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The Relative Impact of Psychosocial Well-being and Mental Health on the Relationship between Economic Circumstance and Religiosity

Veronica Momjian
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THE RELATIVE IMPACT OF PSYCHOSOCIAL WELL-BEING AND MENTAL HEALTH ON THE RELATIONSHIP BETWEEN ECONOMIC CIRCUMSTANCE AND RELIGIOSITY

by

VERONICA MOMJIAN

A dissertation submitted to the Graduate Faculty in Sociology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2016
The Relative Impact of Psychosocial Well-being and Mental Health on the Relationship between Economic Circumstance and Religiosity

by

Veronica Momjian

This manuscript has been read and accepted for the Graduate Faculty in Sociology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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THE CITY UNIVERSITY OF NEW YORK
Abstract

The Relative Impact of Psychosocial Well-being and Mental Health on the Relationship between Economic Circumstance and Religiosity

by

Veronica Momjian

Advisor: Juan Battle

Employing Norris and Inglehart’s concept of existential security as a theoretical framework, this dissertation utilizes three data points from the Americans’ Changing Lives study (1986, 1994 and 2011) to interrogate the link between the economic circumstance and religiosity. More specifically, the mediating impact of psychosocial well-being and mental health on religiosity are explored.

This dissertation hypothesizes that individuals employ religious coping strategies to deal with the stress of economic uncertainty; and when that uncertainty subsides, so too does religiosity. The results of this study show that, on average, religiosity increases during times of economic instability, and decreases when the economy is stable. However, these changes in religiosity are dependent on demographic characteristics, as well as levels of economic insecurity, psychosocial well-being and mental health.

By interrogating these issues, this research demonstrates how religiosity reflects fluctuations among individuals’ coping strategies relative to changes in economic circumstance.
Acknowledgments

I would like to extend my immense gratitude to Dr. Juan Battle for being a dedicated advisor, thoughtful mentor and guiding light throughout my entire doctoral career. It has truly been a pleasure to learn from him, both academically and professionally. From quantitative and research methods classes to writing this dissertation, Dr. Battle showed me what it takes to be a formidable researcher in academia as well as in the “real-world.” The skills and knowledge that Dr. Battle has given me will serve me well in my professional career and personal-life; for this I am tremendously grateful.

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Finally, I want to give thanks to one very special person who more than anyone else taught me the importance of perseverance, the beauty of courage, and the possibility and growth that comes with uneasiness – my future husband, Jason Kapnick. It is difficult to express my appreciation for him because it is boundless. While I left the comfort of my shell to find a new and bigger one, Jason was the rock that I kept coming back to for stability and security. Jason inspires me everyday to dream big and march towards those dreams. Together, any dream can be our reality.
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Chapter One: Article Summary

Turning Away from Religion:  
The Relationship between Economic Circumstance and Religiosity

Veronica Momjian, The Graduate Center, City University of New York

Abstract

Common sentiment argues that when financial situations get worse, individuals turn to religion for support and solace. This study challenges that sentiment and identifies circumstances when the opposite is true. Employing existential security and stress coping literature as a theoretical lens and utilizing three distinct moments from the Americans’ Changing Lives Study (1986, 1994 and 2011); this work shows that individuals turn away from religion in times of decreased economic security; further, there are circumstances such that when depression increases, religious behavior actually decreases.

Keywords

economic circumstance, religion, stress coping

In 2008, with the Great Recession well under way in the United States, media around the nation began reporting on the religious habits of Americans relative to the economic downturn (Briggs, 2011; Pew Research Center, 2009; Vitello, 2008). Many reporters assumed that individuals would turn to religion in times of economic hardship. As one commentator put it, “It is not an unreasonable conjecture that the current recession would cause Americans to increasingly turn to religion as a surcease from their economic or personal sorrow” (Newport, 2009).

It is puzzling that despite the current popular belief held both in academia and in the media that individuals turn to religion in times of economic insecurity (Norris & Inglehart, 2004) very little academic research has been conducted on the connection between financial circumstance and religiosity. In fact, scholars have not examined the relationship between American religion and economic circumstance since the 1970s (e.g. Gaede, 1975; Glock &
Stark, 1965; Meuller & Johnson, 1975; Stark, 1972). The formative theories that arose during this time clearly indicate that people living in poverty are acutely more religious than individuals from higher echelons. However, as shown by this study, the oft-held view that individuals struggling with financial hardship are more religious than their financially secure counterparts is not necessarily valid. Rather, as the findings of this study demonstrate, decreased economic security is associated with decreased religiosity.

More recent scholarship that builds on the foundational research posited by Stark (1972) and colleagues examines feelings of economic vulnerability relative to religiosity. These studies have shown that feelings of economic insecurity are amplified by an adverse economic climate, which are associated with higher levels of religiosity (Brandt & Henry, 2012; Norris & Inglehart, 2004; Ruiter & Van Tubergen, 2009). According to these authors, the mechanism at work within the relationship between economic vulnerability and religion is reassurance. That is, religion gives individuals a sense of stability in the face of uncertainty. This study takes this idea one step further and argues that religion not only provides this kind of “sacred canopy” (Berger, 1967) for individuals experiencing economic hardship, but it does so because individuals use religion as a stress coping strategy. People turn to religion in times of economic crisis as a way to cope with the stress related to their financial circumstance – stress that yields negative physical, mental and emotional impacts.

Utilizing data from the Americans’ Changing Lives study (House, 2010) on a sample of 1,057 Americans ages of 25 and older, and examining changes in religiosity over time at two distinct time periods (1994 and 2011), this study attempts to understand whether individuals turn to or away from religion in light of changing economic circumstances. Drawing on theories surrounding existential security and stress coping, this study tests the hypothesis that when faced
with decreased economic security, individuals will turn to religion in order to make meaning out of their difficult situation and find comfort in the face of financial duress.

This research is important because it adds to the scholarship on the impact of economic crises on individuals, and on the relationship between religion and economic circumstance. For decades scholars have taken for granted the relationship between economic circumstance and religion, holding that individuals experiencing economic hardship are more likely to be religious than individuals enjoying financial stability. This study demonstrates that the opposite is also true, and sheds light on possible reasons why individuals experiencing economic uncertainty might turn away from religion. By empirically examining the relationship between economic circumstance and religiosity, sociologists can better understand current shifts in American religiosity. Furthermore, programs and interventions geared towards the alleviation of stress associated with economic crises, as well as religious leaders seeking to better serve individuals faced with economic uncertainty, may also find the results of this study useful.

Coping with Economic Crisis
To understand whether or not individuals turn to religion in times of economic insecurity, it is essential to understand how economic crises affect people and how individuals cope with the effects of economic hardship. The effects of an economic downturn can be crippling for national economies and for individuals and their families alike (Choi, 2011). At the national level, economic crises foster feelings of doubt, fear, and apprehension, causing what one group of authors has called a “global panic disorder” (Sperling, Bleich & Reulbach, 2008); sentiments that then trickle down to the public (Ellis, 2013). For individuals, feelings of uncertainty and fear are compounded with the direct effects of an economic downturn. Effects such as job loss, mounting debt, decreased access to health care, and increasing financial stress, all have been shown to have negative impacts on mental and physical health (Viinamaki, Hintikka, Kontula,
Niskanen, & Koskela, 2000), including symptoms of depression, anxiety, digestive problems, headaches and migraines, worsened sleep quality, and overall muscle tension (Associated Press, 2008, Glonti et al., 2015).

Researchers have found that unemployment and underemployment result in negative mental health regardless of race and ethnicity (Blakely, Collins, & Atkinson, 2003; Momjian & Munroe, 2011; Murphey & Athanasou in 1999; Pharr, Moonie & Byngum, 2012). Studies have also shown that some races, specifically African Americans, may experience greater risks compared to others (Lo & Cheng 2014). Women also tend to demonstrate greater deleterious effects of economic hardship compared to men (Glonti et al., 2015). These findings are evidenced by increased utilization of mental health related services and medications for some (Modrek, Hamad, & Cullen, 2015), and the inability to access quality health care for others (Krisberg, 2009). Furthermore, mediating the factors that cause negative mental and physical health relative to economic crises are socioeconomic status (Kondo, Subramania, Kawachi, Takeda, & Yamagata, 2008), levels of education (Mirowsky & Ross, 2005), and individual attitudes towards employment (Pernice & Long, 1996).

This raises the question, “How do individuals cope under the strain of economic crisis?” Any long-term challenges to economic circumstance will be a source of prolonged stress until the challenge and its lingering effects dissipate. Events prove stressful if they have two characteristics: 1) they are perceived as demanding or threatening and, 2) an individual believes he or she lacks sufficient resources to cope with the situation (Lazarus & Folkman, 1984). Coping with stress, therefore, is “part of the ongoing life course process of adapting and accommodating to transitions, discontinuities, and other destabilizing and threatening
experiences” (Gottlieb 1997, p. 4). Incidences of stress will be correlated to repertoires of social action that demonstrate adaptive and responsive behaviors – stress coping strategies.

Gottlieb (1997) contends that when faced with stressors that appear immutable, such as an economic crisis, people use various strategies to cope. These strategies include: i) taking a vigilant stance to assist in preparing for, detecting, and responding rapidly to fluctuations that affect well-being, while employing various strategies for gaining respite, ii) utilizing problem-focused coping efforts for those aspects of the stressor that can be addressed with goal-oriented problem-solving mechanisms, iii) adopting a positive future outlook, iv) making sense of adversity by adopting a perspective that answers questions about the causes, extent of hardship, and the purposes of the stressful situation, and finally, v) peacefully accepting and recognizing that aspects of the stressful circumstance cannot be altered. Gottlieb merely mentions that religious beliefs and practices increase with the onset of chronic stress, alluding to the fact that religious and spiritual experience may be embedded in a variety of coping strategies, namely those strategies that attempt to make meaning out of the stressful situation or utilize religious communities as vehicles for material and/or social support (Gottleib, 1997).

While understanding why individuals choose different coping strategies is beyond the scope of this study, it is relevant to note that literature in the field of stress coping acknowledges that differences in coping selection and the effectiveness of these strategies depend on individual characteristics such as socioeconomic status (Caplan and Schooler, 2007), gender (Brougham, Zail, Mendoza, & Miller, 2009), race (Anshel, Sutarso & Juebenville, 2009), and a host of other demographics (Falconier & Epstein, 2011; Lee, Besthorn, Bolin and Jun, 2012). Other factors such as the quantity and quality of social-support networks (Kim & McKenry, 1998; Thoits, 1982) also play a role in the selection and effectiveness of coping strategies.
Understanding the impact of distinct coping strategies is no easy feat, and is also beyond the scope of this study. It is important to note, however, that different types of stress coping strategies show different types of impact (Gottleib, 1997). Taking an optimistic view of the future despite stress, for example, motivates individuals to cope with stressful situations and is significantly associated with decreases in hopelessness, depression, and suicidal ideation (Bryan, Ray-Sannerud, Morrow & Neysa, 2013; Fortiadou, Barlow, Powell & Langton, 2008).

Acceptance, another type of coping strategy, ameliorates the impact of stress (Wilson, Barnes-Holmes & Barnes-Holmes, 2014) as it relies on several tenets of mindfulness practice such as observing experience without judgment (Davis & Hayes, 2011) and focusing on the immediate situation and accepting the experience regardless of its outcome (Bishop et al., 2004). Finally, “meaning making”, the stress coping strategy most closely situated with religiously-oriented coping strategies, has been shown to have positive effects on stress by aligning one’s “situational meaning” and “global meaning” (Skaggs & Barron, 2006).

**Religious Coping Strategies**

What makes religion uniquely suited as a stress coping strategy is its ability to help people make meaning out of difficult situations. According to Berger’s theory of the “social construction of reality” (Berger & Luckmann, 1966) religion emerges out of the social dialectic as part of an ordered and meaningful “social reality” (Berger, 1967). Individuals, therefore, use religion to make sense of worldly suffering, providing a shield against the forces of chaos.

Scholars have advanced Berger’s concept of the “sacred canopy,” and have demonstrated the ways in which levels of personal vulnerability are associated with religiosity. In their book *Sacred and Secular* (2004), Norris and Inglehart posit that existential security is the degree to which individuals feel a sense of vulnerability to their physical, societal, and personal realities. Religiosity prevails in those societies with low levels of existential security. High levels of
existential security, where survival is secure and taken for granted, are negatively correlated with religiosity. For this reason, prosperous societies, generally post-industrial nations that are more affluent, will demonstrate lower levels of religiosity compared to their poorer, less developed counterparts. Norris and Inglehart do not specify the mechanisms at work in “existential security,” only that this notion exists and is linked to feelings of social and personal vulnerability, which religiosity ameliorates by providing feelings of reassurance.

For this reason, Kenneth Pargament’s argument that religion is used as a strategy for coping with various types of life stress is relevant (Pargament, 1997; Pargament et al. 1992). This is because ultimately what individuals are seeking through coping is “grounding.” Being grounded refers to an individual who feels stable and present, with an overall sense of positivity and optimism. Religion provides a framework for this grounding. Individuals facing stress turn to an orienting system to help them make sense of and deal with the world. This orienting system includes, to a greater or lesser extent, religious beliefs and practices (Pargament, 1997, p. 132).

Religious coping strategies are utilized by people for two main reasons: 1) because religion is an available part of an individual’s “orienting system,” and 2) because religion is a relatively compelling way to cope (Pargament, 1997). As Pargament notes (1997, p. 144), “Religion is more likely to be accessed in coping when it is more available to the individual, that is, when it is a larger part of the individual’s orienting system for relating with the world.” For individuals who have greater nonreligious resources or who have compartmentalized religion within their orienting systems, religion is less likely to affect coping strategies. This is because religious belief and practice is part of one’s cultural toolkit (Swidler, 2001), which individuals use as tools and resources to read their environment, guide their actions, and orient their
decisions within the context of their religious environment (Dahinden & Zittoun, 2013). Whether an individual perceives himself or herself as more spiritual or religious will play a role in the ways he or she uses religiosity in daily life. Coping strategies that are religiously-oriented will be largely determined by an individual’s inclination towards the religious, arising vis-a-vis religious beliefs and practices and through religious communities that are highly contextual (Pargament, 2002).

Literature in the field of stress coping has shown that religious coping strategies are effective in ameliorating stress because religion functions at various levels and in different ways: through positive beliefs (Krok, 2015), by supplying appraisal of stressors through religious attributions (Beagan, Etowa, & Thomas Bernard, 2012), with coping behavior such as prayer and meditation, and through coping resources like connections to nature and social support networks via religious communities (Beagan, Etowa, & Thomas Bernard, 2012; Gall et al., 2005). Researchers in the field of stress coping have shown that individuals who employ religious coping strategies are more resilient post-stressor than their non-religious peers (Park, 2005).

Based on these various findings, this study argues that individuals facing economic hardship will use religion as a coping strategy to deal with the stress associated with one’s changing economic circumstance. Individuals who feel a sense of decreased economic security will turn to religion, while those with no perceived change in economic circumstance or an increased sense of economic security will not turn to religion.

The analysis that follows compares changes in economic security across two time periods between the years 1986 to 2011. Changes in economic security are contextualized within the United States economic climate throughout this same time via unemployment trends. Changes in religiosity are also measured across these same two time periods and the extent of religiosity
among individuals who experienced decreased, increased, and unchanged economic security is compared. Through this analysis, it is expected that evidence of the use of religious coping strategies will be uncovered. This study also hypothesizes that the use of religious coping strategies will vary with individual factors such as demographic characteristics and levels of psychosocial well-being and mental health, as well as with trends in the United States economic climate.

**Research Design, Measurements, and Data**

*Data Source: The American’s Changing Lives Study*

Data employed in the present study are drawn from the first, third and fifth waves of the Americans’ Changing Lives (ACL) study, a panel study conducted by the University of Michigan. The ACL is “the oldest ongoing nationally representative longitudinal study of the role of a broad range of social, psychological and behavioral factors,” on the lives of adult Americans (House, 2010). Wave I of the study began in 1986 with 3,617 participants interviewed. Wave II followed in 1989 with interviews with 2,867 respondents. Wave III had 2,562 interviews conducted in 1994. A fourth wave of interviews (*n*=1,787) was conducted in 2002. And finally, Wave V conducted in 2011 had 1,427 interview participants.

Inclusion in the ACL was limited to those individuals living in the continental United States who were 25 years or older at the time of their interview. Because the ACL focuses primarily on “differences between Black and White Americans in middle and late life” (House, 2010), the study design oversampled African Americans and the 60 and over population, at twice the rate of others.
Economic Circumstance in Context

Before explaining the variables the analytical models employ in this study, it is pertinent to contextualize the time periods under investigation within the broader economic climate. There are multiple indicators used by economists to determine trends in the United States economic climate; one commonly used measure is the unemployment rate.

![Figure 1. Unemployment Rate](image)

As shown in Figure 1., despite the fact that the period between 1984 and 1992 was bookended by recessions on either end, and a small but substantial increase in unemployment rates occurred between 1991 and 1992, the time period between 1986 and 1994 displayed overall favorable economic trends with moderately low and stable unemployment rates. The highest unemployment rate was 7.4% in 1992 (at the end of the second recession in 1991), which then dipped to 5.5% in 1994 (Bureau Labor Statistics, 2014). Within this time, a stock market crash in 1987 resulted in an increase in the US federal and international budget deficit and a sluggish and unstable US economy (Weilling, 2012). President Clinton came into office when the 1980s
economic downturn had run its course. A recovery from the 1991 US recession was underway, and Clinton oversaw relatively robust US economic growth (Mathews, 2012). Throughout Clinton’s term from 1993 to 2001 the US economy showed increasing strength: Unemployment rates fell; the GDP increased; poverty rates declined; inflation was stable; and the median wage grew (Mathews, 2012).

The period from 1994 to 2011 demonstrated the opposite effect. Figure 1. shows that unemployment rates between 1994 and 2011 were much more variable, particularly after 2002. In this case, unemployment saw a high in 2009 at 9.9%, dipping to 8.5% in 2011 (Bureau Labor Statistics, 2014). During this time, the Financial Crisis of 2008, also known as the Great Recession, began in 2007 with the bursting of the United States’ eight trillion dollar housing bubble. The fallout from the housing collapse was extremely detrimental to the US economy, with sharp cutbacks in consumer spending, chaotic financial markets, a collapse in business investment, and massive job losses (Economic Policy Institute, n.d.). Unlike the 1991 recession, recovery from the Great Recession was slow; its effects are still being felt, even into 2016. Accordingly, at the start of 2011, 20 months after the official end of the Great Recession, the unemployment rate was roughly five percentage points higher than at the start of the downturn. With continued job losses in 2011, family wealth dropped, poverty was on the rise, health insurance coverage rates declined, and the economy staggered along (Economic Policy Institute, n.d.).

**Dependent Variables**

In the analysis presented here, the goal is to understand how changes in economic circumstance reflect changes in religiosity. To test the relationship between religiosity and economic circumstance, four dependent variables are used to measure the concept of Religiosity at two separate time points, 1994 and 2011. These four separate variables measure two distinct
themes commonly found in the field of the sociology of religion: i) the importance of religious beliefs in everyday life and ii) religious behavior (Chatters, 2000; Levin, 1994; Norris and Inglehart, 2010). When analyzing religiosity, it is important to measure both the formal aspects of religious belief and practice, as well as the subjective, spiritual aspects of religion (Pargament, 1997; Rambo and Farris, 2012). Seminal theorists Glock and Stark (1965) identified five dimensions of religiosity: experiential, ritualistic, ideological, intellectual, and consequential. Together these five dimensions encompass religious belief and behavior. For this reason, this study defines religiosity as “religious belief and behavior,” with the understanding that some aspects of religiosity are more formal, while others are more spiritual in nature.

Two of the dependent variables included in the analysis measure change in religious belief. These two dependent variables were created from the ACL study question Importance of Religious Belief. It asked: “In general, how important are religious beliefs and practices in your day-to-day life?” The questions were measured on a four-point Likert scale, such that “Not at All Important” was coded as one (1) and “Very Important” was coded as four (4).

The analysis seeks to establish whether individual religiosity increases or decreases in the face of economic hardship. Therefore, the two dependent variables, Change in Religious Belief from 1986 to 1994 and Change in Religious Belief from 1994 to 2011, were created. Once the initial variables were standardized for all three years, the value for Importance of Religious Belief that was collected in 1986 was subtracted from the value of Importance of Religious Belief that was collected in 1994, thus creating the variable Change in Religious Belief from 1986 to 1994. Similarly, Importance of Religious Belief collected in 1994 was subtracted from Importance of Religious Belief collected in 2011, thus creating the variable Change in Religious Belief from 1994 to 2011. A negative score means that the importance of religious belief in an
individual’s life decreased from the previous time period, while a positive score means that the importance of religious belief increased.

The same procedure was conducted to create the two dependent variables measuring religious behavior – Change in Religious Behavior from 1986 to 1994 and Change in Religious Behavior from 1994 to 2011. These constructs were created using the variable Frequency of Religious Attendance, which asked, “How often do you attend religious services?” The response format for these questions was a six-point Likert scale, whereby attending religious service “Never” was coded as one (1) and attending religious services “More than Once a Week” was coded as six (6).

After the variables measuring frequency of religious attendance were standardized for the years of 1986, 1994, and 2011, the variable Frequency of Religious Attendance in 1986 was subtracted from the variable Frequency of Religious Attendance in 1994 to create the construct Change in Religious Behavior from 1986 to 1994. Similarly, the variable Frequency of Religious Attendance in 1994 was subtracted from the variable Frequency of Religious Attendance in 2011 to create the variable Change in Religious Behavior from 1994 to 2011. A negative score means that religious behavior in an individual’s life went down from the previous time period, while a positive score means that the importance of religious behavior rose.

Independent Variables and Hypothesis

The core goal of this research is to ascertain whether, all things being equal, individuals turn to religion in times of decreased economic security. Thus the first order of business is to include measures of a variety of factors shown by the literature to affect changes in religiosity and stress coping strategies. To do this, three domains of independent variables are tested. The first domain, Participant Demographics, capture information about religion, race, age, education, household size, marital status and gender. The second domain of variables, Economic
Circumstance, measures changes in economic security across years, as well as employment status. Domain Three employs several manifest and latent variables capturing aspects of Psychosocial Well-being and Mental Health. These include variables for social support, connectedness, self-efficacy and optimism, negative mental health, and life satisfaction.

Domain One: Participant Demographics

The first domain tested in the analysis is participant demographics. Participant demographics are used to assess the degree to which religion, race, age, education, household size, marital status, and gender significantly predict changes in religiosity relative to economic circumstance. All of these elements shape the ways individuals express their religious beliefs and practices (Bourdieu, 1984; 2000; Hervieu-Leger, 2000) and are therefore important to understanding their interaction with religiosity and economic circumstance. These standard demographics are used to control for any variation in the impact of economic circumstance on the dependent variables.

The first demographic variable tested is Religion in 1994 & 2011. According to Pargamant (1997), the dogmas and practices of different religions yield different forms of religious belief and practice. In this case, “What is your religious preference?” was broken down into five (5) categorical responses – Protestant, Catholic, Jewish, None, and Other. These were then made into five distinct dummy variables, one for each religion.

Race in 1994 & 2011 is also tested in the analysis. Race has been shown to play a role in the ways individuals respond to vulnerable situations (Anshel, Sutarso & Juebenville, 2009; Samuel-Hodge, Watkins, Rowell & Hooten, 2008; Ulbrich, Warheit & Zummerman, 1989). Race also affects levels of religiosity. People of color, for instance, have been shown to have demonstrably higher levels of religious participation (Chatters, Taylor, Bullard, & Jackson, 2008; Garroutte et al., 2014; Martinez & Dougherty, 2013; Patel, Ramgoon, & Paruk, 2009),
both in terms of public and private religiosity, compared to Whites (Taylor, Chatters, Jayakody, & Levin, 1996). The dummy variables created from the five categories originally stated by respondents were: *White, Black, American Indian, Asian* and *Hispanic.*

Researchers in the field of sociology of religion have shown that age plays a role in the formation, adoption and/or revision of religious belief and practice; religiosity changes over an individual’s lifecycle (Stark and Finke, 2000). Many studies examine the relationship between age and religiosity as trends, viewing changes in religiosity as a function of age (Schwadel, 2010), birth cohorts and period effects (Voas and Crocket, 2005; Wilhelm, Rooney & Tempel, 2007). For this reason, the variable *Age in 1994* and *Age in 2011* are included in the analysis. Age was constructed for the years 1994 and 2011 by utilizing the age of the study participant captured at the baseline year 1986 and adding seven and a half (7.5) and 25 years respectively. ACL study researchers recommended this variable creation because the variables collected for age and year of birth after 1986 proved unreliable.

The variable *Highest Education in 1994 & 2011* is also included in the analysis. This variable was collected in the ACL study only for the baseline year as a continuous variable ranging from zero (0) to 17. The question asked respondents the highest year of school they achieved. It has been argued that higher levels of education have a secularizing effect on religiosity. By exposure to the scientific worldviews accessible through higher education, many scholars argue that religious belief is displaced (Iannconne, Stark & Finke, 1998, Schwadel, 2015; Stark &Finke, 2000; Wuthnow, 1985). For this variable, zero (0) reflects having completed no formal schooling, and 17 reflects having completed a four-year higher education degree.
The variables *Household Size in 1994* and *Household Size in 2011*, as well as *Marital Status in 1994* and *Marital Status in 2011*, are also included in the participant demographics. As shown by the literature, household dynamic, including size, are important factors in the way religious belief and practice are shaped (Fowler, 1981), and marital status is an important indicator of how individuals cope with stress (Falconier & Epstein, 2011). *Household Size* was constructed from multiple survey questions that asked the respondent to list the total number of individuals living in the household during the interview year. The total number of individuals listed per interview year were then summed to create a single score of the total number of household members living with the respondent, thus creating the variable *Household Size in 1994* and *Household Size in 2011*. *Marital Status*, on the other hand, was captured in the ACL study in years 1994 and 2011. Both variables were coded such that “Not Married” is zero (0) and “Married” is one (1).

Finally, gender has often been viewed as an important indicator of how individuals are affected by economic downturns (Glonti et al., 2015), how they cope with stress (Brougham, Zail, Mendoza, & Miller, 2009), and the ways that religious belief and practice are shaped (Freud, 1989a; 1989b). The variables *Gender in 1994* and *Gender in 2011* are variables coded such that “Female” is zero (0) and “Male” is one (1).

**Domain Two: Economic Circumstance**

The measure *Economic Circumstance* is at the core of this research and is located in Domain Two of the analytical models. This second domain under investigation analyzes the effects of economic circumstance and is related to participants’ individual financial situation. Since this study addresses the effects of changes in economic circumstance, the financial situation of a person is treated as a predictor for stress and declining mental and physical health (Caplan & Schooler, 2007; Sperling, Bleich & Reulbach, 2008). *Change in Economic Security*
indicates whether there was a change in respondents’ economic circumstance such that their livelihood became more or less secure. And Employment Status reflects whether a participant was employed each year under investigation.

_Economic Security_ is a continuous latent variable that is constructed via the standardization of three separate ACL study variables. One of these variables is _Total Family Income_. The other two variables make up the construct _Financial Stress_. Total family income was captured for Wave I, III, and V in the ACL study dataset as categorical variables with response formats that range from one (1) “$80,000 or more” to ten (10) “Less than $5,000”. The ACL study questions, “How satisfied are you with (your/your family’s) present financial situation?” and “How difficult is it for (you/your family) to meet monthly payments on your (family’s) bills?” were used in this study to measure _Financial Stress_, the second component that made up the latent variable _Economic Security_. Respectively these questions were coded on a five-point Likert scale, with “Completely Satisfied” coded as one (1) and “Not at All Satisfied” coded as five (5), “Not Difficult” coded as one (1) and “Extremely Difficult” coded as five (5).

Once all three manifest variables measuring total family income and financial stress were coded in the same direction, they were then standardized to create continuous variables. This was done for all variables in all three waves. When all three variables for all three waves were standardized, the variable for total family income, and the variables for financial stress were averaged together for each year – 1986, 1994, and 2011 – to create the variable _Economic Insecurity_ for Waves I, III, and V. With the variable _Economic Insecurity_ constructed for all three waves, _Economic Insecurity in 1986_ was subtracted from _Economic Insecurity in 1994_ to create the variable _Change in Economic Insecurity from 1986 to 1994_. Similarly, _Economic
Insecurity in 1994 was subtracted from Economic Insecurity in 2011 to create the variable Change in Economic Insecurity from 1994 to 2011.

After this, one final transformation to the economic security variables was conducted. In this case, both variables measuring change in economic security in 1994 and 2011 were broken down into tertiles reflecting individuals who demonstrated a decrease in economic security between time periods, an increase in economic security between time periods, or no change in economic security. These tertiles were then used to create three dichotomous dummy variables for each of the years 1994 and 2011.

Finally, Employment Status in 1994 and Employment Status in 2011 were utilized in the analysis. The original ACL study variables measured nine different work statuses, from “Working” to “Retired” to “Keeping house,” etc. Despite studies having shown that under-employment has similar negative effects on well-being as unemployment (Momjian & Munroe, 2011; Murphey & Athanasou, 1999), these variables were recoded such that “Not-Employed” was coded as zero (0) and “Employed” was coded as one (1).

**Domain Three: Psychosocial Well-being and Mental Health**

The third and final domain included in this analysis pertains to participant levels of psychosocial well-being and mental health. The literature suggests that psychosocial well-being is related to religiosity and strategies for alleviating chronic stress for a variety of reasons (Carver & Connor-Smith, 2010; Fowler, 1981; Suls, David & Harvey, 1996). Various aspects of religiosity mimic those elements that make up psychosocial well-being. For instance, religious participation fosters a community, both figuratively and literally, and provides social support networks to individuals (Pollner, 1989). Social support networks help ameliorate the negative effects of chronic stress (Ellison & George, 1994), particularly stress related to financial
hardship. Social networks more generally foster feelings of safety, comfort, and support, while also connecting individuals to human, social and economic capital (Kadushin, 2012).

For this reason, the variable *Social Support from Others*, which measures the quality of social networks (Uno, Uchino, & Smith, 2002), is tested to determine whether forms of social support that are not religiously oriented have an impact on participant levels of religiosity in the face of an decreased economic security. The latent variable *Social Support from Others* was created from two questions in the ACL study dataset that were averaged together. The first asks, “On the whole, how much do your friends and other relatives make you feel loved and cared for?” The second asks, “How much are these friends and relatives willing to listen to you when you need to talk about your worries and problems?” The response format for these questions is a five-point Likert scale, whereby one (1) represents “Not at all” and five (5) represents “A great deal.” With *Connectedness*, which measures the quantity of social networks, whether the frequency of utilizing connections to social networks has an impact on participant levels of religiosity in the face of an economic uncertainty is measured. In this case, two questions from the ACL study dataset were averaged together to operationalize connectedness. These two variables asked respondents, “How often do you get together with friends, neighbors, and relatives?” and “How often do you attend meetings or programs of groups, clubs and organizations?” The response category for these questions ranged from zero (0) “Never” to five (5) “More than Once a Week.”

The variables *Self-Efficacy*, *Positive Attitude*, and *Can-Do Attitude* are also examined in the third domain. These variables are included in the analysis because they reflect individual perceptions of capabilities to achieve a desired end and perceptions of capacity to cope, resist, and recover from the effects of negative life-events. Facets of religiosity help individuals feel in
control of their lives in the face of chaos and hardship (Berger, 1967). By testing the impact of self-efficacy and positive self-image, this study examines whether the use of religiosity as a mediator for stress varies depending on whether these aspects of psychosocial well-being are stronger or weaker for each individual.

*Self-Efficacy in 1994* and *Self-Efficacy in 2011* were created as a mean score from four variables found in the ACL study dataset. These variables are statements regarding feelings about oneself which participants were asked with which to agree. The variables *Positive Attitude in 1994* and *Positive Attitude in 2011*, and *Can-Do Attitude in 1994* and *Can-Do Attitude in 2011*, are also employed in this analysis. In the first case respondents were asked to agree or disagree with the statement, “I take a positive attitude toward myself.” In the second case, respondents were asked to agree or disagree with the statement, “I can do just about anything I really set my mind to do.” All six variables were coded as “Strongly Disagree” as a one (1), and “Strongly Agree” as a four (4).

Finally, mental health plays a role in the management of chronic stress and the effects of economic crisis on individuals. Stress related to economic hardship causes a decline in mental health (Blakely, Collins & Atkinson, 2003) and by extension affects individuals’ ability to cope with stress (Suls, David & Harvey, 1996). The two independent variables in this domain, which measure mental health, are *Depression Scale* and *Life Satisfaction*. Both variables are indicators of overall participant happiness and perceptions of how well life is going. By including these variables in the analysis, this study tested the impact of depression and life satisfaction on religiosity for individuals facing economic hardship.

*Depression Scale in 1994* and *Depression Scale in 2011* are latent variables created by averaging ten separate variables included in the ACL measuring aspects of mental health.
Respondents were asked to rate their responses using a three-point scale whereby “Hardly Ever” was coded as one (1), “Some of the Time” was coded as two (2), and “Most of the Time” was coded as three (3). Respondents were asked to think about the past week and respond to statements such as, “I felt depressed,” “I felt that everything I did was an effort,” “I felt lonely,” etc. Finally, the variables Life Satisfaction in 1994 and Life Satisfaction in 2011 were included in domain three. Here, participants were asked to rate their satisfaction to the question, “Think about your life as a whole. How satisfied are you with it?” These variables were measured on a five-point Likert scale whereby one (1) represented “Not at all Satisfied,” and five (5) represented “Completely Satisfied.”

**Analytical Models**

Multi-level linear regression is used to examine the relationship between economic circumstance and religiosity and the relative impact of psychosocial well-being and mental health on this relationship. Utilizing the change in religious belief and behavior variables for 1994 and 2011 as dependent variables, these four dependent variables are tested in Models 1 through 12 with three domains of independent variables used to measure the variation in impact of demographic factors and psychosocial well-being and mental health on the relationship between economic circumstance and religiosity. All data were uploaded in SPSS from the public-use file for all five Waves of the ACL study. Only the sample of participants who participated in all five waves of the ACL study were used, and some data were recoded for use in the current study.

Analysis of ACL study data is implemented at years 1994 and 2011, or Wave III and V. Models 1 through 6 analyze the impact of independent variables at year 1994, and Models 7 through 12 analyze the impact of independent variables at year 2011. The 12 models included in the analysis are broken down into four distinct groups. Models I through 3 test the impact of the
three domains of independent variables garnered from Wave III (1994) on the dependent variable Change in Religious Belief from 1986 to 1994, and Models 4 through 6 test the impact of these same independent variables on the dependent variable Change in Religious Behavior from 1986 to 1994. Similarly, Models 7 through 9 test the impact of the three domains of independent variables from Wave V (2011) on the dependent variable Change in Religious Belief from 1994 to 2011, and Models 10 through 12 tests the impact of these same independent variables on the dependent variable Change in Religious Behavior from 1994 to 2011.

With the first domain of independent variables tested on the dependent variables, the study demonstrates the variation of changes in religiosity across demographics. With the inclusion of the second domain of independent variables, the analysis then explores the impact of economic circumstance on religiosity, while controlling for demographics. The second domain tests the hypothesis of this study, namely that when individuals are faced with economic hardship, their religiosity will increase. The inclusion of Domain Two variables allows for testing the proposition that individuals who experience a change in economic security will reflect a change in religious belief and behavior. It also tests whether an individual whose employment status changes experiences a change in religious belief and behavior. Finally, with the inclusion of the third domain of independent variables, the analysis investigates whether psychosocial well-being and mental health have an impact on the relationship between changes in economic security and religiosity.

Results

Figures 2. and 3. below are visual representations of the results shown in Tables 2. and 3. located in the Appendix. The arrows in the figures indicate the direction of change for the measures analyzed.
### Figure 2. Changes in Religiosity from 1986 to 1994 – Favorable Economic Trends

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<tr>
<th>Participant Demographics</th>
<th>Economic Circumstance</th>
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### Figure 3. Changes in Religiosity from 1994 to 2011 – Unfavorable Economic Trends

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We begin by examining the results of the analyses on the Domain Two variables measuring economic circumstance. Domain Two specifically tests the hypothesis of this study that decreased economic security is associated with increased religiosity. As shown in Figures 2. and 3., there are no statistically significant changes in religious belief from 1986 to 1994 and from 1994 to 2011. These results are summarized in Models 2, 3, 8 and 9.

There is, however, a statistically significant change in religious behavior from 1986 to 1994 as indicated in Models 5 and 6. As shown in Figure 2., when controlling for all other variables, individuals who experienced a decrease in economic security (i.e. their levels of economic security went from “good” to “bad”) reported a decrease in their frequency of religious service attendance (b=-.226, p≤.001). This decrease in religious behavior holds constant with the inclusion of Domain Three variables.

Many statistically significant results were uncovered from the analyses for Domain One and Three variables (as shown in Figures 2. and 3.). Religious affiliation and race were associated with decreased religiosity between 1986 and 1994, while marital status, gender and the quantity of social support were associated with increased religiosity during this same time. For the period from 1994 to 2011, religious affiliation was associated with a decrease in religiosity, and race and both the quantity and quality of social support were associated with increases in religiosity. Depression, on the other hand, was associated with an increase in religious belief and a decrease in religious behavior from 1994 to 2011.

While these results are interesting, many of them are simply not relevant to the discussion surrounding the relationship between economic security and religiosity. The variables related to participant demographics, for example, require their own line of inquiry given the many facets
related to an individual’s identity and personal background and its relation to religiosity (Bourdieu, 1984; 2000) – religious belief and practices vary considerably based on religious affiliation, race, age, levels of education, family composition and gender. Examining these results in detail would take us away from the heart of this study, which is the relationship between economic circumstance and religiosity. Further, the granularity needed within the results to make any claims towards significant findings is not present given limitations to the dataset. Thus the Domain One variables are best understood purely as control variables to better understand the relationship between economic circumstance and religiosity.

The results of Domain Three variables, on the other hand, while also initially included in the analysis as a set of control variables for the relationship between economic circumstance and religiosity, offer insight into religious belief and behavior previously unexamined in the literature. In general, the impact of mental health on religiosity is difficult to glean from literature and little research has been conducted specifically on the causal path between mental health and religion (Belzen, 2010; Krause, 2011; Rambo & Farris, 2012), although most studies focus on the effects religion has on levels of depression (Koenig, 2009).

Of particular interest is that Depression Scale is shown to have a statistically significant effect on the change in religiosity from 1994 to 2011. As shown in Figure 3., when controlling for all other variables in the model, higher levels of depression are correlated with an increase in religious belief ($b=.326, p \leq .05$). On the other hand, as indicated in Model 12, when controlling for all other variables, there is a statistically significant ($p \leq .01$) decrease in the frequency of religious service attendance for this same time period for individuals with higher levels of depression ($b=-.381$).
Cumulatively viewing the results of this study, it is found that, in fact, there is a relationship between economic circumstance and religiosity, but not what was expected in light of the study’s theoretical underpinnings and literature in the field. Furthermore, the association between mental health and religiosity offers new insight into the relationship between depression and religion that could pose interesting avenues for further exploration.

**Discussion and Conclusion**

This study explores the relationship between economic circumstance and religiosity at two time periods in the United States, 1994 and 2011. Examining data from 1,057 participants included in a longitudinal panel study – the American’s Changing Lives study – between the years 1986 and 2011 and controlling for participant demographics and psychosocial well-being and mental health, the findings of this study show that individuals who experienced a decrease in economic security between the years 1986 and 1994 demonstrated a decrease in religiosity during this same time. Moreover, participants with higher levels of depression in 2011 were associated with an increase in religious belief between the periods 1994 to 2011, as well as a decrease in religious participation during this same time. In short, this study casts doubt upon findings in previous literature and upon current popular sentiment that individuals turn to religion in the face of economic hardship, and highlights the need for more novel research regarding the relationship between mental health and religiosity.

These results are surprising given the hypothesis that individuals will demonstrate increased religiosity during times of economic uncertainty. As the findings show, change in economic security from 1986 to 1994 and from 1994 to 2011 proved to be an insignificant predictor of changes in religious belief. These findings challenge Norris and Inglehart’s (2004, 2010) thesis that higher levels of existential security are negatively correlated with religiosity, and they are different from the findings of Brandt and Henry’s 2012 study that showed that
individuals with lower incomes place a greater importance on God in their lives.

Further contradicting Norris and Inglehart’s thesis (2014, 2009) that higher levels of existential security foster lower levels of religious behavior, and Ruiter and Van Tubergen’s (2009) study that individual financial insecurity leads to increased religious service attendance, results showed that individuals who experienced a decrease in economic security from 1986 to 1994 also decreased their attendance at religious services during this same time. Looking at these results within the context of the United States economic climate proves useful.

As discussed earlier, the trend in unemployment rates between 1986 and 1994 was variable but overall exhibited a declining trajectory. Given what is known about the economic climate from 1986 to 1994, and coupled with the unemployment rates during this time, we can state with some certainty that there was an overall favorable economic climate between 1986 and 1994. The trend in unemployment rate between the years 1994 and 2011, on the other hand, demonstrates the opposite. In this case, unemployment rates steadily increased between years with some variation across time, reaching a high-point in 2009 after the United States’ Great Recession in 2008, and then a minimal decline into 2011. This trend demonstrates an overall unfavorable economic climate, specifically between 2006 and 2009, and into 2011.

The context of trends in unemployment rates within the broader US economic climate is important because ultimately this study examines perceived changes in economic security across specific time-periods in the United States. Individuals who experience a decrease in economic security during a time when the United States economic climate is demonstrating favorable economic trends will have very different experiences than individuals who experience a decrease in economic security during a time when the United States economic climate is demonstrating negative economic trends.
According to the literature regarding the use of stress coping strategies that make meaning out of a stressful situation, namely religious coping strategies, individuals when faced with stress, use meaning-making to realign their “situational meaning” and “global meaning,” thus ameliorating the tension surrounding the stressful situation (Skaggs and Barron, 2006). The results of this study suggest that for individuals who have decreased economic security during a time of favorable economic conditions, situational meaning and global meaning do not align. The stress reduction mechanisms inherent in meaning-making coping strategies, in this case religiously-oriented ones, are ineffective at ameliorating financial stress. And the expectations that an individual’s life will improve along with the economy foster a disenchantment that turns people away from religion. For these individuals the sacred canopy (Berger, 1967) is rent, leading to a decline in religiosity.

These findings are significant for the field of the sociology of religion. On the one hand, they cast doubt on previous scholarship concerning the relationship between economic circumstance and religiosity, and demonstrate that individuals experiencing financial hardship are not always inclined towards high levels of religiosity; a possible explanation for this contradiction is the misalignment of situational and global meanings. On the other hand, these findings highlight a rudimentary aspect of how religion functions as a stress coping strategy and suggest that religiously-oriented coping strategies are not viable for individuals experiencing a misalignment of situational and global meanings – especially when one’s personal economic circumstance is different from what others in their lives are experiencing at the same time. This misalignment exacerbates an individual’s sense of insecurity, thus potentially turning them away from religion.

In terms of the relationship between mental health and religion, academic scholarship has
typically examined the relationship between mental health and religiosity as a one-way street where religion acts as a protective factor for depression (Koenig, 2009). The findings from this study uncovered a correlation between levels of mental health and religiosity that has been previously unexplored. As shown, higher levels of depression are positively correlated with religious belief and on the other hand, are negatively correlated with religious behavior. In other words, individuals with higher levels of depression present an increased view of the importance of religious belief and practice in everyday life, but attend religious service less. These contradictory findings are interesting in that they highlight different levels and types of affect associated with depression. It is possible that the physical effects of depression result in a turning away from religion such that individuals with negative mental health are less likely to want to access religious communities for social support but more likely to access the emotional side of religiosity, heightening the importance of religious belief and practice.

That said, without knowing the causal direction between negative mental health and religiosity, it is difficult to know which came first, high levels of depression or increased religious belief and decreased religious behavior. If negative mental health is a requisite for increased religious belief, then one can assume that individuals suffering from depression might choose religiously-oriented coping strategies to manage depression and its effects. Similarly, individuals with high levels of depression might also become reclusive and not want to interact in social situations. In either case, these findings call for further investigation regarding the causal relationship between decreased mental health and religion, and ask researchers to look further into the effects of mental health on religiosity.

The findings of this study suggest some areas for future research. For example, subsequent work might look to predict changes in religiosity based off baseline measures of
religiosity. The analysis in this study only examined changes in religiosity over time, and therefore is unable to predict which factors might result in increased or decreased religiosity. Furthermore, one of the limitations of this study is that it is quantitative in nature. To address this limitation and give further insight into the various factors that play a role in determining whether individuals turn to or away from religion, further research is needed that goes beyond the use of survey data. While this study demonstrates “what” factors are involved in the relationship between economic circumstance and religiosity, and mental health and religiosity, a mixed-methods design will shed light on “why” and “how” these factors interact the way they do, particularly given the study’s counterintuitive findings.
References


### Table 1. Weighted Means, Standard Deviations, Ranges and Description of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>Range</th>
<th>Description: ACL Variable Name &amp; Label</th>
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<tr>
<td><strong>Religiosity</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in Religious Belief from 1986 to 1994</td>
<td>1058</td>
<td>0.04</td>
<td>1.02</td>
<td>-4.85 - 4.50</td>
<td>Difference between standardized scores for variables (V1612) for year 1986 and (V10450) for year 1994 to the question 'In general how important are religious or spiritual beliefs in your day-to-day life?'</td>
</tr>
<tr>
<td>Change in Religious Belief from 1994 to 2011</td>
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<td>-0.01</td>
<td>1.05</td>
<td>-4.61 - 4.33</td>
<td>Difference between standardized scores for variables (V10450) for year 1994 and (V16403) for year 2011 to the question 'In general how important are religious or spiritual beliefs in your day-to-day life?'</td>
</tr>
<tr>
<td>Change in Religious Behavior from 1986 to 1994</td>
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<td>0.06</td>
<td>0.95</td>
<td>-3.39 - 3.42</td>
<td>Difference between standardized scores for variables (V1613) for year 1986 and (V10449) for year 1994 to the question 'How often do you usually attend religious services?'</td>
</tr>
<tr>
<td>Change in Religious Behavior from 1994 to 2011</td>
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<td>-0.06</td>
<td>0.97</td>
<td>-3.26 - 3.34</td>
<td>Difference between standardized scores for variables (V10449) for year 1994 and (V16401) for year 2011 to the question 'How often do you usually attend religious services?'</td>
</tr>
</tbody>
</table>

| Independent Variables | | | | | |
| Domain 1 - Participant Demographics | | | | | |
| Religion in 1994 & 2011 | | | | | |
| Protestant (Ref:) | 1058 | 0.62 | 0.48 | 0 | Religion as stated by respondent, recoded from variable (V3200). |
| Roman Catholic | 1058 | 0.25 | 0.43 | 0 | Religion as stated by respondent, recoded from variable (V3200). |
| Jewish | 1058 | 0.02 | 0.14 | 0 | Religion as stated by respondent, recoded from variable (V3200). |
| None | 1058 | 0.09 | 0.28 | 0 | Religion as stated by respondent, recoded from variable (V3200). |
| Other Religion | 1058 | 0.02 | 0.14 | 0 | Religion as stated by respondent, recoded from variable (V3200). |

**Religion in 1994 & 2011**: 
- Protestant (Ref:) 0.62 (SD 0.48) | 0-1
- Roman Catholic 0.25 (SD 0.43) | 0-1
- Jewish 0.02 (SD 0.14) | 0-1
- None 0.09 (SD 0.28) | 0-1
- Other Religion 0.02 (SD 0.14) | 0-1

**Change in Religious Behavior from 1986 to 1994**: 
Difference between standardized scores for variables (V1613) for year 1986 and (V10449) for year 1994 to the question 'How often do you usually attend religious services?'

**Change in Religious Behavior from 1994 to 2011**: 
Difference between standardized scores for variables (V10449) for year 1994 and (V16401) for year 2011 to the question 'How often do you usually attend religious services?'

**Change in Religious Belief from 1986 to 1994**: 
Difference between standardized scores for variables (V1612) for year 1986 and (V10450) for year 1994 to the question 'In general how important are religious or spiritual beliefs in your day-to-day life?'

**Change in Religious Belief from 1994 to 2011**: 
Difference between standardized scores for variables (V10450) for year 1994 and (V16403) for year 2011 to the question 'In general how important are religious or spiritual beliefs in your day-to-day life?'
### Table 1. (Cont.) Weighted Means, Standard Deviations, Ranges and Description of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
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<th>S.D</th>
<th>Range</th>
<th>Description: ACL Variable Name &amp; Label</th>
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</thead>
<tbody>
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<td></td>
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<td>White (Ref: [V15138]) &amp; (V15142)</td>
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<td>.34</td>
<td>0 – 1</td>
<td>Race as stated by respondent, recoded from variable (V2004).</td>
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<td>0 – 1</td>
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<td>.12</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Age in 1994 &amp; 2011</td>
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<td>47.27</td>
<td>10.82</td>
<td>33 – 83</td>
<td>Sum of age in years stated by respondent (V2000) plus 7.5.</td>
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<td>Household Size in 1994 &amp; 2011</td>
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<td>2.21</td>
<td>1.04</td>
<td>1 – 7</td>
<td>Sum of number of members reported in household (V10003) &amp; (V10004) &amp; (V10005) &amp; (V10006) &amp; (V10007) &amp; (V10008) &amp; (V10009) &amp; (V10010) &amp; (V10011) &amp; (V10012) &amp; (V10013) &amp; (V10014) &amp; (V10015) &amp; (V10016) &amp; (V10017).</td>
</tr>
<tr>
<td>Highest Level of Education in 1994 &amp; 2011</td>
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<td>13.31</td>
<td>2.49</td>
<td>0 – 17</td>
<td>Sum of age in years stated by respondent (V2000) plus 2.5.</td>
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<tr>
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<td></td>
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<tr>
<td>Gender in 1994 &amp; 2011</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender in 1994 &amp; 2011</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender in 1994 &amp; 2011</td>
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</tbody>
</table>

Note: N refers to the number of observations. Mean, S.D, and Range are the weighted means, standard deviations, and ranges of the variables.
<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>Range</th>
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<td>- Economic Circumstance</td>
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<td></td>
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<tr>
<td>Change in Economic Insecurity from 1986 to 1994</td>
<td>1058</td>
<td>0.33</td>
<td>0.47</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1986 to 1994</td>
</tr>
<tr>
<td>Decreased Economic Insecurity from 1986 to 1994 (ref:)</td>
<td>1058</td>
<td>0.33</td>
<td>0.47</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1986 to 1994</td>
</tr>
<tr>
<td>Unchanged Economic Insecurity from 1986 to 1994</td>
<td>1058</td>
<td>0.34</td>
<td>0.47</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1986 to 1994</td>
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<tr>
<td>Increased Economic Insecurity from 1986 to 1994</td>
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<td>0.31</td>
<td>0.46</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1986 to 1994</td>
</tr>
<tr>
<td>Change in Economic Insecurity from 1994 to 2011</td>
<td>1058</td>
<td>0.35</td>
<td>0.48</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1994 to 2011</td>
</tr>
<tr>
<td>Decreased Economic Insecurity from 1994 to 2011 (ref:)</td>
<td>1058</td>
<td>0.35</td>
<td>0.48</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1994 to 2011</td>
</tr>
<tr>
<td>Unchanged Economic Insecurity from 1994 to 2011</td>
<td>1058</td>
<td>0.34</td>
<td>0.47</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1994 to 2011</td>
</tr>
<tr>
<td>Increased Economic Insecurity from 1994 to 2011</td>
<td>1058</td>
<td>0.31</td>
<td>0.46</td>
<td>0 - 1</td>
<td>Dummy variable recoded from Change in Economic Security from 1994 to 2011</td>
</tr>
<tr>
<td>Employment Status in 1994</td>
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<td>0.75</td>
<td>0.43</td>
<td>0 - 1</td>
<td>Current employment as stated by respondent, (V10301).</td>
</tr>
<tr>
<td>Employment Status in 2011</td>
<td>1058</td>
<td>0.50</td>
<td>0.50</td>
<td>0 - 1</td>
<td>Current employment as stated by respondent, (V16101).</td>
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**Domain 3: Psychosocial Well-being and Mental Health**

<table>
<thead>
<tr>
<th>Social Support in 1994</th>
<th>Mean</th>
<th>S.D</th>
<th>Range</th>
</tr>
</thead>
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<tr>
<td>Social Support in 1994</td>
<td>4.07</td>
<td>0.84</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

Mean score for (V10147): On the whole, how much do your friends and other relatives make you feel loved and cared for? and (V10148): How much are these friends and other relatives willing to listen to you when you need to talk about your worries and problems?

Mean score for (V10147): On the whole, how much do your friends and other relatives make you feel loved and cared for? and (V10148): How much are these friends and other relatives willing to listen to you when you need to talk about your worries and problems?
<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectedness in 1994</td>
<td>1058</td>
<td>2.68</td>
<td>1.20</td>
<td>0 – 5</td>
</tr>
</tbody>
</table>
| Mean score of variables (V10147): 'How often do you get together with friends, neighbors and relatives?' and (V10148): 'How often do you attend meetings or programs of groups, clubs and organizations?'
| Connectedness in 2011          | 1011 | 2.66 | 1.28 | 0 – 5 |
| Mean score of variables (V15195): 'How often do you get together with friends, neighbors and relatives?' and (V15196): 'How often do you attend meetings or programs of groups, clubs and organizations?'
| Self-Efficacy in 1994          | 1058 | 3.41 | 0.55 | 1 – 4 |
| Mean score for variables (V10107): 'At times I think I am no good at all', (V10108): 'All in all I am inclined to feel that I am a failure', (V10110): 'Sometimes I feel that I am being pushed around in life', and (V10111): 'There is really no way I can solve the problems I have'. |
| Self-Efficacy in 2011          | 1011 | 3.33 | 0.59 | 1 – 4 |
| Mean score for variables (V15307): 'At times I think I am no good at all', (V15305): 'All in all I am inclined to feel that I am a failure', (V15310): 'Sometimes I feel that I am being pushed around in life', and (V15308): 'There is really no way I can solve the problems I have'. |
| Positive Attitude in 1994      | 1058 | 3.49 | 0.64 | 1 – 4 |
| Respondent answers to: 'I take a positive attitude toward myself,' (V10106). |
| Positive Attitude in 2011      | 1011 | 3.50 | 0.64 | 1 – 4 |
| Respondent answers to: 'I take a positive attitude toward myself,' (V15306). |
| Can-Do Attitude in 1994        | 1057 | 3.43 | 0.70 | 1 – 4 |
| Respondent answers to: 'I can do just about anything I really set my mind to,' (V10109). |
| Can-Do Attitude in 2011        | 1010 | 3.33 | 0.72 | 1 – 4 |
| Respondent answers to: 'I can do just about anything I really set my mind to,' (V15309). |

Table 1. (Cont.) Weighted Means, Standard Deviations, Ranges and Description of Variables
### Table 1. Weighted Means, Standard Deviations, Ranges and Description of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>Range</th>
<th>Description: ACL Variable Name &amp; Label</th>
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</thead>
<tbody>
<tr>
<td><strong>Depression Scale in 1994</strong></td>
<td>1058</td>
<td>1.28</td>
<td>.31</td>
<td>1–3</td>
<td>Mean score of eleven mental health variables asking respondents about how they feel related in the past week in relation to depression. Includes: (V10283), (V10284), (V10285), (V10287), (V10288), (V10289), (V10290), (V10291), and (V10292). alpha = .829</td>
</tr>
<tr>
<td><strong>Depression Scale in 2011</strong></td>
<td>1010</td>
<td>1.30</td>
<td>.33</td>
<td>1–3</td>
<td>Mean score of eleven mental health variables asking respondents about how they feel related in the past week in relation to depression. Includes: (V16001), (V16002), (V16003), (V16005), (V16006), (V16007), (V16008), (V16009), (V16010), and (V16011). alpha = .834</td>
</tr>
<tr>
<td><strong>Life Satisfaction in 1994</strong></td>
<td>1058</td>
<td>3.66</td>
<td>.81</td>
<td>1–5</td>
<td>Variable (V10105), 'How satisfied are you with your life?'</td>
</tr>
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</table>
| **Life Satisfaction in 2011** | 1009 | 3.86 | .84 | 1–5 | Variable (V15301), 'How satisfied are you with your life?'
Table 2. Unstandardized Regression Coefficients for Change in Religious Belief and Change in Religious Behavior from 1986 to 1994

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Change in Religious Belief</th>
<th>Change in Religious Behavior</th>
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<td>I (n=1057)</td>
<td>II (n=1057)</td>
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<tr>
<td>Participant Demographics</td>
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<td>Religion in 1994 &amp; 2011 (ref: Protestant)</td>
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<tr>
<td>Catholic</td>
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<td>.122</td>
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<td>Jewish</td>
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<td>-.203</td>
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<td>.180</td>
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<tr>
<td>Other</td>
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<td>Race in 1994 &amp; 2011(ref: White)</td>
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<td>.049</td>
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<tr>
<td>American Indian</td>
<td>-.738**</td>
<td>-.731**</td>
</tr>
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<td>Asian</td>
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<td>-.261</td>
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<td>Latino</td>
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<td>Age in 1994</td>
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<td>-.001</td>
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<td>Highest Education in 1994 &amp; 2011</td>
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<td>Household Size in 1994</td>
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<td>-.049</td>
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<td>Males</td>
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<td>Self-Efficacy Scale in 1994</td>
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<td>Positive Attitude in 1994</td>
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*p ≤ .05  **p ≤ .01  ***p ≤ .001
Table 3. Unstandardized Regression Coefficients for
*Change in Religious Belief and Change in Religious Behavior from 1994 to 2011*

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*p ≤ .05  **p ≤ .01  ***p ≤ .001
Chapter Two: Introduction & Background

Trust in the Lord with all your heart; do not depend on your own understanding. Seek his will in all you do, and he will show you which path to take.

Proverbs 3:5, 6

2.1 Introduction

In 2008, with the Great Recession well under way in the United States, media around the nation began reporting on the religious habits of Americans relative to the economic downturn (Briggs, 2011; Pew Research Center, 2009; Vitello, 2008). Reporters unwittingly stated, “It is not an unreasonable conjecture that the current recession would cause Americans to increasingly turn to religion as a suacease from their economic or personal sorrow” (Newport, 2009). These reporters assumed that individuals turn to religion in times of economic hardship.

What is puzzling is that even though there has been significant advancement in the field of sociology of religion, and despite the fact that the declining US economy has not been associated with increased religiosity (Pew Research Center, 2009), academics, pundits and reporters alike, claim that individuals facing economic uncertainty will turn to religion in times of trouble. This is partly because the formative theories posed by seminal theorists that individuals facing economic hardship are more religious than their financially secure counterparts (e.g. Gaede, 1975; Glock & Stark, 1965; Meuller & Johnson, 1975; Stark, 1972) have not been interrogated nor tested since the 1970s. As this dissertation shows, individuals facing economic hardship do not necessarily demonstrate increased religiosity. In fact, for some, the opposite may be true. The theories posited by Stark (1972) and colleagues that poor individuals turn to religion are in need of critical review.

In order to examine the relationship between economic circumstance and religiosity, this dissertation engages a theoretical framework that demonstrates the use of religion as a coping
strategy in the face of economic insecurity. It hypothesizes that individuals will turn to religion in times of financial uncertainty to ameliorate the effects of ensuing stress. This “turning to religion” is also contingent, however, on individual factors such as economic circumstance, psychosocial well-being and mental health.

Statement of the Problem
Since the start of the 20th century, the United States has witnessed several major and devastating economic crises – the Panics of 1901 and 1907, the infamous Wall Street Crash of 1929 that spearheaded the Great Depression, Black Monday in 1987, as well as the savings and loan crisis of the 1980s and 1990s, and the subprime mortgage crisis and the housing bubble burst of the 2000s. With each of these events, the United States, and world economies, experienced long-term, wide-ranging effects. Millions of individuals and their families across the globe have been affected by these economic downturns - some for good, some for bad, and some for worse.

In the period leading up to 2008, unregulated lending, the accumulation of toxic assets in the housing sector, and excessive debt-driven consumer spending led to a colossal economic slump (Martin & Schaffler, 2008). While the worst effects of the recession appear to have leveled off with unemployment rates dropping below 6%, their lowest since July 2008, many Americans continue to face hardship and uncertain economic times (Bureau of Labor Statistics, 2014).

The effects of an economic downturn can be crippling for national economies and for individuals and their families alike (Choi, 2011). At the national level, economic crises foster feelings of doubt, fear and apprehension within the financial institution, causing a “global panic disorder” (Sperling, Bleich & Reulbach, 2008); sentiments that then trickle down to the public (Ellis, 2013). For individuals, feelings of uncertainty and fear are compounded with the direct
effects of an economic downturn. Effects such as job loss, mounting debt, decreased access to health care, and increasing financial stress, all of which have been shown to have negative impacts on mental and physical health (Viinamaki, Hintikka, Kontula, Niskanen, & Koskela, 2000), including symptoms of depression, anxiety, digestive problems, headaches and migraines, worsened sleep quality and overall muscle tension (Associated Press, 2008, Glonti et al., 2015).

Researchers have found that unemployment and underemployment result in negative mental health regardless of race and ethnicity (Blakely, Collins, & Atkinson, 2003; Murphey & Athanasou in 1999; Pharr, Moonie & Byngum, 2012). Studies have also shown that some races, specifically African Americans, may experience greater risks compared to others (Lo & Cheng 2014). Women also tend to demonstrate greater deleterious effects of economic hardship compared to men (Glonti et al., 2015). These findings are evidenced by increased utilization of mental health related services and medications for some (Modrek, Hamad, & Cullen, 2015), and the inability to access quality health care for others (Krisberg, 2009). Furthermore, mediating the factors that cause negative mental and physical health relative to economic crises are socioeconomic status (Kondo, Subramania, Kawachi, Takeda, & Yamagata, 2008), levels of education (Mirowsky & Ross, 2005), and even individual attitudes towards employment (Pernice & Long, 1996).

This raises two questions. How do individuals cope under the strain of economic crisis? And, what do these coping strategies tell us about social behavior in the face of economic uncertainty? These questions are at the heart of this study.

By exploring these questions through the framework of existential security and stress coping, this dissertation examines the impact of economic circumstance on individual religiosity relative to trends in the economy and explores the affects that psychosocial well-being and
mental health have on this relationship. The hypothesis of this study is that when the economy is not favorable, individuals will turn to religion and use religion as a stress coping strategy in the face of economic insecurity and hardship.

**Rationale**

Scholars of the sociology of religion long argued that religion has become increasingly irrelevant with the advent of modernization. They predicted that through modernization, religion would lose its vitality in the public sphere until almost the point of non-existence and would be replaced by other formal and secular institutions (Berger, 1967; Weber, 1920/1992). Through a process of secularization religion would see its social and cultural significance diminished in light of the rationalization of the legal and economic state (Weber, 1920/1992) and through religious pluralization (Berger, 1967).

Scholars have since rejected this view (Berger, 1999) and have begun to conceptualize changes in religion as a response to a variety of socio-cultural and political institutions (Martin, 2005; Taylor, 2007). In light of different secularizing processes, they note that religion has changed to a varying degree (Casanova, 1994). For this reason, Gorski and Altinordu (2008) have suggested that secularization be treated as an analytic variable so that the secularization debate can move beyond secularist and religious assumptions and utilize more analytically specific and less politically-laden concepts.

This dissertation builds on the secularization debate and examines the relationship between economic climate and religion relative to economic security, and how changes in religiosity demonstrate religion’s use as a coping strategy influenced by the interplay of psychosocial well-being and mental health, and economic circumstance. The underlying thesis is that religion gives individuals an all-embracing outlook on the world, which often acts as a
defense against chaos. Threats to everyday life, such as a decline in the economy, purport a strengthening of religiosity.

In light of recent secularization theories, changes in religiosity are a response to, and reflect shifts in socio-cultural and political institutions (Martin, 2005; Taylor, 2007). This dissertation explores the effects that changes in macro-level structures have on religiosity in order to understand whether patterns of social action occur given these interactions. It examines whether individual factors play a role in determining whether a strengthening or weakening of religiosity occurs in the face of economic hardship. By investigating changes in religiosity relative to economic security, this dissertation tests whether there is a turning towards or away from religion in times of economic crisis, and analyzes whether various psycho-social and mental health variables play a role in the relationship between religion and economic uncertainty.

Much like Max Weber’s view that different patterns of life, such as those based on different economies, favor different religious beliefs and practices (Weber 1920/1992; 1922/1993) and Taylor’s secularization thesis that secularism derives from a complex set of social, political, psychological, religious, and scientific conditions set in motion since medieval times (2007), this dissertation argues that shifts in macro-level structures spur changes in other macro-level structures, but that these changes are contingent on individual, micro-level factors. Religiosity, therefore, is not in decline but ever in flux – depending on the economic, political and social spheres with which religion is in constant interaction.

**Contribution to the Field**

This research is important because the oft-held view that individuals facing economic hardship are more religious than individuals who are financially secure has been taken for granted and is in need of a more current investigation. By empirically examining the relationship between economic circumstance and religiosity sociologists can better understand how economic
circumstance and religion interact and the effects interactions. Thus the results of this study can be used by programs and interventions geared towards the alleviation of stress associated with economic crises. Religious leaders seeking to better serve individuals faced with economic uncertainty may also find the results of this study useful. Additionally, academics can use this research to further uncover the social processes related to changes in macro-level structures, specifically changes in the economy and its effects, as well as the changing religious landscape.

This dissertation also addresses the secularization debate by examining whether individual factors affect changes in religiosity, and in which ways. In the past scholars have examined secularization at the macro-level (Asad, 2003; Casanova, 1994, 2006; Martin, 2005; Norris & Inglehart, 2004) in an attempt to understand the trajectory of religion overtime, and what factors play a role in religion’s rise and decline. Scholars of religion have also examined religion at the micro-level (Hervieu-Léger, 2000; Stark & Finke, 2000) seeking to explain individual motivations towards religious belief and practice. However, few studies have attempted to understand changes in religiosity as a result of macro-level forces, and how these changes differ due to micro-level effects. This dissertation shows that changes in religiosity are likely to occur as a result of changes in the economy, but that the these changes are highly influence by individual factors.

2.2 Background

Speaking to the secularization debate, this dissertation asserts that in order to understand changes in religion overtime and across society, scholars must examine both macro-and micro-level factors and their effects on religiosity. Examined through the theoretical lens of existential security, religion is an all-encompassing mechanism that supplies feelings of security and order in the face of chaos. The hypothesis of this study posits that individuals turn to religion in times of economic uncertainty. Religion, therefore, is used as a strategy for coping with stress,
specifically stress related to economic hardship. This dissertation contextualizes the measures and methods employed in this study within the literature on the effects of economic crisis and stress coping.

**Theoretical Framework**

According to Berger’s theory of the “social construction of reality” (Berger & Luckmann, 1966; Berger, 1967), social reality is an ongoing endeavor based on the interaction of a multitude of macro-level structures within society. These macro-level structures are created and re-created through their ongoing interaction with and within society. Religion emerges out of the social construction of reality as part of an ordered and meaningful “social reality” (Berger, 1967).

When viewed in this way, religion is not simply a grand macro-level variable that, like the economy or politics, is affected by changes in other existing macro-level variables. It is also a tool used to make sense of the world in the face of uncertainty – a response to theodicy; the question of “why bad things happen to good people” (Weber, 1920/1992). Religion, therefore, is a product of the social dialectic that emerges in part to make sense of worldly-suffering, providing a shield against the forces of chaos. Its form and function is ever-changing with shifts in other macro-level structures.

Norris and Inglehart (2004) advance these concepts with their theory on “existential security.” In their book *Sacred and Secular*, the authors examine the secularization debate through a macro-level lens and posit that religiosity increases when individuals feel a sense of vulnerability to their physical, societal and personal realities. Prosperous societies, generally from post-industrial nations that are more affluent, will demonstrate lower levels of religiosity compared to their poorer, less developed counterparts. As their evidence shows, “the importance of religiosity persists most strongly among vulnerable populations, especially those living in poorer nations, facing personal survival-threatening risks” (Norris & Inglehart, 2010:5).
In *Coping with Chronic Stress* (1997), Gottlieb contends that when faced with stressors that appear immutable, such as an economic crisis, people use various strategies to cope with chronic stress. These strategies include: adopting a positive future outlook; making sense of adversity by adopting a perspective that answers questions about the causes, extent of hardship, and the purposes of the stressful situation; and finally, peacefully accepting and recognizing that aspects of the stressful circumstance cannot be altered.

Kenneth Pargament continues in Gottlieb’s analytical stream by arguing that religion is used as a strategy for addressing various types of life stress (Pargament, 1997; Pargament et al. 1992). These coping strategies are highly contextual and arise vis-a-vis religious beliefs and practices and through religious communities (Pargament, 2002). According to Pargamanet, individuals turn to religion to cope with stress because ultimately what individuals are seeking is an orienting system to help them make sense and deal with the world around them (Pargament, 1997). For individuals whose “orienting system” is comprised of religious belief and practice, religious coping strategies are a viable method for ameliorating stress and its effects.

This dissertation asserts that when the formal ties of society (as occur in the economy, for example) become loose or broken, the threat to everyday life promotes a shift in religious belief and attitudes. This dissertation examines how economic circumstance effect individual shifts in religiosity and how those shifts are influenced by psychosocial well-being and mental health.

**Literature Review**

The secularization debate has been ongoing since seminal theorists Max Weber (1922/1992), Emile Durkheim (1912/2001), Sigmund Freud (1930/1989c), and more currently, Peter Berger (1967), first purported that modernization would lead to a decrease in religiosity. Recent theorists have challenged this notion, some stating that religion has never truly been on the decline (Casanova, 2004, 2006; Martin, 2005), and others stating that religion is now seeing a
resurgence (Asad, 2003). This dissertation is not concerned with whether the world is becoming more or less secular. In line with the theoretical camp that states that secularization is not so straightforward as to say religion is increasing or decreasing around the world (Gorski & Altniordu, 2008; Taylor, 2007; Torpey, 2010), this dissertation asserts that in order to fully understand the trajectory of religion around the world, individual experience must be included in the current “formula” that comprises today’s theory of secularization. As this study will show, individual factors can and should be included in the discussion on secularization in a meaningful and insightful way.

In this study religiosity is conceptualized as religiously-oriented social action exemplified through religious belief and practice. As such, religiosity encompasses the formal aspects of religion tied to religious institutions, as well as the informal aspects of religion tied to spirituality (Glock and Stark, 1965; Levin 1994). When viewed at the macro-level religion is a response to the problem of theodicy (Weber, 1915), meant to make sense of life’s chaos and uncertainty (Berger, 1967). At the micro-level, religious belief and practice is part of one’s cultural toolkit (Swidler, 2001) that individuals use as tools and resources to read their environment, guide their actions, and orient their decisions within the context of their religious environment (Dahinden & Zittoun, 2013). Whether an individual perceives himself or herself more spiritual or religious will play a role in the ways an individual uses religiosity in their daily life. For some religion is used as part of their stress coping strategies.

Religious coping strategies, are employed by individuals for two main reasons: 1) because religion is an available part of an individual’s “orienting system”; and 2) because religion is a relatively compelling way to cope (Pargament, 1997). Literature in the field of stress coping has shown that religious coping strategies are effective in ameliorating stress
because religion functions at various levels and in different ways: through positive beliefs (Krok, 2015), by supplying appraisal of stressors through religious attributions (Beagan, Etowa, & Thomas Bernard, 2012), with coping behavior such as prayer and mediation, and through coping resources like connections to nature and social support networks via religious communities (Beagan, Etowa, & Thomas Bernard, 2012; Gall et al., 2005). Researchers in the field of stress coping have shown that individuals who employ religious coping strategies are more resilient post-stressor than their non-religious peers (Park, 2005).

Many factors influence individual religiosity and therefore play a role in the relationship between economic uncertainty and religiosity. For example, religious affiliation is correlated with both increased and decreased religiosity depending on the religion (Stark & Finke, 2000, Suh & Russell 2015, Weber 1915), as is religious fundamentalism (Mansoor and Karabenick, 2008). Race also affects levels of religiosity. People of color, for instance, have been shown to have demonstrably higher levels of religious participation (Chatters, Taylor, Bullard, & Jackson, 2008; Garrouste et al., 2014; Martinez & Dougherty, 2013; Patel, Ramgoon, & Paruk, 2009), both in terms of public and private religiosity, compared to Whites (Taylor, Chatters, Jayakody, & Levin, 1996). Finally, empirical evidence has shown that, overall, females tend to be more religious than males (Fiori, Brown, Cortina, and Antonucci, 2006; Francis, 1997).

Age has also been noted as a predictor for religiosity, and many studies examine the relationship between age and religiosity as trends, viewing changes in religiosity as a function of age (Schwadel, 2010), birth cohorts and period effects (Voas and Crocket, 2005; Wilhelm, Rooney & Tempel, 2007). Similarly, it has been argued that higher levels of education have a secularizing effect on religiosity. By exposure to the scientific worldviews accessible through
higher education religious belief is displaced (Iannconne, Stark & Finke, 1998, Schwadel, 2015; Stark & Finke, 2000; Wuthnow, 1985).

Literature on the relationship between family and household composition and religiosity almost always focuses on the ways religion affects family dynamics not vice versa. For instance, family religiousness plays a role in protecting youth against negative behaviors such as substance use (Richardson, Hardesty, & Jeppsen, 2015) and helps shape the identities of emerging adults (Leonard, Cook, Boyatzis, Kimbal, & Flanagan, 2013). Family religiousness also helps facilitate the maintenance of traditional family bonds, including the avoidance of divorce and separation for married couples (Mahoney, 2010).

The factors that influence religiosity do not stop at demographics. Speaking to Norris and Inglehart’s theory regarding existential security (2004), studies have shown that for some, financial insecurities lead to higher religiosity (Brandt and Henry, 2012; Ruiter & Van Tubergen, 2009). However, the relationship between high levels of religiosity and socioeconomic status are often mediated by religious affiliation, confounding the aforementioned results. As an example, Smith and Faris (2005) concluded that certain religious groups have consistently enjoyed higher levels of education, income, and occupational prestige than other religious groups.

The impact of social support and social networks on religiosity is seldom addressed in the literature. However, religious communities serve as social networks that draw from a variety of resources (Bradley, 1995) and act as a social buffer to mediate life stress (Ellison, 1995). As illustrated by Robert Putnam (2000) mega-churches offer more than just religious beliefs and practices – they also offer individuals, laity, a space where they can emotionally commit to one another, cultivating increased social connectedness and civic engagement. Similarly, Ebaugh and Saltzman Chafetz (2000) note that for immigrants, the benefits of attending religious
institutions come by way of the social networks found there. These benefits include finding employment and housing as well as obtaining valuable information on the local community, as well as fostering an ethnic community that would otherwise be lost in their new home.

Finally, this dissertation seeks to understand how individual psychological factors influence religiosity. However there is a dearth of literature related to the impact of mental health on religiosity. The field of the psychology of religion examines how individuals utilize religion but not specifically the psychological elements that influence individuals’ use of religion. It examines the experiences, relationships, beliefs, behaviors and consciousness in relation to supra-or-transhuman dimensions, including the subconscious motivations and attitudes towards religion (De Laszlo, 1990; Freud, 1913/1989a; 1927/1989b; Ulanov & Ulanov, 1975). That said, studies have shown that religion is associated to increased levels of optimism and hope (Sethi & Seligman, 1993), and that religious service attendance decreases symptoms of depression (Koenig, 2009; Zou, Huang, Maldonado, Kasen, Cohen, & Chen, 2014).

2.3 Methodology
This dissertation tests the relationship between changes in economic circumstance and religiosity, and examines the impact of psychosocial well-being and mental health on this relationship.

This study uses secondary data analysis from a public data set. IRB exemption has been granted through the Graduate Center, City University of New York.

Procedure
Data employed in the present study are drawn from the first, third and fifth waves of the Americans’ Changing Lives (ACL) study conducted by the University of Michigan. The ACL is “the oldest ongoing nationally representative longitudinal study of the role of a broad range of social, psychological and behavioral factors,” on the lives of adult Americans (House, 2010).
Measures included in the ACL are: interpersonal relationships with family and friends, sources and levels of life-satisfaction, kinds of social interactions and leisure activities and their respective frequencies, traumatic life events and sentiments about these, health behavior and the utilization of health care services, and measures of physical and psychological health, and indices referring to cognitive functioning (House, 2010).

Wave I of the study began in 1986 with 3,617 participants interviewed. Wave II followed in 1989 with interviews with 2,867 respondents. Wave III had 2,562 interviews conducted in 1994. A fourth wave of interviews (n=1,787) was conducted in 2002. And finally, Wave V conducted in 2011 had 1,427 interview participants.

Inclusion in the ACL was limited to those individuals living in the continental United States who were 25 years or older at the time of their interview. Because the ACL focuses primarily on “differences between Black and White Americans in middle and late life” (House, 2010), the study design oversampled African Americans and the 60 and over population, at twice the rate of others.

This dissertation analyzes all participants who were interviewed in Waves I, III, and V of the study. Multi-level linear regression is used to examine the relationship between economic circumstance and religiosity and the relative impact of psychosocial well-being and mental health on these changes. Utilizing changes in religiosity in models one through nine, three domains of independent variables are used to measure the variation in impact of select demographic factors, psychosocial well-being and mental health.

The first domain tested is participant demographics. These are used to assess the degree to which certain demographic variables significantly predict religiosity and changes in religiosity during various economic climates. These standard demographics will be used to control for any
variance in the impact of other independent variables and to examine whether there are
differences in religiosity and change in religiosity across these same independent variables. The
demographic variables used are religion, race, age, education, household size, marital status and
gender. All of these elements shape the ways individuals express their religious beliefs and
practices (Hervieu-Leger, 2000; Bourdieu, 1984; 2000).

The second domain under investigation will analyze the effects of economic
circumstance, and are related to participants’ individual financial situation: Change in Economic
Insecurity and Employment Status. Change in Economic Insecurity analyzes whether there was a
change in respondents’ financial situation and measures whether there was an increase or
decrease in financial stress between years. This variable is analyzed categorically between
individuals who have had a decrease in economic security, those who have remained neutral, and
those whose economic security increased. Employment Status reflects whether a participant was
employed at each year under investigation.

The third domain included in this analysis pertains to participant levels of psychosocial
well-being and mental health. As discussed in the literature (Chapter 3), psychosocial well-being
is important when examining religiosity and strategies for alleviating chronic stress (Carver &
Connor-Smith, 2010; Fowler, 1981). Various aspects of religiosity mimic those elements that
make up the concept of psychosocial well-being. For instance, religious participation fosters a
community, both figuratively and literally, and provides social support networks to individuals
(Pollner, 1989). Social support networks help ameliorate the negative effects of chronic stress
(Ellison and George, 1994), particularly stress related to financial hardship, and social networks
more generally foster feelings of safety, comfort and support, while also connecting individuals
to various forms of capital (i.e. human, social and economic) (Kadushin, 2012). For this reason,
the variables Social Support from Others and Connectedness, which are measures of both the quality and quantity of social networks (Uno, Uchino & Smith, 2002), are tested to determine whether forms of social support that are not religiously oriented, as well as the strength of one’s connection to social networks, have an impact on participant levels of religiosity in the face of an economic downturn.

Similarly, the variables Self-Efficacy Scale and Positive Attitude will be tested in the third domain. These variables have been included in the analysis because they reflect individual perceptions of capabilities to achieve a desired end and perceptions towards capacity to cope, resist, and recover from the effects of negative life-events. By testing the impact of self-efficacy and self-image this study examines whether the use of religiosity as a mediator for chronic stress varies depending on the strength of these aspects of psychosocial well-being.

Mental health plays a role in the management of chronic stress and the effects of economic crisis on individuals because stress related to economic hardship causes a decline in mental health (Blakely, Collins & Atkinson, 2003). Therefore, this third domain also examines the impact of various mental health indicators to understand whether mental health plays a role in how individuals use religiosity during an economic crisis. Two independent variables included in this study are Depression Scale and Life Satisfaction. Both of these variables are indicators of overall participant happiness and perceived life expectations. These indicators are relevant to the study due to the correlations between declining mental health and stress, and the possible effects mental health and life satisfaction have on how individuals cope with stress (Caplan & Schooler, 2007). By including these variables in the analysis, this study will test the impact of depression and life satisfaction on religiosity for individuals facing economic hardship.
It is important to note that a cross-sectional analysis is implemented at each year, 1994 and 2011, therefore all variables listed in these three domains reflect participant demographics, psychosocial well-being, and mental health at each time period.
Chapter Three: Theoretical Framework & Literature Review

This dissertation is a quantitative study examining whether individuals turn to religion in times of economic hardship. It proposes the need to examine religiosity on both the macro-and micro-levels to fully understand the trajectories of religions around the world. The theoretical lens taken in this dissertation is informed by scholarship surrounding the concept of existential security. Religion is an answer to the problem of theodicy, an all-encompassing mechanism that supplies feelings of security and order in the face of chaos. Religion is affected by, and in turn affects, other macro-level structures like politics and the economy. In times of economic insecurity, religion is utilized as a coping strategy to make sense of life’s uncertainty and ameliorate the stress and other negative effects associated to economic hardship. As this dissertation asserts, however, various levels of psychosocial well-being and mental health play a role in the relationship between economic insecurity and religiosity. What follows is a theoretical framework and review of literature that situates this study within the scholarship in the sociology of religion and stress coping.

3.1 Introduction

For decades the debate regarding whether or not religion is on the decline around the world has preoccupied the sociology of religion. The longstanding “secularization theory,” posited by seminal theorists Max Weber (1922/1992), Emile Durkheim (1912/2001), Sigmund Freud (1930/1989c), and more currently, Peter Berger (1967), that modernization would lead to a decrease in religiosity has been challenged by many scholars of diverse disciplines. Berger (1999) himself has recanted former claims of secularization, claiming that the world now “is as furiously religious as it ever was” (Berger 1999, p. 2).

To that end, some scholars say religion has never truly been on the decline, others believe that religion was on the decline but is now seeing resurgence, and yet others believe the
argument is not so cut and dry as to say religion is increasing or decreasing around the world. This dissertation is not disputing whether the world is becoming more or less secular. Rather, it claims that there is another variable that must be included in the current “formula” that comprises today’s theory of secularization – that of the individual experience. Should scholarship attempt to investigate empirically the trajectory of world religions over time and into the future, understanding religiosity at the micro-level is imperative.

A Missing Link in the Secularization Debate

Investigations into secularization have often examined secularization at the collective level and across societies through historical comparative analyses of religiosity through a multitude of theoretical perspectives. These studies have yielded insight and understanding into patterns of social action relative to religious belief and behavior – under what conditions these patterns are strengthened or weakened, and in which direction they turn (more or less conservative in practice or as a private versus public matter, for example). Few studies, however, have examined secularization at the micro-level.

Regardless of whether religious belief and practice are on decline, several things are certain: Religion is deeply tied to the social institutions of the state, the legal system, the economic market, and academia, such that shifts in one or more institutions confer shifts in religiosity (Asad, 2003; Casanova, 1994, 2006; Martin, 2005). These shifts in religiosity are highly dependent on the specific context of the social institutions that spur their development over time (Taylor, 2007; Torpey, 2010), making any claims towards a general phenomenon of secularization and a comparison of world religions difficult (Gorski & Altniordu, 2009).

At the forefront of this debate is Casanova (1994, 2006), whose thesis on the secularization of world religions posits that secularization is not a unified phenomenon but a process that includes three aspects working in chorus at varying degrees to produce shifts in
religiosity. These aspects are: differentiation, whereby religion becomes increasingly less tied to societies’ formal “power institutions” such as politics and the economy; privatization, in which religious belief becomes more and more a private matter, lacking the same kind of public significance it did in the past; and finally, the overall decline of religious belief and practice in the lives of individuals. Religion’s popularity within a specific socio-cultural context, in Casanova’s view, is driven by the increasing gap between religion and the secular world. How big the gap is determines how steep religion’s decline, regardless of different patterns of secularization.

In response to his claims, Asad (2003) counters that while shifts in religiosity are driven by secular spheres of society, such as the state, the legal system and the market, these secular spheres tend to favor certain kinds of religion over others. Therefore, religion is never truly on the decline but tied to secular institutions to varying degrees. Religion responds to the fluctuating characteristics of these secular spheres, most notably the political realm. This view is echoed by David Martin (2005), who adds that secularization takes different trajectories across society depending not only on the current socio-political climate of a country and whether it facilitates or deters religious growth, but also depending on whether the historical context of a country and its national sentiments are imbued with religious connotations. For religion to remain relevant, says Martin, it must be tied to national interests.

To that end, Charles Taylor (2007) argues that secularism derives from a highly complex set of social, political, psychological, religious, and scientific conditions that have been set in motion since Medieval times. For this reason the trajectories that religion has taken throughout society have not been linear or mono-causal, but “zigzagged” through time depending on how adventitious religion is to a culture’s livelihood. Picking up where Taylor left off, Torpey (2010)
suggests that scholars can look at current secularization theories to understand what secularization might look like moving forward, but one cannot truly understand how secularization functions, why it functions in the way it does in some countries compared to others, and more so, what role religion will play throughout the world in the future. As Torpey states, “secularization is a process with multiple determinants, various dimensions, and contingent outcomes depending on the case in question” (2010, p. 281). Neither Taylor nor Torpey foresee a predictable schema depicting religion’s imminent decline.

It is no wonder that Gorski and Altniordu (2008) suggest scholarship surrounding secularization move away from the theories of the past, as they are inadequate for predicting whether religion is on the decline or not. Rather, Gorski and Altniordu propose that to make the most of secularization theory, secularization must be treated as an analytic variable. They state that scholars should define secularization “in a particular way for a particular project,” using this definition of secularization in “an ideal-type fashion as a means of identifying variation that is explained by other concepts or mechanisms” (2008, p. 75).

3.2 Theoretical Framework
Secularization theory attempts to understand religion as a social phenomenon. What is problematic in all the aforementioned studies is that they examined religious phenomenon solely at the macro-level, overlooking an intrinsic piece of the construction of social reality, the individual experience. This study argues that not only is religion, alongside politics and the economy, part of the larger institutional system and therefore subject to changes produced at the macro-level, but it is also highly individualized. The strength and direction of religiosity within any given culture or country depends just as much on the institutions religion is tied to, as it does on the psychosocial well-being and mental health of its individuals.

Studies of religion, regardless of whether they examine religion at the macro- or micro-
level, must always take into account personalized experience. This is because changes in macro-level structures, such as the economy and politics, are reflected through individual behavior, which is the externalization of subjective experiences as they relate to macro-level structures. Religiosity, individual belief and behavior that is religiously-oriented, is informed by an individual’s place within the social collective and continually influenced by macro-level structures. When changes occur at the macro-level within society, the form and function that religiosity takes at the collective and individual level change as well. The theoretical framework employed in this dissertation explains this process within social phenomena. This study hypothesizes that religiosity is used as a coping strategy in the face of economic uncertainty, such that when faced with economic insecurity individuals will turn towards religion as a way to make sense of the injustices of life and ward off the impending sense of doom and chaos associated with economic hardship.

**From Theodicy to Existential Security**

The notion of theodicy was first articulated by the German philosopher Gottfried Wilhelm Leibniz in his book *Théodicée* (1710/1951). Theodicy means “vindication of the justice of God,” which is precisely what Leibniz set out to do – justify the apparent contradiction between the presence of evil in the world with the existence of a morally perfect and omnipotent God who could permit such evil. Since Leibniz’s time, the idea of theodicy has been co-opted by philosophers, theologians, and more currently, sociologists. Because sociology is concerned with the study of social phenomenon, theodicy in the social sciences relates to the ways individuals and society react to-and-reflect the omnipresent power of the “unknown” through social action.

According to Max Weber, for example, responses to the problem of theodicy take a variety of forms that ultimately demonstrate different patterns of social action. These patterns of
social action in Weber’s view, are all permutations of the same human need to reconcile the
contradiction of “why bad things happen to good people,” (Weber, 1915) and are reflected in the
integration of this contradiction into a society’s larger worldview through ideal types, most
notably those of predestination, dualism, and karma.

Sociologist Peter Berger extended this concept of theodicy through his theory of the
social dialectic; the interaction of macro-level structures and their interplay with the individual
(Berger & Luckmann, 1966; Berger, 1967). He noted that social reality is constructed through
the dialectical phenomenon of externalization, objectification, and internalization, which are the
processes by which humans make sense of the world around them and create an ordered reality
that gives meaning and security to their existence. According to Berger, externalization is the
process by which man “externalizes himself” and “projects his own meanings into reality”
(Berger & Luckmann, 1966, p. 104) via both mental and physical activity. Through
externalization man creates systems of meanings, symbols, institutions and culture more
generally. Objectification, on the other hand, is the “process by which the externalized products
of human activity attain the character of objectivity” (Berger & Luckmann, 1966, p. 60).
Through objectification, the products of humankind’s mental and physical activities take on a life
outside the individual and are viewed as independent from humans. These products become
institutionalized and ultimately act-back on man as things that are outside him, drawing him into
action by virtue of man’s interaction with them. The dialectic phenomenon comes full circle
through the process of internalization. Internalization is the process by which the objectified
world is re-appropriated by man. Humans therefore come to understand the world that they have
created in a subjective way; “an objective event expressing meaning, that is, as a manifestation
of another’s subjective processes which thereby becomes subjectively meaningful” (Berger & Luckmann, 1966, p. 129).

Berger’s theory of the social construction of reality is important in two ways. On the one hand, it posits that social reality is an ongoing endeavor based on the interaction of a multitude of macro-level structures within society as expressed through the individual, and both individual and collective action. These macro-level structures are created and re-created through their ongoing interaction with and within society. Social evolution, therefore, is not linear but in constant flux, and more important, ever-present. On the other hand, religion emerges out of the social construction of reality as part of an ordered and meaningful “social reality” (Berger, 1967).

Religion provides a shield against the forces of chaos, particularly aspects such as death and suffering that threaten the order of the world. “The sacred cosmos,” states Berger, “is confronted by man as an immensely powerful reality other than himself. Yet this reality addresses itself to him and locates his life in an ultimately meaningful order” (Berger, 1967, p. 26). Religion, therefore, is a legitimizing structure. It not only differentiates man from the divine world “up there” – the world of the sacred – legitimizing man’s mortality as a human and giving plausibility to the world of the sacred, its laws and values, but also legitimizes the various meanings that man has given to his existence by virtue of exemplifying what “should be” in light of “what is” and explaining through beliefs and theories any discrepancies between the two.

When viewed in this way, religion is not simply a grand macro-level variable that, like the economy or politics, is affected by changes in other existing macro-level variables. It is also a tool used to make sense of the world in the face of uncertainty – a response to theodicy. Religion, therefore, acts as a “sacred canopy” that bands men together in the face of death and
uncertainty and gives meaning to the various facets of life, legitimating worldly *nomos* through religious doctrine, beliefs and practices (Berger, 1967). Religion is a product of the social dialectic that emerges in part to make sense of worldly-suffering. Its form and function is ever-changing with shifts in other macro-level structures, but its essence stays the same.

Norris and Inglehart advance these concepts with their theory of “existential security,” which is, “the feeling that survival is secure enough that it can be taken for granted” (Norris & Inglehart, 2004, p. 4). In their book *Sacred and Secular* (2004), they examine the secularization debate through a macro-level lens and posit that religiosity persists in those societies with low levels of existential security. Existential security is the degree to which individuals feel a sense of vulnerability to their physical, societal, and personal realities.

According to Norris and Inglehart (2010), human development and modernization reduce exposure to social and personal risks, thus diminishing levels of anxiety and stress within that society and increasing feelings of psychosocial well-being and existential security. For those societies with higher levels of socio-and ego-tropic risks, levels of religiosity will be higher, as religion provides reassurance in the face of uncertainty and hardship. Through religious belief systems, despite the inability to predict what will happen next, humans are reassured that all will turn out well.

As the authors note, “the importance of religiosity persists most strongly among vulnerable populations, especially those living in poorer nations, facing personal survival-threatening risks” (Norris & Inglehart, 2010, p. 5). High levels of existential security, where survival is secure and taken for granted, are negatively correlated with religiosity. For this reason, prosperous societies, generally post-industrial nations that are more affluent, will demonstrate lower levels of religiosity compared to their poorer, less developed counterparts.
In line with secularization scholarship that calls for an examination of secularization as an analytic variable, Norris and Inglehart posit several hypotheses regarding the elements that predict religiously-oriented patterns of social action (2004). The first is that levels of societal modernization, human development, and economic equality shape the strength of religiosity in any existing society, such that poorer pre-industrial societies will demonstrate high levels of religiosity. In their second hypothesis, they claim that adherence to particular religious beliefs, practices, and values are shaped by the historical legacy of predominant religious traditions in those countries, in which case countries with similar socio-economic will demonstrate varied levels of religiosity. Additionally, generational differences that result from different levels of economic growth and human development will shape patterns of religiosity. Countries that have experienced a boom in economic growth and human development (such as first world countries) indicate greater levels of existential security and thus decreased religiosity. They also hypothesize that the rich and poor within any given society will demonstrate differences in religiosity, whereby vulnerable populations such as the poor, elderly, women, and individuals with low levels of education will be more religious. Furthermore, countries with greater population growth (regardless of life expectancy rates) will have stronger religiosity. Finally, they state that in countries where secularization has occurred, the influence of religiosity on moral, social, economic, and political values will be diminished and will demonstrate lower levels of religious engagement and religious identification, as well as a reduction in conflicts spurred by religious identification.

The authors test these hypotheses through cross-national comparisons of 80 countries and their religious trajectories relative to the various factors inherent in the notion of “existential security.” Factors that relate to multiple forms of vulnerability include poverty, hunger, disease,
armed conflict, criminal violence, state repression, and natural disasters. Their conclusion, broadly stated, is that differences in levels of religiosity between societies can be explained through variables that differentiate between vulnerability and security, but that these differences are “path-dependent” and tied to a societies’ predominant religious tradition and not so much to a societies current efforts towards formal religious pluralism.

Norris and Inglehart do not specify the mechanisms at work “existential security,” only that this notion exists and is linked to feelings of societal and personal level vulnerability, which religiosity ameliorates vis-à-vis the induction of feelings of transcendental reassurance. Indeed, they call for greater understanding of existential security and to look more directly at the perceptions of risk and security relative to individual levels of religiosity (2004). This dissertation will do just that, and will elaborate on the theoretical underpinnings of religion as a coping mechanism for stress and anxiety, a feature that is missing in Norris and Inglehart’s work. While they have made generalizations cross-nationally on the factors that play a role in increasing or decreasing levels of religiosity, this study will examine the factors that play a role in levels of religiosity at the individual level within the broader social context.

Coping with Stress; Turning Towards Religion

Everyone faces stress in his or her life. From the most intense to the most mundane, human beings cannot evade it. Moreover, stress takes on different forms. It can be a short-lived, one-time event within a definitive time span that acts like a shock in the life of those who have experienced it. Or it can be a long-term, episodic circumstance that is consistently felt for a lengthy period throughout life. In either case, stress, according to Wheaton (1997), must represent a problematic that requires resolution; a problematic which when left unaddressed indefinitely will cause physical, emotional, or psychological damage.
Economic insecurity, negative changes to economic circumstance, falls under the category of enduring, open-ended life difficulties and conditions, categorized herein as “chronic stress” (Gottlieb, 1997). While economic insecurity can be caused by a single event such as job loss or an economic market crash, what differentiates economic insecurity as a form of chronic stress from one-time, traumatic life-events, like the death of a loved one or a physical accident, is its enduring nature and ability to permeate all facets of daily life in a regular way. Figure 1. is a visual representation of the difference between stress caused by one-time traumatic events, versus chronic stress (Wheaton, 1997).

As shown in Figure 1., the onset of chronic stress is gradual, and the trajectory of the stress is a continuous one that is not marked by a string of events. The offset of chronic stress is unpredictable and requires a great deal of energy be invested in coping with the stress, without the promise of an immediate resolution (Gottlieb, 1997). A discrete event stressor, on the other hand, typically involves a traumatic event that occurs suddenly, without warning and is relatively short-lived. Both the event stressor and the stress caused by the event are followed by definite resolution.
Wheaton (1997) cautions that there is phenomenological overlap between chronic stressors and discrete problems, in which chronic stress is spearheaded by a single event or when a discrete event stressor poses no immediate resolution. Aside from the open-ended nature of chronic stress and its lengthy time-course, however, much like stress brought on by an event stressor, chronic stress not only affects the activities of everyday life and challenges individual self-perceptions and the narratives constructed about oneself prior to the onset of that stress, but it also requires continual vigilance and the presence of persistent pressure. It is the difference between abruptly losing one’s job and facing an immediate economic crisis that can be resolved just as immediately versus being underemployed and living in continued economic insecurity.

**Stress Coping Strategies**

Whether we choose to accept it or not, economic circumstance dictates actions, worldviews, and values. Any long-term challenges to economic circumstance will be a source of prolonged stress until the challenge and its lingering effects dissipate. Events prove stressful if they have two characteristics: 1) they are perceived as demanding or threatening and; 2) an individual believes he or she lacks sufficient resources to cope with the situation (Lazarus & Folkman, 1984). As depicted in Figure 1, coping with chronic stress should be examined “as part of the ongoing life course process of adapting and accommodating to transitions, discontinuities, and other destabilizing and threatening experiences” (Gottlieb 1997, p. 4). Therefore, incidences of chronic stress will be correlated to repertoires of social action that demonstrate adaptive and responsive behaviors – stress coping strategies.

Gottlieb (1997) contends that when faced with stressors that appear immutable, such as an economic crisis, people use various strategies to cope with chronic stress. These strategies include: taking a vigilant stance to assist in preparing for, detecting, and responding rapidly to fluctuations that affect well-being, while employing various strategies for gaining respite while
remaining on-guard; utilizing problem-focused coping efforts for those aspects of the stressor that can be addressed with goal-oriented problem-solving mechanisms; adopting a positive future outlook; making sense of adversity by adopting a perspective that answers questions about the causes, extent of hardship, and the purposes of the stressful situation; and finally, peacefully accepting and recognizing that aspects of the stressful circumstance cannot be altered. Gottlieb merely mentions that religious beliefs and practices increase with the onset of chronic stress, alluding to the fact that religious and spiritual experience may be embedded in a variety of coping strategies, namely those strategies that attempt to make meaning out of the stressful situation or utilize religious communities as vehicles for material and/or social support.

In *Coping with Chronic Stress* (1997), Gottlieb states that the characteristics of a stressor are relevant to the strategies that individuals use, as individuals appraise each stressor to determine the best strategy to use. These strategies are more useful than not, depending on the stressor and the context of the stressor, as well as the personality traits of the person facing the stressor. This Gottlieb examines through his work regarding the “content specificity” and “domain specificity” of coping (Gottlieb & Cignac, 1996).

While understanding why individuals choose different coping strategies is beyond the scope of this study, it is relevant to note that literature in the field of stress coping acknowledges that differences in coping selection and the effectiveness of these strategies depend on individual characteristics such as socioeconomic status, gender, race and a host of demographics, as well other factors such as and the quantity and quality of social-support networks. For example, and speaking to the heart of this dissertation, utilizing data from a longitudinal study Caplan and Schooler (2007) examine the relationship between socioeconomic status, control beliefs, and coping styles in the context of financial stress. They conclude that lower socioeconomic status is
associated with higher levels of emotion-focused coping and with lower levels of problem-focused coping. Similarly, in an investigation of gender-based coping strategies among college students, scholars found that women who reported greater levels of stress demonstrated greater use of emotion-focused stress coping strategies than men (Brougham, Zail, Mendoza, & Miller, 2009).

Further, a review of literature conducted by Falconier and Epstein (2011), examine the concept of “dyadic coping,” which are the ways that partners help or hinder each other in dealing with their individual strain and the strategies they use to maintain the quality of their relationship when coping with stressors (Falconier & Epstein, 2011, p. 307). As the authors note, different levels of congruence between individual coping strategies are a predictor for ameliorating stress for individuals and couples.

Scholars from a variety of disciplines have also examined the relationship between race and coping strategies. In a comparison of 332 high-school and collegiate athletes, researchers investigated the racial and gender differences on sports-related sources of acute stress and athlete coping styles (Anshel, Sutarso & Juebenville, 2009). The findings showed that Caucasians experienced higher stress levels more often than African Americans. In addition, Caucasians favored an “approach-behavior” coping style, which consists of the use of action in response to a stress, in effect, confronting the stressor. These racial differences in coping strategies were corroborated by Samuel-Hodge, Watkins, Rowell and Hooten, (2008). The results of their study showed that African American participants most frequently used passive and emotive coping styles, with older and less educated participants more often using passive coping.

Age-related coping strategies have also been investigated. For instance, in a study conducted on 316 older adults in assisted living (Lee, Besthorn, Bolin and Jun, 2012),
researchers determined that for older adults, high levels of stress were associated with high levels of depression and low satisfaction. Social support and spiritual coping were the strategies that most decreased depression and increased life satisfaction.

Finally, there are other factors unrelated to demographics that affect coping strategies and their effectiveness. For instance, among the coping strategies, particularly those that are “problem-focused” (Gottlieb, 1997), several rely on embedded social support networks to alleviate stressful situations. Solutions can be monetary, physical, intellectual, or a combination of all of these. As Charles Kadushin (2012) notes, social networks affect individual lives. They supply a feeling of “connectedness” by fostering feelings of safety, comfort and support, and also motivation and resources towards social and economic mobility. Individuals with strong social support networks are better equipped to cope with major life changes because social support networks act as buffers between the environmental stressor and the individual’s response to the stress (Thoits, 1982).

According to Kim and McKenry (1998), social support entails three different components: emotion, esteem, and network support. These components are garnered through “social support,” which refers both to the quality or “functional” contents of the relationships and the quantity of social networks (Kim & McKenry, 1998). In their study, Kim and McKenry (1998) examined differences in the utilization of social support across a group of racially and ethnically diverse individuals. Results showed that while there were some differences between race and ethnicity, similarities outweighed differences.

Given the multitude of factors involved in the selection of coping strategies, this study posits that religious coping strategies are one of the types of strategies that individuals may choose within their arsenal of coping mechanisms. In the event of a large-scale social
phenomenon such as an economic downturn, higher incidences of religiosity will appear, as individuals turn to religion to help manage the stress and uncertainty of the economic crisis. Use of religious coping strategies, however, will be dependent on a host of individual-level factors, including demographic characteristics, psychosocial wellbeing, and mental health.

To that end, understanding the impact of distinct coping strategies is no easy feat, and an exhaustive investigation of the impact of different coping strategies on stress is beyond the scope of this study. Scholars in the field of stress coping (Gottleib, 1997; Gottleib & Cignac, 1996) will contend that oftentimes coping strategies are utilized in tandem when confronting a stressful situation, therefore confounding the impact of any single strategy. In addition, it is not always easy to identify which elements of a given coping strategy are related to other coping strategies, as individuals use elements of those strategies differently.

Stress coping strategies have been shown to also have different types of impact (Gottleib, 1997). Taking an optimistic view of the future despite stress, for example, motivates individuals to cope with stressful situations and is significantly associated with decreases in hopelessness, depression, and suicidal ideation (Bryan, Ray-Sannerud, Morrow & Neysa, 2013; Fotiadou, Barlow, Powell & Langton, 2008). Acceptance, another type of coping strategy, also shows positive results in ameliorating the impact of stress (Wilson, Barnes-Holmes & Barnes-Holmes, 2014) as it relies on several tenets of mindfulness practice such as observing experience without judgment (Davis & Hayes, 2011) and focusing on the immediate situation and accepting the experience regardless of its outcome (Bishop et al., 2004).

While research regarding the use of “meaning making” as a coping strategy is scant, it has been shown to have positive effects. To illustrate how making meaning of a stressful situation works, Skaggs and Barron (2006) conducted a review of 86 articles and studies on the
use of meaning making as a stress coping strategy. They concluded that meaning making works through the (re)alignment of an individual’s “situational meaning” and “global meaning” (Skaggs & Barron, 2006). A person feels threatened when their situational meaning – that is the interpretation of a situation having a significant impact on their values, beliefs, commitments, and sense of order – is incongruent with their global meaning, a person’s generalized meaning of life related to purpose, goals, values and belief about what is important and predictable. Searching for meaning through the course of a stressful event is intended to align one’s situational and global meanings, and thus ease stressor tension.

**Religious Coping Strategies**

Gottleib and other scholars in the field of stress coping understand religious coping strategies – meaning making and the utilization of social support via religious communities – as a subset of other coping strategies. Kenneth Pargament continues in their analytical stream by arguing that religion is used as a strategy for coping with various types of life stress (Pargament, 1997; Pargament et al. 1992) because ultimately what individuals are seeking through coping is “grounding.” Being grounded refers to an individual who feels stable and present, with an overall sense of positivity and optimism. Religion provides a framework for this grounding. “What they [individuals facing stress] turn to is an orienting system to help them make sense of and deal with the world, an orienting system that includes, to a greater or lesser extent, religion” (Pargament, 1997, p. 132).

Religious coping strategies are utilized by people for two main reasons: 1) because religion is an available part of an individual’s “orienting system”; and 2) because religion is a relatively compelling way to cope (Pargament, 1997). As Pargament notes (1997, p. 144), “Religion is more likely to be accessed in coping when it is more available to the individual, that is, when it is a larger part of the individual’s orienting system for relating with the world.” For
individuals who have greater nonreligious resources or who have compartmentalized religion within their orienting systems, religion is less likely to affect coping strategies. In other words, coping strategies that are religiously-oriented will be largely determined by an individual’s inclination towards the religious, arising vis-a-vis religious beliefs and practices and through religious communities that are highly contextual (Pargament, 2002).

Influenced by Pargament’s view of religious coping strategies, Gall and colleagues (2005) differentiate elements found within religion that support the coping process. In their view of the nature and role of religion and spirituality in relation to coping, religion can function at various levels and in different ways: at the personal level, for example, through beliefs; by supplying fodder for the appraisal of stressors through religious attributions, like thinking that “God is teaching me a lesson”; with coping behavior, such as prayer and meditation; through coping resources, like connections to nature and social support networks found through religious communities; and finally, with meaning-making, which is a type of reappraisal grounded in the spiritual.

Speaking to this, Park (2005) explores how religion affects coping with adversity, ultimately reinforcing Pargament’s claim that religion is more likely to be used as a coping strategy for individuals who have incorporated religion in their understanding of self and the world around them (Park, 2005, p. 711). Park conducted a study of 169 college students who reported that they had experienced a significant death within the past year. Results of the study showed that over half of the participants were “somewhat religious” and that for these participants, religion played a role in their understanding of the death’s occurrence – exemplifying how religion is used for meaning making. Furthermore, Park’s study showed that individuals with stronger religious worldviews had higher levels of distress shortly after having
experienced the death, indicating that the death may have caused incongruence in their worldviews and consequently higher stress. This, however, changed over time. As time in the bereavement process passed for these religious participants, the initial distress and increased stress not only disappeared, but sometimes even reversed, demonstrating a positive association between religious coping strategies and long-term adjustment.

Repeatedly, studies regarding the use of religion as a coping strategy discuss religion in terms of meaning-making and emphasize its unanimously positive results. A study conducted by Beagan, Etowa, and Thomas Bernard (2012), for example, explores the experiences of 50 mid-life African-heritage women living in Nova Scotia, Canada, and their use of religious coping strategies for dealing with racism-related stress. The study showed that for many of the women, utilizing their religious community for social support and relying on their religious beliefs to make meaning of their situations greatly ameliorated the stress associated with experiencing everyday racism.

Even studies that explore the relationship between stress coping and religiosity without the intention of investigating meaning-making as a facet of religiously-oriented coping come to the same conclusion as Pargament (1997, 2002), Park (2005), and Gall and colleagues (2005) that religion serves as a meaning system that assists individuals to interpret difficult events and cope with the resulting stress. For instance, examining whether values and religiosity are predictors for non-religious and religious coping strategies, Krok (2015) studied 209 random individuals from the ages of 20 to 40 throughout Poland regarding their coping styles. The findings suggest that for adults, religion may facilitate those coping styles that are based in emotional responses, aim at avoiding stressful situations, and utilize religious resources. As Krok notes, one of the reasons why religion is helpful in coping is because, “…religion provides
a belief system and modes of thinking about stressful events that reduce distress and enable individuals to find meaning and purpose in stressful events” (Krok, 2015, p. 29). The other reason is because religion provides vital sources of social support through religious communities.

Religious coping strategies can also be examined in light of their spiritual aspects. An individual’s relationship with divine beings, for example, can also be utilized to negotiate life circumstances in ways similar to real-life social networks (Pollner, 1989). To illustrate this point, in an analysis of General Social Survey data from 1983 and 1984, Pollner (1989) examined the extent to which relationships with divine beings affected psychological well-being. Results of the study showed the higher the quality or dimension of individuals’ “divine relationships” the better they scored across four measures of well-being – global happiness, life satisfaction, life excitement, and marital happiness (analyzed for married couples only). Divine relationships were measured through three variables that asked, “How close do you feel to God most of the time?”; “About how often do you pray?”; and “How often have you felt that as though you were very close to a powerful, spiritual force that seemed to lift you out of yourself?”

This “lived religion,” the distinct type of religious belief and practice created from one’s personal cultural resources (Hall, 1997), means that an individual may seek support through their relationship with a religious or transcendental being – a god, angels, ancestor spirits, or other supranatural forces – as they say fit.

Courtney Bender’s (2010) book *The New Metaphysicals: Spirituality and the American Religious Imagination*, exemplifies this idea perfectly. In her book, she examines the ways individuals become “spiritual but not religious” (Bender, 2010, p. 3) with an ethnographic exploration of “New-Agers” living in Cambridge Massachusetts. Through her studies, Bender demonstrates the ways that individuals from different cultures and backgrounds cultivate bonds
with supernatural entities they believe bestow wisdom, power and authority, in effect shaping their lives and well-being. These relationships are therefore symbolic, yet supportive. As Bender shows, the nature of such symbolic support affords individuals access to divine relationships as part of metaphysical social networks that offer the same sort of support they would gain from real-life social networks.

What makes the use of religious strategies different from other stress coping strategies is that these strategies arise vis-a-vis religious beliefs and practices and through the religious communities in which these beliefs and practices are fostered (Ellison & Levin, 1998). In a review of research on the connection between religion and mental and physical health, Ellison and Levin (1998) explore the mechanisms inherent in religion that affects health. Religion provides regulation of individual lifestyles and health behaviors, the provision of social resources, the promotion of positive self-perceptions, the provision of health beliefs, etc. What can be certain in all of these mechanisms is that they are derived from skills and knowledge obtained through religious doctrine and values and by participating in and with communities that adhere to these doctrines and support these values. Therefore these mechanisms are particular to one’s relationship to religion and spirituality, as well as the institutions, dogmas, doctrines, and behaviors that accompany religion and spirituality.

With so many studies exclaiming the positive association between religion and stress coping, one would think that more individuals would turn to religion in the face of hardship. The aim of this study, however, is not to examine the impact of religious coping strategies but to examine whether individuals turn to or away from religion in times of economic insecurity, based on an understanding of the mechanisms intrinsic to religious coping styles. This dissertation conceptualizes religiosity, religious belief and behavior, as a type of coping strategy.
within a spectrum of available coping strategies. Religiosity, therefore, is used during times of economic crisis as a way to deal with the stress associated to it.

**Economic Insecurity and its Effects**

Scholars across disciplines have long studied the effects of economic crises on the social and individual level. The consensus is that economic crises and the ensuing financial instability have demonstrably harmful effects on mental and physical health and overall well-being. This is evidenced by declines in positive mental and physical health occurring either as a direct result of the crisis or indirectly through effects the crisis has on employment rates, individual resource allocation, and financial institutions as a whole. In the wake of the US economic crisis of 2008, renewed interest in the effects of economic insecurity has created a wealth of scholarly evidence detailing the negative impact economic crises have.

Viewed at the macro-level, economic crises foster feelings of doubt, fear, and apprehension within the financial system itself. These sentiments arguably trickle down from Wall Street to “Main Street,” exacerbating feelings of uncertainty and insecurity at the individual level. As Denise Ellis states, one of the results of the 2008 economic crisis caused by the incredible volatility within the financial sector, when the world’s largest banks that were too “big to fail” began showing signs of failure, was the public’s “loss of trust and confidence in the government, and a weakening of the [their] sense of propriety, particularly related to corporate business practices” (Ellis, 2013, p. 13).

It is easy to understand that when doubt and uncertainty abounds within the financial sector, similar sentiments would be felt at the individual level. Examining the effects of economic crisis on a global scale in “real-time,” Sperling, Bleich, and Reulbach (2008) investigated the impact of drastic stock market loses around the world. Correlating stock market trends with investor behavior during two market crashes that occurred in 2008 and forms of
investor behavior in anticipation of further market loses as they occurred directly after each market crash, their findings showed that there was a striking unified mood of panic, anxiety, and a general fear of further economic losses. As they state, the economic crisis produced “global panic disorder” (Sperling, Bleich & Reulbach, 2008 p. 972), demonstrating the ways in which economic crisis at the macro-level can indirectly spur economic insecurity at the micro-level.

Direct individual-level effects of economic crisis are also noted, specifically through employment rates and difficulties in resource management. For example, in 2009, while the US was experiencing an economic downturn, Momjian and Monroe (2011) conducted a survey of the thoughts, perceptions, and attitudes of 329 residents living in a large metropolitan city. Results showed that economic hardship as well as part-time employment have a negative impact on mental health, regardless of race or ethnicity. Economic hardship was operationalized by a set of variables that measured the likelihood that a respondent would change his/her living situation given the economic climate, and part-time employment was captured via “employment status.” According to the authors, mediating the relationship between economic insecurity and negative mental health is social support. Individuals with stronger social support networks demonstrated better mental health than those with weaker ones.

As noted in an article published in The Nation’s Health (Krisberg, 2009), economic crises affect not only individual mental health but also physical health and access to health care and quality food and services. According to Krisberg (2009), job loss and resulting economic insecurity are tied to higher levels of stress, anxiety, and depression, and they pose greater risk of suicide and heart disease. Furthermore, as families faced with economic hardship are forced to make spending cuts, one of the first cuts made is in health care. Oftentimes individuals drop their health insurance plans and must buy less expensive, less nutritious foods.
In terms of the effects of unemployment on well-being and mental health, evidence shows that the relationship between employment status and positive well-being and mental health is highly correlated. A meta-analysis of the impact of unemployment on mental health conducted by Murphey and Athanasou in 1999, for example, confirms the negative relationship between unemployment and mental health. The studies investigated were conducted between 1986 and 1996. The findings of the meta-analysis showed that mental health diminished when individuals became unemployed and that conversely mental health greatly improved when individuals moved from unemployment to employment. These findings were corroborated by more recent studies (Blakely, Collins, & Atkinson, 2003; Pharr, Moonie & Byngum, 2012).

The effects of economic crises are not limited to the unemployed. Modrek, Hamad, and Cullen (2015) note that the impact of recessions extends beyond the individuals who have experienced job-loss and includes individuals still employed. In their study of the effects of the 2008 to 2009 Great Recession, the authors examined utilization trends for mental health services and medication usage among a panel of workers at 25 of the US largest manufacturing plants across 15 states. Results showed increased inpatient and outpatient visits, as well as increased utilization of mental health-related medications in workers, after 2009. The authors concluded, “increased job insecurity, feelings of powerlessness, increased workload, and changes in job scope-as well as anger or sympathy for laid-off coworkers-may affect mental health” (Modrek, Hamad, & Cullen, 2015, p. 304).

Further, economic insecurity goes beyond job-loss. Individuals experiencing significant financial stress, like increased debt and the inability to manage resources, tend to have higher levels of negative physical and mental health. According to an AOL Health Poll conducted by the Associated Press (2008), 10 to 16 million people, in 2008, reported high levels of financial
stress caused by increasing debt. As noted in the study, individuals reporting high levels of debt also reported higher incidences of ulcers, digestive tract problems, migraines and headaches, anxiety, depression, and general muscle tension than individuals with lower debt (Associated Press, 2008).

Laura Choi (2011), a research associate in the Community Development department of the Federal Reserve Bank of San Francisco, corroborated these findings. She reviewed several studies regarding the relationship between debt and mental and physical health and concluded that, “the threat of ongoing debt or insufficient income can result in feelings of loss of control, anxiety, and other mental and emotional distress. In addition, chronic financial stress has been linked to a cycle of increased workplace absenteeism, diminished workplace performance, and depression” (Choi, 2011, p. 121). Further, the effect of economic insecurity does not stop with the individuals in debt. Financial stress can also reverberate through the family, causing children whose families are experiencing financial strain overwhelming amounts of stress.

Scholars in Finland (Viinamaki, Hintikka, Kontula, Niskanen, & Koskela, 2000) found results similar to their US counterparts when they studied the effects of Finland’s great recession that spanned 1993 to 1995. In their case, researchers surveyed roughly 1,800 adults each year between 1993 – 1995 on a battery of mental health and socioeconomic questions. The results showed increased incidences of negative mental health. Factors that had a positive correlation with negative mental were unemployment, debt, and an imbalance between income and expenditures. To add to this, the study also showed that this relationship differed between genders and for individuals with strong emotional social support networks.

As the evidence shows, an economic crisis creates increased economic insecurity, both at the social and individual level. At the social level, economic insecurity appears in the economy
through low levels of investment, high market volatility and distrust in the economy both by the financial institutions and the general public. On the individual level, however, economic insecurity is demonstrated by multiple markers such as unemployment, underemployment, and a resulting decline in resources, all of which lead to various forms of financial stress.

Researchers have shown that several factors mediate the relationship between economic insecurity and declines in mental health. For instance, an individual’s attitude towards employment will affect the ways individuals manage the stress of being unemployed (Pernice & Long, 1996). Similarly, demographic factors such as gender, race, education, and socioeconomic status, also play a role in the relationship between economic insecurity and mental health and overall well-being. A review by Glonti et al. (2015) of 22 longitudinal studies across ten countries in Asia, Europe, and North America over the past two decades revealed that women’s health appeared to be more negatively affected by crises than men’s across a battery of indicators, from physical health and mortality to mental health by way of stress levels, psychological distress, depression, sleep quality, and suicide. Women are more likely to discuss incidences of negative health both privately and publicly, which may be a confounding factor in the research.

Research has also been conducted regarding the impact of race on the relationship between economic crisis and health. In a recent study conducted by Lo and Cheng (2014), 15 years of National Health Interview Survey data were analyzed to understand the prevalence of chronic mental illness as a result of unemployment. The findings showed that, on the one hand, the probability of chronic mental illness increased as unemployment rates rose. And on the other hand, that a greater increase in the probability of mental illness was observed for Blacks than for Whites, particularly within the period of 2007 – 2011, suggested three possible pathways leading
to the discrepancy in rates of mental illness between races including exposure to structural risks deriving from race-specific unemployment rates, differences in access to and utilization of health care services, and differences in the amount of assets obtained between groups.

Education has also been noted to mediate the relationship between economic hardship and well-being and mental health. According to scholars Mirowsky and Ross (2005), education facilitates a number of desirable life-outcomes related to an individual’s economic standing such as social status, wealth, occupation, and earnings. In addition to these outcomes, however, education also develops the capacity for “resource substitution” (Mirowsky & Ross, 2005, p. 218), the ability to provide alternative means towards a desired end. These resources can be both quantitative, such as higher wage jobs and incomes, as well as qualitative, such as stable jobs and relationships, and overall positive psychosocial well-being. Individuals with more available resources suffer less from a loss than those with fewer resources. In this sense, education helps individuals acquire an array of resources, in turn making them less reliant on any single resource. Individuals with higher levels of education are therefore better positioned to face economic hardship because they have more resources to pull from when problems affecting economic standing occur, thus mediating any declines in overall well-being and health.

Finally, a study conducted by Kondo, Subramania, Kawachi, Takeda, and Yamagata (2008), included in the Glonti et al. (2015) meta-analysis, showed socioeconomic status also played a role in the relationship between economic crisis and health. Examining data collected around Japan’s 10-year economic recession that began in the early 1990s, the authors conducted repeated cross-sectional analyses on two pooled datasets from 1986 to 1989 and 1998 to 2001 to assess any temporal changes in participant health across different socioeconomic status. The sample sizes were roughly 168,000 in the first pool and 150,000 participants in the second pool.
The study showed that the percentage of people reporting poor health declined across all socioeconomic categories, but that poor health was the largest among the unemployed and individuals working in mid-level positions. Middle-class non-manual workers were significantly more likely to report incidences of negative health.

3.3 Literature Review
This dissertation proposes that changes in the economy will spur changes in religion, but that these changes will be affected by specific individual-level factors including changes to individual economic circumstance. As discussed, scholars have examined religiosity relative to economic uncertainty at the macro-level by conducting cross-national comparisons of economic climates and their relationship to individual religiosity, and explored the mental and physical health effects of economic instability on individuals and the various mechanisms used to cope with that stress. This dissertation rests on the idea that economic hardship has deleterious effects on individual mental health, and proposes that individuals utilize religiously-oriented strategies for mediating the stress associated with economic uncertainty. It examines the impact of various psychological and social factors on the relationship between individual religiosity and the coping mechanisms used to alleviate stress related to economic instability.

Religiosity Defined
Scholars working in the field of religion and well-being have noted that religion and well-being are “multidimensional constructs” (Levin, 1994). That is, “religion involves behavioral, attitudinal, public and private activities, all of which involve antecedent factors,” and well-being involves a host of mental and physical indicators, subjective and objective in nature (Chatters, 2000:342). Glock and Stark (1965) identified five dimensions of religiosity: experiential, ritualistic, ideological, intellectual, and consequential. Together these five dimensions encompass religious belief and behavior. For this reason, this dissertation defines religiosity as
“religious belief and behavior,” with the understanding that some aspects of religiosity are more formal than others, while others are more spiritual in nature.

Furthermore, religion is part of one’s cultural toolkit (Swidler, 2001) and informs the habits, skills, and styles people use to construct “strategies of action” and manage everyday-life (Swidler, 1986). Cultural meanings, according to Swidler, mobilize and guide attitudes and actions, and religion, as a part of culture, helps organize an individual’s actions by supplying a set of religiously-oriented elements and strategies that one can choose from depending on how these elements and strategies fit a particular situation. Individuals make meaning out of the world using these religiously-oriented tools and resources to read their environment, guide their actions, and orient their decisions within the context of their religious environment (Dahinden & Zittoun, 2013). This, however, is not to say that religion stands alone. Returning to the views of Berger, religion can only be given meaning through a sociocultural dialectic, as religious meaning is created in relation to the social, political and cultural institutions that exist within its environment (Deummler & Nagel, 2013; Nelson, 2012).

**Effecting Change in Religiosity**

Thus far this dissertation has articulated the theoretical underpinnings informing the relationship between macro-level structures such as the economy and religion and how changes in one effect change in another. Understanding religion as a kind of “sacred canopy” (Berger, 1967) that is part of a social-dialectic, this dissertation asserts that when faced with economic insecurity individuals will use religion as a coping strategy, in effect “turning-to” religion in times of crisis. Whether individuals turn to or away from religion, however, depends on aspects of individual psychosocial well-being and mental health. What follows is a review of the literature on the factors that affect religious belief and behavior.
Religious Affiliation and Fundamentalism

While it is important to examine how religious beliefs affect individuals’ and their strategies of action, religion must also be examined in light of the religious communities in which they arise. In other words, one cannot isolate religious beliefs from the traditions that inform them or to the religious community that fosters the production and reproduction of those traditions. In terms of an individual’s religious beliefs and practices, there are factors related to the religious community where these beliefs and practices were learned that affect the ways and reasons religious belief and behavior is used in everyday life (Verter, 2003).

Influenced by Pierre Bourdieu (1994, 2000), Verter (2003) claims that religion can work as a form of “spiritual capital” whereby religious knowledge, competencies, and preferences act as commodities within a symbolic economy. Religious and spiritual dispositions are a product of the social relations tied to the realm of the religious. They utilize the goods amassed within the religious realm, such as knowledge, credentials, objects and text. These religious commodities, or forms of capital, are then used to negotiate a variety of outcomes from the personal to the social. For this reason, religious communities are essential to the production and reproduction of religious beliefs, which in turn influence the mechanisms that lead to decision-making and strategies of action. These mechanisms are promoted through specific religious doctrines and values by the communities that support them. The religiously-oriented mechanisms that affect strategies of action include: the regulation of individual lifestyles and behaviors, the provision of intra-community social resources, the provision of specific coping resources, and the generation of positive emotions.

There is a surprising lack of literature regarding the relationship between religiosity and religious affiliation, including religious conservatism. And after a review of the literature, one might conclude that the effects of religious affiliation on religiosity are mediated by other
factors. Much research has been done on the impact of religious affiliation and conservatism on a host of outcomes, like physical and mental health and choices in health care, and a myriad of other individual-level factors related to one’s values and habits such as beliefs surrounding the use of drugs and other risky behaviors, political participation, and sexual ideation to name a few. To get a sense of how religious affiliation affects religiosity, however, scholars will have to revisit sociology’s seminal thinker Max Weber (1920/1992, 1922/1993), who, in an effort to examine the character and effects of various religions, conducted numerous comparisons of world religions via religious “ideal-types.”

In The Protestant Ethic and the Spirit of Capitalism (1920/1992), Weber stated that comparing world religions should not focus on the specific teachings and rituals tied to any given religion as much as “the influence of those psychological sanctions which, originating in religious belief and the practice of religion, gave a direction to practical conduct and held the individual to it” (Weber, 1920/1992, p. 55). By this Weber asserts that all religions regardless of their specific beliefs and practices are informed by human needs to serve real-world purposes. In Weber’s view, contemporary religion exemplifies the historical trajectories of primitive religious elements that have been systematized over time complementary to a society’s economic structure. The primordial form and function of mystical concepts, like magic, salvation, and taboo, and supernaturally imbued beings, like gods and priests, have lent themselves to the religions of today. Today’s religions demonstrate varying forms of religiosity with different hierarchies, doctrines, rituals and levels of conservatism intended to meet the economic needs of that society.

Accordingly, the patterns society has taken throughout history are not only based on different economies and related to the material interests of various social groups within society,
but have utilized, and will continue to utilize, religious concepts and elements to support or change economic and material goals. This process yields different forms of religion and provides social stability or change, with religion and any associated patterns of action in constant dialogue and in mutual support.

We can look to Weber’s investigation into the “religious rejections of the world” (Weber, 1915) to understand the ways that religiously-oriented social constructs such as asceticism and mysticism shaped contemporary religion, and further how religious affiliations purvey different modes of religiosity to their adherents. For example, Weber states that various conceptions of the supra-mundane had particular affinities to different social circumstances. Asceticism, for instance, is a type of religious salvation in which the individual views himself or herself as an instrument of God and conducts himself or herself in accordance with religious teachings in order to master the world and “tame what is creatural and wicked through work in a worldly ‘vocation’” (Weber, 1915, p. 325). This type of asceticism can be seen in the religions of Christianity, Islam, and Judaism, which all demonstrate forms of worldly activism through specific beliefs and practices associated with religious communities’ forms of worship, proselytization, and penance. Mysticism, on the other, is a type of religious salvation obtained through “fleeing from the world.” In mysticism the individual acts not as a tool for the divine, but as a vessel of the divine (Weber, 1915). It is most often found in the religions of the East such as Buddhism and Confucianism. Rather than employing religious activity like ascetic religions, religions based in mysticism employ “inactivity,” and individuals go within themselves to minimize worldly thoughts and be closer to reaching a divine status. Mystic religions, therefore, demonstrate different forms of religiosity compared to those religions based in
asceticism. No cognitive leap is needed, then, to say that different religions yield different forms of religiosity.

Speaking to this idea, Mansoor and Karabenick (2008) linked religious fundamentalism, the distinct set of beliefs and attitudes toward one’s religion, to individual support for religious law. According to the authors, religious fundamentalism includes obedience to religious norms and a belief in the steadfastness of a religion’s principles and validity of its claims. Their study, conducted with Islamic fundamentalists between the ages of 18-25 throughout Egypt and Saudi Arabia, showed that higher levels of religious fundamentalism were positively correlated with higher religious services attendance and the reliance on religious authorities as the source of knowledge regarding socio-political matters.

Stark and Finke’s examination of “religious economy” in their book Acts of Faith (2000) further demonstrates the ways religious affiliation affects religiosity. They analyze the observable, human side of faith by investigating the microfoundations of religious belief and behavior, theorizing from individual religiosity up to the religious workings of entire societies and into the religious economy as a whole. The authors found that, much like any type of rational decision-making, the evaluation of costs and rewards of a particular religion played a significant role in individuals’ choice of religious affiliation. The conclusion drawn from their work is that individuals chose their religious affiliation based on the religious elements they believe will help them achieve their desired results and gain rewards. Therefore the forms of religiosity tied to a specific religion will appeal to different individuals. Through Stark and Finke’s lens, it is easy to see, then, that different religions affect religiosity in different ways.

Religious communities, therefore, play a role in the ways religiosity is fostered and utilized, and, in effect, they have a direct impact on one’s religiosity itself. For example, Suh
and Russell (2015) examine the incidence of religious affiliation and their consequence on religiosity. Utilizing data from the 2006 – 2010 General Social Survey, they conducted a longitudinal analysis on 1,276 adults living in the United States to understand the impact of religious and denomination non-affiliation, and the effects of switching religions and denominations on individual religiosity. Findings showed that conversion from one religion to another quickly increase the effects of five measures of religiosity: confidence in God, belief in life after death, prayer, religious attendance, and religious activities outside the church (Suh & Russell 2015). Protestants who switched Protestant denominations had a different experience. They showed an increase in their religious behavior in terms of their frequency of religious service attendance, while demonstrating no change in religious beliefs.

**Race**

Race has been shown to affect religiosity in several ways. In a study conducted by Taylor, Chatters, Jayakody, and Levin (1996) investigating race differences in religious involvement across seven national probability samples conducted at different points in time, the authors conclude that there are distinct differences between races on levels of religious participation. Specifically, findings from their study show that in general Blacks display higher levels of religious participation relative to Whites, both in terms of public (e.g., religious attendance) and private (e.g., reading religious materials) religiosity. The study also found that Blacks were more likely to endorse positive statements or attitudes reflecting the strength of their personal religious commitment.

Findings from a study conducted on a nationally representative sample of African Americans, Caribbean Blacks and non-Hispanic Whites, also demonstrated significant differences in religiosity across race (Chatters, Taylor, Bullard, & Jackson, 2008). Utilizing data from the National Survey on American Life: Coping with Stress in the 21st Century showed that
African Americans and Caribbean Blacks are more likely to indicate that they are “both religious and spiritual” than non-Hispanic Whites, and less likely to indicate that they are “spiritual only” or “neither spiritual nor religious.” The authors suggest that the similarities between African Americans and Caribbean Blacks can be partly attributed to comparable worship traditions, whereby spiritual discourse and practice play a role in both groups’ religious expression. In addition, and echoing the findings from the Taylor and colleagues (1996), the researchers suggest that churches maintain a prominent role in the lives of many African Americans and Caribbean Blacks due in part to their civic traditions; the church has been a well-established avenue for the development and maintenance of human, social and political capital.

In a study exploring the differences in religious and existential well-being, religiosity, and life satisfaction among university students in South Africa (Patel, Ramgoon, & Paruk, 2009), Patel and colleagues found that race made a difference in both religious and existential well-being and levels of religiosity. In this case, religious and existential well-being measured participant perceptions of their spiritual life, the meaning in life and nature of existence. Religiosity, on the other hand, was measured through a six-item scale capturing various facets of religious belief and practice, such as frequency of prayer. The results of the study showed White students reported lower religiosity than their Black and Indian counterparts and that Muslim and Christian students had higher levels of religiosity than Hindu students.

In the United States, researchers examined the racial composition of different congregations to determine what participation looks like across race (Martinez & Dougherty, 2013). The study tested whether congregation members who were part of the largest racial group in the congregation felt a stronger sense of belonging and participated more than members of other races. It also asked whether belonging and participation increased as the largest racial
group in the congregation expanded. According to the findings, levels of belonging and participation were higher for members of a congregation’s largest racial group. Additionally, more members of the congregation’s largest racial group reported having close friends in these congregations, and Blacks, Hispanics, Asians and people of multiracial backgrounds were more likely to express a strong sense of belonging in their congregations compared to Non-Hispanic Whites.

A study examining religiosity across three distinct forms of “religio-spiritual” traditions (Aboriginal, Christian, and Native American Church) amongst two American Indian populations in the Southwest and Northern Plains (Garrouette et al., 2014) suggest that religious participation may be unique among American Indians, giving them a distinctive religious profile different from individuals affiliated to mainstream religious groups. Religio-spiritual traditions are defined as a mix of indigenous traditions before European contact and Christian faiths, or “‘new’ or syncretic traditions combining aboriginal and Christian elements” (Garrouette et al., 2014, p. 20). The results of the study showed a uniformly high level of participation across all groups regardless of which religio-spiritual tradition participants belonged to. Further, the socio-demographic variables that reliably predict religious participation in the general American population, such as age, gender, and education, proved insignificant in the relationship between religious participation and the three religio-spiritual traditions.

Literature surrounding religiosity respective to Asian Americans is slim. However, research conducted by Min and Jang (2015) on the religious experiences of Asian immigrants in the United States sheds light on Asian American religiosity. Min and Jang conclude that there are significant national-origin differences both in religious adherence and affiliation across the five major Asian immigrant groups – Chinese, Indian, Filipino, Korean, and Vietnamese. While only
one-fourth of Chinese immigrants adhere to a religion, almost all Indian and Filipino immigrants do; and or Filipinos, 95% affiliate with a Christian religion. Furthermore, the majority of Asian Buddhist and Muslim immigrants and roughly one-third of Indian Hindu immigrants practice religion without attending a formal religious institution. This differs from Asian Protestants and Catholic immigrants who have higher levels of religious participation in formal religious institutions. These patterns of religious participation for Asian immigrants in the United States can be extended to Asian Americans more generally, following the theories of scholars Ann Swidler (2001) and Danièle Hervieu-Léger (2000) who understand religion as a link to one’s distinct cultural and historical tradition.

Age

Age has often been noted as a predictor for religiosity, and many studies examine the relationship between age and religiosity as trends, viewing changes in religiosity as a function of age, birth cohorts and period effects. By birth cohorts, researchers are referring to individuals born in the same time period, or generation. And by period effects, researchers are referring to changes among people of all ages from one period to another. Researchers argue that examining religiosity across age, cohort, and periods garner more accurate results regarding religious trends over time, since age and generation tend towards a conflation of results.

In a study by Voas and Crocket (2005), for example, a longitudinal analysis was conducted on a sample of 10,264 British citizens regarding changes in religious affiliation, belief and attendance over time across age and between cohorts. The data employed in this study followed participants over the span of eight years. The results of this study showed that overall, older people are more religious than younger ones, and over time, individual religiosity does not change substantially. Moreover, the general level of religious affiliation falls for each successive generation, and the gap between cohorts regarding their levels of religious affiliation has been
increasing over time. These results suggest that it is not necessarily age that is a predictor of levels of religiosity so much as generation.

Research conducted on the relationship between aging and religiosity in the United States yield somewhat similar results. A study conducted on the patterns of religious and secular giving, and religious attendance on two separate cohorts, a pre-war cohort and a baby-boom cohort (Wilhelm, Rooney & Tempel, 2007), demonstrated that individuals from the older generational cohort increased religious giving and attendance as they aged. The younger generational cohort, on the other hand, demonstrated lower levels of religious attendance than researchers expected based on the levels of attendance generated from the older cohort. Similarly, the amount of religious giving was lower than researchers expected based on the amount of giving by the older cohort. The findings of this study show that while religiosity may increase as individuals age, generational differences in religiosity are at the root of trends in religiosity more than age itself.

Schwadel (2010) carried out an examination of age, period, and cohort effects on US religious service attendance utilizing repeated, cross-sectional data analysis on data from the General Social Survey 1972 to 2006. Different from Wilhelm, Rooney and Tempel’s study (2007), Schwadel (2010) found that there is little overall cohort effect on American’s frequency of religious attendance and only a modest period-based decline in attendance in the 1990s. Age, on the other hand, had a positive non-linear effect on religious attendance, corroborating the long-standing argument that older individuals are more religious.

**Education**

Following in the footsteps of Max Weber and Emile Durkheim, sociologists have long argued that higher levels of education have a secularizing effect on religiosity. Although, there is some evidence to the contrary, recent research (Sensenig, 2013) has shown that lower rates of
religious affiliation are correlated with higher levels of education. Looking at data produced by the Pew Forum from 1940 through 2009, Sensenig (2013) shows that the percentage of religiously unaffiliated people increases over time, a trend that closely tracks the proportion of the US population 25 years and over who have completed a bachelor’s degree.

Studies have corroborated this finding, arguing that exposure to scientific worldviews accessible through higher education displaces religious belief. Stark and Finke (2000) have noted that many people hold that the religious mind is primitive, illogical, and irrational. Education brings with it scientific enlightenment and technological progress, thereby filling the mind with logical and rational thinking. A study conducted by Wuthnow (1985), for instance, shows that among professors and graduate students, religious belief and practice is low.

Recent data analysis of the General Social Survey from 1970 through 1990 support Wuthnow’s claim (Iannconne, Stark & Finke, 1998). In this case, consistent with earlier findings, professors and scientists are less religious than the general public, demonstrating lower levels of religious belief. Individuals with graduate degrees proved to be more religious than professors and scientists, but less religious than the general public. That said, Iannconne, Stark, and Finke (1998) take great care in the interpretation of their results, stating that while these differences in religiosity across education are statistically significant, they are only marginally so, and often interact with other demographics such as gender and race to various degrees.

Schwadel (2015) extends these lines of thinking in a cross-national examination of the relationship between education and religiosity. In his study, Schwadel analyzes survey data from over 46,000 respondents across 39 nations. The findings of the study show that at the aggregate level, higher education has a moderate, negative effect on religiosity, which varies considerably across nations with negative effects most robust in nations that are considered religious.
Schwadel’s research suggests that not only is there a relationship between levels of education and levels of religiosity, but that social context has an impact on this relationship.

**Family Composition - Household Size and Marital Status**

Literature on the relationship between family and household composition and religiosity almost always focuses on the ways religion affects family dynamics not vice versa. Despite the lack of causal evidence regarding the ways family composition might influence individual religiosity, we can look to studies examining the effects of religiosity on family composition for clues. Several scholars, though, have examined the ways that parent religiosity is reflected throughout youth development and into emerging adulthood.

James Fowler’s (1981) *Stages of Faith*, for example, discusses how family composition, neighborhood safety, and the psychological health of a child’s caregivers are important factors for fostering the development of religious belief and practice throughout one’s life. Outlining six stages of developmental growth, Fowler demonstrates how faith and religious belief are shaped through psychosocial development. Stage one, the Intuitive Projective phase, is where preschool children learn their most basic ideas about God. These are generally ideas picked up from the child’s parents or guardians. As the stages progress and children move towards adulthood, they begin to understand the world more logically, and the influence of family in shaping religious views becomes less apparent as it is replaced by the influence of other social circles. Family, therefore, really plays a hand in the development of one’s religiosity only early in life.

Speaking to this idea, a study examining the effects of family religiousness on psychological functioning in youth showed that family religiousness plays a role in protecting youth against negative behaviors such as substance use (Richardson, Hardesty, & Jeppsen, 2015). Utilizing secondary data analysis on data from a sample of 522 students between the ages of 16 and 19 from the East South Central United States, researchers performed structural
equation modeling to test the effects between family religiousness and idealization, peer substance use, and psychological functioning. Family idealization is the degree to which people prize their families and perceive them as having all the qualities they want, providing positive illusions (Richardson, Hardesty, & Jeppsen, 2015, p. 1244). The results of the study suggest that family religiousness affects peer selection and levels of socially acceptable substance use among peers, and family idealization plays a role in the connection between family religiousness and psychological functioning. Family, in this case, plays a protective role for young adults through religiosity.

Scholars have also examined the relationship between parent-child dynamics and emerging adult religiosity in a cohort of 481 alumni from two Christian colleges (Leonard, Cook, Boyatzis, Kimbal, & Flanagan, 2013). For these emerging adults, religion was a central aspect of their identity. Many stated that they were intrinsically motivated in their faith, thus demonstrating high levels of religiosity. As the findings showed, participants in the study reported high overall religiosity for their parents as well and perceived their religiosity to be similar to their parent’s, with a clear sense that their parents supported their own faith. Furthermore, the results showed that attachment to fathers in combination with greater perceived similarity to father’s religious beliefs predicted emerging adult religiosity more so than attachment to mothers and parental religiosity alone. These findings conclude that for some young adults, maintaining the beliefs they were raised in is an important facet of their development into adulthood.

Similar findings were reached in different cultural contexts. In Romania, for example, a qualitative study of young adults examined the dynamics of religious cognitions, behaviors, and emotions and the role that family religious socialization plays. It concluded that the religious
socialization that occurs in childhood is an important source for learning religious beliefs, behaviors, and related emotions (Negru, Haragâs, & Mustea, 2015). Parents, according to the study, detail religious behaviors as role models, and provide religious explanations as educators. As the researchers note, in adulthood “parents still represent religious models but in a different manner compared to childhood, namely, through the perseverance and constancy parents naturally display in their religious endeavors, they inspire their children in maintaining their religiosity despite adversity” (Negru, Haragâs, & Mustea, 2015, p. 401).

A review conducted by Mahoney (2010) of 184 peer-reviewed studies from 1999 to 2009 on the role of religion in marital and parent-child relationships highlights several important findings. On the one hand, higher levels of religiosity help form family bonds. Religion, for example, is a relevant factor in seeking a spouse, proclivities towards marriage, and onset of marital unions. On the other hand, religion facilitates the maintenance of traditional family bonds by way of solidifying marital unions and lowering risks for marital separation or divorce. In this case, studies showed that greater integration into a religious community can help prevent divorce, particularly for couples who attend church together. Similarities in the frequency of religious attendance and the importance of shared religious experiences proved to be an important component to marital satisfaction, and motivated constructive conflict resolution and resolution. And married couples with strong religious values and a higher frequency of religious attendance were less likely to engage in marital infidelity.

**Gender**

Literature on the relationship between gender and religiosity has claimed that women tend to be more religious than men. According to a literature review by Francis (1997), empirical research has shown that females are overall more frequently and intensely religious than males. These studies conducted on gender and religiosity can be grouped into two
theoretical camps: those who view the relationship between gender and religiosity through the lens of socialization and those who view it through a structural lens (Francis, 1997).

Socialization theories understand individual differences as part of the differences encountered through social experiences. Males, for example, are socialized into thinking and believing that emotional neutrality will better serve their purposes, meet goals, and resolve conflicts than emotional surrender. Females, on the other hand, are socialized to believe that conflict resolution, submission, gentleness, and other expressive values are requisites to meeting their purposes. These differences in gender socialization make females inherently amenable to religious beliefs and practices, as they are congruent with religious emphases (Francis, 1997).

Structural location theory argues that women are expected to be the prime socializers within society, exemplifying and teaching morals and other socio-emotional skills. Men, on the other hand, are expected to be more instrumental in their dealings. Women, therefore, tend to participate in religious communities, such as through church attendance, more so than men. This is because religious communities advance moral values and create avenues for social support, all of which support women’s social location. Religiosity and religion are mutually supportive for females (Francis, 1997).

Both socialization and structural location theories regarding the relationship between gender and religiosity are further supported by a variety of psychological theories (Francis, 1997). As depicted through depth psychology, for example, Freud’s classic doctrine that an individual’s relationship with God is dependent on one’s relationship with one’s father, viewed either through an Oedipus or Electra complex. Other psychological theories state that differences between males and females result largely from personality differences, like a woman’s desire for relationships and her general preponderance towards relating. Religion, in
this view, can be a mechanism for relating, both in terms of providing spaces to build and foster relationships, but also provide divine relationships with God and other divine beings. And finally, gender orientation theory, a more current thesis on gender differences, states, “masculinity and femininity are not bipolar descriptors of a unidimensional construct, but two orthogonal personality dimensions” (Francis, 1997, p. 88). Religion, therefore, is more appealing to individuals with a feminine orientation.

Since Francis’ review, scholars have attempted to further validate the claims made by researchers studying the relationship between gender and religion. Fiori, Brown, Cortina, and Antonucci (2006), for example, conducted a study utilizing data from Wave I of the American Changing Lives study to understand differences in religiosity across a variety of ethnicities, ages and religions. The authors concluded, much like in previous studies, that women were typically more religious than men, reporting higher levels of religiosity than men. Religiosity in their study was operationalized as the importance of religious or spiritual beliefs, the frequency of seeking spiritual comfort and support, attending religious services, and reading religious books or materials (Fiori, Brown, Cortina, & Antonucci, 2006). The authors suggest that, at least for women, religiosity may act as a means for maintaining a sense of internal control in spite of economic dependency, restricted opportunities, and a lack of balance in the number or extent of expectations placed on them or internalized in their role as women.

Smaller scale, qualitative studies support these findings. A qualitative study of 14 women residing in the Midwest who identified as either Muslim or Christian, for example, investigated the influences of religion and feminism in their lives (Rasheed Ali, Mahmood, Moel, Hudson, & Leathers, L., 2008). The findings of the study showed that both Muslim and Christian women reported that religion was a part of their lives and influenced their everyday decision-making.
For Muslim women, religion was something they felt they needed to “represent” as women and Muslims living in the United States. For Christian women, despite religion’s reputation for being patriarchal and repressive, religion was depicted as a source of strength.

**Economic Circumstance & Employment Status**

One of the main tenets of this dissertation is that economic circumstance affects religiosity. We saw in Norris and Inglehart’s (2004) *Sacred and Secular* that existential security and feelings of vulnerability at the social and personal level are ameliorated vis-à-vis transcendental reassurance. Feelings of vulnerability are amplified by an adverse economic climate.

Ruiter and Van Tubergen (2009) test Norris and Inglehart’s theory by examining why some countries are more religious than others. In their study, the authors test several hypotheses: that higher levels of education will be associated with lower levels of religious attendance, that people with less secure economic positions (e.g., unemployed, low income) will attend religious meetings more often, and that in countries with more socioeconomic inequalities people will have higher levels of religious attendance. Using data from the 1990 – 1993, 1995 – 1997, and 1999 – 2001 waves of European and World Surveys, Ruiter and Van Tubergen examined religious participation of 60 countries, representing in total 136,611 individuals. The results of the study show that at the individual level, financial insecurities lead to more religious attendance. That is, the higher an individual’s income, the less likely they are to attend religious service, and individuals who are unemployed have higher odds of weekly religious participation than those who were employed. Furthermore, the results showed that individuals who live in countries with larger income disparities are more likely to attend religious meetings frequently. These findings are in line with Norris and Inglehart’s cross-national analyses of religious participation.
Researchers Brandt and Henry (2012) utilized data from 90 diverse societies from waves III, IV, and V of the European and World Values surveys to understand the mechanisms involved in the relationship between socioeconomic status and religiosity. The authors posit that religion acts as a form of psychological protection from prevailing economic insecurities by providing a worldview that imbues life with meaning, value and certainty, gives individuals standards and beliefs that they can strive to live up to, provides a sense of identity and moral community, and fosters social connectedness. The study showed that lower income and education were related to less trust (measured as the perception that “people could be trusted”) and a greater importance of God in one’s life, ultimately suggesting that religion acts as psychological buffer for individuals with lower income and education. The authors conclude, “people who have lower socioeconomic status are more psychologically defensive because they face chronic psychological threats from a society that marginalized them” (Brandt & Henry, 2012).

Social Support & Connectedness

As noted previously, one of the ways that religion acts as a coping strategy for stress relates to the utilization of social support networks. Religious communities serve as social networks that draw from a variety of resources (Bradley, 1995) and act as a social buffer that mediates life stress (Ellison, 1995). These resources include subjective-support in the form of socio-emotional reinforcement, as well as informal and formal assistance like networking, monetary assistance, and other financial and employment-related instrumental aid. But how do social support networks affect religious belief and behavior? The impact of social support and social networks on religiosity is infrequently addressed in the literature. We can look, however, to studies that examine the connection between social support and religion for clues on how the relationship functions and what purposes it serves.
To begin, in Robert Putnam’s (2000) examination of civic engagement in the United States, Putnam contends that associational memberships via church related groups are an important asset to the building and maintaining of social networks. Further, these social relations are not only important for community building and networking but also for cultivating life skills that come in handy in the other areas of social life such as the workforce, familial relations, and political participation. Religious participation is one form of civic engagement that fosters these various forms of social support and connectedness and which in turn produce various forms of capital. While Putnam does not make the claim himself, it is easy to extrapolate that the increased number of mega-churches throughout the United States are supplying avenues for civic engagement in a time where individuals feel compelled to seek it. As Putnam explains, mega-churches offer more than just religious beliefs and practices – they also create a space where individuals, laity, can emotionally commit to one another. A place where at any given time, smaller groups that cater to the hobbies and interests of church-goers are being formed and cultivated for increased social connectedness and civic engagement. Therefore, the effect social support and connectedness have on religiosity is most apparent when there is a distinct lack of social support and connectedness in life. When social support for individuals is low, increased religious participation is one way to ameliorate it.

In a similar vein, we can look to the assimilation process of US immigrants to understand the connection between social support and connectedness on religiosity. According to Ebaugh and Saltzman Chafetz (2000), for example, religious participation provides many different benefits to immigrants as they attempt to assimilate to life in their new home. For some, the benefits come by way of material gains vis-à-vis the social networks that are made through their religious institution. These include things like finding employment and housing as well as
obtaining valuable information on the local community. For others, making connections within their religious institution provides social support and fosters a kind of ethnic community that would otherwise be lost. In both cases, however, religion provides services that help immigrants assimilate; as well outlets that help immigrants deal with the emotional issues related to the process of assimilation. Therefore, the thought follows that individuals with low social support networks might increase their religious participation as a way to access social support and connectedness.

**Mental Health**

The impact of mental health on religiosity is difficult to glean from literature and little research has been conducted specifically on the causal path between mental health and religion. From a review of the literature, it appears that scholars have taken for granted the fact that religiosity is part of an individual’s larger orienting framework, which is in all cases influenced by a myriad of individual subjective factors (Glock & Stark, 1965). Part of the reason for the dearth of literature related to the impact of mental health on religiosity could be because, as Belzen (2010) states, “religion is not a property of human psychic functioning; it is the opposite: in all religions the entire range of psychic functioning manifests itself” (p. 15). That is, to study the underpinnings of a type of religious behavior, such as prayer, for example, one needs to understand that prayer, and all religious belief and behavior for that matter, mean different things to different people relative to their culture. This dissertation does not take this for granted but seeks to understand how individual psychological and social factors influence religiosity.

To that end, the field of the psychology of religion examines how individuals utilize religion but not specifically the psychological elements that influence individuals’ use of religion. According to Rambo and Farris (2012), the psychology of religion is a “cluster of interrelated disciplines, themes and issues that focus on the human experience of religion and
spirituality” (Rambo & Farris, 2012, p. 712). It examines how experiences, relationships, beliefs, behaviors and consciousness as they relate to supra- or trans-human dimensions, entities or beings are perceived by and affect individuals, groups, and cultures, as well as individual subconscious motivations and attitudes towards religion (Ulanov & Ulanov, 1975). For Freud, for example, religion is a symbolic reflection of a child’s sense of weakness and helplessness in the face of the awe-inspiring and dangerous surrounding world, and it is a re-enactment of the human relationship between a son or daughter and his or her father (Freud, 1913/1989a; 1927/1989b). Jung, on the other hand, proposed that religion safeguards human sanity against the reality-shaking world of the divine through formal dogmas and traditions that humans use to relate to the numinous and provides individuals a way to express their individuality and autonomy through allegiance to a specific god and belief system (De Laszlo, 1990).

According to Krause (2011), both the study of religion and health in their current iteration have been developed overtime through a series of middle-range theories. A thorough conceptual overview of the relationship between religion and mental health has never truly been established. If religion has effects on various facets of mental health, then it would be assumed that mental health plays a role in the decision to integrate religiosity into one’s life in the first place. This is particularly so considering that many studies examining the relationship between religion and mental health cannot make claims with certainty on the causal pathway between the independent and dependent variables.

For example, a study conducted by Sethi and Seligman (1993) on 623 adherents of nine major religions found that individuals who hold fundamentalist religious views are more likely to report being optimistic and hopeful than individuals with more liberal views. The authors claim the reason for this is that fundamentalist teachings foster optimism and hope. The limitation of
the study, however, is that the effect of fundamentalism on optimism and pre-existing levels of optimism and hope could have mediated hope, a fact the authors never address.

Similarly, a study conducted on a sample of 754 subjects from the longitudinal cohort study Children in the Community examined whether religious service attendance helps in reducing depressive symptoms (Zou, Huang, Maldonado, Kasen, Cohen & Chen, 2014). Their study concluded that across all demographics, increased frequency of religious service attendance predicts decreased symptoms of depression, corroborating similar findings found through other studies regarding the relationship between religiosity and depression (Koenig, 2009). Again, scholars know there is a relationship between religion and mental health; the inverse relationship, however, is never fully examined. It is possible, for example, that individuals with higher levels of depression are more likely to attend religious services, a proposition that cannot be ruled out and which the authors do not articulate. This study will attempt to uncover the role that mental health plays in the relationship between economic insecurity and religiosity.

3.4 Contribution to the Field
Extending Pargament’s thesis, this dissertation asserts that inclinations towards religious coping strategies will be determined by higher or lower levels of psychosocial well-being and mental health. Individuals with higher levels of psychosocial well-being and mental health will not turn towards religion as much as individuals with lower levels of psychosocial well-being and mental health. This is because non-religious resources such as social support, self-efficacy, optimistic attitudes and positive mental health supplement an individual’s orienting system and lessen the need to rely on religion as a way to make sense of hardship.

Why do religious coping strategies matter? The answer relates to claims made in this dissertation, only part of which the secularization debate addresses. Many scholars have
proposed more current theories of societies’ religious trajectories – religion’s rise and/or decline over time – examining causal effects and correlations between religion and other social forces like politics and the economy, cross-nationally at the macro-level. And while these studies have made seminal claims of great importance to the discussion regarding secularization, this study explores the nuances of religious belief and practice relative to the individual experience, and examines religion as a personal form of stress coping. This dissertation brings to the table the missing link within this discussion, that of the role of personal experience and individual context.

As secularization theorists have noted frequently, religion has become a private matter that is no longer in the foreground of public life. Religious belief and practice, therefore, is private and as such highly individual. To borrow again from secularization theory, religious pluralism also allows for the co-existence of a myriad of religions within a singular space, allowing for individuals to pick and choose the religion that resonates more deeply with the views and values. Given these two tenets of secularization theory, it makes sense to examine religious coping strategies since an individual’s religious repertoire is part of the orienting system used towards improved well-being, demonstrating the ways individuals might use religion in times of hardship and stress. Understanding how individuals might utilize religion as part of a coping strategy sheds light on the relationship between individuals and religion. That relationship plays a role in the larger picture regarding the overall rise-and decline of religion throughout the world.
Chapter Four: Quantitative Methods

Before discussing the methods employed in this study, this chapter will give an introduction recounting the overarching hypothesis under investigation. A discussion of the dataset and the analytic samples utilized in all subsequent analyses follows next. After this a report of the dependent and independent variables analyzed in this study, including a rationale of their use and description of how the variables were transformed and/or constructed, will be given. Finally, the analytic strategy used in this study is presented.

4.1 Introduction

This dissertation asserts that when the formal ties of society, as occur in the economy, for example, become loose or broken, the threat to everyday life promotes a shift in religious beliefs and practices. For this reason, this study examines how economic circumstances effect individual shifts in religiosity and how these shifts are influenced by psychosocial well-being and mental health. The hypothesis of this study is that religiosity will increase in the face of economic insecurity, but it will be dependent on individual levels of psychosocial well-being and mental health and will vary across demographics. The term economic insecurity represents personal financial hardship. However, because religion is affected by changes in macro-level structures such as the economy, economic insecurity is contextualized within broader United States economic trends. This dissertation, therefore, tests the association between individual economic circumstance and religion, examined against changes in the economy. To test this hypothesis, this dissertation examines a nationally representative sample of US residents.

4.2 Dataset

The data employed in the study are drawn from the Americans’ Changing Lives (ACL) study conducted by the University of Michigan. The ACL study is “the oldest ongoing nationally representative longitudinal study of the role of a broad range of social, psychological
and behavioral factors” on the lives of adult Americans (House, 2010). The ACL is a longitudinal panel study that involves repeated observation of the same variables over time for the same individuals. Studies like these are used in sociology to examine life events throughout generations and understand the relationships between these events, individual behaviors, perceptions, preferences, and later outcomes that may affect an individual’s well-being. In its current iteration, the ACL study includes five waves (or panels) of participant interviews that span 1986 through 2011.

The ACL study began in 1986 with 3,617 interviews administered to adults ages 25 and older living within the continental United States. Because the ACL study focuses primarily on “differences between Black and White Americans in middle and late life” (House, 2010), the study design oversamples African Americans and the 60 and over population, at twice the rate of others. The sample design for the ACL study is based on an “area probability design” (House, 2010), which collects samples in geographic areas in which there is a known probability of reaching the studies intended participants (Hall, 2008) – in this case Blacks and older adults. Wave I interviews were conducted face-to-face, lasted 86 minutes long, and represented a 68-70% response rate of the studies’ initial intended sample (House, 2010).

In Wave II, the ACL study obtained 2,867 face-to-face interviews with “survivors” from Wave I. Survivors are those respondents who participated in previous study waves and were still alive and could therefore be included in subsequent interview panels. According to the ACL study (House, 2010), in Wave II, researchers garnered an 83% response rate of the studies’ intended sample (i.e. participants from Wave I). Wave II was conducted in 1989 through face-to-face interviews lasting about 89 minutes.
In 1994 a third wave of participant interviews were administered. In this case, 2,562 interviews were obtained via telephone or in-person with interviews lasting 45 minutes. Of the Wave III sample, 2,398 of the interviews were conducted with study survivors, and 164 interviews were proxy interviews. Proxy interviews are used in survey design to gain information regarding an intended participant’s activities and/or experiences via an individual close to the intended participant (usually a next-of-kin) in the case where an intended participant has either passed away or has fallen too ill to be interviewed (Cohen, 2008). The response rate for Wave III was also 83% of the studies’ intended sample (i.e. surviving participants from Wave I and/or Wave II) (House, 2010).

Wave IV was conducted in 2001 with 1,787 study participants, including 95 proxy interviews, who were reinterviewed. The response rate for Wave IV was roughly 76 - 80% of the intended sample (House, 2010). Interviews were administered either in-person or over the phone with interviews lasting 45 minutes long.

Finally, Wave V was conducted in 2011 through 60-minute interviews administered via telephone or face-to-face. Wave V’s sample includes 1,427 participants, of which 108 were proxy interviews. The response rate for Wave V was 81% of the intended sample (House, 2010).

Measures included in the ACL study are: interpersonal relationships with family and friends, sources and levels of life-satisfaction, kinds of social interactions and leisure activities and their respective frequencies, traumatic life events and sentiments about these, health behavior and the utilization of health care services, measures of physical and psychological health, and indices of cognitive functioning (House, 2010).
4.3. Analytic Samples

This study uses a longitudinal study design to understand changes in religiosity over time. The longitudinal aspect of the ACL study enables measures of change for distinct concepts like religiosity and economic circumstance and for the analysis of their interaction with a multitude of manifest and latent variables captured at different time-periods. To examine these interactions, the analysis is conducted at two specific and distinct time-periods, 1994 and 2011, which reflect different US economic climates.

The time periods examined in this dissertation were chosen for two reasons: first, because consistent data to measure changes in religiosity and economic circumstance and the influence of individual level factors on this relationship were available longitudinally in the ACL study across these two time-periods; second, because the period from 1986 to 1994 and 1994 to 2011 represent trends in different economic climates.

There are multiple indicators used by economists to determine trends in the United States economic climate; one commonly used measure is the unemployment rate.

![Figure 2. Unemployment Rate](image-url)
As shown in Figure 2., despite the fact that the period between 1984 and 1992 was bookended by recessions on either end and a small but substantial increase in unemployment rates occurred between 1991 and 1992, the time period between 1986 and 1994 displayed overall favorable economic trends with moderately low and stable unemployment rates. The highest unemployment rate was 7.4% in 1992 (at the end of the second recession in 1991), which then dipped to 5.5% in 1994 (Bureau Labor Statistics, 2014). Within this time, a stock market crash in 1987 resulted in an increase in the US federal and international budget deficit and a sluggish and unstable US economy (Weilling, 2012). President Clinton came into office when the 1980s economic downturn had run its course. A recovery from the 1991 US recession was underway, and Clinton oversaw relatively robust US economic growth (Mathews, 2012). Throughout Clinton’s term from 1993 to 2001 the US economy showed increasing strength: Unemployment rates fell; the GDP increased; poverty rates declined; inflation was stable; and the median wage grew (Mathews, 2012).

The period from 1994 to 2011 demonstrated the opposite effect. Figure 2. shows that unemployment rates between 1994 and 2011 were much more variable, particularly after 2002. In this case, unemployment saw a high in 2009 at 9.9%, dipping to 8.5% in 2011 (Bureau Labor Statistics, 2014). During this time, the Financial Crisis of 2008, also known as the Great Recession, began in 2007 with the bursting of the United States’ eight trillion dollar housing bubble. The fallout from the housing collapse was extremely detrimental to the US economy, with sharp cutbacks in consumer spending, chaotic financial markets, a collapse in business investment, and massive job losses (Economic Policy Institute, n.d.). Unlike the 1991 recession, recovery from the Great Recession was slow; its effects are still being felt, even into 2016. Accordingly, at the start of 2011, 20 months after the official end of the Great Recession, the
unemployment rate was roughly five percentage points higher than at the start of the downturn. With continued job losses in 2011, family wealth dropped, poverty was on the rise, health insurance coverage rates declined, and the economy staggered along (Economic Policy Institute, n.d.).

In light of differences in economic conditions between 1986 and 2011, this study includes only those participants who participated in Waves I, III, and V of the ACL study. Wave I represents the study’s baseline year 1986 and is used to measure changes in religiosity and economic circumstance in later years. Wave II (year 1994) represents the first period of change, from 1986 to 1994, and a more favorable US economic climate. Wave V (year 2011) represents the second period of change when less favorable economic trends occur: in this case, from 1994 to 2011, when the economic climate demonstrated significant increases in unemployment rates.

To create a subset of respondents who participated in all five waves of the ACL study from the overall study sample, a filter variable was created called *All Waves Filter*, which removed those participants who were not interviewed in all five waves of the ACL study. This filter was created with variables included in the ACL study dataset at each Wave (with the exception of Wave I). For Wave II this variable is V9000; for Wave III variable V10800; for Wave IV variable V12007; and variable V15001 for Wave V. Using SPSS statistical software, a filter variable was created that coded those respondents who participated in all five waves as one (1) and all other participants as a zero (0). The *All Waves Filter* created a total sample size for participants who participated in all five waves of the study of 1,058. This is the subset of the sample that is under investigation.

A weight for the data was also used in the analysis of this study. Weighting is generally conducted in statistics to correct sample sizes that are disproportionate and adjust the collected
data to represent the population they were initially intended to represent. In the case of the ACL, researchers calculated cross-section panel weights for each wave and one weight for Wave V for those participants who responded at all five waves. This latter weight, variable V16902, was utilized in the analysis to compensate for unequal probabilities of selection, nonresponse, and to adjust for changes in the intended sample due to death and respondent attrition.

4.4 Measures
Each of the variables included in the study were generated using the data from the first, third, and fifth waves of the ACL study (years 1986, 1994, and 2011, respectively). The current study included four separate continuous dependent variables, which will be discussed in this section. Three domains of independent variables were included in the analytic models of this study. These domains included several composite variables created for this analysis and are also discussed in section 4.4. SPSS statistics software was used to recode variables that needed additional preparation to be included in the analytic plan. The recoding process will be discussed when applicable.

Dependent Variables
To test the impact of psychosocial well-being and mental health on the relationship between religiosity and economic circumstance, four dependent variables were used to measure the concept of Religiosity at two separate time points, 1994 and 2011. These four separate variables measured two distinct themes commonly found in the field of the sociology of religion: the importance of religious beliefs in everyday life and religious behavior (Norris and Inglehart, 2010). When analyzing religiosity, it is important to measure both the formal aspects of religious belief and practice as well as the subjective, spiritual aspects of religion (Pargarment, 1997; Rambo and Farris, 2012).
Two of the dependent variables included in the analysis measured change in religious belief. These two dependent variables were created from the ACL study question *Importance of Religious Belief*. It asked: “In general, how important are religious beliefs and practices in your day-to-day life?” The variables used from the ACL study were V1612 for Wave I, V10450 for Wave III, and V16403 for Wave V. The questions were measured on a four-point Likert scale, such that “Very Important” was coded as one (1) and “Not at All Important” was coded as four (4). For the purposes of this analysis, however, the questions were recoded so that “Very Important” was coded as four (4) and “Not at All Important,” as one (1). Recoding the variables in this way allows for an easy interpretation of the results once the analysis has been conducted. Additionally, the recoding is based on the theoretical underpinnings of the study, which specify the direction of the relationship of the variables under analysis. For example, the analysis is meant to uncover changes in religiosity relative to changes in economic circumstance. So all variables included in the analysis that measure frequency, attainment, perception, etc. utilize a response format that measures from low-to-high. This ensures that changes in these same variables are measured as decreases-to-increases or negatives-to-positives.

As noted, the analysis is interested in whether individual religiosity increases or decreases in the face of economic hardship. Therefore, the two dependent variables, *Change in Religious Belief from 1986 to 1994* and *Change in Religious Belief from 1994 to 2011*, were created. The variables were recoded from the original variables that measured importance of religious belief (variables V1612, V10450, and V16403) and then standardized. The purpose of the standardization was to add variance to the constructs.

Once the initial variables were standardized, the value for *Importance of Religious Belief* that was collected in 1986 was subtracted from the value of *Importance of Religious Belief* that
was collected in 1994, thus creating the variable *Change in Religious Belief from 1986 to 1994*. Similarly, the *Importance of Religious Belief* collected in 1994 was subtracted from *Importance of Religious Belief* collected in 2011, thus creating the variable *Change in Religious Belief from 1994 to 2011*. A negative score means that the importance of religious belief in an individual’s life decreased from the previous time period, while a positive score means that the importance of religious belief increased.

The same procedure was conducted to create the two dependent variables measuring religious behavior – *Change in Religious Behavior from 1986 to 1994* and *Change in Religious Behavior from 1994 to 2011*. These constructs were created using the variable *Frequency of Religious Attendance*, which asked, “How often do you attend religious services?” The variables found in the ACL study dataset are V1613 for Wave I, V10449 for Wave III, and V16401 for Wave V. The response format for these questions was a six-point Likert scale, whereby attending religious service “More than Once a Week” was coded as one (1) and attending religious services “Never” was coded as six (6). Again, for the purposes of the analysis, this question was recoded so that attending religious services “Never” was coded as one (1) and attending religious services “More than Once a Week” was coded as six (6).

After the original variables measuring religious behavior were recoded for the years 1986, 1994, and 2011, the variables were then standardized. Similar to the dependent variables measuring religious belief, these variables were standardized to add variance to the constructs measuring religious behavior.

After the variables measuring frequency of religious attendance were standardized for the years of 1986, 1994, and 2011, the variable *Frequency of Religious Attendance in 1986* was subtracted from the variable *Frequency of Religious Attendance in 1994* to create the construct
Change in Religious Behavior from 1986 to 1994. Similarly, the variable Frequency of Religious Attendance in 1994 was subtracted from the variable Frequency of Religious Attendance in 2011 to create the variable Change in Religious Behavior from 1994 to 2011. A negative score means that religious behavior in an individual’s life went down from the previous time period, while a positive score means that the importance of religious behavior rose.

All dependent variables were analyzed in multi-level linear regression models that control for standard participant demographics and test the impact of a variety of variables related to economic circumstance, psychosocial well-being, and metal health. The analytic strategy will be discussed further in section 4.5.

**Independent Variables**

A total of 16 manifest and latent independent variables were analyzed in this study at each time period – 1994 and 2011. In most cases, the variables used as manifest variables and those used to create latent variables were captured in all five waves of the ACL study. In a few cases pertaining to demographic data, however, the variables were collected only for the ACL study baseline year 1986. Nominal and ordinal variables were taken directly from the publicly available ACL study dataset. Additional latent variables were created for the analysis. In several cases it was necessary to recode the data so that they could be used in the models. Each case of recoding is discussed in subsequent sections in this chapter.

The independent variables in this study range over three domains. The first domain, *Participant Demographics*, captured information about religion, race, age, education, household size, marital status and gender. The second domain of variables, *Economic Circumstance*, measured changes in economic security across years, as well as employment status. Domain three employed several manifest and latent variables capturing aspects of *Psychosocial Well-being* and *Mental Health*. These included latent and manifest variables for social support,
connectedness, self-efficacy and optimism, negative mental health, and life satisfaction.

**Participant Demographics Domain Variables**

The first domain tested in the analysis was participant demographics. Participant demographics were used to assess the degree to which religion, race, age, education, household size, marital status, and gender significantly predicted changes in religiosity relative to economic circumstance. All of these elements shape the ways individuals express their religious beliefs and practices (Bourdieu, 1984; 2000; Hervieu-Leger, 2000) and are therefore important to understanding their interaction with religiosity and economic circumstance. These standard demographics were used to control for any variance in the impact of economic circumstance, psychosocial well-being, and mental health and to examine whether there were differences in religiosity and change in religiosity across demographics.

The first demographic variable tested was *Religion in 1994 & 2011*. According to Pargamant (1997), the dogmas and practices of different religions yield different forms of religious belief and practice. In this case, “What is your religious preference?” yielded five (5) categorical responses – Protestant, Roman Catholic, Jewish, None, and Other. As noted previously, some demographic variables included in the ACL study were collected only from the baseline year 1986 – *Religion in 1994 & 2011* (variable V3200) was one of them. This is a limitation of the study because it does not capture changes in individual religious affiliation across all the years, which, were they to occur, would be an interesting nuance to examine.

For the purposes of the analysis, the variable *Religion in 1994 & 2011* was recoded into five dichotomous dummy variables: *Protestant, Catholic, Jewish, None*, and *Other*. In this study, the five dichotomous dummy variables were recoded such that one (1) was the stated religious preference and zero (0) were all the other religious preferences combined.
Race in 1994 & 2011 is also tested in the analysis and is treated much like Religion in 1994 & 2011. Race has been shown to play a role in the ways individuals respond to vulnerable situations (Anshel, Sutarso & Juebenville, 2009; Samuel-Hodge, Watkins, Rowell & Hooten, 2008; Ulbrich, Warheit & Zummerman, 1989). Similar to Religion in 1994 & 2011, Race in 1994 & 2011 was captured in the ACL study only for the baseline year 1986 (variable V2004). The original race variable was recoded from a five category response format to five dichotomous dummy variables. The dummy variables created from the five categories originally stated by respondents were: White, Black, American Indian, Asian and Hispanic. In the case of each of these variables, the stated race of the respondent was coded as a one (1) and all other races were coded as a zero (0).

Researchers in the field of sociology of religion have shown, age plays a role in the formation, adoption and/or revision of religious belief and practice; religiosity changes over an individual’s lifecycle (Stark and Finke, 2000). For this reason, the variable Age in 1994 and Age in 2011 are included in the analysis. Age was constructed for the years 1994 and 2011 by utilizing the age of the study participant captured at the baseline year 1986 (variable V2000) and adding seven and a half (7.5) and 25 years respectively. ACL study researchers recommended this variable creation because the variables collected for age and year of birth after 1986 proved to be unreliable.

The variable Highest Education in 1994 & 2011 was also included in the analysis. This variable, V2007, was collected in the ACL study only for the baseline year as a continuous variable ranging from zero (0) to 17. The question asked respondents the highest year of school they achieved. In this case, zero (0) reflects having completed no formal schooling, and 17 reflects having completed a four-year higher education degree. Like the variable Religion in
1994 & 2011, the ACL study does not ask respondents to state the highest year of school achieved in interview waves after 1986. It is a limitation of the study. Individuals can go back to school and achieve higher levels of education and/or other types of vocational education that may affect their socioeconomic status and thus their overall well-being (Caplan & Schooler, 2007). Increased educational attainment in years 1994 and 2011, after the baseline year, was not accounted for in this analysis.

The variables Household Size in 1994 and Household Size in 2011, as well as Marital Status in 1994 and Marital Status in 2011, were also included in the participant demographics. As shown by the literature, household dynamic, including size, are important factors in the way religious belief and practice are shaped (Fowler, 1981), and marital status is an important indicator of how individuals cope with stress (Falconier & Epstein, 2011).

Household Size was constructed from multiple survey questions that asked the respondent to list the total number of individuals living in the household during the interview year. For the year 1994, the ACL study variables used to construct household size were variables V10003 through V10017. These questions asked respondents for the relationship of each member living in the household, allowing for up to 14 different household members to be listed. Participants chose the relationship of the household member from a list of 72 categories and included anyone from spouses, to children, to in-laws, and extended family and friends. Via recoding, a one (1) was given to each stated individual living in the respondent’s household regardless of their relationship to the respondent. Once the variables were recoded, they were then summed together to create a single score of the total number of household members living with the respondent, thus creating the variable Household Size in 1994.
For the year 2011, *Household Size in 2011* was created using select ACL study variables V15102 through V15142. This battery of questions from the ACL study asked, “Are there any adults 18 or over living in the household?” and “Are there any children 17 or younger living in the household?” And in separate questions throughout this battery, the ACL study asked participants to state each person’s sex, age, and relationship to the respondent. For the purposes of this study, only the questions that asked whether there were any adults or children living in the household were used to construct the 2011 household size variable. In this case the original ACL study questions were coded as yes or no with yes coded as a one (1) for individuals stated to be living in the household and no coded as a five (5). All yes responses were summed together to create a single score of the total number of household members living with the respondent in 2011.

*Marital Status*, on the other hand, was captured in the ACL study in years 1994 and 2011 by the variables V10451 and V15401, respectively. Both variables were originally coded as dichotomous variables, whereby “Married” is coded as a one (1) and “Not Married” is coded as a two (2). These variables were recoded for the analysis so that “Married” is one (1) and “Not Married” is zero (0). This was done for both variables *Marital Status in 1994* and *Marital Status in 2011*.

Finally, gender has often been viewed as an important indicator of how individuals are affected by economic downturns (Glonti et al., 2015), how they cope with stress (Brougham, Zail, Mendoza, & Miller, 2009), and the ways that religious belief and practice are shaped (Freud, 1989a; 1989b). The variables *Gender in 1994* and *Gender in 2011* are variables that were recoded from the original ACL study questions V10018 and V15101, respectively. The
response format of these variables was one (1) for “Male” and two (2) for “Female.” They were then recoded: “Male” was coded as one (1) and “Female” as zero (0).

**Economic Circumstance Domain Variables**

The second domain under investigation will analyze the effects of economic circumstance and is related to participants’ individual financial situation. Since this dissertation addresses the effects of changes in economic circumstance, the financial situation of a person is treated as a predictor for stress and declining mental and physical health (Caplan & Schooler, 2007; Sperling, Bleich & Reulbach, 2008). Change in Economic Insecurity indicates whether there was a change in respondents’ economic circumstance such that their livelihood became more or less secure. And Employment Status reflects whether a participant was employed each year under investigation.

*Economic Insecurity* is a continuous latent variable that was constructed via the standardization of three separate ACL study variables. One of these variables is *Total Family Income*. The other two variables make up the construct *Financial Stress*. Because Economic Insecurity measures whether a participant’s economic situation is more or less secure, this latent variable was constructed so that the lower the score the more economically secure a respondent is, and the higher the score, the less economically secure (i.e., higher levels of economic insecurity). Therefore, all the components of the variable including *Total Family Income* and the variables that make up *Financial Stress* were coded in the direction operationalized by Economic Insecurity.

Total family income was captured for Wave I, III, and V in the ACL study dataset through the variables V2020, V11215, and V17104, respectively. These variables are categorical variables with response formats that range from one (1) to ten (10) for Waves I, and one (1) to 11 for Waves III, and V. To match response categories across waves, the Wave III and V variables
were collapsed to match Wave I’s response format, with one (1) representing a total family income of “Less than $5,000” a year, and ten (10) representing a total family income of “Less than $5,000” a year. All three variables were then recoded to reflect the direction needed for the creation of the latent variable Economic Insecurity. Total Family Income was therefore recoded such that “Less than $5,000” was coded as ten (10) and “$80,000 or more” was coded as one (1).

The ACL study questions, “How satisfied are you with (your/your family’s) present financial situation?” and “How difficult is it for (you/your family) to meet monthly payments on your (family’s) bills?” were used in this study to measure Financial Stress, the second component that made up the latent variable Economic Insecurity. The variables measuring participant satisfaction with their current financial situation from the ACL study dataset were V1301, V10462, and V16510. These questions were coded on a five-point Likert scale, with “Completely Satisfied” coded as one (1) and “Not at All Satisfied” coded as five (5). The variables measuring difficulty meeting monthly payments from the ACL study dataset were V1302, V10463, and V16511. These questions were also coded on a five-point Likert scale, with “Extremely Difficult” coded as one (1) and “Not Difficult” coded as five (5). The variables measuring difficulty meeting monthly payments were recoded so that their direction matched the direction of the other variables being utilized to create Economic Insecurity. In this case, variables V1302, V10463, and V16511 were recoded so that “Extremely Difficult” was coded as five (5) and “Not Difficult” was coded as one (1).

Once all three manifest variables measuring total family income and financial stress were coded in the same direction, they were then standardized to create continuous variables. This was done for all variables in all three waves. When all three variables for all three waves were standardized, the variable for total family income, and the variables for financial stress were
averaged together for each year – 1986, 1994, and 2011 – to create the variable *Economic Insecurity* for Waves I ($\alpha = .728$), III ($\alpha = .685$), and V ($\alpha = .630$). It should be noted that the Cronbach’s alpha for *Economic Insecurity* for Waves III and V are approaching .70 and therefore any results related to these variables should be read with caution. Cronbach’s alpha is a measure of internal consistency that measures how closely related the variables used to make up a scale are, thus measuring a scale’s reliability. The common value used to determine whether a scale is considered “acceptable” is .70 or higher.

With the variable *Economic Insecurity* constructed for all three waves, *Economic Insecurity in 1986* was subtracted from *Economic Insecurity in 1994* to create the variable *Change in Economic Insecurity from 1986 to 1994*. Similarly, *Economic Insecurity in 1994* was subtracted from *Economic Insecurity in 2011* to create the variable *Change in Economic Insecurity from 1994 to 2011*.

After this, one final transformation to the economic insecurity variables was conducted. In this case, both variables measuring change in economic insecurity in 1994 and 2011 were broken down into tertiles reflecting individuals who demonstrated a decrease in economic insecurity between time periods, an increase in economic insecurity between time periods, or no change in economic insecurity. These tertiles were then used to create three dichotomous dummy variables for each of the years 1994 and 2011. Here the lower tertile for *Change in Economic Insecurity from 1986 to 1994* was coded as a one (1) with all other scores coded as a zero (0). This variable was called *Decreased Economic Insecurity from 1986 to 1994*. The middle tertile for *Change in Economic Insecurity from 1986 to 1994* was coded as a one (1) with all other scores coded as a zero (0) and was named *Unchanged Economic Insecurity from 1986 to 1994*. Finally, the upper tertile *Change in Economic Insecurity from 1986 to 1994*, was coded
as a one (1) with all other scores coded as a zero (0) and named *Increased Economic Insecurity from 1986 to 1994*. This same process was conducted for *Change in Economic Insecurity from 1994 to 2011*, ultimately creating three dichotomous dummy variables for 2011: *Decreased Economic Insecurity from 1994 to 2011*, *Increased Economic Insecurity from 1994 to 2011*, and *Unchanged Economic Insecurity from 1994 to 2011*.

Finally, *Employment Status in 1994* and *Employment Status in 2011* were utilized in the analysis of this study. The original ACL study dataset variables used were V10301 and V16101, and they measured nine different work statuses, from “Working” to “Retired” to “Keeping house,” etc. Despite studies having shown that under-employment has similar negative effects on well-being as unemployment (Momjian & Munroe, 2011; Murphey & Athanasou, 1999), these variables were recoded such that “Employed” was coded as one (1) and “Not-Employed” was coded as zero (0). A limitation to the study.

**Psychosocial Well-being and Mental Health Domain Variables**

The third domain included in this analysis pertains to participant levels of psychosocial well-being and mental health. The literature suggests that psychosocial well-being is related to religiosity and strategies for alleviating chronic stress for a variety of reasons (Carver & Connor-Smith, 2010; Fowler, 1981; Suls, David & Harvey, 1996). Various aspects of religiosity mimic those elements that make up psychosocial well-being. For instance, religious participation fosters a community, both figuratively and literally, and provides social support networks to individuals (Pollner, 1989). Social support networks help ameliorate the negative effects of chronic stress (Ellison & George, 1994), particularly stress related to financial hardship. Social networks more generally foster feelings of safety, comfort, and support, while also connecting individuals to human, social and economic capital (Kadushin, 2012). For this reason, the variable *Social Support from Others*, which measures the quality of social networks (Uno,
Uchino, & Smith, 2002), was tested to determine whether forms of social support that are not religiously oriented had an impact on participant levels of religiosity in the face of an economic downturn. With Connectedness, which measures the quantity of social networks, whether the frequency of utilizing connections to social networks had an impact on participant levels of religiosity in the face of an economic downturn was measured.

The latent variable Social Support from Others was created from two questions in the ACL study dataset. The first asks, “On the whole, how much do your friends and other relatives make you feel loved and cared for?” The second asks, “How much are these friends and relatives willing to listen to you when you need to talk about your worries and problems?” For Wave III, these questions represent variables V10147 and V10148, respectively. For Wave V, these questions represent variables V15510 and V15512, respectively. The response format for these questions is a five-point Likert scale, whereby one (1) represents “A Great Deal” and five (5) represents “Not at All.” Both variables were recoded so that “A Great Deal” was coded as five (5) and “Not at All” was coded as one (1). Once the variables were recoded for each wave, the Wave III variables were averaged together to create the variable Social Support from Others in 1994 (r = .654), and the Wave V variables were averaged together to create the variable Social Support from Others in 2011 (r = .530).

A similar procedure was conducted to create the variables measuring Connectedness. In this case, two questions from the ACL study dataset were used to operationalize connectedness. For Wave II these were variables V10099 and V10100, and for Wave V these were variables V15195 and V15196. These two variables asked respondents, “How often do you get together with friends, neighbors, and relatives?” and “How often do you attend meetings or programs of groups, clubs and organizations?” The response category for these questions ranged from one
“More than Once a Week” to six (6) “Never.” In keeping with the overall direction of response categories utilized throughout the analysis, the responses for the four variables were recoded so that zero (0) means “Never” and five (5) means “More than Once a Week.” Once the variables were recoded, the Wave III variables were averaged together to create the latent variable *Connectedness in 1994* \( (r = .219) \), and the Wave V variables were averaged together to create the variable *Connectedness in 2011* \( (r = .255) \). It is important to note that the Pearson’s correlations for both Connectedness variables are lower than .40. This indicates that the two variables used to create *Connectedness* are two separate concepts that do not have a high degree of linear dependence (i.e. correlation). For the purposes of this study the variables are averaged together for theoretical reasons, as they both measure the frequency with which individuals meet with others.

The variables *Self-Efficacy, Positive Attitude, and Can-Do Attitude* were also examined in the third domain. These variables were included in the analysis because they reflect individual perceptions of capabilities to achieve a desired end and perceptions of capacity to cope, resist, and recover from the effects of negative life-events. Facets of religiosity help individuals feel in control of their lives in the face of chaos and hardship (Berger, 1967). By testing the impact of self-efficacy and positive self-image, this study examined whether the use of religiosity as a mediator for chronic stress varies depending on whether these aspects of psychosocial well-being are stronger or weaker for each individual.

*Self-Efficacy in 1994* \( (r = .611) \) and *Self-Efficacy in 2011* \( (r = .666) \) were created as a mean score from four variables found in the ACL study dataset. These variables are statements participants were asked with which to agree. The statement response categories were measured
on a four-point Likert scale whereby one (1) represents “Strongly Agree” and four (4) represents “Strongly Disagree.” The statements (and their respective variables for Wave III and V) were:

1. At times I think I am no good at all (V10107 and V15307);
2. All in all, I am inclined to feel I am a failure (V10108 and V15305);
3. Sometimes I feel pushed around in life (V10110 and V15310); and
4. There is really no way to solve the problems I have (V10111 and V15308).

Similarly, Positive Attitude in 1994 (variable V10106) and Positive Attitude in 2011 (V15306), and Can-Do Attitude in 1994 (variable V10109) and Can-Do Attitude in 2011 (variable V15309), were variables also measured on a four-point Likert scale with one (1) representing “Strongly Agree” and four (4) representing “Strongly Disagree.” In the first case respondents were asked to agree or disagree with the statement, “I take a positive attitude toward myself.” In the second case, respondents were asked to agree or disagree with the statement, “I can do just about anything I really set my mind to do.” For the purposes of the analysis, all six variables were recoded so that “Strongly Agree” was coded as a four (4), and “Strongly Disagree” was coded as a one (1).

Finally, mental health plays a role in the management of chronic stress and the effects of economic crisis on individuals because stress related to economic hardship causes a decline in mental health (Blakely, Collins & Atkinson, 2003) and by extension affects individuals’ ability to cope with stress (Suls, David & Harvey, 1996). The third domain examined the impact of various mental health indicators to understand whether mental health plays a role in how individuals use religiosity during an economic crisis. The two independent variables in this domain, which measures mental health, are Depression Scale and Life Satisfaction. Both variables are indicators of overall participant happiness and perceptions of how well life is going.
By including these variables in the analysis, this study tested the impact of depression and life satisfaction on religiosity for individuals facing economic hardship.

Depression Scale in 1994 ($\alpha = .829$) and Depression Scale in 2011 ($\alpha = .834$) are latent variables created from ten separate variables measuring aspects of mental health. Respondents were asked to rate their responses using a three-point scale whereby “Hardly Ever” was coded as one (1), “Some of the Time” was coded as two (2), and “Most of the Time” was coded as three (3). The statements (and their respective variables for Wave III and V) were, “In the past week…”:

- I felt depressed (V10283 and V16001);
- I felt that everything I did was an effort (V10284 and V16002);
- My sleep was restless (V10285 and V16003);
- I felt lonely (V10287 and V16005);
- People were unfriendly (V10288 and V16006);
- I enjoyed life (V10289 and V16007);
- I did not feel like eating. My appetite was poor (V10290 and V16008);
- I felt sad (V10291 and V1609);
- I felt people disliked me (V10292 and V16010); and
- I could not get “going” (V10293 and V16011).

It should be noted that variables V10289 and V16007 were recoded such that their response categories measured responses in the same direction as the other variables included in the Depression Scale. Once these variables were recoded, all the variables pertaining to Wave III were averaged together. The same was done for the variables pertaining to Wave V.
Finally, the variables *Life Satisfaction in 1994* (variable V10105) and *Life Satisfaction in 2011* (V15301) were included in domain three. Here, participants were asked to rate their satisfaction to the question, “Think about your life as a whole. How satisfied are you with it?” These variables were measured on a five-point Likert scale whereby one (1) represented “Completely Satisfied,” and five (5) represented “Not at All Satisfied.” For the analysis responses for both Wave III and Wave V variables were recoded so that “Completely Satisfied” was coded as five (5) and “Not at All Satisfied” was coded as one (1).

**4.5 Analytic Strategy**

Multi-level regression was used to examine the relationship between economic circumstance and religiosity and the relative impact of psychosocial well-being and metal health on this relationship. Utilizing the change in religious belief and behavior variables for 1994 and 2011 as dependent variables, four dependent variables were tested in Models I through XII with three domains of independent variables used to measure the variation in impact of demographic factors, economic circumstance, and psychosocial well-being and mental health. All data were uploaded in SPSS from the public-use file for all five Waves of the ACL study. As specified in the previous section, only the sample of participants who participated in all five waves of the ACL study were used, and some data were recoded for use in the current study.

Analysis of ACL study data was implemented at years 1994 and 2011, or Wave III and V. Models I through VI analyzed the impact of independent variables at year 1994, and Models VII through XII analyzed the impact of independent variables at year 2011. Given the hypothesis that individuals will demonstrate increased religiosity in the face of economic hardship, it is expected that more individuals would demonstrate a decrease in religiosity in year 1994, while more individuals would demonstrate an increase in religiosity in year 2011.
The 12 models included in the analysis were broken down into four distinct groups. Models I through III test the impact of the three domains of independent variables garnered from Wave III (1994) on the dependent variable *Change in Religious Belief from 1986 to 1994*, and Models IV through VI test the impact of these same independent variables on the dependent variable *Change in Religious Behavior from 1986 to 1994*. Similarly, Models VII through IX test the impact of the three domains of independent variables from Wave V (2011) on the dependent variable *Change in Religious Belief from 1994 to 2011*, and Models X through XII tests the impact of the these same independent variables on the dependent variable *Change in Religious Behavior from 1994 to 2011*.

The purpose of the analysis is to understand whether changes in economic circumstance, specifically economic insecurity, have an impact on individual religiosity. For this reason, the dependent variables *Change in Religious Belief from 1986 to 1994* and *Change in Religious Behavior from 1986 to 1994*, as well as *Change in Religious Belief from 1994 to 2011* and *Change in Religious Behavior from 1994 to 2011* capture whether religious belief and behavior increased, decreased, or remained constant from previous years. Once the first domain of independent variables is tested on the dependent variables, the study will demonstrate the variation of changes in religiosity across demographics.

With the inclusion of the second domain of independent variables, the analysis will then explore the impact of economic circumstance on religiosity. The second domain tests the hypothesis of this study, namely that when individuals are faced with economic hardship, their religiosity will increase. The inclusion of domain two variables allows for testing the proposition that individuals who experience a change in economic insecurity see a change in religious belief and behavior. It also tests whether an individual whose employment status
changes experiences a change in religious belief and behavior. The inclusion of these variables will also affect variations in religiosity for particular demographic groups.

Finally, with the inclusion of the third domain of independent variables, the analysis will investigate whether psychosocial well-being and mental health have an impact on changes in religiosity, and whether they play a role on the relationship between economic circumstances and religiosity. The analysis will also explore how these interactions effect different populations within the sample.
Chapter Five: Results

This chapter starts with an introduction to provide a broad overview of the analysis undertaken in this study. Following this is a discussion of the findings from the univariate tests are conducted, meant to give a descriptive account of the variables under investigation. All bivariate analyses and their respective tables are presented next, which highlight any correlations between dependent and independent variables, as well as any differences in dependent variables across demographics and select independent variables. Finally, this chapter will report the findings from the multivariate analyses conducted to test the study’s hypothesis and includes multivariate tables for reference.

5.1 Introduction

This study hypothesizes that individuals turn to religion in the face of economic hardship and when economic insecurity increases so too will individual religiosity. To test this hypothesis, this research uses multi-level linear regression analysis to predict changes in individual religiosity based on categorical and continuous independent manifest and latent variables that have been grouped into three separate domains. Change in religious belief and behavior from 1986 to 1994 and from 1994 to 2011 comprise the four dependent variables tested in separate regression models. The three domains of predictor variables include participant demographics, economic circumstance, and psychosocial well-being and mental health. Within each of these domains, four or more independent variables are included.

Waves I, III, and V of the ACL study provided the data for the analysis. Tests were run only at Waves III and IV of the study – years 1994 and 2011, respectively. All analyses were run using SPSS statistical software.

As mentioned in section 4.4, 16 latent and manifest variables are analyzed at each time period. In total there are 29 manifest and latent variables included in the overall study. Three,
Race in 1994 & 2011, Religion 1994 & 2011, and Highest Education 1994 & 2011, are shared for both time periods under analysis. The 16 manifest and latent variables analyzed at each time period are represented by 26 distinct independent variables that were created for the analysis for each time period, 11 of which are shared at both time periods. The 11 variables that are shared at each time period are the dichotomous dummy variables used to measure race and religion and a continuous variable used to measure highest level of education.

To identify associations between the dependent variables (religious belief and behavior) and independent variables (participant demographics, economic circumstance, and psychosocial well-being and mental health) a series of preliminary analyses were conducted. The following are the results of these preliminary analyses, followed by the results of the multi-level linear regression analysis used to test the hypothesis under investigation.

5.2 Univariate Analysis

The first preliminary analysis undertaken in this study is a descriptive analysis of the variables utilized in the subsequent bivariate and multivariate analyses. Table 1., located in the Appendix, shows the weighted means, standard deviations, and ranges for all dependent and independent variables in the analysis. A brief description of how the variables were created and how ACL study variables were used to create them was included in the section 4.4.

Dependent Variables

As shown in Table 1., the dependent variables measuring change in religiosity from 1986 to 1994, Change in Religious Belief from 1986 to 1994 and Change in Religious Behavior from 1986 to 1994 have a sample size of 1,058 participants. The average change in religious belief from 1986 to 1994 is .04, within a range of averages between -4.85 and 4.50. The standard deviation for participants is 1.02. Standard deviations measure the variation of a set a values. A standard deviation close to zero (0) indicates that the data points for that variable tend to be close
to the mean. Higher standard deviations signify that the data points are spread out over a wider set of values. A “normal distribution” of responses for a variable will demonstrate that roughly two-thirds of all data points fall within one standard deviation of the mean, with data points denser around the mean producing a symmetric bell-shaped form. The average change in religious behavior from 1986 to 1994 is .06, within a range of averages between -3.39 – 3.42. The standard deviation for participants is .95.

The variables measuring change in religiosity from 1994 to 2011, Change in Religious Belief from 1994 to 2011 and Change in Religious Behavior from 1994 to 2011 have a sample size of 1,010 and 1,008, respectively. For Change in Religious Belief from 1994 to 2011, the average change in religious belief is -.01, within a range of averages between -4.61 and 4.33. The standard deviation for participants is 1.05 units from the mean. Change in Religious Behavior from 1994 to 2011 has an average change in religious behavior of -.06 within a range of averages between -3.26 and 3.34. The standard deviation for participants is .97.

**Independent Variables**
Sixteen manifest and latent variables are used in the analysis of this study to test the relative impact of economic circumstance and psychosocial well-being and mental health on religiosity across demographic categories. These variables have been transformed into 26 variables organized into three domains; Participant Demographics, Economic Circumstance, and Psychosocial Well-being and Mental Health.

**Participant Demographics**
As discussed in section 4.4, Religion in 1994 & 2011, the variable used to measure participant religious affiliation, is broken down into five (5) dichotomous dummy variables. These dummy variables are: Protestant, Roman Catholic, Jewish, None, and Other Religion. As shown in Table 1., the range for these dummy variables are 0 – 1. The means of each of the
dummy variables demonstrate the proportion of each stated religion for the variable *Religion in 1994 & 2011*. In this case, of the total 1,058 respondents, the majority (62%) stated they were Protestant, followed by 25% Roman Catholics. *Jewish* and *Other Religion* makes up the two smallest proportions of the respondents (2% respectively), with *None* representing a slightly larger sample at 9%.

Similarly, *Race in 1994 & 2011* is broken down into five (5) dummy variables that include: *White, Black, American Indian, Asian,* and *Hispanic*. These variables are used to measure the self-reported race of each respondent. Much like the variables used to measure religious affiliation, the ranges for the race dummy variables are 0 – 1. The means of each dummy variable indicate the proportion of respondents who stated a specific race. As shown in Table 1., *White* is the largest proportion of respondents, comprising 87% of the total sample (N=1,058). This is followed by *Black*, at 9% of the total sample. *American Indian, Asian,* and *Hispanic* make up the smallest proportion of respondents with each group making up 2% or less of the total sample.

For the variable *Age in 1994*, the average age of respondents in 1994 is 47.27 years old within a range of ages between 33 and 83 years. For variable *Age in 2011*, the average age of respondents in 2011 is 64.27 years old within a range of ages between 50 and 100 years. In both cases, the sample size of participants is 1,058 and the standard deviation is 10.82 years from the mean.

*Highest Education in 1994 & 2011* demonstrates each respondent’s highest level of education achieved between a range of 0 and 17 total years of education. The average number of years completed by the total sample (N=1,058) is 13.31 years of school. This indicates that the respondents included in this analysis completed, on average, almost four years of high school.
The standard deviation for educational attainment is 2.49 years from the mean, indicating that some participants may have attained “some college” education, and others may have completed only a few years of high school education.

*Household Size in 1994* and *Household Size in 2011* both reflect a sample size of 1,058 participants. The range of *Household Size in 1994* is 1 – 12 household members. The range of household members reported for *Household Size in 2011* is from 1 – 7 household members. The average size of households in 1994 was 3.08 total household members, with a standard deviation of 1.53. The average size of households in 2011 was 2.21 total household members, with a standard deviation of 1.04.

The variables depicting the martial status of respondents, *Marital Status in 1994* and *Marital Status in 2011*, are dichotomous dummy variables. The range for these variables are 0 – 1. Much like the other dummy variables discussed, the means of the variable represents the proportion of respondents who stated they were either married or not married. For *Marital Status in 1994*, of the total sample (N=1,058) 75% stated they were “married.” For *Marital Status in 2011*, of the total sample (N=1,058) 65% stated they were married.

Similarly, the dichotomous dummy variables *Gender in 1994* and *Gender in 2011* reflect a sample size of 1058 participants and has a range of 0 – 1. As indicated by the means for these variables (see Table 1.), both variables demonstrate a proportion of 47% male respondents and 53% respondents female.

**Economic Circumstance**

The variables that comprise Domain Two, Economic Circumstance, are *Change in Economic Insecurity* and *Employment Status*. As mentioned in section 4.4, *Change in Economic Insecurity* was recoded into tertiles that grouped individuals together depending on whether they demonstrated an increase, decrease, or no change in their economic insecurity between time
periods. The range for these variables is 0 – 1. *Decreased Economic Insecurity from 1986 to 1994, Increased Economic Insecurity from 1986 to 1994,* and *Unchanged Economic Insecurity from 1986 to 1994* all reflect 33% of the total sample of respondents (N=1,058), as shown by their mean value. The same descriptive information applies to the variables measuring changes in economic insecurity between 1994 and 2011: *Decreased Economic Insecurity from 1994 to 2011, Increased Economic Insecurity from 1994 to 2011,* and *Unchanged Economic Insecurity from 1994 to 2011.*

*Employment Status in 1994* and *Employment Status in 2011* are dichotomous dummy variables. The range for these variables is 0 – 1. In the case of *Employment Status in 1994,* 75% of the total sample (N=1,058) stated they were employed. For *Employment Status in 2011,* 50% of the total sample (N=1,058) stated they were employed.

**Psychosocial Well-being and Mental Health**

The first set of variables used in Domain Three measures different aspects of psychosocial well-being. *Social Support in 1994* and *Social Support in 2011* measure the quality of social support gained from participants’ friends and family. In the case of these variables, the range is 1 – 5 for the total sample (N=1,058). For *Social Support in 1994,* the mean response for participants was 4.07 with a standard deviation of .84 from the mean. This means that participants in 1994 felt “Quite a Bit” satisfied with how their social support networks made them feel. Similarly, for *Social Support in 2011,* the mean response for participants (N=1,009) was 4.09 with a standard deviation of .89 from the mean.

*Connectedness,* on the other hand, measures the frequency of social support; the average time participants spend engaging with friends, neighbors or relatives or at meetings, groups or clubs. *Connectedness in 1994* has a mean score of 2.68 with a range of 0 – 5 and a standard deviation of 1.20 units from the mean (N=1,058). *Connectedness in 2011,* on the other hand, has
a mean of 1.28 with a range of 0 – 5 and a standard deviation of 1.20 units from the mean (N=1,011).

To measure aspects of self-efficacy, the variables *Self-Efficacy in 1994* and *Self-Efficacy in 2011* were utilized in the analysis. For the variable *Self-Efficacy in 1994* (N=1,058) the average response was 3.24 with a range of responses from 1 – 4. In this case, respondents in 1994 disagreed “Somewhat” with the statements posed regarding self-efficacy, thus reflecting positive self-efficacy on average. The standard deviation for this variable is .55 units from the mean. *Self-Efficacy in 2011* had a total sample size of 1,011 participants. The average response for this variable was 3.33 with a range of 1 – 4, also reflecting positive self-efficacy on average. The standard deviation of responses for this variable is .59 units from the mean.

Aspects of positive self-image were also analyzed in this study. The variables used in this case are *Positive Attitude in 1994*, *Positive Attitude in 2011*, *Can-Do Attitude in 1994*, and *Can-Do Attitude in 2011*. All four variables had a response range between 1 and 4. *Positive Attitude in 1994* reflects a sample size of 1,058 participants and has an average response of 3.49, indicating that on average, participants in 1994 “Agreed” to the statement that they take a positive attitude towards themselves. The standard deviation of responses for this variable is .64 units from the mean. Similarly, the variable *Positive Attitude in 2011* reflects a sample size of 1,011 and had an average response of 3.50. This variable also has a standard deviation that is .64 units from the mean.

The variable *Can-Do Attitude in 1994* has a sample size of 1,057 respondents. The average response for this variable is 3.43, with a standard deviation of .70 units from the mean. The variable *Can-Do Attitude in 2011*, on the other hand, had a sample size of 1,011. This variable had an average response of 3.33, with a standard deviation of .72 units from the mean.
In both cases, the means demonstrate that participants in 1994 and 2011 “Agreed” with the statement that they can do just about anything to which they really put their minds.

*Depression Scale in 1994* and *Depression Scale in 2011* measure the degree of negative mental health experienced by participants at each time period. Both variables measure a range of responses from 1 – 3. In this case, a higher mean score indicates that participants felt symptoms of depression more often than respondents with lower mean-scores. *Depression Scale in 1994* has a sample size of 1,058 respondents and an average response of 1.28, with a standard deviation of .31 units from the mean. This indicates that on average, participants in 1994 experienced symptoms of depression “Every-Once-in-a-While.” The sample size of *Depression Scale in 2011* is 1,010 respondents and has an average response of 1.30, also demonstrating that participants experienced symptoms of depression “Every-Once-in-a-While.” The standard deviation for *Depression Scale in 2011* is .33 units from the mean.

Finally, the last variable examined in the analysis is participant levels of life satisfaction. In this case, both variables measuring life satisfaction in 1994 and 2011 have a range of responses between 1 and 5. The sample size for *Life Satisfaction in 1994* is 1,058, and the sample size for *Life Satisfaction in 2011* is 1,009. The average response for *Life Satisfaction in 1994* was 3.66 with a standard deviation of .81 units from the mean. In this case, respondents in 1994 were almost “Completely Satisfied” with the way their lives were going. Similarly, the average response for *Life Satisfaction in 2011* was 3.86, with standard deviation .84 units from the mean.

5.3 Bivariate Analysis

As part of the studies’ preliminary analysis several bivariate tests were conducted. To measure the strength and direction of the relationship between the dependent and independent variables under analysis a bivariate correlation was run. This was followed by t-tests and
ANOVA tests that examined whether average changes in religious belief and behavior were significantly different across select demographic variables. The results of the preliminary tests, along with the theoretical underpinnings of the study, directed the multivariate analysis subsequently conducted.

**Correlation**

Bivariate correlation tests measure the strength and direction of the linear relationship between continuous variables. Correlation tests were used in this study to evaluate whether there was statistical evidence of multicollinearity in any of the linear relationships between the continuous independent variables and dependent variables utilized in this study. Multicollinearity is when two or more variables are so highly correlated with each other that one cannot decipher the direction in which they can be linearly predicted. The correlation tests conducted in this study revealed the associations among the studies’ continuous variables, which were then used to direct the analytic strategy employed in the study’s multivariate analysis.

Two correlation tests were conducted. One for the variables analyzed in year 1994 and another for the variables analyzed in year 2011. Table 2. shows the results of the correlation tests for year 1994, and Table 3. shows the results of the correlation tests for year 2011 (located in the Appendix).

As shown in Tables 2. and 3. nearly all dependent and independent variables have a correlation of less than .40 (the commonly accepted correlation coefficient threshold that signifies whether the correlation between two variables is more-or-less “moderately strong”), demonstrating that these variables are not highly correlated with one another. The relationship between the variables Self-Efficacy in 1994 and Depression Scale in 1994 and Self-Efficacy in 2011 and Depression Scale in 2011, however, both have a statistically significant negative correlation over .40 ($r = -.54, p \leq .01$). This demonstrates that the relationship between these
variables, *Self-Efficacy* and *Depression Scale*, are approaching multicollinearity. Given this, any statistically significant multivariate results that include both *Self-Efficacy* and *Depression Scale* should be read with caution.

**T-Tests**

To examine whether there are any difference in means in the changes in religiosity across select independent variables, independent-samples t-tests were run. T-tests indicate whether the averages of two different groups are statistically significantly different, thus reflecting a difference in the population from which the data was sampled. T-tests were conducted to compare the average change in religious belief and behavior from 1986 to 1994 and from 1994 to 2011 between employment status, marital status, and gender.

Table 4. shows the results of the t-tests conducted for *Change in Religious Belief from 1986 to 1994*, *Change in Religious Behavior from 1986 to 1994*, *Change in Religious Belief from 1994 to 2011*, and *Change in Religious Behavior from 1994 to 2011*. As shown in the Table 4., there is a statistically significant difference in the average change in religious behavior from 1986 to 1994 between participants who stated they were married versus those who were not married ($p \leq .01$). In this case, participants who were married had an increase in their religious behavior ($M= .10$), while those who were not married had a decrease in their religious behavior ($M=-.07$).

Furthermore, there was a small but significant difference in the average change in religious behavior from 1994 to 2011 between participants who were married versus those who were not, and this difference was statistically significant at the .05 level. In this case, married participants had a decrease in religious behavior ($M=-.11$) while those who were unmarried had a slight increase ($M=.03$).
### Table 4. Weighted Comparison of Means on Religious Belief and Religious Behavior by Independent Variables

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Change in Religious Belief '86 to '94</th>
<th>Change in Religious Behavior '86 to '94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment in 2011</td>
<td>(353)</td>
<td>(535)</td>
</tr>
<tr>
<td>Employment in 1994</td>
<td>(526)</td>
<td>(562)</td>
</tr>
<tr>
<td>Employment in 2011</td>
<td>(793)</td>
<td>(792)</td>
</tr>
<tr>
<td>Employment in 1994</td>
<td>(549)</td>
<td>(548)</td>
</tr>
<tr>
<td>Female</td>
<td>0.06</td>
<td>0.04</td>
</tr>
<tr>
<td>Male</td>
<td>-0.02</td>
<td>0.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status in 2011</th>
<th>Change in Religious Belief '94 to '11</th>
<th>Change in Religious Behavior '94 to '11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married in 2011</td>
<td>(348)</td>
<td>(729)</td>
</tr>
<tr>
<td>Married in 1994</td>
<td>(264)</td>
<td>(264)</td>
</tr>
<tr>
<td>Not Married in 2011</td>
<td>(199)</td>
<td>(199)</td>
</tr>
<tr>
<td>Not Married in 1994</td>
<td>(794)</td>
<td>(794)</td>
</tr>
<tr>
<td>Married in 2011</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Not Married in 1994</td>
<td>-0.03</td>
<td>-0.03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender in 1994</th>
<th>Change in Religious Belief '94 to '11</th>
<th>Change in Religious Behavior '94 to '11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>0.12 **</td>
<td>0.13 *</td>
</tr>
<tr>
<td>Female</td>
<td>-0.04</td>
<td>-0.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment in 2011</th>
<th>Change in Religious Belief '94 to '11</th>
<th>Change in Religious Behavior '94 to '11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>(562)</td>
<td>(562)</td>
</tr>
<tr>
<td>No</td>
<td>(562)</td>
<td>(562)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment in 1994</th>
<th>Change in Religious Belief '94 to '11</th>
<th>Change in Religious Behavior '94 to '11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>(535)</td>
<td>(535)</td>
</tr>
<tr>
<td>No</td>
<td>(535)</td>
<td>(535)</td>
</tr>
</tbody>
</table>

**Note:** Within each predictor on both dependent variables, the level of statistical significance is placed just on one of the two categories. The compared means within each predictor without a superscript do not differ from each other at any of the levels of statistical significance considered.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Mean in '94</th>
<th>Mean in '11</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
<td>100 **</td>
<td>50 **</td>
</tr>
<tr>
<td>II</td>
<td>70 **</td>
<td>30 **</td>
</tr>
<tr>
<td>I</td>
<td>20 **</td>
<td>0 **</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Belief Behavior</th>
<th>Religious Belief</th>
<th>Religious Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in Religious Behavior</td>
<td>Change in Religious Belief</td>
<td>Change in Religious Behavior</td>
</tr>
<tr>
<td>Belief, '94 to '11</td>
<td>Belief, '94 to '11</td>
<td>Belief, '94 to '11</td>
</tr>
<tr>
<td>Change in Religious Behavior</td>
<td>Change in Religious Belief</td>
<td>Change in Religious Behavior</td>
</tr>
<tr>
<td>Belief, '94 to '11</td>
<td>Belief, '94 to '11</td>
<td>Belief, '94 to '11</td>
</tr>
</tbody>
</table>
A statistically significant difference in the change in religious belief from 1986 to 1994 was found between males and females ($p \leq .05$). Males experienced an increase in their religious belief ($M=.12$) while females saw a decrease ($M=-.04$); and this difference is significant at the .01 level. Additionally, a small but significant difference was found between the genders regarding their average change in religious behavior from 1986 to 1994 ($p \leq .05$). In this case males had an increase in religious behavior ($M=.13$), while females, for the most part, stayed the same ($M=-.00$).

**ANOVA**

Similar to a t-test, an ANOVA is an analysis of variance. While a t-test examines the difference in means between two groups, an ANOVA tests the difference in means within a group that has three or more categories or between the means of three or more independent (unrelated) groups. For this study, a one-way ANOVA was conducted on all four dependent variables for the independent variables *Race, Religion*, and *Change in Economic Insecurity*. Table 5. shows the weighted comparison of means for these independent variables on *Change in Religious Belief from 1986 and 1994, Change in Religious Behavior from 1986 and 1994, Change in Religious Belief from 1994 to 2011*, and *Change in Religious Behavior from 1994 to 2011*.

As shown in Table 5., there is a statistically significant difference ($p \leq .05$) in the average change in religious belief from 1986 to 1994 across race. In this case, Whites are statistically significant from American Indians, with Whites demonstrating an average increase in religious belief ($M=.05$) and American Indians demonstrating an average decrease in religious belief ($M=-.69$). Furthermore, there is a strong and significant difference in the average change in religious behavior from 1994 to 2011 between race categories ($p \leq .001$). In this case, the average change
in religious behavior for Whites ($M= -.11$) is statistically significantly different from Blacks ($M= .22$) and Asians ($M= -.16$).

Change in Religious Behavior from 1986 to 1994 indicated a strongly significant difference in means across religions ($p \leq .001$). Individuals who identified as Protestants and as having no religion (“None”) had significantly different changes in religious behavior than Roman Catholics. Protestants and those with no religious preference had an average increase in religious behavior ($M= .11$ and $M= .27$ respectively), whereas Roman Catholics had an average decrease in religious behavior ($M= -.10$). Additionally, there was small but statistically significant difference in means for the variable Change in Religious Belief from 1994 to 2011 across religion, and this was significant at the .05 level. In this case, Roman Catholics had an average increase in religious belief ($M= .07$) and those whose religious preference is “Other” had an average decrease in religious belief ($M= -.65$).

Finally, the results of the ANOVA analysis indicated a moderately strong significant difference in the average change in religious behavior from 1986 to 1994 across changes in economic insecurity ($p \leq .01$). For Change in Economic Insecurity from 1986 to 1994, individuals who experienced a decrease in economic insecurity showed an increase in their religious behavior ($M= .18$) compared to individuals who experienced an increase in economic insecurity, in which case they showed a decrease in religious behavior ($M= -.06$).
Table 5. Weighted Comparison of Means on Religious Belief and Religious Behavior by Independent Variables

<table>
<thead>
<tr>
<th>Categories</th>
<th>Change in Religious Belief '86 to '94</th>
<th>Change in Religious Behavior '86 to '94</th>
<th>Change in Religious Belief '94 to '11</th>
<th>Change in Religious Behavior '94 to '11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>.05(^a) (919)</td>
<td>.06 (919)</td>
<td>-.01 (874)</td>
<td>-.11(^{aaa}) (873)</td>
</tr>
<tr>
<td>Black</td>
<td>.08(^{ab}) (92)</td>
<td>.02 (92)</td>
<td>-.06 (89)</td>
<td>.22(^{bb}) (89)</td>
</tr>
<tr>
<td>American Indian</td>
<td>-.69(^b) (16)</td>
<td>.37 (16)</td>
<td>.08 (16)</td>
<td>.31(^{aaa-bbb}) (16)</td>
</tr>
<tr>
<td>Asian</td>
<td>-.26(^{ab}) (18)</td>
<td>-.36 (18)</td>
<td>.33 (18)</td>
<td>.56(^{bbb}) (18)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>.07(^{ab}) (13)</td>
<td>.49 (13)</td>
<td>.05 (13)</td>
<td>-.16(^{aaa-bbb}) (13)</td>
</tr>
<tr>
<td>Religion in 1994 &amp; 2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>-.01 (660)</td>
<td>.11(^{aaa}) (660)</td>
<td>-.02(^{a-b}) (621)</td>
<td>-.08 (621)</td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>.13 (263)</td>
<td>-.10(^{bb}) (263)</td>
<td>.07(^a) (257)</td>
<td>-.04 (257)</td>
</tr>
<tr>
<td>Jewish</td>
<td>-.17 (22)</td>
<td>.05(^{aaa-bbb}) (22)</td>
<td>-.07(^{a-b}) (20)</td>
<td>-.10 (20)</td>
</tr>
<tr>
<td>None</td>
<td>.21 (92)</td>
<td>.27(^{aaa}) (92)</td>
<td>.08(^{ab}) (91)</td>
<td>.05 (90)</td>
</tr>
<tr>
<td>Other</td>
<td>-.26 (21)</td>
<td>-.35(^{aaa-bbb}) (21)</td>
<td>-.65(^b) (21)</td>
<td>-.10 (21)</td>
</tr>
<tr>
<td>Change in Economic Insecurity from 1986 to 1994</td>
<td>.03(^a) (349)</td>
<td>.18(^{aa}) (349)</td>
<td>.04 (363)</td>
<td>-.16 (361)</td>
</tr>
<tr>
<td>Increased Economic Insecurity</td>
<td>.01 (362)</td>
<td>-.06(^{bb}) (362)</td>
<td>-.01 (302)</td>
<td>-.01 (302)</td>
</tr>
<tr>
<td>Decreased Economic Insecurity</td>
<td>.07 (347)</td>
<td>.07(^{aa-bb}) (347)</td>
<td>-.05 (346)</td>
<td>.00 (346)</td>
</tr>
<tr>
<td>Unchanged Economic Insecurity</td>
<td>.07 (347)</td>
<td>.07(^{aa-bb}) (347)</td>
<td>-.05 (346)</td>
<td>.00 (346)</td>
</tr>
</tbody>
</table>

Note: Within each predictor on the dependent variables, two categories share a common superscript if their difference is not statistically significant at either the .05, .01 or .001 level ("a" or “b” indicate p=.05 whereas, “aa” or “bb” represent p=.01, and “aaa” or “bbb” represent p=.001). Those compared means without a common superscript do not differ from each other at any of the levels of statistical significance considered.
5.4 Multivariate Analysis

Change in religious belief and behavior was treated as a function of 26 manifest and latent variables grouped into three different domains of variables and used to examine change in religiosity across two different time periods, years 1994 and 2011. Domain One measures participant demographics and includes a total of 13 independent variables. Domain Two measures economic circumstance and includes a total of three independent variables. And finally, Domain Three measures psychosocial well-being and mental health and includes seven independent variables.

In total, 23 independent variables are analyzed through multi-level linear regression analysis, with three of the original 26 independent variables not included in the analysis. These three variables are used as reference categories for the measures of race, religion and change in economic insecurity and therefore are excluded from the analysis (refer to Table 1.; variables used as reference categories are marked with “Ref”).

From the three domains of independent variables, 12 regression models were generated. The coefficient of each of the independent variables represents the average change in religious belief and behavior for one unit of change in the independent variables while holding other predictors in the model constant. As shown in Tables 6. and 7., Models I through III measure the independent variables’ effect on the Change in Religious Belief from 1986 to 1994. Models V through VI measure the independent variables’ effect on the Change on Religious Behavior from 1986 to 1994. Models VII through IX measure the independent variables’ effect on the Change in Religious Belief from 1994 to 2011. Finally, Models X through XII measure the Change in Religious Behavior from 1994 to 2011.
Analysis and Interpretation of Religious Affiliation

Religious affiliation was analyzed as a function of the change in religious belief and behavior across years. As shown in Models IV through VI, there is a significant difference in the change in religious behavior from 1986 to 1994 across religions. When controlling for all other variables in Model IV, Catholics saw a decrease in their frequency of religious service attendance (b=−.212, p≤.005) compared to other religions. This decrease in religious attendance held constant with the inclusion of Domain Two and Three variables – economic circumstance and psychosocial well-being and mental health. Of note, with the inclusion of the psychosocial well-being and mental health variables in Model VI, the frequency of religious attendance for Catholics dropped to a lower significant level (p≤.05) and the average decrease in religious attendance went up from previous models (b=−.175).

A significant difference in the change in religious belief from 1994 to 2011 was also found across religious affiliations. In this case, as shown in Model VII, while controlling for all other variables, participants who stated they belonged to an “Other” religion showed a decrease in the importance of religious belief from 1994 to 2011 compared to their religious counterparts (b=−.791, p≤.001). Again, this decrease is held constant with the inclusion of economic circumstance and psychosocial well-being and mental health variables (Models VII and IX). As indicated in Model IX, however, the decrease in religious belief from 1994 to 2011 for individuals who identified as “Other” religion is greater with the inclusion of psychosocial well-being and mental health variables (b=−.819, p≤.001).

Finally, as indicated in Model XII, a small but significant difference in the change in religious behavior from 1994 to 2011 was found for respondents with no religious affiliation (“None”). While controlling for all variables, including those reflecting economic circumstance and psychosocial well-being and mental health, individuals with no religious affiliation
experienced an increase in frequency of religious attendance compared to their religious counterparts (b=.234), which was significant at the .05 level.

**Analysis and Interpretation of Race**

As shown in Table 6., there was a significant difference in the change in religious belief from 1986 to 1994 across race. Model I indicates that when controlling for all other variables in the study, American Indian respondents experienced a decrease in the importance of religious belief in everyday life (b=-.738, p≤.01) from 1986 to 1994. With the inclusion of Domain Two and Three variables, this decrease in religious belief held constant. As shown in Model III, however, the inclusion of psychosocial well-being and mental health variables produced a smaller decrease in the importance of religious belief (b=-.685), and this was significant at the .01 level.

There was also a small but significant difference in the change in religious behavior from 1986 to 1994 between races. As depicted in Model VI, while controlling for all other variables, Latinos experienced an increase in the frequency of religious attendance compared to other races (b=.603, p≤.05).

Models VII through IX(as shown in Table 7.) predicts the change in religious belief from 1994 to 2011. Much like Model I, there is a significant difference in the change in religious belief from 1994 to 2011 across race. Looking to Model VII, this time, however, Asians reported an increase in the importance of religious belief compared to their racial counterparts (b=.647, p≤.05) when controlling for all other independent variables. This increase in the importance of religious belief is held constant with the inclusion of Domain Two variables (b=.662), but the statistical significance is strengthened (p≤.01). Noteworthy is that, with the inclusion of psychosocial well-being and mental health variables, no statistically significant difference in the change in religious belief is noted across races (see Model IX).
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*\( p \leq .05 \)  **\( p \leq .01 \)  ***\( p \leq .001 \)
Table 7. Unstandardized Regression Coefficients for Change in Religious Belief and Change in Religious Behavior from 1994 to 2011

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<td>.025</td>
<td>.046</td>
<td>.030</td>
<td>.034</td>
<td>.057</td>
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</table>

*p ≤ .05   **p ≤ .01   *** p ≤ .001
Finally, Models X through XII show a significant change in religious behavior from 1994 to 2011 across race. As indicated in Model X, when controlling for all other variables, Blacks and Asians demonstrate an increase in the frequency of religious service attendance compared to all other races (b=.334, p≤.01, b=.746, p≤.001). This increase in frequency of religious attendance is held constant for both races with the inclusion of Domain Two and Three variables. A statistically significant (p≤.001) increase in the frequency of religious attendance is noted, however, when psychosocial well-being and mental health variables are included in the model (b=.826).

Analysis and Interpretation of Age

Overall age is not statistically significant across models, as shown in Tables 6. and 7. Model V demonstrates nonetheless that with the inclusion of variables reflecting economic circumstance, there is a decrease in the frequency of religious service attendance (b=−.007) relative to increasing age, and this decrease is statistically significant at the .05 level.

Analysis and Interpretation of Marital Status

Marital status proved to be a predictor for differences in change in religious behavior from 1986 to 1994 when controlling for all other variables. In this case, as shown in Table 6., Models IV through VI, individuals who stated they were married had an increase in the frequency of religious service attendance compared to their non-married counterparts. As indicated in Model IV, this increase in religious behavior is highest without the inclusion of Domain Two and Three variables (b=.216, p≤.01) but holds constant with their inclusion.

Analysis and Interpretation of Gender

As shown in Table 6., a statistically significant change in religious belief from 1986 to 1994 was found for males, and this was significant at the .05 level. In this case, males demonstrate an increase in religious belief (b=.155) when controlling for all other variables.
Analysis and Interpretation of Change in Economic Insecurity
The next domain included in the multi-level linear regression analysis is economic circumstance. Domain Two specifically tests the hypothesis that economic insecurity is related to increased religiosity. As shown in Tables 6. and 7., there are no statistically significant changes in religious belief from 1986 to 1994 and from 1994 to 2011. These results are summarized in Models II, III, VIII and IX.

There was, however, a statistically significant change in religious behavior from 1986 to 1994 as indicated in Models V and VI. As shown in Table 6., when controlling for all other variables, individuals who experienced an increase in economic insecurity (i.e. their levels of economic insecurity went from “good” to “bad”) reported a decrease in their frequency of religious attendance (b=-.226, \( p \leq .001 \)). This decrease in religious behavior holds constant with the inclusion of domain three variables.

That said, as indicated in Model XII, while controlling for all other variables, there was a statistically significant increase in religious behavior from 1994 to 2011 for individuals who experienced an increase in economic insecurity (b=.150), and this measure is significant at the .05 level.

Analysis and Interpretation of Social Support from Others
Model IX indicates that when controlling for all other variables, there is a statistically significant change in religious belief from 1994 to 2011 for individuals who are satisfied with their social support networks. In this case, when controlling for all other variables, higher satisfaction with social support from others is correlated with increases in religious belief (b=.108, \( p \leq .01 \)).

Analysis and Interpretation of Connectedness
Relative to changes in religious behavior from 1986 to 1994, Model VI demonstrates a statistically significant change in the frequency of religious attendance for individuals with
higher levels of “connectedness.” Controlling for all other variables, individuals who reported “getting together” with friends and family frequently and often attended meetings and events through clubs and other organizations experienced an increase in their religious service attendance from 1986 to 1994 (b=.125, $p \leq .001$).

Similarly, Model XII demonstrates that while controlling for all other variables, there was an increase in the frequency of religious service attendance from 1994 to 2011 (b=.070) for individuals with higher levels of connectedness, and this measure is statistically significant at the .01 level.

**Analysis and Interpretation of Positive Attitude**

As shown in Table 7., in Model IX, individuals who hold a positive attitude about themselves reported an increase in religious belief from 1994 to 2011 when controlling for all other variables in the model (b=.159, $p \leq .01$).

**Analysis and Interpretation of Depression Scale**

*Depression Scale* is shown to have a statistically significant effect on the change in religiosity from 1994 to 2011 alone. As shown in Table 7., when controlling for all other variables in the model, higher levels of depression are correlated with an increase in religious belief (b=.326), and this is significant at the .05 level. On the other hand, as indicated in Model XII, when controlling for all other variables, there is a statistically significant ($p \leq .01$) decrease in the frequency of religious service attendance for this same time period for individuals with higher levels of depression (b=-.381).
Chapter Six: Discussion

Chapter Six discusses this study’s findings and contextualizes them within the literature in the fields of sociology of religion and stress coping. Many results were found. What follows is a summary of the salient finding. An overview of the study’s most pertinent findings is given in Chapter One: Article Summary.

6.1 Introduction

This dissertation examines the relationship between economic circumstance and religiosity and the relative impact of psychosocial well-being and mental health on this relationship. Multi-level linear regression was used to test whether economic insecurity has an effect on changes in religious belief and behavior while controlling for select demographic, psychosocial well-being, and mental health variables. On average, during times of economic uncertainty, individuals are more likely to turn to religion, but doing so is dependent on individual-level factors such as religious affiliation, race, economic circumstance, and psychosocial well-being and mental health.

6.2 Economic Climate and Changes in Religiosity; A Macro-level View

This study seeks to understand the ways the macro-level structures the economy and religion interact by examining whether religiosity increases or decreases relative to changes in the economy. One of the salient findings of this dissertation is that fluctuations in the economy are associated with different levels of religiosity, corroborating the idea that changes in the economy will promote changes in other macro-level structures, all of which individuals respond to as part of the social dialectic (Berger & Luckman, 1966). Accordingly, individuals react to changes in the economy relative to their personal situations, which depend on various factors such as demographics, economic circumstance, and psychosocial well-being and mental health. Therefore, in order to understand the relationship between the economy and religion it is
necessary to look beyond overarching trends in changes in economic climate as to they relate to changes in religiosity. Rather, to fully understand the social phenomenon that results from the interaction of these macro-level structures, researchers must incorporate individual factors into the investigation.

As noted in section 3.2, economic insecurity, both at the social and individual level, has deleterious effects on individuals and their overall well-being. Economic crises foster feelings of doubt, fear, and apprehension within the financial system and on a global scale (Ellis, 2013), indirectly spurring economic insecurity among individuals (Sperling, Bleich, & Reulbach, 2008) and directly affecting their economic circumstances (Krisberg, 2009; Mordek, Hamad, & Cullen, 2015).

As described in section 4.3 the economy demonstrated favorable economic trends between the periods from 1986 to 1994. Recessions occurred in 1982 and 1991, and a brief economic downturn took place in 1987. However, unemployment rates stayed relatively low and President Clinton oversaw a strengthening economy from 1993 to 2001 (Mathews, 2012). The period from 1994 to 2011, on the other hand, demonstrated less favorable economic trends. Despite the improved economy of the early 2000s and due to irresponsible fiscal management by government and financial officials, the Great Recession of 2007–2008 brought about an economic crisis that skyrocketed unemployment rates.

Looking at the results of this study through a macro-level lens alone proves problematic. Despite trends in changes in religiosity across the two time periods under investigation that shows that increased religiosity is associated with a less-than-favorable economy, and decreased religiosity is associated with a favorable economy, conflicting results make sweeping-generalizations difficult.
For example, as shown in Table 6. in section 5.4, in light of the favorable economy, religiosity decreased for individuals, depending on their religious affiliation, race, and their economic circumstance. Religiosity also increased during this time depending on marital status, gender, and quantity of social support (findings that will be elaborated in section 6.3). As stated in section 4.5, it is expected that religiosity would have demonstrated a decrease in 1994 given the favorable economic climate from 1986 to 1994. However, conflicting results were garnered indicating increases in religiosity during this time.

It was also expected that religiosity would have increased in 2011 given the economic trends from 1994 to 2011. As show in Table 7., in section 5.4, for the most part this is the case with increased religious belief from 1994 to 2011 across race, and increased religious behavior across race, religious affiliation, and economic circumstance. Furthermore, religious belief increased and religious practice decreased depending on levels of mental health and the quantity and quality of social support. While the overall results of changes in religiosity from 1994 to 2011 suggest that the hypothesis of this study has been validated, again individual-level factors correlate with conflicting results.

For this reason one cannot interpret the results of this study through a macro-level lens. Rather, teasing out the nuances of the effects that individual-level factors play in the relationship between economic circumstance and religiosity will shed light on the contradictory results and explain why some individuals turn towards religion in times of economic uncertainty while others do not. It will also validate whether religion is indeed used as a coping strategy in the face of economic hardship.

6.3 The impact of Individual-level Factors on Changes in Religiosity; A Micro-level View
What follows are the pertinent findings resulting from multilevel regression analyses conducted on the independent variables from 1994 and 2011. Since these variables reflect
individual-level factors collected after changes in religiosity have occurred, they do not predict whether they effect changes in religiosity. Therefore this study does not make any claims about causal relationships between the study’s independent and dependent variables. What these findings will do, however, is paint a picture of the individual-level characteristics and circumstances that play a role in changing levels of religiosity within the broader social context.

Several of the results discussed in section 5.4 were too small to merit further inquiry. These have been left out of the discussion.

**Religious Affiliation**

This study extends Max Weber’s (1920/1992, 1922/1930) insights into the ways different religions promote different kinds of belief and behavior, and the work of Stark and Finke (2010) who found that individuals choose their religious affiliation based on which religion they believe will yield higher rewards. It shows that individual changes in religiosity during the periods from 1986 to 1994 and from 1994 to 2011 differed according to religious affiliation.

Roman Catholics demonstrated lower religious participation than Protestants from 1986 to 1994. With the inclusion of economic circumstance, and psychosocial well-being and mental health variables (Domains Two and Three, respectively), religious participation for Roman Catholics increased slightly. This is different from Protestants, where the inclusion of psychosocial well-being and mental health created a decrease in religious participation, such that the gap between changes in religious behavior for Protestants and Catholics diminished. This suggests that psychosocial well-being and mental health likely play a role in the frequency of religious attendance for both Protestants and Roman Catholics but in different ways.

There may be many reasons for the influence of psychosocial well-being and mental health on changes in religiosity from 1986 to 1994 across religious groups. It is possible that for Roman Catholics and Protestants, an aspect of psychosocial well-being, like social support,
might be the resulting factor that affects religious participation. Verter (2003) claimed that
religion fosters a type of “spiritual capital” that can be used by individuals within a symbolic
economy. Peers promote religious participation as a way of fostering religious commodities,
including values, habits and worldviews that can be used and exchanged among other
congregants and religious community members. Spouses, friends and family promote inclusion
in religious communities, thus increasing religious participation. That said, spouses, friends, and
family that are not involved in religious communities may actually act as proxies for religious
communities, thus decreasing religious participation.

The implications of this finding within the context of favorable economy imply that
various levels of social support influence changes in religious participation for Roman Catholics
and Protestants differently. For Roman Catholics with higher levels of social support and
therefore higher peer affiliation, during a stable economy, going to church is enough of an
incentive for continued participation regardless of their peers. For Protestants on the other hand,
during times of economic security, decreased religious participation might demonstrate less of a
desire to exchange religious commodities.

The analysis of changes in religiosity from 1994 to 2011 yield varied results. Participants who stated their religious affiliation was “Other” demonstrated a decrease in
religious belief compared to Protestants. All other religious groups under investigation showed
no change. Religious Others were significantly different from Protestants across all three
domains of independent variables, but less so when controlling for psychosocial well-being and
mental health. This finding is difficult to tease apart due to the ambiguity of this Other religious
affiliation – are these participants Muslims, Buddhists, Sikhs, etc.? Without knowing
specifically to which religions participants belong, one cannot fully understand why religious
belief might decrease over time given changes in the economy. Based on the findings from Mansoor and Karabenick’s study (2008), which showed that more orthodox religions demonstrate higher levels of overall religiosity, one can surmise that if anything, these religious Others are not fundamentalists. Further research is warranted. Nevertheless, examining how various independent variables interact with religious affiliation and affect religiosity sheds light on why religious Others experience a decrease in religious belief and behavior over time. For instance, with the inclusion in the model of economic circumstance, and psychosocial well-being and mental health variables, changes in religious belief from 1994 to 2011 stayed strong and constant for religious Others, with only a slight decrease after the inclusion of psychosocial well-being and mental health, this despite that Social Support from Others, Positive Attitude, and Depression Scale demonstrated a positive correlation with changes in religious belief from 1994 to 2011. We can conclude that economic circumstance and psychosocial well-being and mental health have very little effect on the relationship between having an Other religious affiliation and the importance of religious belief and practice in everyday life. In comparison, with the inclusion of psychosocial well-being and mental health variables, religious belief went down significantly for Protestants.

Because religion is a construct tied to both formal and informal aspects of belief and practice (Glock & Stark, 1965), it may be that an individual whose religious affiliation is Other may actually participate in forms of religion or personal spirituality that are more philosophical or otherworldly in nature, such as Buddhism. These Others may not conceptualize religious belief and practice in the same way as participants with more formal religious affiliations. This could explain why individuals who stated their religious affiliation as Other report a decline in religious belief – they have no formal religious belief or practice that they deem important in the
first place. They emphasize spiritual aspects, which concur with the theses of Bender (2010) and Hall (1997), who noted that in spiritual-based religiosity, individuals seek support through their relationships with transcendental beings and via supra-natural forces reap rewards similar to those that accrue to tangible relationships, for example, social support networks.

Finally, with the inclusion of psychosocial well-being and mental health variables, that Protestants demonstrated a steep decline in religious belief from 1994 to 2011 when the economy was less than favorable, implies that these factors have an influence on importance of religious belief and practice in their daily life. Possible explanations for this could be that higher quality social support and a positive attitude render religious belief and practice less important. In this case, perceiving one’s relationships with friends and family as fulfilling or having a positive attitude about life might replace the importance of religious belief and practice in daily life because these offer individuals some of the same benefits as religious belief. In contrast, it is also possible that increased levels of depression may deter individuals from perceiving religious belief and practice as important or put in question the psychological healing effects of religious belief and practice, in effect turning Protestants away from religion.

Race
Corroborating findings from previous studies (see section 3.3) on the relationship between race and religiosity, the results of this study show that there are significant differences in changes in religiosity across race from 1986 to 1994 and from 1994 to 2011. Religion is just one aspect of an individual’s “cultural toolkit” (Swidler, 2001). It informs the habits, skills, and styles people use to construct “strategies of action” and manage everyday-life (Swidler, 1986). Not only does religion affect the ways individuals operate relative to their customs, habits and values, but reciprocally, individuals from different backgrounds approach religion in light of their cultural mores. Race and culture are inextricably linked, both having an effect on
American Indians, similar to Whites but unlike any other racial group, demonstrated a decrease in religious belief from 1986 to 1994. This study hypothesizes that when economic insecurity is high, levels of religiosity will also be high, and when the economy is demonstrating favorable trends religiosity will decline. Changes in religiosity for American Indians and Whites support the hypothesis, since the period from 1986 to 1994 was a period where the United States economic climate was fairly stable.

To unpack this finding further, the decreased importance of religious belief and practice in daily life for American Indians held constant across the inclusion of demographic variables, economic circumstance, and psychosocial well-being and mental health. There was a moderate increase in religiosity after the inclusion of psychosocial well-being and mental health variables. This finding supports Garroútte and colleagues’ (2014) findings that demographic variables that reliably predict religious participation in the general American population, such as age, gender, and education, are insignificant relative to American Indian religious participation – corroborating the idea that American Indian’s have a distinct “religious profile.”

Different from Garroútte and colleagues’ study, however, is that when psychosocial well-being and mental health variables are factored into the model, changes in religious belief for American Indian’s become more similar to changes in religiosity for Whites. As the results show, for Whites, when controlling for psychosocial well-being and mental health, stability in economic conditions is associated with further decreases in religiosity. Whereas with the inclusion of Domain Two and Three variables, change in religiosity for American Indians for the most part held constant. The effect of changes in economic conditions on the levels of change in religiosity become similar for American Indians and Whites suggesting that psychosocial well-
being and mental health have a different influence on religiosity from 1986 to 1994 for Whites than it does for American Indians. It is possible that the religious profile for American Indians is uniform across each individual’s sociodemographic and mental health background, whereas for Whites psychosocial well-being and mental health further factor into whether or not individuals turn to religion throughout a changing economy.

Changes in religious belief from 1994 to 2011 demonstrated different results. In this case, Asians showed a significant increase in religious belief similar to Whites. This increase was statistically significant when controlling for demographic variables and economic circumstance. Once psychosocial well-being and mental health were controlled for, no statistically significant findings were found. This finding is particularly interesting given the dearth of literature on the Asian religious experience in the United States, and given Min and Jang’s (2015) article on the diversity of Asian immigrant religious participation.

This study adds to the little that is known about Asian American religious beliefs and practices. When the economy is less than favorable religious belief increases for Asian Americans, much like it does for Whites. Once psychosocial well-being and mental health are controlled for, however, the importance of religious belief and practice in everyday life diminishes, suggesting that psychosocial well-being and mental health play a role in changes in religious belief for individuals from different races.

In the case of Whites and Asian Americans, when viewed at the macro-level, the overall thesis of this study that individuals will turn to religion in times of economic insecurity to cope with stress, appears to hold. In addition, as the findings showed, with high levels of psychosocial well-being and mental health, it appears that religion need not be a requisite factor for coping with economic uncertainty. This is logical given the various types of coping mechanisms.
individuals employ. A person with high levels of non-religious social support, or a positive and optimistic outlook, and positive mental health, may not feel inclined to turn to religion during stressful periods.

This finding is similar to the findings regarding changes in religious behavior from 1994 to 2011. Here Asian Americans demonstrate a significant increase in religious behavior similar to Blacks, but in contrast to Whites who showed a decrease in religious behavior until controlling for psychosocial well-being and mental health. This finding supports Min and Jang’s (2015) study regarding the religious participation rates of Asians in the United States. Min and Jang conclude that for many Asian immigrants, religious institutions offer their members avenues for civic participation and social support. This is similar to Ebaugh and Saltzman Chafetz’ (2000) findings that religion provides many benefits to immigrants as they attempt to assimilate to life in their new home. For some, the benefits come by way of material gains vis-à-vis the social networks made through religious institutions. It makes sense that an economic decline might promote an increase in religious service attendance for individuals who rely on religious communities for social support in terms of their access to material goods and services and emotional support.

As noted by Martinez and Dougherty (2013), levels of belonging and participation are higher for members of a congregation’s largest racial group, so it may be possible that Asian Americans participate in congregations that cater primarily to their national-origin. This idea corroborates Min and Jang’s discussion about the Asian immigrant religious experience and the propensity of many Asian immigrants to seek out congregations that most closely reflect their cultural and national backgrounds (Min & Jang, 2015).

The same argument could be made for Blacks, who also showed an increase in religious
behavior from 1994 to 2011. As demonstrated in previous studies (Chatters, Taylor, Bullard, & Jackson, 2008; Martinez & Dougherty, 2013; Patel, Ramgoon, & Paruk, 2009; Taylor, Chatters, Jayakody & Levin, 1996), Blacks tend to have higher levels of religious participation compared to their racial counterparts. This is often attributed to the central role that churches have played in African American civic traditions. They have functioned as an avenue for the development and maintenance of human, social, and political capital (Chatters, Taylor, Bullard, & Jackson, 2008; Taylor, Chatters, Jayakody & Levin, 1996). It would make sense, therefore, that in times of economic crisis, Blacks turn to their religious congregations for increased social support.

Nonetheless, most of the literature regarding the Black religious experience in the United States also claims that Blacks have a strong spiritual connection (Chatters, Taylor, Bullard, & Jackson, 2008; Patel, Ramgoon, & Paruk, 2009; Taylor, Chatters, Jayakody, & Levin, 1996). While this may be the case, the findings of this study did not prove the importance of religious belief and practice in the lives of Blacks during an unfavorable economic climate. We can conclude with some certainty that religious belief itself is not specifically tied to coping with economic uncertainty. Rather, the findings of this study suggest that for Blacks, the community of congregants offers a more enticing coping mechanism than religious belief alone, supporting the claim that social support is valued in times of economic uncertainty.

**Marital Status**

In this study, marital status was a statistically significant predictor of changes in religious behavior from 1986 to 1994. Married individuals demonstrated an increase in religious service attendance, which stayed strong and constant while controlling for all other independent variables. On the one hand, this finding does not support the hypothesis that economic uncertainty leads individuals to increased religious participation, since the economy in 1986 to 1994 was fairly secure. On the other hand, married individuals have less variability in changes
in religious service attendance compared to their unmarried counterparts. This suggests greater
continuity in religious behavior for married couples than single individuals regardless of
sociodemographic factors and psychosocial well-being and mental health. Unmarried individuals
are more likely to experience changes in religiosity when their economic circumstances and
psychosocial well-being and mental health fluctuate.

Mahoney’s (2010) literature review discussed the ways in which marital status and
religious belief and behavior interact. In general, individuals who are religious tend to partner
with other religious individuals, often demonstrating high levels of religious attendance.
Furthermore, shared religious values help maintain marital unions. For this reason it is difficult
to know whether increased religious participation from 1986 to 1994 for married individuals is a
result of a similarity in religious preference or whether individuals with higher levels of religious
participation are more likely to be married.

**Gender**

Historically, the relationship between gender and religiosity has shown that women tend
to be more religious than men (Fiori, Brown, Cortina, and Antonucci, 2006; Francis, 1997;
Rasheed Ali, Mahmood, Moel, Hudson, & Leathers, 2008). The findings of this study, however,
showed that gender was a statistically significant predictor of changes in religious belief for
males compared to females. From 1986 to 1994 males demonstrated a small but significant
increase in religious belief that held constant while controlling for all other independent
variables, a finding that contradicts previous studies. Moreover, the increased importance of
religious belief and practice in everyday life for males from 1986 to 1994 challenges the
hypothesis of this study that individuals turn to religion in the face of economic uncertainty.
This surprising finding is counter to many studies demonstrating that females typically have
higher levels of religiosity. Further investigation is warranted.
**Economic Insecurity**

Speaking directly to the hypothesis of this study that religion is used as a coping strategy in the face of economic uncertainty, changes in economic insecurity present compelling results. As the findings show, change in economic insecurity from 1986 to 1994 and from 1994 to 2011 proved to be an insignificant predictor of changes in religious belief. These findings challenge Norris and Inglehart’s (2004, 2010) thesis that higher levels of existential security are negatively correlated with religiosity, and they are different from the findings of Brandt and Henry’s 2012 study that showed that individuals with lower incomes place a greater importance of God in their lives.

Furthermore, contradicting Norris and Inglehart’s thesis (2014, 2009) that higher levels of existential security foster higher levels of religious behavior and Ruiter and Van Tubergen’s (2009) study that individual financial insecurity leads to more religious service attendance, results showed that individuals with increased economic insecurity from 1986 to 1994 had a decrease in religious attendance during this same time compared to individuals whose levels of economic insecurity decreased. This finding held constant with the inclusion of psychosocial well-being and mental health variables.

Looking to the literature regarding stress coping strategies, Wheaton (1997) explains that stress represents a problematic that requires resolution, that when left unaddressed indefinitely causes physical, emotional, or psychological damage. The use of stress coping strategies that make meaning out of a stressful situation, specifically religious coping strategies, suggests that when faced with chronic stress, individuals use meaning making to realign their “situational meaning” and “global meaning,” thus ameliorating the tension surrounding the stressful situation (Skaggs and Barron, 2006). Perhaps, then, for individuals who have increased economic insecurity during a time when the economy is demonstrating favorable trends, one’s situational
meaning and global meaning do not align. The stress reduction mechanisms inherent in meaning-making coping strategies, in this case religiously-oriented ones, are ineffective at ameliorating financial stress. And the expectations that an individual’s life will improve along with the economy foster a disenchantment that turns people away from religion. The problem of theodicy persists, demonstrating decreased religiosity for these individuals.

This theory is pertinent given the findings on the relationship between religious behavior and economic insecurity from 1994 to 2011. In this case, the economic climate was particularly unfavorable. As shown by the results, after the inclusion of psychosocial well-being and mental health variables, increased levels of economic insecurity from 1994 to 2011 were associated with an increase in religious behavior. This finding in line with the results postulated by previous scholars that increased levels of economic insecurity are related to increased levels of religiosity (Norris & Inglehart, 2004; Ruiter & Van Tubergen, 2009).

Further, this finding is congruent with the results from 1986 to 1994 and the theory posited regarding the effects of the alignment of one’s situational and global meaning. Individuals who demonstrated an increase in economic insecurity during a period when the economy was on the decline increased their levels of attendance at religious services. Their situational meaning and global meaning aligned, resulting in a “turning towards religion.” As the hypothesis posits, these individuals who had an increase in economic insecurity used religiosity, specifically attending religious services, as a way to cope with the stress and uncertainty of their current financial situation regardless of their levels of psychosocial well-being and mental health. We can look to the many benefits that social support networks lend to people in the face of adversity to explain why individuals facing economic uncertainty might turn to religion.
Social Support & Connectedness
Overall this study shows that higher levels of social support, both in quality and quantity, are correlated with increases in religiosity. This finding supports the theories surrounding social support and religious participation, specifically those related to religious communities. Bradley (1995) and Ebaugh and Saltzman Chafetz (2000) found that religious communities serve as social networks that draw from a variety of resources and offer benefits to congregants by way of material and emotional support. Robert Putnam (2000) explained that associational memberships via church-related groups help build and maintain social networks, which are important for community building, networking, and cultivating life skills. To Putnam, churches offer more than just religious beliefs and practices – they also create a space where lay individuals can emotionally commit to one another.

As shown by the results, the frequency of utilizing connections to social support networks was positively correlated to religious behavior in both 1994 and 2011, such that higher levels of connectedness resulted in higher levels of religious participation from 1986 to 1994 and from 1994 to 2011. This suggests that regardless of the economic climate and when controlling for economic circumstances and select demographics individuals who have high levels of interaction with a variety of social networks have greater access to religious communities. This is likely because religious communities are like other civic associations in that they provide vital sources of social support (Krok, 2015).

Individuals who reported higher levels in the quality of social support, in 2011, demonstrated increased religious belief from 1994 to 2011 while controlling for all other independent variables. Individuals who are satisfied with the social support obtained through friends and family are more likely to have an increased belief in the importance of religious belief and practice in everyday life. It may be that individuals who feel satisfied with their
social support networks tend to be more religiously inclined for two reasons: 1) Their social support networks are tied to their religious communities, where friends and family offer support, and therefore religious belief and practice are priorities; and/or 2) individuals are grateful for their social support networks and use religious language to express this (Dahinden & Zittoun, 2013). Support from religious communities confirms Swidler’s (1986) thesis that religion contributes to an individual’s strategy of action and management of everyday life.

**Mental Health – Positive Attitude and Depression**

Mental health proved statistically significant to religiosity in 2011. As shown by the results, having a positive attitude in 2011 was correlated with increased religious belief from 1994 to 2011, demonstrating that individuals who stated they take a positive attitude about themselves were more likely to place importance on religious belief and practice in everyday life. This finding highlights the positive correlation between positive mental health and increased religious belief, similar to the study conducted by Sethi and Seligman (1993). It amplifies the idea that religion aids individuals in making meaning out of the world and their environment, guides their actions, and orients their decisions (Dahinden & Zittoun, 2013; Swidler, 2001).

Different from the studies reviewed by Koenig which stated that increased religious participation predicts a decrease in negative mental health (2009), the findings from 1994 to 2011 also showed that during a period of economic decline higher levels of depression are positively correlated with religious belief and on the other hand, are negatively correlated with religious behavior. In other words, individuals with higher levels of depression are more likely to have increased their view of the importance of religious belief and practice in everyday life, and they are more likely to have decreased their religious service attendance. In this case it is possible that the physical effects of depression result in a turning away from religion such that
individuals with negative mental health are less likely to want to access religious communities for social support but more likely to access the emotional side of religiosity, placing increased importance on religious belief and practice.

In either case, without knowing the causal direction between negative mental health and religiosity, it is difficult to know which came first, depression or increased religious belief and decreased religious behavior. If negative mental health is a requisite for increased religious belief, then one can assume that individuals suffering from depression might choose religiously-oriented coping strategies to managing depression and its effects. Similarly, individuals with high levels of depression might also become reclusive and not want to interact in social situations. Further investigation regarding the causal relationship between decreased mental health and religion are warranted.

6.4 The Relative Impact of Psychosocial Well-being and Mental Health on the Relationship between Religiosity and Economic Circumstance

The findings of this study show that there is a relationship between changes in economic climate and changes in religiosity. The evidence demonstrates that when shifts in the economy occur, shifts also occur in religiosity. But as the title of this study alludes, changes in religiosity in the face of economic uncertainty are highly dependent on individual-level factors, such as demographics, economic circumstance, and psychosocial well-being and mental health.

Whereas Norris and Inglehart’s (2004) theses on existential security were pioneering in the field of the sociology of religion, illuminating the relationship between levels of insecurity and changes in religiosity at the macro-level, this study puts a spotlight on the factors missing in Norris and Inglehart’s thesis: the individual factors of economic circumstance and psychosocial well-being and mental health.

Accordingly, this study builds on Norris and Inglehart’s cross-national study by
identifying the ways that individual-level factors play a role in the relationship between economic insecurity and religiosity within a country that, in Norris and Inglehart’s view, has high levels of existential security. This study uncovered a missing link between macro-level effects claimed by Norris and Inglehart, and the micro-level effects under investigation in this study. This missing link relates to the use of religion as a coping strategy.

**The Impact of Psychosocial Well-being and Mental Health**

Overall, the results of this study prove that individual-level factors have an impact on the relationship between economic insecurity and changes in religiosity. As shown by the findings, whether individuals turn to or away from religion during an economic downturn is largely dependent on race and religion, which are affected by various levels of psychosocial well-being and mental health. As discussed, Roman Catholics and individuals whose religion is Other demonstrated decreases in religiosity compared to Protestants. Once psychosocial well-being and mental health were controlled for, however, changes in religious behavior from 1986 to 1994 for Roman Catholics moved closer to the degree of change in religious behavior for Protestants. This is different from changes in religiosity for religious Others who, controlling for economic circumstance and psychosocial well-being and mental health, displayed little change in religious belief from 1994 to 2011 compared to Protestants who showed a significant decrease in religious belief from 1994 to 2011, again bringing the degree of change in religious belief between religious Others and Protestants closer. It can be concluded, therefore, that levels of psychosocial well-being and mental health play a role in the relationship between the economy and religiosity in different ways for different religions.

In terms of race, American Indians, Asians, and Blacks, all demonstrated significant changes in religiosity compared to Whites whose changes in religiosity varied considerably. For American Indians, a decrease in religious belief from 1986 to 1994 remained constant while
controlling for demographic, economic, and psychosocial well-being and mental health variables. Similar to the findings related to religious affiliation, however, when controlling for psychosocial well-being and mental health, the degree of change in religious belief from 1986 to 1994 for American Indians was brought closer to that of Whites.

This is in contrast to the findings for Asian Americans. On the one hand, Asians had a significant increase in religious belief from 1994 to 2011, similar to that of Whites. But when controlling for psychosocial well-being and mental health, change in religious belief became insignificant. Asians also demonstrated an increase in religious behavior from 1994 to 2011, which held constant with the inclusion of Domain Two and Three variables. But again, when controlling for psychosocial well-being and mental health, the degree of change in religious behavior for Asians was brought closer to that of Whites. For Blacks religious participation increased from 1994 to 2011, and held constant with the inclusion of economic circumstance, psychosocial well-being and mental health. Similar to the findings for Asian Americans, when controlling for psychosocial well-being and mental health, the degree of change in religious behavior for Blacks was brought closer to that of Whites.

Taken together, these results show that changes in religiosity during times of economic change are different across race and religious affiliation, and that these changes are affected by different levels of psychosocial well-being and mental health. Both race and religious affiliation were associated with a turning away from religion during times of economic stability and a turning towards religion during times of economic decline. But these effects were impacted, and in some cases diminished when controlling for levels of psychosocial well-being and mental health.

Ultimately the picture painted through these results is that higher levels of quantity and
quality of social support affect changes in religiosity in different ways across religious affiliation and for people of color. In some cases higher levels of social support are associated with increased religiosity by virtue of peer affiliation. Social networks, especially those formed through religious communities, foster different kinds of capital: social, human, economic and spiritual. Therefore it makes sense that a strong correlation between levels of religiosity and social support are found. In other cases, however, higher levels of social support are associated with decreased religiosity. This latter finding is likely because social support acts as a proxy for religious belief and participation, whereby individuals reap emotional and material benefits from their social support networks in place of religion. For these individuals, social support is the coping mechanism drawn upon in times of economic decline. Although in some cases this social support might be found through religious communities.

Findings about the impact of mental health on religiosity are a bit more complicated to tease apart. On the one hand, higher levels of optimism and higher levels of depression are related to increases in religious belief during times of economic crisis. Contradictorily, however, higher levels of depression also result in decreased levels of religious participation during an economic decline. This could be the result of different levels and types of affect associated with depression. It is likely that feeling depressed may promote an increase in religious affect resulting in an increase in religious belief; whereas the physical effects of depression promote a decrease in overall social and civic participation.

**Religious Coping & the Sacred Canopy**

As noted by Norris and Inglehart (2004, 2010), differences in levels of religiosity between societies can be explained through variables that differentiate between vulnerability and security. These differences are path-dependent and tied to a societies’ predominant religious tradition but less so to a society’s current efforts towards formal religious pluralism. As
discussed previously, levels of religiosity are tied to religious affiliation, with some individuals turning toward religion and others turning away depending on their religion. Personal economic circumstance, however, has little effect on the relationship between religiosity and religious affiliation. Therefore we can conclude that the use of religiously-oriented coping strategies will be largely determined by an individual’s inclination towards the religious, as posited by Swidler (2004) and, arising vis-a-vis religious beliefs and practices (Verter, 2003) and through religious communities that are highly contextual (Dahinden & Zittoun, 2013).

That said, the results of the study demonstrated that, overall, individuals do in fact turn to religion in times when the economy is unfavorable, a result corroborating the study’s claim that religion is used as a coping strategy in the face of economic uncertainty. For individuals who are experiencing personal financial hardship in times when the economy is stable, however, religiosity declines. As explained, this could be the result of misaligned situational and global meanings. Religiously-oriented coping strategies are meant to make sense of the world in the face of hardship by realigning one’s situational and global meanings, therefore ameliorating the effects of stress. When these are not aligned, individuals may experience disenchantment with religion, in effect turning them away. For these individuals the “sacred canopy” (Berger, 1967) is broken and deters religious participation.

This important finding highlights that humans are social-emotional beings motivated towards social action by a multitude of factors – ranging from the tangible, such as their personal economic circumstance, to the intangible, such as the meaning they have given their personal experiences within the broader socio-cultural context. It could be that for individuals living in a society with high levels of “existential security” feelings of personal insecurity are the determining factors for religious participation. The results of this study support this claim. The
contradiction between macro-level economic forces and micro-level economic circumstance demonstrates an incongruence of meaning that turns individuals away from religion, while a congruence of micro-and-macro level factors turns them toward religion.

6.5 Summary

The hypothesis of this study states that in times of economic crisis individuals experiencing economic insecurity will use religion as a coping strategy to make sense of life’s uncertainty and ameliorate the stress and other negative effects associated with economic hardship. In the United States, whether or not religion is used as a coping strategy in the face of economic hardship is determined by each individual’s levels of psychosocial well-being and mental health, specifically the quantity and quality of social support and their levels of depression. Moreover, individuals who experience a misalignment of global and situational meanings, the very things that religious coping strategies are meant to align in order to ameliorate the stress associated with economic hardship, will turn away from religion.

These findings offer insights into macro-level forces and-micro-level factors that affect religiosity and add to the discussion regarding secularization. Individuals living in the first world may turn to religion in times of economic crises, but whether they do so is contingent on their personal experiences relative to their sociocultural context. The reader is reminded of the theses of Taylor (2007), Torpey (2010), and Gorski and Altniordu (2008) that suggest that religion’s decline can only be examined vis-a-vis multiple determinants and dimensions. This dissertation advances knowledge about the factors that promote or inhibit religion’s decline both at the macro-and-micro levels.
Chapter 7: Conclusions

This dissertation provides an analysis of various factors impacting the relationship between economic circumstance and religiosity. The preceding chapter discussed the findings of the study in relation to literature in the field of religion and stress coping within the context of the study’s theoretical framework. This final chapter will provide a summary of the dissertation, methods, and major findings, and will discuss the limitations of this study. The implications of the study are also discussed, ending with suggested areas for future research.

7.1 Introduction

This dissertation set out to explore the effects that changes in economic climate have on religiosity, and the impact that psychosocial well-being and mental health have on this relationship. The study posits that shifts in macro-level structures, such as the economy and politics, confer shifts in other macro-level structures, such as religion. The reason the economy and religion interact in this way is because on the one hand, they are part of the social dialectic whereby macro-level structures are created and re-created through their ongoing interaction with and within society (Berger & Luckmann, 1966). And on the other hand, because religion emerges out of the social construction of reality as part of an ordered and meaningful “social reality”, where religion is a response to the question of theodicy (Berger, 1967). Viewed in this way, individuals use religion as a coping strategy in the face of hardship and uncertainty.

The effects of economic crises have shown to be correlated with declining mental and physical health (Viinamaki, Hintikka, Kontula, Niskanen, & Koskela, 2000). The uncertainty and fear regarding one’s financial circumstance during an economic downturn are associated with feelings of depression and anxiety, and result in physical impairments such as digestive problems, headaches and migraines, worsened sleep quality and overall muscle tension (Associated Press, 2008, Glonti et al., 2015). Ensuing joblessness and underemployment lead to
negative mental health (Blakely, Collins, & Atkinson, 2003; Glonti et al., 2015; Murphey & Athanasou in 1999; Pharr, Moonie & Byngum, 2012). These negative effects are felt not only by individuals, but by their families as well (Choi, 2011).

Throughout the 20th century, seminal theorists in the sociology of religion have suggested that religion would see its end with modernization (Durkheim, 1912/2001; Freud 1930/1989c; Weber, 1922/1992). This notion has been debated by scholars who posit that religion has never truly been on the decline but is tied to the social institutions of the state, the legal system, the economic market, and academia (Asad, 2003). When shifts occur in one or more institutions they confer shifts in religiosity (Casanova, 1994, 2006; Martin, 2005). These shifts in religiosity are highly dependent on the specific context of the social institutions that spur their development over time (Taylor, 2007; Torpey, 2010), making any claims towards a general phenomenon of secularization and a comparison of world religions difficult (Gorski & Altniordu, 2009). For this reason, Gorski and Altniordu suggest that religion be treated as an analytical variable with secularization defined in a particular way for a particular project, using this definition of secularization in an ideal-type fashion (2008).

The problem with the secularization debate thus far is that secularization theorists examined religious phenomenon solely at the macro-level, overlooking an intrinsic piece of the construction of social reality, the individual experience. This study addresses this limitation within the secularization debate and explores the effects that changes in macro-level structures have on religiosity through the lens of existential security in order to understand whether patterns of social action occur given these interactions. It states that individual factors play a role in determining whether a strengthening or weakening of religiosity occurs in the face of economic hardship.
Peter Berger understood religiosity as a form of social action that makes sense of life in the face of chaos and the unknown, and in light of man’s ever-present suffering. In Berger’s The Social Construction of Reality (Berger & Luckmann, 1966), Berger examined the relationship between macro-level structures and how they interact with the individual. Accordingly, religion emerges out of the social construction of reality as part of an ordered and meaningful “social reality” (Berger, 1967). Religion provides a shield against the forces of chaos, particularly aspects such as death and suffering that threaten the order of the world. Religion, therefore, acts as a “sacred canopy” that bands people together in the face of death and uncertainty and gives meaning to the various facets of life (Berger, 1967).

In their book Sacred and Secular (2004), Norris and Inglehart advance these concepts with their theory of “existential security.” Existential security is the degree to which individuals feel a sense of vulnerability to their physical, societal, and personal realities. For those societies with higher levels of socio-and ego-tropic risks, levels of religiosity will be higher, as religion provides reassurance in the face of uncertainty and hardship. Norris and Inglehart do not specify the mechanisms at work in “existential security,” only that this notion exists and is linked to feelings of social and personal vulnerability. Religiosity ameliorates these feeling of vulnerability vis-à-vis the induction of feelings of transcendental reassurance.

This dissertation picks up where Norris and Inglehart left off, and specifies that in times of economic insecurity, religion is used as a stress coping strategy which results in a turning-towards religion for individuals facing economic hardship. Economic insecurity, negative changes to economic circumstance, falls under the category of “chronic stress” (Gottlieb, 1997). The offset of chronic stress is unpredictable and without the promise of an immediate resolution, requiring a great deal of energy be invested in coping with the stress (Gottlieb, 1997). When
faced with stressors such as an economic crisis, people use various strategies to cope with chronic stress. There is a multitude of coping strategies that individuals employ. However, the use of “meaning-making,” whereby individuals attempt to make sense of adversity by adopting a perspective that answers questions about the causes, extent of hardship, and the purposes of the stressful situation, often rests on religious concepts and values.

Kenneth Pargament continues in Gottlieb’s analytical stream by arguing that religion is used as a strategy for coping with various types of life stress (Pargament, 1997; Pargament et al. 1992) because ultimately what individuals are seeking through coping is a sense of stability. According to Pargament, what individuals turn to in times of stress is an orienting system to help them make sense of and deal with the world. An orienting system that includes, to a greater or lesser extent, religion (Pargament, 1997). The use of religious coping strategies, therefore, is a compelling way to cope with stress for individuals who have access to religious “commodities” (Verter, 2003). For individuals who have greater nonreligious resources or who have compartmentalized religion within their orienting systems, religion is less likely to affect coping strategies.

To test the hypothesis of this study that individuals turn to religion in times of economic uncertainty, multi-level linear regression were conducted using data from the American Changing Lives study (ACL). Through these analyses, this dissertation tested the relationship between changes in economic circumstance and religiosity, and examined the impact of psychosocial well-being and mental health on this relationship. Several pertinent findings were uncovered.

The results of the analyses corroborated that religiosity is affected by changes in the economy and that individual factors play a role in the relationship between economic climate and
religiosity. When viewed at the macro-level, the hypothesis of this study that individuals turn to religion in times of economic uncertainty was confirmed. This is especially the case during times of economic instability. As shown by the findings, when the economy was stable from 1986 to 1994, religiosity decreased for individuals depending on their religious affiliation, race and their economic circumstance. When the economy was unfavorable from 1994 to 2011, religiosity increased for individuals depending on their race, economic circumstance, and levels of social support. Religious belief also increased depending on levels of mental health.

That said, contradictory results were also uncovered. For instance, when the economy was stable religiosity also increased depending on marital status, gender, and the quantity of social support. When the economy was on a decline, religiosity decreased depending on religious affiliation. Additionally, religious participation also decreased during the economic decline depending on mental health.

Taken together, the results show that both race and religious affiliation are associated with a turning towards religion during times of economic instability, but that these effects are impacted, and in some cases even diminish when controlling for the quantity and quality of social support. For individuals who demonstrated an increase in religiosity during unfavorable economic times, higher levels of social support might foster different kinds of capital – social, emotional, and monetary – that are used as commodities during times of economic uncertainty. In this way religion is being utilized as coping strategy vis-à-vis religiously oriented capital (Verter, 2003). For individuals who demonstrated a decrease in religiosity during a time of economic instability, higher levels of social support act as a proxy for religious coping strategies, whereby individuals reap the benefits of their social support networks in place of religion. Similarly, the contradictory findings related to higher levels of depression highlight how
depression is associated to different levels and types of affect. Feeling depressed may promote an increase in religious affect that results in an increase in religious belief. However, the physical effects of depression promote a decrease in overall social and civic participation.

The results of this study also demonstrate that an individual’s level of economic insecurity is related to changes in religiosity. For individuals who experience increased personal financial hardship during a time when the economy is stable, religiosity declines. For individuals who experience increased economic insecurity during an economic downturn, religiosity increases. This finding is important in relation to the use of religious-coping strategies because, as discussed previously, one aspect of religious coping strategies are their ability to “ground” individuals and make meaning out of uncertainty and hardship (Paragament, 1992, 1997). When an individual’s situational experience, that is their personal financial situation, is different from their global experience, such as an improving economy, the grounding aspect of religious coping has little impact. With situational and global meanings mis-aligned, individuals may experience disenchantment with religion causing a decrease in religiosity – the problem of theodicy persists.

Results from this study have a number of implications for people faced with economic uncertainty, as well as for religious communities and academics interested in secularization theory and religious studies. Moreover, this study provides multiple avenues for future research. Before these can be discussed, however, a number of limitations must be addressed.

7.2 Limitations
This dissertation includes a number of important findings regarding the impact of psychosocial well-being and mental health on the relationship between economic circumstance and religiosity. However, there are a number of limitations to this study that must be taken into account.
Methodological Limitations

One apparent limitation to the study is that the analysis of the study is purely quantitative. It is common research practice to use quantitative data analysis to test hypotheses. In the case of this study multi-level linear regression was used to test the hypothesis that individuals turn to religion in times of economic uncertainty. However, because this dissertation examines the relative impact of psychosocial well-being and mental health, two measures that are related to subjective processes, including qualitative methodology in the analysis of the study would further shed light on why and how psychosocial well-being and mental health play a role in the relationship between religion and the economy. Response to survey questions alone does not give full insight into the complicated nature of religion, psychosocial well-being and mental health.

Possible qualitative methods that might complement the findings that resulted from the secondary data analysis employed would be: Interviews with religious leaders on their views of the relationship between economic circumstance and religiosity and their experiences working with congregations during times of social change; Focus groups with lay-people across different religious affiliations and denominations exploring their perceptions and behaviors as they relate to religious belief and practice, specifically during times of economic uncertainty; Rapid ethnographic assessments (Low, Taplan & Lamb, 2005) of individuals (both religious and non) and their inclinations towards the religious within the context of an economic crisis.

To that end, another limitation to this study is that in order to understand the causal direction of the relationship between the independent and dependent variables, more elaborate quantitative analysis must be utilized. As noted in section 6.3, this dissertation does not account for the direction of the study’s correlating factors and one cannot interpret whether changes in religiosity resulted from varying degrees of psychosocial well-being, mental health and
economic circumstance. Rather this study can only explain how religiosity has changed during times of economic change, and which participant characteristics play a role in the relationship between economic climate and religiosity. More technical quantitative analysis such as Structural Equation Modeling and Hierarchical Linear Modeling could be employed. Causal modeling or path analysis utilized in Structural Equation Modeling might be used to test causal relationships between the variables under investigation, and Hierarchical Linear Modeling can be used to analyze the data at multiple time points.

Unlike Norris and Inglehart who examined the concept of existential security cross-nationally (2004), this study examines the relationship between economic circumstance and religiosity only in the United States. This limitation presents a narrow view of the findings. On the one hand, many cultures and religions are underrepresented, painting a partial picture of the global-religious landscape that does not account for non-occidental worldviews and experiences. On the other hand, understanding how economic climates interact with religiosity in societies around the world, and the relative impact of individual factors on this relationship from people within these specific locales will be more informative to the secularization debate than investigating these relationships in the United States alone.

One final methodological limitation to this dissertation is that this study cannot control for increased religiosity associated with aging. As the literature review revealed, on average, religiosity tends to increase as an individual ages (Schwadel, 2010; Voas & Crocket, 2005; Wilhelm, Rooney & Tempel, 2007). The analysis of this dissertation takes into consideration the effects of age in changes in religiosity. But because this is a longitudinal study, the effects that aging has on levels of religiosity are not accounted for.

**Data Limitations**

Also evident in this dissertation are limitations with the data utilized. As noted in section
4.2 the data collected through the American Changing Lives Study (ACL) is collected at different time-points per study wave. Wave I was collected in 1986, Wave II was collected in 1989, Wave III was collected in 1994, Wave IV was collected in 2002, and the fifth and final wave was collected in 2011. There is no uniformity in the number of years between waves. Unlike the General Social Survey, a national survey conducted every other year in the United States through the National Opinion Research Center at the University of Chicago (General Social Survey, n.d.), the number of years that pass between each ACL wave ranges from three-to-nine years. Therefore, there is a lack of standardization in the time that has passed between panel interviews.

While this limitation does not detract from the study’s analysis, it is still a limitation worth mentioning. More-or-less time passing between ACL waves means more-or-less exposure to changes in macro-level structures between waves, as well as more-or-fewer incidences of change in personal histories. Therefore when comparing changes in religiosity and economic circumstance between the two time-periods under investigation in this study, 1986 to 1994 and 1994 to 2011, and despite reflecting trends across the US economic climate, the fact that first time period demonstrates changes over eight years, and the second time period reflects changes over 17 years introduces different amounts of exogenous effects that cannot be controlled for in the analysis.

Another limitation to the data is that only large mainstream religious groups are sampled across all five waves of the ACL study. These religious groups are Roman Catholic, Protestant, Jewish, None and Other. On the one hand, collecting data on these five religious groups alone does not take into account varieties in mainstream religion, such as religious denominations. This is important to note, since some denominations may be more conservative or orthodox
compared to others, even within the same religious group. As discussed by Mansoor & Karabenick (2008) these nuances between religious denominations will have an effect on how religious belief and practice is utilized in people’s lives, as well as the strength of their belief. On the other hand, this breakdown of religious groups does not take into consideration non-western religions such as Muslims and Eastern religion like Buddhism, Hinduism, Sikism, and the like. By not including these religious groups in the dataset, important aspects of non-occidental religious adherents and their religiosity relative to changes in economic climate are lost within the overall analysis.

A final limitation to the data is that the ACL does not oversample minority groups. The race categories collected via the ACL are White, Black, Asian, American Indian and Latino. While the ACL oversamples Blacks, Asians and Latinos are not oversampled. Oversampling specific groups during data collection strategies correct for bias in the intended dataset by ensuring that there is equal or proportional representation of all groups under investigation. The undersampling of minority groups poses a limitation to this analysis because as Min and Jang (2015) showed, there is much variation in ethnicities within larger racial groups. For instance, in the United States there are over 20 different Asian ethnicities (Hoeffel, Rastogi, Kim & Sahidi, 2012) all of which have different cultural backgrounds and even different religions. Therefore, large swabs of people of color and their accompanying experiences and insights are left out of the analysis.

Theoretical Limitations

Finally, there are several theoretical limitations to this dissertation that must be discussed. The first is that the concept of religiosity in this dissertation is measured too simplistically. Scholars in the field of sociology of religion have noted that religion is a multi-dimensional construct (Levin, 1994) that includes dimensions of religiosity that are both formal and informal
(Glock & Stark, 1965; Hall, 1997), and which convey both religious and spiritual inclinations (Bender, 2010; Verter, 2003). As Bellah, Sullivan, Swidler & Tipton (1985) indicate in their examination of the habits and practices of Americans, individuals conceptualize religion in very different ways. As such, their religions may be entirely individualistic. Some individuals may adhere to a more institutionalized religion associated with a specific denomination, while others may veer toward a more spiritual form of religion that is transcendental in nature, while still others might view religion as a mix of the two. Therefore, in order to examine changes in religiosity, religion needs to be conceptualized in terms of individual beliefs and practices that may or may not be informed by institutionalized religion. This was a similar limitation to Norris and Inglehart’s 2004 study.

The ACL dataset included several questions regarding behaviors around prayer, the concept of fate, and other measures that conceptualized religion in of more spiritual ways. However, these measures were not standardized across all three waves under investigation and therefore could not be utilized. Due to these limitations with the ACL dataset, religiosity can only be measured as the importance of religious belief and practice in everyday life (as a proxy for spirituality) and the frequency of religious service attendance. Therefore the analysis does not account for those individuals who understand religiosity in terms of spirituality. In order to capture changes in religiosity as dimensions of religion and spirituality, questions regarding specific spiritual practices would need to be included. An example of the types of themes collected and questions utilized that that measure dimensions of religion and spirituality that should be included in studies examining religiosity are found in the General Social Survey. These are (General Social Survey, n.d):
1. Religious preference – Current religious preference, current religious identity, strength of affiliation, re-affiliation, current religious service attendance, religious service attendance as a child;
2. Practice of religion - Participation in church activities, hours spent in religious activity in/out of home, frequency of prayer;
3. Importance of religion - Importance of attending church regularly, importance of believing in God without a doubt, importance of following church teachings, importance of following own conscious;
4. Spiritual Experiences - Feeling closer to god through art and music, Belief in God, devil, Heaven, hell, afterlife, and miracles, whether individual considers self a spiritual person, does respondent feel peace and harmony, touched by creation, in union with god, feel the presence of god in daily life, find strength and comfort in religion, and feel gods love directly or through others.

These limitations notwithstanding, this dissertation produced a number of significant findings regarding the relationship between economic circumstance and religiosity, and the impact of psychosocial well-being and mental health. The following sections will discuss the important implications and recommendations for future research based on the results of this study.

7.3 Implications
Recent scholarship surrounding the trajectory of religions around the world has demonstrated that the question of whether religion is on the decline or not is not so cut and dry. Scholars in the field of the sociology of religion have often examined secularization at the macro-level, without placing much emphasis on the micro-level factors that might play a role in the relationship between social forces and religiosity. This dissertation has shown that
psychosocial well-being and mental health are important aspects in determining whether individuals turn to or away from religion in times of economic uncertainty. Whether religion functions as an “orienting system” also plays a role in determining levels of religiosity. These results provide a number of significant implications for individuals facing economic hardship, as well as for religious leaders and communities seeking to assist individuals during times of personal difficulty. Furthermore, academics with the long-held view that individuals facing economic hardship are more religious than their financially secure counterparts will find their views challenged by these results; and scholars pursuing the secularization debate will also find the findings of this study informative.

**Individuals Facing Economic Hardship and Uncertainty**

This study’s findings are pertinent to individuals facing economic uncertainty. The findings of this study have shown that individuals who demonstrate an increase in religiosity during times of economic instability also demonstrate higher levels of social support. This is particularly so in relation to race. The correlation between increased religiosity and social support indicate that individuals facing economic hardship seek religious communities in order to foster social support. As the findings have shown, this is relevant to people of color more so than Whites.

Social support is meaningful for individuals in financial crisis in several ways. As discussed in section 3.2, social networks foster feelings of safety, comfort, and “connectedness,” and supply resources linked with social and economic mobility (Kadushin, 2012; Thoits, 1982). This is evidenced by Min and Jang (2015) and Ebaugh and Saltzman Chafetz (2000) who illustrated the ways immigrants to the United States utilize religious communities as avenues for support while integrating into their new culture and home. The benefits of religiously oriented social support networks for immigrants include things like finding employment and housing, as
well as obtaining valuable information on the local community, and maintaining cultural and historical ties to their home country. This study corroborates previous research that associates the benefits of social support via religious communities to individuals experiencing financial hardship and economic uncertainty (Kim & McKenry, 1982).

However, as the findings of this study also showed, individuals who demonstrated a decrease in religiosity during an unfavorable economic period also evidenced higher levels of social support. In this case, social support more generally may act as a proxy for religious coping strategies as individuals reap the benefits of their social support networks in place of religiosity, specifically in terms of religious participation. We can conclude, therefore, that what is most valuable to individuals facing economic insecurity are social support networks regardless of their connection to religious communities.

Suggestions can be made to individuals facing times of trouble to seek out religious communities as avenues for social support. Especially if religious communities play a central role in one’s cultural and civic traditions, much like they have historically for Blacks. However, if religious communities do not resonate with any particular person, likely because religion is not part of their cultural repertoire (Swidler, 1986), then these a-religious individuals should seek out any type of social support network. Social support in any form will be valuable for individuals facing stress, and should be integrated into their stress coping strategies.

**Fostering Religious Coping Strategies**

Pertinent findings of this study showed that on average individual religiosity is effected by changes in economic climate. Religious leaders can use the findings of this study to not only help individuals facing economic uncertainty, but to also attract congregants to their religious communities during times of social change. As this study showed, on the one hand, during times of economic instability higher levels of depression are positively correlated with religious
belief and on the other hand, are negatively correlated with religious behavior. Therefore higher levels of depression are associated to different levels and types of affect.

Feeling depressed may promote an increase in religious affect that results in an increase in religious belief. As shown by the Sethi and Seligman (1993) study, fundamentalist religious views are correlated with increased levels of optimism and hope. It is possible, therefore, that individuals with higher levels of depression seek out religion in order to foster positive feelings in light of their depressive symptoms. However, the physical effects of depression promote a decrease in overall social and civic participation. Researchers examining the relationship between religious participation and mental health have noted that increased frequency of service attendance predicts decreased symptoms of depression (Zou, Huang, Maldonado, Kasen, Cohen & Chen, 2014). Therefore, while religious belief and participation have been shown to ameliorate the effects of depression, gaining access to individuals with depression in order to promote religious belief and participation might be a challenge. Religious leaders should keep this in mind when working with their congregations. Finding ways to assist individuals with depression who feel less inclined towards social and civic participation will require creative tactics.

One of the more salient findings of this study showed that when an individual’s personal financial situation exhibits difficulties during times when the financial situations of people around them is secure, the grounding aspect of religious coping has little impact and results in individuals turning-away from religion. This is referred to as a misalignment in global and situation meanings (Skaggs & Barron, 2006). As discussed previously, one aspect of religious coping strategies are their ability to “ground” individuals and make meaning out of uncertainty and hardship (Pargament, 1997). This study posits that when situational and global meanings are
misaligned, individuals may experience disenchantment with religion causing a decrease in religiosity. Religious leaders might consider targeted initiatives to individuals facing financial hardship during times of economic stability as a way to maintain congregants that may become embittered by their personal plights in light of the success of others.

The Future of the Secularization Debate

One of the driving factors behind this dissertation is adding to the continuum of scholarly knowledge regarding the trajectory of religion around the world. Scholars have determined that religion is neither on the decline nor full of vitality (Taylor, 2007; Torpey, 2010), and particularly difficult to study in a comparable way (Gorski & Altniordu, 2009). This study has demonstrated that a missing link in the discussion surrounding secularization is the effects of individual factors on the relationship between shifts in macro-level forces and changes in religiosity. Discussing secularization in light of this missing link could breathe life back into the debate and offer new avenues for research.

As this dissertation has shown, shifts in macro-level structures, such as the economy and politics, confer shifts in other macro-level structures, such as religion (Berger & Luckmann, 1966). The overall findings of this study support this claim by showing that on average religiosity increases during times of economic instability, and decreases when the economy is stable. However, also shown by this study is that changes related to shifts in these macro-level structures are impacted by various levels of psychosocial well-being and mental health, as well as individual economic circumstance. For some individuals, levels of social support and mental health, as well as feelings of economic insecurity play a bigger role in determining whether they turn to or away from religion compared to changes in the economy alone.

This is relevant to the discussion regarding religion’s assumed decline because it demonstrates, much like Gorski and Altniordu (2009) suggest, that the study of religion should
be more concerned with understanding religion over time and around the world in “ideal-type” fashion. In the past scholars have examined religion’s decline or vitality in light of macro-level forces. This study suggests that not only are macro-level forces important to conception of secularization as an “ideal type,” but individual factors as well.

When Norris and Inglehart (2004) first proposed the concept of existential security, they did not factor in how specific individual traits might affect the relationship between social and ego-tropic risks. In line with Berger (1967), Norris and Inglehart conceptualized religion as system of beliefs that reassured individuals in the face of existential insecurity. This dissertation takes Norris and Inglehart’s claims one step further by establishing that not only does religion provide security in the face of uncertainty, but individuals use religion as a strategy to cope with this uncertainty. The effectiveness of religiously-oriented coping strategies, however, are dependent on other factors such as race, religious affiliation, economic circumstance, the quantity and quality of social support and mental health. Scholars interested in secularization should attempt to map out what secularization looks like given both macro-level shifts and micro-level factors in order to get a better sense of how religion is changing over time.

7.4 Future Research

As stated previously, one of the limitations of this study is that it is quantitative in nature. To address this limitation and give further insight into the various factors that play a role in determining whether individuals turn to or away from religion, further research is needed that goes beyond the use of survey data. Gray (2014) describes the benefits of using mixed-methods approaches to combine both the statistical value of quantitative methods and the experiential insight of qualitative methods in order to provide a richer understanding of complex social issues. A sequential mixed-method explanatory design, whereby quantitative data is collected and analyzed first, and then qualitative data collected and analyzed (Ivangova, Creswell, Stick,
2006) should be employed. While this study demonstrated “what” factors are involved in the relationship between economic circumstance and religiosity, a mixed-methods design will shed light on “why” and “how” these factors interact the way they do.

Bender (2010) and Hall (1997) noted in their research that some individuals understand religion as part of a transcendent system of belief and practice, rendering them more “spiritual” than “religious.” Future research might seek to replicate this study using measures that are more finely tuned to this idea. The concept of religiosity in this research study was operationalized via two variables that measured the importance of religious belief and practice in everyday life, and the frequency of religious service attendance. Religiosity should be measured in ways that encompass its different aspects including religious behavior that is informal and formal, as well as religious belief and practice that is spiritual as well as traditionally religious.

By measuring religiosity in this way the different facets of religiosity will be better operationalized to resonate with less conventional views of religion. This will have several implications for the research. First religiosity will be measured more precisely and a more precise understanding of changes in religion will be garnered. It would be recommended, for instance, that religiosity be operationalized into several theoretical buckets – religious belief and practice tied to formal religious institutions, and spiritual religious belief and practice tied to personal or “lived religion” (Hall, 1997). Analyses can then be conducted on variety of latent variables measuring both religion and spirituality across religious affiliation and other relevant demographic factors. To that end, religious affiliation will have to include a higher level of granularity and collect data from a variety of religious denominations and Eastern religions. And second, operationalizing religion in this way will likely also increase response rates because the
concepts measuring religion will resonate with a wider audience regardless of whether they view themselves as religious, or spiritual, or something in between.

Finally, if scholars are interested in understanding the trajectory of religion over time, measures that examine religious and spiritual practice should be captured consistently via cross-national longitudinal surveying. In this way religion and other relevant independent variables can be analyzed as a function of change over time within a variety of cultural and social settings. A study conducted as suggested will be the first time that a concept of religiosity that includes both religious and spiritual aspects is standardized across multiple countries. This longitudinal data can then be mapped towards countries socio-historical changes and global events, which will be very telling. The baseline data alone will be one of the first instances whereby non-occidental views and behaviors regarding religious belief and practice is operationalized and measured, and comparable to westerners.

Ultimately, the question behind secularization is are humans becoming more secular through modernization and pluralization? Scholars have already come up with much insight into the process of secularization, and it is wildly accepted that secularization is a response to a variety of socio-cultural and political institutions and their changes over time (Martin, 2005; Taylor, 2007). However, it is a fault to assume that modernization is either behind us or in its present. Modernization is a process that extends into the future. As societies continue to advance, and with changes in technology and worldviews, shifts in macro-level structures will continue to occur and reflect changes in religion. However, as this study showed, individual factors play a role in changes in religiosity relative to changes in macro-level structures. Perhaps the question that secularization theorists should be concerned with is how individual-level factors influence religious trajectories.
Appendix

Table 1. Weighted Means, Standard Deviations, Ranges and Description of Variables …….. 201

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Table 3. Weighted Pearson Correlation of Dependent Variables and Select Independent Variables for 2011 …….. 207
Table 1. Weighted Means, Standard Deviations, Ranges and Description of Variables

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<th>Variable</th>
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Religion in 1994 & 2011

1994 to 2011 Change in Religious Behavior from
1994 to 1994 Change in Religious Behavior from
1994 to 2011 Change in Religious Behavior from
1994 to 2011 Change in Religious Behavior from
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Table 1. (Cont.) Weighted Means, Standard Deviations, Ranges and Description of Variables

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<tr>
<th>Variable</th>
<th>N</th>
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<th>Domain 2: Economic Circumstances</th>
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<td>Employment Status in 1994</td>
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<td>.84</td>
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<td>Social Support in 2011</td>
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<td>4.09</td>
<td>.89</td>
<td>1 – 5</td>
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Mean score for (V10147): On the whole, how much do your friends and other relatives make you feel loved and cared for? (V12512):
Mean score for (V10147): On the whole, how much do your friends and other relatives make you feel loved and cared for? (V10148): How much are these friends and relatives willing to listen to you when you need to talk about your worries and problems? How much are these friends and relatives willing to listen to you when you need to talk about your worries and problems?
How much are these friends and relatives willing to listen to you when you need to talk about your worries and problems?
Table 1. (Cont.) Weighted Means, Standard Deviations, Ranges and Description of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
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<th>S.D</th>
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<td>Connectedness in 1994</td>
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<td>Mean score of variables (V10147): 'How often do you get together with friends, neighbors and relatives?' and (V10148) 'How often do you attend meetings or programs of groups, clubs and organizations?'</td>
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| Connectedness in 2011 | 1011 | 2.66 | 1.28 | 0 – 5 | Mean score of variables (V15195): 'How often do you get together with friends, neighbors and relatives?' and (V15196) 'How often do you attend meetings or programs of groups, clubs and organizations?'
| Self-Efficacy in 1994 | 1058 | 3.41 | .55  | 1 – 4 | Mean score for variables (V10107): 'At times I think I am no good at all', (V10108): 'All in all I am inclined to feel that I am a failure', (V10110): 'Sometimes I feel that I am being pushed around in life', and (V10111): 'There is really no way I can solve the problems I have.' |
| Self-Efficacy in 2011 | 1011 | 3.33 | .59  | 1 – 4 | Mean score for variables (V15307): 'At times I think I am no good at all', (V15305): 'All in all I am inclined to feel that I am a failure', (V15310): 'Sometimes I feel that I am being pushed around in life', and (V15308): 'There is really no way I can solve the problems I have.' |
| Positive Attitude in 1994 | 1058 | 3.49 | .64  | 1 – 4 | Respondent answers to: 'I take a positive attitude toward myself,' (V10106). |
| Positive Attitude in 2011 | 1011 | 3.50 | .64  | 1 – 4 | Respondent answers to: 'I take a positive attitude toward myself,' (V15306). |
| Can-Do Attitude in 1994 | 1057 | 3.43 | .70  | 1 – 4 | Respondent answers to: 'I can do just about anything I really set my mind to,' (V10109). |
| Can-Do Attitude in 2011 | 1010 | 3.33 | .72  | 1 – 4 | Respondent answers to: 'I can do just about anything I really set my mind to,' (V15309). |

Note: alpha = reliability coefficient for the scale.
Table 1. (Cont.) Weighted Means, Standard Deviations, Ranges and Description of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
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<td>Mean score of eleven mental health variables asking respondents about how they felt related in the past week in relation to depression. Includes: (V10283), (V10284), (V10285), (V10287), (V10288), (V10289), (V10290), (V10291), and (V10292). ( \alpha = 0.829 )</td>
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<td>Depression Scale in 2011</td>
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<td>Mean score of eleven mental health variables asking respondents about how they felt related in the past week in relation to depression. Includes: (V16001), (V16002), (V16003), (V16005), (V16006), (V16007), (V16008), (V16009), (V16010), and (V16011). ( \alpha = 0.834 )</td>
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<td>Variable (V15301), 'How satisfied are you with your life?'</td>
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Table 2. Weighted Pearson Correlation of Dependent Variables and Select Independent Variables for 1994
Table 3. Weighted Pearson Correlation of Dependent Variables and Select Independent Variables for 2011

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*p ≤ 0.05  **p ≤ 0.01  ***p ≤ 0.001
References


of Psychiatry, 54(3), 177-182.


