

## ABSTRACT

Emerging Adult Private Prayer: A Habit Developed Across Time

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Private prayer frequency is a measure that helps researchers assess a spiritual habit that is developed across time. Using longitudinal data collected from the National Study of Youth and Religion, I analyze the extent to which secularization, existential security, and religious socialization play a role in the private prayer frequency of emerging adults. My analysis shows that emerging adults' private prayer behaviors are shaped by their social location and their religious socialization. Being a woman, having parents whose religion is important to them, having parents who pray for you, and believing in an engaged prayer target are all significantly associated with increased private prayer as an emerging adult. Higher parental income is associated with lower levels of private prayer as an emerging adult. I suggest further research that looks at other elements of the prayer experience and the religious institutional forces that lead women to pray more than men.

Emerging Adult Private Prayer: A Habit Developed Across Time

by

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A Thesis

Approved by the Department of Sociology

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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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August 2021

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## ACKNOWLEDGMENTS

Thank you to Dr. Jeremy Uecker, who alerted me to the NSYR when I was considering many of the questions posed in this research. Many thanks also to others in the summer seminar who commented on an early version of this paper. Thanks to Dr. Paul Froese, who encouraged me to think about this paper holistically and consider how theory and data come together. Finally, thank you to Dr. Sarah Schnitker, whose insights from psychology sharpen the ideas herein.

## DEDICATION

To my cohort, who provides endless encouragement.

Joyce Chang, Tristen Clifton, Kyra Neill, Michael Ryan, and Xi Zhu

## CHAPTER ONE

### Introduction

Private prayer is a distinct element in an individual's religious life. Private prayer can be practiced without educational, financial, institutional and social prerequisites and is the least costly expression of religiosity. The prayer experience is and feels "qualitatively different from non-religious actions...and other spiritual practices" (Drescher 2016:163). Among other religious activities, meditation and Scripture reading both approach prayer's level of costlessness. Though meditation may not be costly, it is often viewed exclusively as an internal resource (Brown 2013). Scripture reading depends on the use of a text, necessitating reading or listening before or while responding. If barriers have any influence on limiting a person's levels of religiosity because of their inability to perform a certain ritual, then a person's religious life is most pure in private prayer, where the fewest barriers exist and the ritual is least prescriptive (Draper 2021).

Because of private prayer's unique standing among indicators of religiosity, it can be viewed theoretically in a few different ways. Froese and Jones (2021) suggest that private prayer experience has four dimensions: quantity, style, purpose, and prayer target. Others suggest private prayer is an element of lived religion (Ammerman 2014), or an interaction with the divine realm for religious goods, such as salvation (Draper 2019; Riesebrodt 2010). People often pray as a coping mechanism to allay health concerns, with a belief that prayer can alleviate their physical symptoms or stress levels (Bade and



Cook 2008; Bradshaw, Ellison, and Flannelly 2008; Ellison, Burdette, and Hill 2009; Levin 2016). Prayer is often the first activity people turn to in a crisis (Argyle and Beit-Hallahmi 2013). Even atheists (21%), agnostics (34%), and the religiously unaffiliated (74%) pray (Baker and Smith 2015:89). Private prayer is ubiquitous, but not well understood.

A person's private prayers point toward a broader social landscape of affect and relationships. Some theories suggest that adult private prayer is influenced by factors such as secularization, existential insecurity, and socialization in faith communities, family, and peers. Though we understand how some of these elements of a teenager's life lead to different adult private prayer outcomes, there are no studies that consider these plausibility structures in relationship to one another. American emerging adults are a population worth studying regarding these factors to determine whether their secularization is following European trends of secularization or if religious socialization is preventing this decline. Additionally, there may be some decoupling between religious attendance and private prayer behavior that can be studied. Therefore, this study asks if we can predict how frequently an American emerging adult will privately pray based on their teenage behavior, attitudes, and associations. I aim to understand the motivating factors of emerging adults to participate in private prayer, using data gathered about their lives both as an emerging adult (age 23-28) and as an adolescent (age 13-17) from the National Studies of Youth and Religion (NSYR).

I will begin with competing rationales for why adults pray, giving attention to secularization theory, existential security, and normative childhood socialization. Then I will turn to prayer and assess how private prayer frequency is associated with these

theories. Finally, I will report results of models that compare the theories listed above and discuss the results.

## CHAPTER TWO

### Literature Review

#### *Secularization*

Much has been said about the secularizing effect of modernity through the breakdown of plausibility structures (Berger 1967). Though the grand narrative of secularization has many counterexamples in American society, American religious behaviors are still in slight decline. Twenge et al. (2015) note that the decline in religious orientation among the most recent generations is not only denominational disaffiliation but also lower religiosity and religious participation. Levin and Taylor (1997) found that older cohorts pray more than younger ones. While other religious beliefs and practices remain relatively steady across age cohorts (Bible as the word of God, belief in life after death), we must consider the cohort we are studying and recognize that overall indicators of religious beliefs and practices have declined incrementally from previous generations. At the same time, indicators suggest that young adults (age 18-25) have a higher total percentage of people praying any amount than before, though the gross prayer frequency is in slight decline (Smith and Snell 2009). More emerging adults are praying, but they are offering fewer total prayers.

Life course theory contributes to the discussion on the timing of disaffiliation, leading to the idea that people grow out of their childhood religiosity. Margolis (2018) uses life course theory and political science studies to show that partisan identity is highly influenced during the adolescent years, the same time in which religious identity is in decline for many. As a result, those who return to religion with a moderate or high level

of political knowledge align their religious identity with their political affiliation. Higher levels of Americans, particularly young adults, claiming no religion is due to the increasing politicization of religion (Bengtson 2017; Hout and Fischer 2014). In fact, Hout and Fischer (2014) assert the directionality in the rise of the religiously unaffiliated runs from politics to religion, and not the other way around. Agreeing with this premise, further research has shown that disaffiliation tends to occur among those weakly tied to a congregation through low attendance and high disagreement with others within their congregation about politics (Djupe, Neiheisel, and Sokhey 2018).

Increased rationality, differentiation, and diversity in society have played roles in undermining religion among younger generations (Bruce 2007). Formal educational attainment is one indicator of increasing rationality in society that many social theorists, from Comte to Durkheim to Weber, theorized would lead to religious decline. In recent international studies on compulsory schooling, researchers found that increases in years of schooling is associated with lower levels of religiosity (Hungerman 2014; Liang and Dong 2019). While it is not the only factor in secularization, formal educational attainment may play a key role in predicting lower levels of religiosity.

Because the school environment is the institutional setting in which teens will spend most of their time, differential effects of secularization may be observable based on what school type students attend. Francis and Brown (1991) suggested that influence on a teen's prayer life could vary by their school type in addition to the presumptive effects of home and church. Religious service attendance and importance of religion in daily life are positively associated with schoolmates' attendance and self-rated importance of religion, though private school attendance was not associated with these measures

(Regnerus, Smith, and Smith 2004). Uecker (2009) nuances the role of private schools by demonstrating that private schools are not monolithic, but that attending private Protestant schools as a teenager leads to higher levels of religiosity as an emerging adult, while secular and Catholic schools are associated with lower levels of religiosity. Perhaps in these ways, attending a religious private school can help buffer the secularizing effect of education.

*H1a: Emerging adults with parents with higher levels of education will have lower levels of adult private prayer, net of controls.*

*H1b: Emerging adults who attended private religiously affiliated schools will have higher levels of adult private prayer, net of controls.*

#### *Existential Security*

Numerous elements of a person's social location have been demonstrated to play a role in private prayer. Ammerman (2020) notes that one's social location and moral understanding of the world are tied up with prayer as a religious practice. Baker (2008) found that prayer frequency is higher for women, Blacks, and those with lower incomes. As Smith and Snell (2009) posit, an emerging adult probably must experience a sense of dependence and need to participate in prayer and other religious activities. The contextual aspects of a person's life matter for their prayer habits.

Financial indicators also associated with prayer levels. Earnings per hour is negatively associated with prayer frequency until the person earns in the millions of dollars per year (Brown 2009). Additionally, specific instances of financial hardship were not found to be significantly associated with different levels of prayer (Bradshaw and Ellison 2010).

Thus, we can predict that generally, income is negatively associated with prayer. Across

multiple studies, there is a consensus that women pray more than men. There is a persistent religious gender gap across almost all religious traditions, with Orthodox Judaism being a notable exception. Among Black Protestants, Evangelicals, Mainline Protestants, Catholics, Jewish respondents and unaffiliated respondents, women pray significantly more than men (Schnabel 2015). Using data from three different cross-national surveys, Voas et al. (2013) found a bigger gap in the relative risk of monthly prayer between women and men than in service attendance, belief in God, and belonging to a religion or denomination, in addition to other variables.

Race and ethnicity are associated with prayer patterns in the United States. American Blacks measure higher on typical indicators of religiosity than Whites (Jacobson, Heaton, and Dennis 1990) and are demonstrated to pray more frequently than Whites (Brown 2009; Krause and Chatters 2005). This is likely due to differences in the functions that religion serves in the two communities, where White adherents tend to prioritize belief more than other markers of adherence (Jacobson et al., 1990). By comparison, African Americans offer more trust-based prayers than Whites, measuring the belief that God best knows how and when to answer a prayer (Krause 2004). Hispanic Americans also pray more for their health than Whites (Gillum and Griffith 2010) though less research on Hispanic differences to non-Hispanic Blacks and non-Hispanic Whites has been reported.

These findings are part of a larger pattern of disadvantaged groups turning to and engaging with religion in different ways than a dominant group. Emerging adults in disadvantaged groups could have also been socialized into racial/ethnic or gender-based patterns of prayer that reinforce this pattern. Because of this, research suggests that

private prayer behavior is acting as a coping mechanism for each group's lack of existential security. Insecurity is often reported as social inequality and stress (Gillum and Griffith 2010). On an international level, Norris and Inglehart (2011, 2015) have determined that many post-industrial societies have low levels of religiosity and emphasis on religion, with the US an exception. Further research has connected religiosity to the gender wage gap, showing it is narrowing faster in secular states (Sitzmann and Campbell 2020). Perhaps, then, existential insecurity is a predictor for the need to pray to cope with life's insecurities.

Though existential security suggests racial/ethnic, gender, and income differences in religiosity, I must also recognize that some of these differences could be attributed to other factors. For example, among African American adolescents, mother's religiosity and acceptance matter the most in a teen's valuation of their intrinsic religiosity (Kliewer et al. 2020). Additionally, distinctions between men's and women's religiosity have also been explained by risk preferences, with valuing religion as a risk-adverse behavior and non-participation as a risky behavior that men do more than women (Miller and Hoffman, 1995). With acknowledgment of these other theories, I hypothesize:

*H2a: Emerging adults whose parents had less income when they were a teenager will have higher levels of adult private prayer, net of controls.*

*H2b: Emerging adult women will have higher levels of adult private prayer than emerging adult men, net of controls.*

*H2c: White emerging adults will have lower levels of adult private prayer than nonwhite emerging adults, net of controls.*

### *Normative Theory*

People are taught prayer behaviors, attitudes and beliefs by others. Among the sources of prayer socialization in a teen's life are parents, peers, and religious tradition.

#### *Parents*

Parents know the affinities and religious attitudes of children they are raising. Boyatzis and Janicki (2003) recognized that children ask religious questions frequently and often feel comfortable initiating and terminating religious conversations with their parents. Hunsberger (1985) demonstrated that parents could predict reasonably well their adolescent children's religious attitudes, unless a child has disaffiliated from their parents' religion. Thus, parents may also know how to raise children who value private prayer if that is of importance to them. Theories that seek to explain how religious behaviors are passed down across generations include transmission and intergeneration religious momentum.

Transmission is a normative theory, in which a lifestyle established as an adolescent or preadolescent continues into adulthood. An example of this is the example of setting aside time to pray daily, which Denton and Flory describe as a pattern among some religiously committed emerging adults (2020). Transmission plays a key role in parental religiousness' transference onto their children (Nelsen 1980). Transmission is more likely to occur among families in which faith is important to the parents (Myers 1996). Similarly, Kieren and Munro (1987) find that both parents in a household interacting with a religious system was more effective than partial participation by either if the goal is influencing adolescents' religious activity. Denton and Flory (2020) highlight another dimension of continuity deemed important – regular discussions in the



household about God, prayer, scripture, or other religious matters has the effect of teens staying more religious over time, an effect which differs across religious traditions.

Bengtson et al.'s (2017) work specifies transmission to a few key factors and uses the term intergenerational religious momentum (IRM) to describe the effects. IRM accounts for a variety of societal and cultural factors, institutions (religious organizations), family's "religious inheritance," parents' role modeling, and parent-child relationship quality, or "intergenerational solidarity," to predict a youth's religious practices and beliefs (Bengtson 2017:193–94). Because, as Uecker, Regnerus, and Vaaler (2007) found, over 2/3 of emerging adults decline in their religious service attendance, and about 1/6 disaffiliate from their religion as emerging adults, IRM can act as a buffer against severe decline and disaffiliation and protect private prayer patterns.

In Bengtson et al. (2017)'s list of factors that undermine transmission and continuity, they highlight marriage to those outside the religious community, parents over- or under socialization of their religion to their children, hypocrisy when parents' actions do not align with their words, and other role models (usually family) who discourage religious transmission. Research on failures in transmission has shown that rates of rebellion decrease when young adults get married and have children. There also is a difference between low tension religious identity, such as Mainline Protestantism, and high-tension religious identity, such as Orthodox Judaism and Mormonism, in which high-tension groups tend to retain members. These findings align with tension theory (Iannaccone 1994; Stark and Bainbridge 1996).

### *Peers*

Depending on context, teens may spend as much time with peers as with their own families. Martin et al. (2003) find that peers provide the greatest influence on faith maturity among Protestant adolescents and can mediate parents' influence in a process called channeling (Cornwall 1989; Erickson 1992). Schwartz (2006) found that for both transmission-centric and transaction-centric models of religious socialization, friends played a large role, mediating influence of perceived faith support from parents. King et al. (2002) suggest that this mediation may be due to the role parents play in helping their teenagers navigate friend groups.

### *Religious Affiliation*

Private prayer frequency is also correlated with religious tradition. Theories of religious tension suggest that religious traditions that adhere least to the prevailing norms of society and require the most from their members are the denominations that are most likely to retain members over time (Iannaccone 1994; Stark and Bainbridge 1996), so we would expect high-tension groups to display higher levels of external and internal religiosity. Social scientists have studied Evangelical prayer because of its uniqueness when compared to other religious groups, while prayer in other religious traditions does not receive as much attention (Luhrmann 2013). Georgia Harkness, a theological leader of the Mainline church in the mid-twentieth century, recognized that Mainline Protestants tend not to practice private prayer for three reasons: either they do not know how to do so, are skeptical whether it accomplishes anything, and tend to treat it like magic (Driskill 2014). This is in opposition to the higher levels of prayer instruction Conservative Protestants receive and the requisite belief in prayer's efficacy (Luhrmann 2013). Among

the non-affiliated who pray, their prayers are offered almost exclusively privately, and sometimes unintentionally. These prayers are often relational and oriented toward healing and self-enrichment (Drescher 2016). Finally, private prayer among Catholic teens varies by whether the parents are liberal, moderate, or traditional Catholic, with teens having at least one liberal Catholic parent having significantly lower levels of frequent private prayer than those with at least one traditional Catholic parent (Smith et al. 2014). Catholic prayers also changed as Catholics have moved from urban enclaves to religiously diverse suburbs. Prayers that were once made in the parish went to being offered in the home, “apart from the institutional church and its hierarchy,” (McCartin 2010:74).

For some, private prayer can be a substitution for traditional public forms of religious affiliation and service attendance. This substitution is most common in older adults (Bengtson 2017) but may also be influenced by the opportunity cost of working on Sunday (Gruber and Hungerman 2008). Lower levels of affiliation could also be associated with an increase in online religious services and other technology, such as smartphone apps, that connect people to religion and spiritual practices they explicitly choose to participate in (Campbell 2012). Diffused religion has “provid[ed] a self-defense mechanism for non-conformist believers, for those believers who are not attuned to the doctrine and directives of the ecclesiastical hierarchy,” (Cipriani 2011:200). Among those who do not or no longer claim a belief system, 19% identify prayer as a top spiritually significant practice in their lives (Drescher 2016). Even religiously unaffiliated parents may choose to “self-provision” religiosity to their children by teaching them how to pray

(Manning 2013). Thus, though traditional institutional indicators of religiosity may be in decline, private prayer has many opportunities to persist.

### *Prayer Target*

Prayers to God are shaped by the image a person has of God (Draper 2017). Whether or not a person believes in a god or gods, prayer is a pattern of engaging with “something beyond” (Ammerman 2020:22). These “divine other” relationships are a more significant correlate of well-being than church attendance, race, and sex (Pollner 1989). The image of God literature focuses on the anxiety (fear of abandonment) and avoidance (self-reliant) dimensions of relationship with God (Beck and McDonald 2004). Froese and Bader (2010) found that people’s image of God is associated with their religious tradition, political beliefs, education, and income. The prayer target one prays to, whether Authoritative, Benevolent, Critical, or Distant may be associated with different prayer frequencies into adulthood.

Feedback in the prayer process can encourage or frustrate a participant. In addition to listening for the voice of God (Luhmann 2013), people who pray are looking for an answer to their prayers when they engage a prayer target. To increase the likelihood that a prayer will be answered, Strong (1909) noted that people naturally self-censor their prayers if they are not demonstrably efficacious over time. Prayer is faith that the prayer target has a capacity to respond expressed through behavior (Ladd and Spilka 2013), so a decreased belief in the likelihood of receiving a response will either lead to self-censoring or abstaining from prayers altogether.

*H3a: Emerging adults who had religiously engaged parents as teenagers will have higher levels of adult private prayer, net of controls.*

*H3b: Emerging adults who had close religious friends as teenagers will have higher levels of adult private prayer, net of controls.*

*H3c: Emerging adults who displayed higher levels of religious engagement as teenagers will have higher levels of adult private prayer, net of controls.*

*H3d: Emerging adults who identified as conservative Protestant as a teenager will have higher levels of adult private prayer than those in other religious groups, net of controls.*

*H3e: Emerging adults who believed in an engaged prayer target as a teenager will have higher levels of adult private prayer, net of controls.*

## CHAPTER THREE

### Data Measures and Methods

The National Study of Youth and Religion (NSYR) was a 4-wave longitudinal survey with interviews of a subsample of participants. The first wave, begun in 2002, was a random-digit-dial telephone survey with in-house subject randomization. Researchers took an oversample of Jewish households and offered a Spanish language option. 3,370 teenagers from age 13-17 responded in Wave 1. In Wave 4, internet surveys were also used as respondents were given a choice. Researchers collected 67% of the original youth respondents' answers (n=2135) in Wave 4, when respondents were ages 23-28.

For the present analysis I use data from Waves 1 and 4. I restricted to respondents that completed Wave 4, weighted the sample to account for the Jewish oversample, and dropped all respondents that did not respond to all of the variables being studied for a consistent  $n$  (n=1863) across all regression equations, which meant I kept 87.3% of respondents from the Wave 4 results. I report descriptive statistics in Table 1 below.

#### *Dependent Variable*

Private prayer frequency is only one measure of private prayer. Private prayer frequency is often used in social sciences as a core measure of individual religiosity. Over a century ago, William James called private prayer the “very soul and essence of religion,” (James, 1903: 454). Froese and Jones (2021) note that reported private prayer frequency captures the essence of a lifestyle or routine, not a sense of purpose, exclusivity, or style, though

Table 1: Descriptive Statistics

Summary Statistics (n = 1825)	Description	Mean (SD) / Percentage
<b>Outcome Variable</b>		
Wave 4 private prayer	1-5	3.04 (1.47)
<b>Control Variables</b>		
Age	13-17 years old	15.05 (1.37)
Parents Married		72%
Census Region		
South (reference category)		38.74%
Northeast		15.12%
Midwest		25.21%
West		20.93%
<b>Independent Variables</b>		
Parent Formal Education	1-6	4.05 (1.47)
School Type		
Public School (reference category)		86.03%
Home School		2.63%
Catholic Private School		4.55%
Protestant Private School		2.36%
Other Private School		3.12%
Other		1.32%
Female		52.99%
Race/Ethnicity	1-4	
White, non-Hispanic (reference category)		72.71%
Black		12.49%
Hispanic non-White		9.37%
Other		5.42%
Parent Income	1-11	6.35 (2.88)
Teen discusses religion with parent	1-6	3.26 (1.72)
Frequency of prayer for teen	1-5	4.2 (1.18)
Parent prayer with teen		40.82%
Parent's religious salience	1-6	4.96 (1.3)
Teen discusses religion with friend		69.70%
Friend thinks religion is important		74.03%
Friend in same religious tradition		48.93%
Friend in same religious youth group		61.48%
Wave 1 private prayer	1-5	3.33 (1.24)
Teen participation in a prayer group		50.41%
Religious tradition		
Conservative Protestant (reference category)		34.08%
Mainline Protestant		13.04%
Black Protestant		8.49%
Catholic		24.38%
Not Religious		12.27%
Other		7.73%
Attendance	1-4	1.84 (1.15)
Teen has had a prayer answered		52.71%
Teen belief in an engaged God		68.00%

they may be correlated. Though private prayer frequency is a limited measure of all that is involved in the individual's religious life, we can say that private prayer frequency can help determine to what extent an individual's religious behavior is part of their lifestyle, routine, or habit.

In Wave 4, researchers asked about private prayer with a possibility of 7 categories of response. The question was, "How often, if ever, do you pray by yourself alone?" with answer choices including "Never," "Less than once a month," "One to two times a month," "About once a week," "A few times a week," "About once a day," and "Multiple times a day." Survey administrators asked this question in Wave 1 and Wave 4. In work by one of the survey designers (Smith and Snell 2009), researchers collapsed this into a 5-category variable (1-5), combining respondents who said they pray "a few times a week" with those who reported praying "about once a day." They also combined respondents who reported praying "one or two times a month" with those who reported praying "about once a week." I have followed this coding scheme. The mean for this variable was 3.04, with a standard deviation of 1.47.

### *Independent Variables*

#### *Parents' Formal Education*

Parent respondents to the survey were asked to provide their formal education level and their partner's formal education level. I collapsed the 11 categories into six categories: "Less than high school" "High school diploma or equivalent," "Some College," "Associate Degree/ Vocational Certification," "Bachelor's Degree," and "Advanced Degree." I kept the highest educational attainment between the two parents, generating a new variable that measured the parents' highest formal educational level.



The mean of this variable was 4.05 (approximately “Associate Degree/Vocational Certification”) with a standard deviation of 1.47.

### *School Type*

The NSYR categorizes teens into type of school they attend. They asked those who attended private school if their private school was religiously affiliated or not. I combined and recoded the responses from these two questions into a 6-category response: Public School (86.0%), Home School (2.6%) Catholic Private School (4.6%), Protestant Private School (2.4%), Other Private School (3.1%), and Other, which included those no longer in school (1.3%).

### *Demographics*

Sex was reported by teen at Wave 1 (female=1; 53%). Male is treated as the reference group. Race/ethnicity was reported by parent of teen and recoded into four categories (White non-Hispanic=72.7%, Black non-Hispanic 12.5%, Non-White Hispanic 9.4%, and Other 5.4%). This variable is treated categorically in the analysis, with White non-Hispanic as the reference group. Parent income at Wave 1, was reported from parent responses and measured in clusters from \$0-\$100,000+ in \$10,000 increments. The mean income was 6.35 on this 11-point scale, with a standard deviation of 2.88. Parent income was treated continuously.

### *Parent Attitudes and Behaviors*

Parents were asked: “How important is your religious faith in providing guidance in your own day-to-day living?” and given a range of 6 categories from “Extremely important” to “Not important at all.” I reverse coded this variable so higher numbers

represented higher importance. I treated this variable continuously ( $m=4.96$ ,  $SD=1.3$ ). Teens were asked in W1 how often their family talked about God, scriptures, or prayer with 6 categorical options ranging from 1 = “Every day” to 6 = “Never.” I reverse coded this variable so higher numbers represented higher frequency. I treated this variable continuously ( $m=3.26$ ,  $SD=1.72$ ).

Parents were also asked about prayer for their teen with the question “Some parents pray for their children, and others do not. How often, if ever, do you yourself pray for [your teen]?” There were 5 categories of response, coded 1= “Once a day or more”, 2= “A few times a week”, 3= “Once a week”, 7= “A few times a year”, and 8= “Never”. These categories were reverse coded so that higher numbers represented more frequent prayer for teens. The gap between response category “Once a week” and “A few times a year” was collapsed, with the range brought down from 1 to 8 to 1 to 5. The mean of this variable was 4.2 and the standard deviation was 1.18. A two-category variable asking youth if their parents had prayed with them (aloud or silently) within the last year was 59.18% “No” and 40.82% “Yes.”

Though there is a question in the survey about mealtime prayer (saying “grace”), it was not included in this analysis. Mealtime prayer hinges on a different theoretical premise than private prayer. Sharp (2012) recognizes the limitations of using mealtime prayer as a measure for religiosity in any sense, as people may only pray formulaic prayers at mealtimes. Parents were not asked to report their own prayer frequency.

### *Network of Friends*

Four questions about a teen’s friend’s religious behavior and attitudes are included in this analysis. Teens were asked to report their five closest friend’s behavior.

For each of these questions, if the teen responded that at least one friend participated in that behavior, their response for the question was coded 1 = Yes. 69.7% of teens reported that at least one of their close friends has discussed religion with them. 74% of teens say at least one friend thinks religion is important. 48.9% say at least one of their five closest friends is involved in the same religious group they are in, and 61.5% say that at least one of their closest friends is in a religious youth group.

### *Teen Prayer Behaviors*

Three questions on the NSYR Wave 1 asked teens about their participation in groups whose activities may have included prayer. These three questions were “Are you currently involved in ANY religious youth group?”, “In the last year have you been a part of a religious support or evangelism or prayer group that meets at school?”, and “In the last year have you been a part of any other [SCRIPTURE] study or prayer group?” A positive response to any of these three was coded as 1 = yes. 50.4% of teens in the sample were in a group where praying is a stated or implicit purpose.

### *Teen Religious Beliefs and Affiliation*

I used a religious tradition variable from the codebook that collapsed religious groups with small sample sizes into the “other religion” category. This categorization included Conservative Protestant (34.1%), Mainline Protestant (13%), Black Protestant (8.5%), Catholic (24.4%), Not Religious (12.3%), Other Religion (7.7%) This measure was treated categorically, with conservative Protestant serving as the reference group. Attending religious services was measured continuously along a four-point scale from “Attends less than twice a year” to “Attends weekly or more” ( $m=1.84$ ,  $SD=1.15$ ). I examined two variables in relation to teen’s belief about God. The first question asks if a

teen has ever “experienced a definite answer to prayer or specific guidance from God.” 52.7% of respondents in this sample said yes. Teens were also asked whether they believed in God, and those who said yes were asked to choose from a list of which view of God came closest to their beliefs. Teens who selected “Personal being involved in lives of people” were coded with a 1, while teens who responded “created world, but NOT involved in world,” “not personal, like a cosmic life force,” “none of these views” or responded “No” to the believing in God question responses were coded as a 0. 68% of teens reported belief in God as a personal, involved being (referred to as “Engaged” in the following analyses).

#### *Control Variables*

In my analyses, I control for age at Wave 1 (average=15.5, range 13=17), parent marital status at Wave 1 (72% married), and census region (South=38.7%, Northeast=15.1%, Midwest=25.2%, West=20.9%).

Private Prayer Wave 1 was coded to five categories to match private prayer at Wave 4’s coding scheme, following Smith and Snell (2009). The mean for this variable was 3.3, with a standard deviation of 1.24. Because it is expected to be the most influential factor, it is included in one set of analysis, then removed in the second set to determine differences.

#### *Analysis Technique*

I performed the analysis with OLS regression. I tested Hypothesis 1, Hypothesis 2, and Hypothesis 3 separately, controlling for age, parent marital status, and census region at Wave 1. Then I tested a model that included all independent variables from Hypotheses 1-3 and the control variables mentioned above. I performed each of these

hypotheses twice; once, with Private Prayer at Wave 1 included in the measurement, and once with it excluded.

## CHAPTER FOUR

### Results

Tables 2 and 3 display the results of the regression equations. To aid with understanding of the significance of these findings, it is important to remember the outcome variable, private prayer at Wave 4, is a five-category variable. The coefficients listed each represent an increase or decrease along this five point scale. Thus, a 1.0 coefficient is the difference between never praying and praying a few times a year, praying a few times a year and praying monthly, praying monthly and praying weekly, or praying weekly and praying daily or more.

In Model 1, which measured the effects of secularization, the highest level of parental formal education in a home is a predictor of private prayer in Wave 4. For each unit increase of highest level of formal education, prayer by their child at Wave 4 decreases by .111 in the model that does not include private prayer at Wave 1. This provides support for the hypothesis that as parents' education increased, the frequency of their child's private prayer as an adult decreased. Hypothesis 1b regarding school type was partially supported, as those who attended a Protestant private school had a .829 unit higher private prayer frequency than those who attended public school in the model that did not include private prayer at Wave 1. This finding was not significant in the model that controlled for teen's private prayer at Wave 1.

Table 2: OLS Regression of W4 Private Prayer Frequency on W1 Secularization, Existential Security, Religious Socialization, and Control Variables without Wave 1 Private Prayer ( $N = 1,825$ )

	Model 1	Model 2	Model 3	Model 4
<i>Secularization</i>				
Highest Parent Education	-0.111***			-0.0414
School Type (ref. Public School)				
Home Schooled	0.33			0.208
Catholic Private School	0.00259			0.0461
Protestant Private School	0.829***			0.00509
Other Private School	0.116			0.225
Other	-0.0292			0.267
<i>Existential Security</i>				
Parent income		-0.0630***		-0.0373*
Female		0.537***		0.422***
Race/Ethnicity (ref. White)				
Black non-Hispanic		0.528***		0.304
Hispanic		0.193		0.133
Other		0.189		0.195
<i>Religious Socialization</i>				
Parent Religious Importance			0.0882*	0.0855*
Parent Prayer for Teen Frequency			0.127***	0.0993**
Parent talk religion with teen frequency			0.0950***	0.0931***
Parent Prayer with Teen			0.239**	0.231**
Talk about Religion with Friend			0.198*	0.146
Friend has similar religious beliefs			0.168	0.198
Friend in same religious group			0.0338	0.0325
Friend in youth group			-0.0270	0.0152
Participation in religious/prayer groups, W1			0.0451	0.0569
Service Attendance			0.0262	0.0478
Teen Religious Tradition (ref. CP)				
Mainline Protestant			-0.507***	-0.432**
Black Protestant			0.131	-0.148
Catholic			-0.227*	-0.244*
Not Religious			-0.261	-0.275
Other Religion			-0.322*	-0.244
Prayer Answered			0.235**	0.217*
Engaged God			0.436***	0.370**
<i>Controls</i>				
Teen Age at W1	0.019	0.014	0.0391	0.0435
Parents Married	-0.0323	0.234*	-0.220**	0.00073
Census Region (ref. South)				
Northeast	-0.580***	-0.540***	-0.182	-0.138
Midwest	-0.367***	-0.277**	-0.0843	-0.01
West	-0.285*	-0.207	-0.0727	-0.0301
Constant	3.483***	2.919***	0.737	0.725
$R^2$	0.047	0.094	0.276	0.312

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 3: OLS Regression of W4 Private Prayer Frequency on W1 Secularization, Existential Security, Religious Socialization, and Control Variables with Wave 1 Private Prayer ( $N = 1,825$ )

	Model 1	Model 2	Model 3	Model 4
Wave 1 Private Prayer	0.574***	0.541***	0.361***	0.319***
<i>Secularization</i>				
Highest Parent Education	-0.0789**			-0.0294
School Type (ref. Public School)				
Home Schooled	0.325			0.209
Catholic Private School	-0.0712			0.0402
Protestant Private School	0.192			-0.0823
Other Private School	0.0864			0.174
Other	0.321			0.349
<i>Existential Security</i>				
Parent income		-0.0526***		-0.0343*
Female		0.304***		0.332***
Race/Ethnicity (ref. White)				
Black non-Hispanic		0.284**		0.181
Hispanic		0.0766		0.0915
Other		0.0878		0.117
<i>Religious Socialization</i>				
Parent Religious Importance			0.0918**	0.0898**
Parent Prayer for Teen Frequency			0.0951**	0.0771*
Parent talk religion with teen frequency			0.0456	0.0503
Parent Prayer with Teen			0.165*	0.167*
Talk about Religion with Friend			0.0886	0.0616
Friend has similar religious beliefs			0.0604	0.0993
Friend in same religious group			-0.0234	-0.0165
Friend in youth group			0.0122	0.0421
Participation in religious/prayer groups, W1			0.00873	0.0224
Service Attendance			-0.00172	0.0203
Teen Religious Tradition (ref. CP)				
Mainline Protestant			-0.464***	-0.407**
Black Protestant			0.120	-0.0525
Catholic			-0.209*	-0.221*
Not Religious			-0.179	-0.195
Other Religion			-0.232	-0.177
Prayer Answered			0.121	0.120
Engaged God			0.288**	0.253**
<i>Controls</i>				
Teen Age at W1	0.0340	0.0325	0.0403	0.0430
Parents Married	-0.0687	0.119	-0.178*	-0.000333
Census Region (ref. South)				
Northeast	-0.238*	-0.237*	-0.124	-0.0906
Midwest	-0.129	-0.0936	-0.0357	0.0181
West	-0.0515	-0.0153	-0.00386	0.0230
Constant	1.062*	0.868*	0.110	0.187
$R^2$	0.268	0.285	0.328	0.350

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



For Model 2, measuring existential insecurity, income, sex, and race/ethnicity were all significantly associated with differential outcomes, providing support for hypotheses 2a and 2b, and partial support for hypothesis 2c. In the regressions that did not include Wave 1 private prayer, each unit increase in parental income along the 11-point scale, an emerging adult's private prayer decreases .063. Being a woman is associated with a .537 unit higher outcome of private prayer than being a man. Being Black is associated with a .528 unit higher outcome of private prayer than being White at Wave 4. Each of these significant associations remain even when accounting for private prayer of the teen at Wave 1. While being Hispanic or another race were also positively associated with private prayer, these associations were not significant at the  $p < .05$  level.

Model 3 focuses on religious socialization in the teen's life. Parents who said their religion was important to them and parents praying more frequently for their teens were both significantly associated with private prayer at Wave 4. In the regression equations that do not factor private prayer at Wave one, each unit increase in parent's religious salience at Wave 1 was associated with a .0882 unit increase in private prayer at Wave 4. Each unit increase in parent's prayer for their teen was associated with a .0951 unit increase in prayer among emerging adults at Wave 4. Each unit increase in talking about religion between parent and teen is associated with a .127 unit increase in prayer frequency at Wave 4. Teens whose parents prayed with them were associated with a .165 unit higher private prayer frequency at Wave 4 than those whose parents did not pray with them. This provides support for the hypothesis that emerging adults with religiously engaged parents will be more likely to pray as adults. When considering the model that

includes private prayer at Wave 1, three of these four measures of parent religious involvement remain significant at the  $p < .05$  level or greater.

There was little support for the hypothesis that a teen's friends' religious attitudes and behaviors would be associated with higher levels of private prayer as an emerging adult. Talking about religion with one of your five closest friends was associated with a .198 unit increase in private prayer at Wave 4, though this relationship is not significant when including a teen's private prayer at Wave 1. Religious service attendance at Wave 1 was not significantly associated with private prayer at Wave 4. Religious tradition was associated with significantly different results. Identifying as conservative protestant at Wave 1 was associated with significantly higher levels of prayer at Wave 4 when compared to Mainline Protestant and Catholic respondents. Being Mainline Protestant was associated with a .507 unit decrease in private prayer at Wave 4 when compared to being conservative Protestant, while being Catholic was associated with a .227 unit decrease in private prayer compared to conservative Protestant status. Those who identify as Black Protestant and those in other religions at Wave 1 did not have significantly different levels of prayer than Conservative Protestants at Wave 4, so the hypothesis' validity is limited to only some religious traditions. These religious tradition associations were also Small cell sizes also limits some conclusions that can be made about these other religious groups. Belief in an engaged God was associated with a .436 unit increase in private prayer at Wave 4, supporting hypothesis 3e. This association remained significant but decreased after accounting for Wave 1 Private Prayer. Having had a prayer answered was also significantly associated with different levels of prayer at Wave 4, but once Wave 1 private prayer was considered, there was no longer a significant association.

In Model 4, the highest level of formal education attained by parents was not significantly associated with adult private prayer, nor was the teen's school type. Neither hypothesis about secularization was supported in this model. Parent's income, gender, parent's religious salience, discussion of religion with teen, and parent's prayer for their teen and with their teen remained significantly associated with different Wave 4 prayer outcomes, providing support for H2a and H2b, and support for H3a. This support for H3a is constrained slightly when considering a teen's Wave 1 private prayer, as talking about religion with a teen was not significantly associated with private prayer frequency at Wave 4. The same religious traditions were significantly associated with lower levels of prayer than conservative Protestants as in Model 3, which provides mixed results regarding H3d. Again, belief in an engaged prayer target and having had a prayer answered were significantly associated with higher prayer frequency, supporting Hypothesis 3e. Once again, however, considering Wave 1 private prayer led to there being no significant relationship between Wave 4 private prayer frequency and having had a prayer answered.

## CHAPTER FIVE

### Discussion

Prayer is a habit developed across time, and the results of the statistical analysis suggest that a teen's relationships are key in establishing this habit into emerging adulthood.

#### *Secularization*

The highest level of formal education in the home plays a small role in the prayer life of an emerging adult. This difference is, however, quite small and not significant when elements of religious socialization are accounted for. Religious socialization plays a much bigger role than parent's education. Further research could explore differential effects on these emerging adults' religious behaviors based on their own level of education or on a change score compared to their parents.

Without considering other effects on private prayer frequency, school type is associated with private prayer frequency. Emerging adults who attended Protestant private schools had significantly higher levels of private prayer frequency than their peers. Some parents may select a private school based on its ability to provide a religious education to their students. Private Christian schools often provide chapel, Bible classes, and community service opportunities, but often lack one-on-one mentoring relationships. A lack of relationally-based programs may cause some not to maintain their levels of religious behavior when they leave such an environment (Horan 2017). Investigating whether one-on-one mentoring can be a successful intervention to higher levels of

spiritual engagement, including private prayer, into emerging adulthood is one area for further research.

These results are further diminished by the inclusion of Wave 1 private prayer frequency, as seen in Table 3. Overall, it appears that considered alongside other elements of a teenager's life, secularizing forces do not play a significant role in predicting their adult private prayer pattern.

### *Existential Insecurity and Religious Socialization*

Aligning with the existential security theory of Norris and Inglehart (2011), higher levels of parental income, being male, and being white were associated with lower levels of private prayer ten years later. Other studies have shown that Blacks pray more than whites, and this study corroborates that when looking at demographic data, but when considered in concert with religious socialization, it seems that socialization plays a much greater role than race/ethnicity.

Religious socialization is the key factor that predicts an emerging adult's private prayer among those studied in this analysis. Teens' friends' attitudes and behaviors are not significant predictors, however. Instead, parents, religious tradition, and an engaged prayer target matter most. Religious tradition is more important than attendance at services of that tradition for predicting private prayer as an emerging adult. Belief that the prayer target was engaged mattered more than having had a prayer answered by that target in the past.

Adding nuance to the finding that parents are significantly influential in the prayer lives of their teens, there were two types of religious parental behaviors/attitudes measured. Two of the measures were indicated by the parents (frequency of prayer for

their teen and parent's religious salience) while the other two (talk about religion with parents and pray with parents) were indicated by the teen. The two indicated by the parent are also not necessarily externally visible behaviors, while talking about religion and praying together are shared activities. This aligns with previous findings that parents' religiosity matters but adds to that by showing that what a parent believes and does in private still significantly impacts the private prayer life of their teenager. Smith et al., (2019) suggest that religious parents may be wary of trying to do too much to impress a certain type of faith on their children. The distinction visible between parents' non-visible and visible behaviors is worth further study to continue to tease out what encourages emerging adults to persist in religious behaviors.

Private prayer allows those with security disadvantages to access another form of capital from that which is unavailable to them based on their SES. Typically, religious capital is the investment made in a specific belief system's doctrine, practices, and culture (Stark and Finke 2000). The results above suggest that prayer functions in some of these ways, including religious tradition. On the other hand, attendance, a typical indicator of religious capital, was not associated with private prayer frequency. This suggests that the development of the private prayer form of religious capital is granular across religious traditions, gender, income, and families. Private prayer capital seems to be most important for families where parents pray, is more important to Conservative Protestants than Catholics or Mainline Protestants, and among women. Perhaps hierarchical structures that prevent women from serving in leadership roles in many conservative Protestant denominations lead to this development of prayer capital. More

research can look at institutional barriers to women's leadership and its effect on the individual spiritual practices of women and men in those denominations.

### *Limitations*

This survey only asked for parent participation in Wave 1, limiting to what extent parent and adolescent mutually influence one another's religiosity. I would expect to see some instances of teens' development in their own religiosity to encourage their parents to become more frequent prayers and vice versa. This study is also limited in its measurement of religious traditions because it is a nationally representative sample. Minority religious groups, such as Jewish, Muslim, Hindu, and Buddhists are too small to use regression modeling with accuracy. Ethnographies and samples of these religious traditions can help elucidate to what extent the themes borne out in this mostly Christian study exist across religious traditions.

These results are also limited to the United States, specifically among this age cohort. The United States is a unique religious marketplace because of the lack of state religion in a postindustrial country, allowing me to theorize comparatively between secularization, existential security, and normal socialization. Future age cohorts are likely to experience increasing rates of intermarriage among religious traditions and continued movement from Conservative Protestant tradition to other traditions, and movement from Mainline Protestant and Catholic traditions to disaffiliation (Putnam and Campbell 2010; Burge 2021). The effects of these changes on the spiritual lives of future age cohorts is a promising area of study.

Finally, the key measure used in this study is private prayer frequency. This is assumed to be a habit across religious traditions, but this assumption is based on studies

of White Evangelical Protestants. Other traditions may be more concerned with spiritual practices performed in the community of adherents, while private prayer may be a different way of being religious. Disentangling the assumption that private prayer holds the same value across religious traditions is necessary future work.



## CHAPTER SIX

### Conclusion

Future work in this area should look longitudinally at other key dimensions of private prayer experience, including prayer style, prayer purpose, and prayer target. Froese and Jones (2021) offer a framework of proposed mechanisms by which private prayer shapes the individual and social outcomes of an individual, and this should be evaluated over time. This research is only able to offer an analysis of how a healthy habit is cultivated through religious socialization among those concerned with security.

Also, future work could look at those who come from a strong religious socialization background who have significantly decreased in their private prayer as adults. This research could examine political affiliation and strength of that affiliation, as well as other life course factors including marriage and parenting, alongside self-rated measures of health and wellbeing. Perhaps private prayer has diminished due to these factors or to adherence to other spiritual practices.

Private prayer matters in the life of an individual. Private prayer is durable over time, as people who prayed as teenagers tend to pray also as emerging adults. These private prayers are connected to gender, religious tradition and racial/ethnic identities, as well as the image of the prayer target to which the individual pray.

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