent expectations to receive a bachelor’s degree or higher and are not statistically significant. However, having an agnostic parent is positively linked with adolescents expecting to receive a bachelor’s degree or higher (OR=1.46), but this is also not statistically significant. This pattern for religious and secular identity and adolescent expectations for a bachelor’s degree or higher is consistent across the remaining models.

Parenting characteristics are added to the analysis of adolescent expectations for a bachelor’s degree or higher in Model 3. An increase in parental religious service attendance is positively associated with adolescent expectations for a bachelor’s degree or higher (OR=1.073), however, it is not statistically significant. The association between a parent’s level of education and adolescent degree expectations is positive, but also not statistically significant (OR=1.155). But parent expectations are positively linked with adolescent expectations to receive a bachelor’s degree or higher (OR=6.503, $p < .001$),

and parents who schedule their children's time more are linked to adolescents expecting to receive a bachelor's degree or higher (OR=1.142, $p < .01$).

Model 4 adds adolescent social settings in the examination of parent religious service attendance and adolescent education expectations for a bachelor's degree or higher. The association between the types of schools adolescents attend and expectations for a bachelor's degree or higher is not statistically significant. Adolescents who are more comfortable with high-achieving students are associated with higher odds of expecting to receive a bachelor's degree or higher (OR=1.211, $p < .001$). The association between time spent on a school day looking at a screen for teenagers and expectations to receive a bachelor's degree or higher is positive, but not statistically significant (OR=1.036). Adolescents who have more friends who drink alcohol without adult supervision have lower odds of expecting to receive a bachelor's degree or higher (OR=0.968), but this association is also not statistically significant.

Adolescent personality traits are added to examine the association between parents' religious service attendance and adolescent degree expectations in Model 5. An increase in parents' religious attendance positively predicts higher odds of adolescents expecting to receive a bachelor's degree or higher (OR=1.102, $p < .05$). Furthermore, adolescents who place more value on being inquisitive are associated with higher odds of expecting to receive a bachelor's degree or higher (OR=1.321, $p < .01$). Third, higher levels of grit and having a sense of direction in life for adolescents predicts expectations to receive a bachelor's degree or higher, but neither is statistically significant. Fourth, adolescents who place more value on being intelligent as an adult are linked with higher odds of receiving a bachelor's degree or higher (OR=1.571, $p < .001$). Fifth, adolescents

who identify more as being engaged with their daily tasks also predict higher odds of expecting to complete a bachelor's degree or higher (OR=1.168, $p < .05$).

Model 6 is the full model which analyzes the association between parents' religious service attendance and adolescent expectations for a bachelor's degree or higher. Parents' religious service attendance is positively associated with adolescent expectations to complete a bachelor's degree or higher (OR= 1.074), although this association is not statistically significant. Parents with higher levels of education predict higher odds of teenagers aspiring to receive a bachelor's degree or higher, but this association is – again -- not statistically significant. For parenting characteristics, the degree to which parents structure adolescent time strongly predicts adolescent degree expectations. An increase in the education expectation of a parent is positively associated with higher odds of adolescents expecting to receive a bachelor's degree or higher (OR=5.807, $p < .001$). As adolescents express more comfort associating with high-achieving students, they are linked with higher odds of expecting to receive a bachelor's degree or higher (OR=1.133, $p < .001$). In the full model, the association between the value of being inquisitive and college aspirations is positive but not statistically significant. Adolescents who place more value on being intelligent experience higher odds of aspiring for a bachelor's degree or higher (OR=1.376, $p < .01$). The association between an adolescent's self-reported level of engagement with daily tasks and educational expectations is positive, but not statistically significant.

To conclude, I discuss Table 4.4 which displays the (KHB) analysis that examines the potential mediation of parents' religious service attendance and aspirations for a bachelor's degree or higher. The indirect effects for parenting characteristics indicate that

parents' religious service attendance indirectly predicts the extent to which parents structure the time of adolescents. Nearly one-third (30.93%) of the indirect effect is explained by the extent parents schedule the time for their children. The indirect effects, however, are not statistically significant for adolescent social settings and adolescent personality characteristics.

Table 4.3: Adolescent Expectations by Independent Variables with Odds Ratios

Variables	Model 1	Model 2	Model 3
Parent Religious Attendance		1.112(0.05)*	1.073(0.054)
<i>Parent Religious Affiliation</i>			
Christian	0.928(0.196)	0.909(0.193)	0.979(0.227)
Born Again Christian	0.833(0.18)	0.728(0.163)	0.853(0.203)
Jewish	0.554(0.247)	0.547(0.253)	0.43(0.498)
Something Else	0.843(0.254)	0.88(0.272)	0.952(0.341)
Nothing in Particular	0.486(0.143)*	0.583(0.178)	0.637(0.199)
Agnostic	1.218(0.436)	1.46(0.537)	2.02(0.0.731)
Atheist	0.778(0.234)	0.94(0.293)	1.01(0.369)
<i>Parent and Child Controls</i>			
Parent Age	1.000(0.009)	0.999(0.01)	0.994(0.01)
Child Age	0.987(0.046)	0.988(0.046)	1.049(0.052)
Household Income	1.393(0.081)***	1.389(0.081)***	1.149(0.077)*
<i>Parent's Race</i>			
Black, non-Hispanic	0.89(0.278)	0.858(0.267)	0.662(0.22)
Hispanic	0.928(0.237)	0.888(0.228)	0.835(0.256)
Asian non-Hispanic	1.186(0.911)	1.094(0.781)	0.762(0.578)
Native American	0.331(0.163)*	0.332(0.157)*	0.378(0.187)
"Other Race"	0.355(0.186)*	0.366(0.185)*	0.27(0.132)**
<i>Marital Status</i>			
Separated	0.941(0.406)	0.955(0.41)	0.901(0.438)
Divorced	1.378(0.317)	1.475(0.338)	1.338(0.336)
Widowed	1.032(0.536)	1.092(0.571)	1.045(0.566)
Single/Never Married	0.987(0.33)	1.009(0.335)	1.18(0.445)
<i>Region</i>			
Mid-Atlantic	0.594(0.2)	0.586(0.195)	0.68(0.245)
East-North Central	0.994(0.312)	0.978(0.305)	1.147(0.395)
West-North Central	0.876(0.297)	0.856(0.288)	1.242(0.497)
South Atlantic	1.138(0.368)	1.12(0.32)	1.104(0.378)
East South Central	1.269(0.576)	0.23(0.358)	1.404(0.684)
West South Central	1.245(0.434)	1.259(0.569)	1.47(0.567)
Mountain	1.147(0.393)	1.063(0.365)	0.901(0.341)
Pacific	1.375(0.472)	1.371(0.467)	1.599(0.567)
Female Teen	1.733(0.238)***	1.725(0.238)***	1.513(0.231)**
Female Parent	0.908(0.128)	0.89(0.125)	0.989(0.155)
<i>Region</i>			
Mid-Atlantic	0.594(0.2)	0.586(0.195)	0.68(0.245)
East-North Central	0.994(0.312)	0.978(0.305)	1.147(0.395)

West-North Central	0.876(0.297)	0.856(0.288)	1.242(0.497)
South Atlantic	1.138(0.368)	1.12(0.32)	1.104(0.378)
East South Central	1.269(0.576)	0.23(0.358)	1.404(0.684)
West South Central	1.245(0.434)	1.259(0.569)	1.47(0.567)
Mountain	1.147(0.393)	1.063(0.365)	0.901(0.341)
Pacific	1.375(0.472)	1.371(0.467)	1.599(0.567)
Female Teen	1.733(0.238)***	1.725(0.238)***	1.513(0.231)**
Female Parent	0.908(0.128)	0.89(0.125)	0.989(0.155)
Parent Factors			
Parent Education Level			1.155(0.092)
Educational Expectations			6.503(1.299)***
Time Structured			1.142(0.057)**
Constant	0.522	0.408	0.042
N	3,032	3,032	3,032
Adjusted R-Squared	0.0881	0.0927	0.2245

*p<.05, **p< .01, ***p< .001

*The mi estimate command used in Stata.

Variables	Model 4	Model 5	Model 6
Parent Religious Attendance	1.11(0.051)*	1.102(0.05)*	1.074(0.054)
<i>Parent Religious Affiliation</i>			
Christian	0.85(0.183)	0.876(0.184)	0.91(0.216)
Born Again Christian	0.713(0.168)	0.77(0.176)	0.855(0.216)
Jewish	0.507(0.226)	0.566(0.267)	0.447(0.216)
Something Else	0.843(0.27)	0.732(0.224)	0.828(0.28)
Nothing in Particular	0.523(0.173)	0.534(0.17)*	0.575(0.339)
Agnostic	1.37(0.523)	1.383(0.513)	1.896(0.713)
Atheist	0.825(0.277)	0.948(0.325)	1.017(0.388)
<i>Parent and Child Controls</i>			
Parent Age	1.004(0.009)	1.003(0.009)	1.000(0.01)
Child Age	1.009(0.051)	0.992(0.048)	1.076(0.06)
Household Income	1.339(0.08)***	1.315(0.078)***	1.095(0.077)
<i>Parent's Race</i>			
Black, non-Hispanic	0.832(0.26)	0.769(0.319)	0.652(0.206)
Hispanic	0.854(0.224)	0.99(0.255)	0.924(0.265)
Asian non-Hispanic	1.181(1.009)	1.045(0.821)	0.804(0.649)
Native American	0.359(0.162)*	0.325(0.16)*	0.406(0.191)
"Other Race"	0.327(0.179)*	0.339(0.169)*	0.242(0.126)**
<i>Marital Status</i>			
Separated	0.999(0.453)	1.087(0.49)	0.958(0.517)
Divorced	1.589(0.387)	1.545(0.383)	1.45(0.398)
Widowed		1.039(0.558)	0.902(0.518)
Single/Never Married		0.891(0.294)	1.016(0.372)
<i>Region</i>			
Mid-Atlantic		0.611(0.211)	0.661(0.25)
East-North Central		1.17(0.385)	1.282(0.446)
West-North Central		1.033(0.358)	1.323(0.524)
South Atlantic		1.172(0.395)	1.112(0.391)
East South Central		1.513(0.752)	1.547(0.829)
West South Central		1.41(0.516)	1.673(0.653)
Mountain		1.258(0.447)	1.048(0.394)
Pacific		1.534(0.559)	1.718(0.368)
Female Teen		1.735(0.248)***	1.533(0.154)**
Female Parent		0.891(0.127)	-0.006(0.236)
<i>Parent Factors</i>			
Parent Education Level			1.163(0.097)
Educational Expectations			5.807(1.201)***
Time Structured			1.115(0.062)

Social Characteristics

School Type

Catholic school	1.137(0.398)		0.916(0.339)
Christian school	0.597(0.209)		0.538(0.205)
Private school	0.847(0.464)		0.782(0.449)
Home school	0.787(0.2)		0.991(0.274)
Comfort with A students	1.211(0.035)***		1.133(0.036)***
Screen time	1.036(0.063)		1.064(0.072)
Friends Drink Unsupervised	0.968(0.078)		0.946(0.08)

Teen Characteristics

Inquisitive		1.321(0.118)**	1.212(0.114)
Grit		1.001(0.015)	0.994(0.017)
Direction		1.004(0.052)	1.018(0.061)
Intelligent		1.571(0.157)***	1.376(0.142)**
Engaged		1.168(0.072)*	1.098(0.078)

Constant	0.06	0.008	0.0008
N	3,032	3,032	3,032
Adjusted R-Squared	0.1314	0.1467	0.2624

*p<.05, **p< .01, ***p< .001

*mi estimate command used

Table 4.4: Mediation Effects on Parent Religious Attendance with Logit Coefficients

	(Model 3)	(Model 4)	(Model 5)
Total	0.113(0.05)*	0.106(0.045)*	0.109(0.045)*
Direct	0.069(0.05)	0.104(0.046)*	0.092(0.045)*
Indirect	0.044(0.02)*	0.002(0.012)	0.017(0.012)
	Indirect Effects	Indirect Effects	Indirect Effects
Parent Education	27.1		
Parent Expectations	41.97		
Time Structured	30.93*		
<i>School Type</i>			
Catholic		35.44	
Christian		-177.56	
Private		33.17	
Home		-124.64	
Comfort with A students		518.54	
Screen time		-44.42	
Friends Drink Alcohol		-140.53	
Inquisitive			15.8
Grit			0.04
Direction			4.69
Intelligent			20.36
Engaged			59.12

*p<.05, **p< .01, ***p< .001

*mi xeq 20 used

CHAPTER FIVE

Discussion and Conclusion

The influence of religion is complex and varies by social factors (Pearce, Uecker, and Denton 2019; Wilde 2018). Religion can be a powerful socializing agent which influences educational outcomes through cultural and social capital (Barrett 2010; Smith 2003). Parental religiosity can influence adolescent academic outcomes both directly and indirectly (Eirich 2012; Tirre 2017). The current study extends previous research by examining how the influence of parental religious service attendance on grades and adolescent college expectations may be mediated through parent characteristics, adolescent social settings, and adolescent personality characteristics. From the present study, I present multiple noteworthy findings.

H1 proposes that parental religious service attendance is positively associated with grades and adolescent expectations for a bachelor's degree or higher. H1 receives support as parental religious service attendance is positively linked with adolescent grades. The influence of parental religious service attendance on adolescent expectations for a bachelor's degree or higher remains until parenting characteristics are added. Previous research indicates that parental religiosity may predict adolescent academic success through child religiosity, independent of child religiosity, or both parent and child religiosity have a synergetic relationship in association with academic outcomes (Eirich 2012). Although the influence of parental religiosity on grades is not fully explained in

this study, I offer possible explanations for the positive association between parental religiosity and grades.

First, parental religiosity can predict adolescent religiosity which involves the instilling of cultural capital (Barrett 2010; Smith 2003). Adolescents who are religious tend to be agreeable, conscientious, and respectful to authority which translates well in a classroom setting Hardy and Carlo 2005; Horwitz 2020; Saroglou 2010; Shariff and Norenzayan 2007). Even if parents are not religious, they may use religious service attendance as a way to instill morals and values in their children, which adolescents then apply in academic settings (Manning 2015). Adolescents who are religious may develop religious restraint and a desire to perform well in school to please their family and religious community, in addition to having skills and culture formation (Barrett 2010; Horwitz 2022). Second, as parents attend religious services more, they are encouraged to invest time and energy in the development of their children (Eirich 2012; Cohen-Zada and Sander 2008; Mahoney et al. 2001; Wilcox 2002), which may bring intellectual development in children and help adolescents learn and develop relationships with mentors.

H2 proposes that Jewish parents and nonreligious parents will be linked with higher grades and adolescent expectations for higher education than Catholic parents. This hypothesis receives partial support in terms of grades, but it is not supported in terms of degree expectations of adolescents. Previous research indicates that individuals who identify as Jewish have achieved more academic success compared to other religious identities (Beyerlein 2004; Wilde et al. 2018). Jewish culture encourages adolescents to perform well in school, and education is an essential component in Jewish habitus

(Horwitz et al. 2022). Manning (2015) proposes that nonreligious parents are often educated themselves and encourage their children to be curious, proactive, intelligent in creating meaning and interacting in social settings.

Contrary to previous research, there are no notable differences between religious affiliation identity of parents and expectations for a bachelor's degree or higher (Beyerlein 2004; Burstein 2007; Fitzgerald and Glass 2014; Glass and Jacobs 2005; Lehrer 1999). Jewish parents compared to Catholics are associated with lower degree expectations in adolescents. In an effort to understand this finding, I compared Jewish parents to Catholic parents in terms of parent education, household income, the scheduling of time, child age, adolescent educational expectations, and parent educational expectations. I did not find any noteworthy differences between Jewish parents and Catholic parents. The differences in educational outcomes may be influenced by the presence of a religious majority. Parental religious service attendance or religiosity is a stronger predictor of grades or adolescent college expectations than specifically which religious affiliation (Eirich 2012). One possible reason for this may be that many religious affiliations encourage prosocial values, and the more religious a parent or adolescent is, the more cultural capital is instilled to perform well in academic settings.

H3 proposes that the influence of parental religious service on adolescent grades and degree expectations is mediated. This hypothesis receives partial support for grades and expectations through parenting characteristics, specifically the extent to which parents structure adolescent time. As mentioned previously, religious parents structure their children's time through church activities and religious rituals. Presuming adolescents receive the religious and cultural capital, these rituals and activities can

create religious restraint for adolescents (Horwitz 2022) and solidify religious identity. Parents are role models for life and religious living, which adolescents can follow. Furthermore, if parents and children have a warm and loving relationship, the values which parents have are more likely to be instilled in children (Bengtson et al. 2013).

The mediation analysis also reveals that adolescent social settings and personality characteristics do not mediate the association between parental religious service attendance and adolescent education outcomes. The indirect effects indicate that parental religious service attendance is not explained through personality characteristics or adolescent social settings. This suggests that the influence of parental religious service attendance is explained more through parenting than adolescent personality or adolescent social settings. Adolescent personality traits such as grit can be helpful for other aspects of education such as completing homework (Muller and Ellison 2001) and having good relationships with adults (Horwitz 2022; Smith 2003). Consequently, adolescents with more diligence, conscientiousness and grit tend to receive higher grades. Comfort with high achieving students suggests that the influence of religion cannot be restricted to social settings or adolescent personality characteristics alone (Glanville et al 2008; Smith 2003).

The current study includes multiple weaknesses noteworthy of mention. One, the data are cross sectional and limited to the United States. Longitudinal data would be beneficial to examine how the influence of parental religious service attendance has varied over time on adolescent grades and degree expectations. This study does not include social capital measures such as the role of a religious mentor or the influence of extracurricular activities such as after-school activities. Glanville et al. (2008) indicate

that social capital and extracurricular activities partially mediate the influence of religion on education outcomes. The current data does not include sufficient measures for after-school activities or religious mentoring. Four, this study does not distinguish CPs and Mainline Protestants. Differences are likely to exist between the religious affiliations, and the Christian religious categories in this study are Christian (Not Catholic/born-again) and born-again Christian (not Catholic). Five, the current study does not distinguish between the presence of a religious majority or religious minority. Religious commitment and culture of a school may differ by whether an adolescent identifies as part of the religious majority or a religious minority.

The current study has many implications for future research. The influence of parental religious service attendance or adolescent religiosity may differ by gender for adolescents. Adolescent men may be prone to risk-taking behavior and may significantly benefit from male role models available from religious participation. The belief in divine support or that one matters to God (Rosenberg and McCullough 1981) may also mediate the association between parental religious service attendance and academic outcomes. This study also does not account for the role of adolescent grades as a potential mediator. Previous research indicates that the influence of religiosity on academic outcomes can be mediated by grades (Horwitz et al. 2022) as grades can influence adolescents' expectations for college. Future research can also investigate if the influence of religious identity differs between identifying as a religious majority or a religious minority. Lastly, the "dark side" of religion (Ellison and Lee 2010) has implications on adolescent academic outcomes. In addition to being beneficial, religious participation can negatively affect mental health, which merits consideration.

Despite the weaknesses in the current study, the following contributions are noteworthy. First, parental religious service attendance predicts adolescents' grades, and this association is partially mediated by the extent to which parents schedule their children's time. The structure of time and activity is beneficial for adolescent academic outcomes. However, the influence of parental religious service attendance is replaced by characteristics such as the scheduling of adolescent time and parent expectations for adolescent education. The influence of parental religious service attendance is not mediated through adolescent personality characteristics or social settings. Parental religious service attendance is also a stronger predictor for adolescent education outcomes than religious affiliation, which suggests that more religious commitment and attachment creates cultural capital that adolescents can use in academic settings. Educators and scholars should explore how compatible religious and nonreligious values can influence better adolescent education outcomes and encourage compatibility between religious values and academic settings.

APPENDIX

APPENDIX

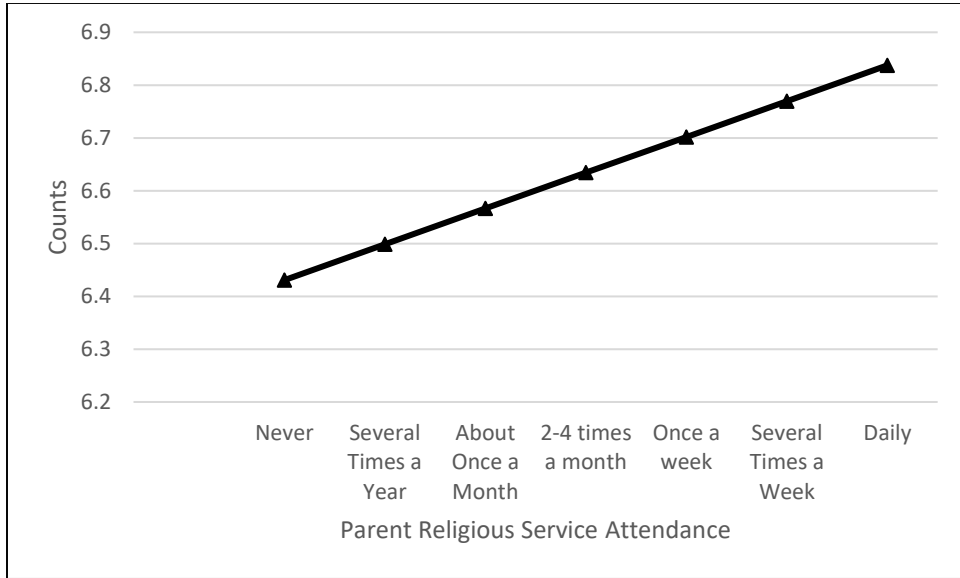


Figure A.1: Grades Received by Religious Service Attendance

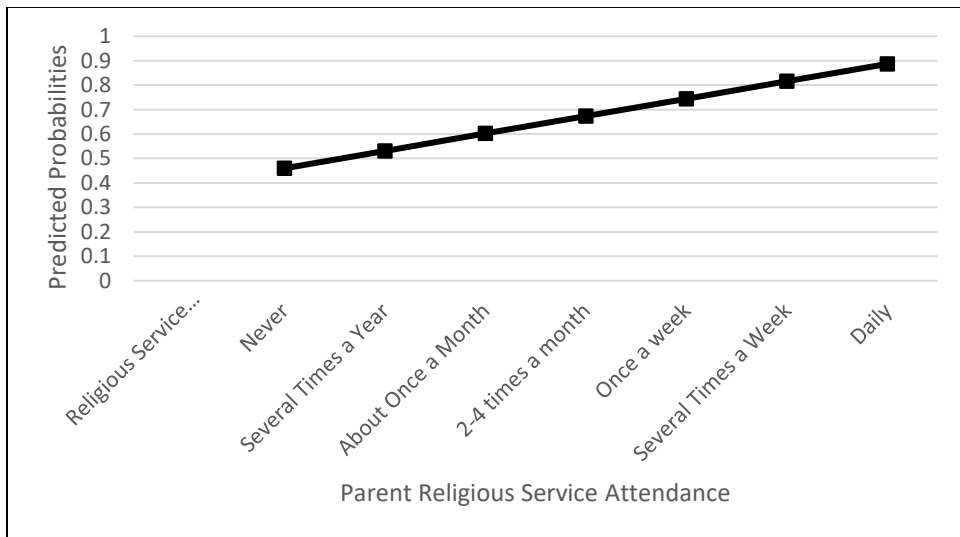


Figure A.2: Aspirations for a Bachelor's Degree or Higher by Parental Religious Service Attendance

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