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Situational and Psychological Predictors of Career and Financial Success

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SITUATIONAL AND PSYCHOLOGICAL PREDICTORS OF
CAREER AND FINANCIAL SUCCESS

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Industrial-Organizational Psychology

by
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ABSTRACT

The present study sought to examine the processes through which variables in childhood affect financial and career success in adulthood. Though the effects of individual differences (e.g., cognitive ability and core self-evaluations [CSE]) on financial and career success outcomes have been frequently studied in industrial-organizational (I-O) psychology, situational factors are often treated as non-focal or control variables. We aim to augment the nomological network to include variables that have been identified in the fields of sociology and economics as significant predictors of financial and career success. The effects of religious tradition, poverty, and cognitive ability on outcomes (e.g., job satisfaction, and net worth) were examined. The mediating effects of CSE and risk aversion on the relation between childhood poverty and cognitive ability with job complexity, job satisfaction, and net worth were analyzed. Using a nationally representative longitudinal survey, the hypothesized relationships were tested using two separate analyses. First, one-way ANOVAs were utilized to assess between group differences on CSE, risk aversion, job complexity, net worth, and job satisfaction by religious tradition. Next, the hypothesized model was tested using path analysis in EQS. CSE was found to mediate the relationships between cognitive ability and income-to-poverty ratio with success outcomes. Between group differences and interaction effects were also found, suggesting the need for further research. The present study further elucidated the mediating processes through which childhood situational and individual difference factors affect financial and career success in adulthood.

DEDICATION

I would like to dedicate this dissertation to my family. Without your love and support, none of this would have been possible. Thank you for always believing in me, keeping me grounded, and reminding me of what is truly important. I love you.

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CHAPTER ONE

INTRODUCTION

Does where you start in life dictate where you end up? While it is disturbing that over 20% of children under 18 in the United States live below the official poverty line (DeNavas-Walt & Proctor, 2015), the even more troubling part about this statistic is that poverty is said to be passed down across generations. Though we have all heard of people starting from humble beginnings to become wildly successful, what causes some people to remain in place while others climb the economic or occupational ladder (or fall from grace)?

Researchers across various disciplines have tried to address this question (e.g., Baumeister, Campbell, Krueger, & Vohs, 2003; Burstein, 2007; Haveman & Wolfe, 1995; Shaw, 1996). As a result, many proximal and distal predictors (e.g, self-esteem [Baumeister et al., 2003]; neuroticism [Boudreau, Boswell, & Judge, 2001a]; religion [Burstein, 2007]; self-efficacy [Chatterjee, Finke, & Harness, 2011]; locus of control [Ng, Sorensen, & Eby, 2006]; risk [Shaw, 1996]; and cognitive ability, [Strenze, 2007]) have been examined for their relations with success either indirectly or piecemeal through literature in the fields of psychology, economics, and sociology. With notable exceptions, few attempts have been made to combine the results of the different literatures (Furnham & Cheng, 2013; Judge, 2009; Thoits, 1995) let alone examine the indirect effects (through psychological phenomena) of situational factors and individual differences on outcomes in adulthood. Though industrial-organizational psychologists contribute a breadth of research and a unique perspective to the search for predictors of financial and

career success, to help answer the proposed question the field could also benefit from the accumulated body of knowledge available in the other academic disciplines (Judge, Ilies, & Dimotakis, 2010a; Thoits, 1995). In this study, we augment the research in the field of industrial-organizational (I-O) psychology by incorporating the situational variables of poverty and religious affiliation with the individual differences of cognitive ability, core self-evaluations, and risk preferences as predictors of financial and career success outcomes.

The first step in identifying predictors is to define career and financial success. With a constructive definition, we can begin to untangle the predictors and mediators of the relationship between childhood circumstances (i.e., poverty and religious affiliation) and individual differences (i.e., cognitive ability, core self-evaluations, and risk aversion) and our success outcomes of interest. Since one of the aims for this research is to better understand the factors that contribute to financial success and because occupational status is often considered by sociologists to be the single best indicator of success in contemporary society (Korman, Mahler, & Omran, 1983) (as cited in Judge & Hurst, 2008), we contend that our success definition should include both a financial and a career or occupational component. Consistent with previous research (e.g., Judge, Cable, Boudreau, & Bretz Jr., 1995; Judge & Hurst, 2008; Seibert, Crant, & Kraimer, 1999), Judge and Hurst (2008) define career success as the “real and perceived achievements individuals have accumulated as a result of their work experiences” (p. 850). We extend this definition of success to include a financial success component. Therefore, success as conceptually defined for the purposes of this study is ‘the real and perceived

achievements individuals have accumulated as a result of their *economic and* work experiences.’ Net worth, job satisfaction, and job complexity will be used as the operational indicators of financial and career success.

Financial and career success outcomes are a result of both situational influences as well as individual differences, though research typically focuses on one of these at a time. Sociologists typically focus on the situational and demographic factors that impact thoughts, feelings and behaviors (Thoits, 1995) associated with success outcomes. But, they do not typically delve into the psychological processes responsible for these effects. Psychologists on the other hand, search for underlying cognitive mechanisms to explain how and why relationships occur but often overlook the effects of social constraints on psychological and behavioral outcomes (Thoits, 1995). When situational factors such as socio-economic indicators or religion are included in psychology studies, many times they are nonfocal (Gorsuch, 1988) variables used as control variables or moderators (e.g., Lemelle & Scielzo, 2012). We argue that the field of I-O psychology could benefit from examining the effects of situational variables in conjunction with psychological causal pathways through which those variables impact adult success.

Of specific interest in this current study are two situational differences that sociological researchers have demonstrated affect success outcomes; poverty and religious affiliation. Being in poverty in childhood is negatively related to educational attainment and income (Judge & Hurst, 2007; Strenze, 2007), occupational prestige (Furnham & Cheng, 2013; Strenze, 2007), mental well-being (Cheng & Furnham, 2014), and social class in adulthood (including both income and occupational status) (von

Stumm, Macintyre, Batty, Clark, & Deary, 2010). There is also persistent stratification of religious groups on years of education, household income, and occupational prestige (Smith & Faris, 2005). Building on the work by Furnham and Cheng (2013), this proposed study will incorporate the effects of poverty and religious affiliation with individual differences (i.e., personality, ability, and attitude variables) into a model to predict financial and career success outcomes.

There is considerable research in I-O psychology on the impact of individual differences of personality and cognitive ability on career-related success (e.g., Barrick & Mount, 1991; Judge, Higgins, Thoresen, & Barrick, 1999a; Rode, Arthaud-Day, Mooney, Near, & Baldwin, 2008; Schmidt & Hunter, 1998). To this end, literature in the field of psychology supports cognitive ability and core self-evaluations as the single best psychological predictors of career success and satisfaction respectively (Judge & Bono, 2001). Researchers have examined multiple mediating mechanisms to partially account for the effects of cognitive ability and core self-evaluations on job satisfaction (e.g., job complexity, education, etc.) (Ganzach, 1998; Judge, Bono, & Locke, 2000) and extrinsic career success (Judge, 2009) yet the relationships are not yet fully understood. One possible explanation for the predictive relationship between cognitive ability and career success is that those high in cognitive ability are more likely to seek out more complex jobs and they are also more likely to be selected and subsequently perform better in those jobs than their peers. Additionally, though the direct effects of core self-evaluations on success have been well documented, there is still a lack of research about this conglomeration of constructs, including the situational factors that contribute to its

development (Judge, 2009).

Economics is another field that is closely related to psychology and sociology yet remains distinct. The field of economics focuses on how preferences (e.g., risk), expectations of future events, and constraints (to name a few) influence and predict behavior (Becker, Deckers, Dohmen, Falk, & Kosse, 2012). Researchers in economics have begun to incorporate psychological constructs into their decision making frameworks (e.g., Becker et al., 2012; Borghans, Duckworth, Heckman, & Ter Weel, 2008), and have found that economic preferences and personality psychology work in a complementary manner to help explain individual differences in life outcomes and behavior (Becker et al., 2012). I-O psychologists could benefit from reciprocal treatment. For instance, no research (to our knowledge) has examined the relationships between core self-evaluation and the willingness to take risks (Judge, 2009). Integration of the economic concept of risk aversion into a predictive model of success could further refine models of how psychological processes affect life outcomes. Thus, the individual difference variables that we posit predict success outcomes and will include in the overarching model are core self-evaluations, cognitive ability, and risk aversion. This paper seeks to further our understanding of the processes involved in the attainment of financial and career success. To do this, we propose concatenating research from related fields into an overarching model which incorporates situational and individual differences as predictors of success outcomes. By including socio-demographic variables and risk preferences as predictors of success this paper integrates research in the fields of psychology, sociology, and economics to help further researchers understanding of how

childhood factors impact lifetime financial and career success. The proposed study presents a model of financial and career success which includes both subjective and objective success indicators. The adopted hypothesis is that the distal situational differences of childhood poverty and religion and the individual difference of cognitive ability impact success in adulthood by shaping intervening core self-evaluations and risk preferences. For a graphical representation of the simplified model, see Figure 1.

This paper is divided by chapters to assist the reader with distinctions among the variables in the model. Chapters 2, 3, and 4 review the relevant literature concerning the outcomes (e.g., net worth, job satisfaction, and job complexity), situational factors (e.g., poverty level and childhood religion), and individual differences (e.g., cognitive ability, core self-evaluations, and risk preferences) respectively. A review and summary of proposed hypotheses are presented in Chapter 5. Chapters 6, 7, and 8 present the method, results, and discussion respectively.

CHAPTER TWO

OUTCOME VARIABLES

Dictionary.com defines success as “the favorable or prosperous termination of attempts or endeavors; the accomplishment of one’s goals.” Individuals strive to be successful in life, though success is an evaluative construct and what ‘favorable’ or ‘prosperous’ outcomes are can be interpreted many different ways (Heslin, 2005a, 2005b). Although I-O psychologists typically use career-related outcomes as dependent variables of interest, not all measures of success are career related. In this paper, we focus on two continuums on which financial and career success can be conceptualized; subjective versus objective and context-specific (e.g., related to one’s job) versus context-free (e.g., net worth).

As an evaluative process, it is necessary to identify by whom the evaluation is being made (Jaskolka, Beyer, & Trice, 1985). Everett Hughes (1937, 1958) proposed a success framework in which he distinguished between objective and subjective success. Objective success is observable, measurable, and verifiable by a third party (as cited in Heslin, 2005a). Examples of this are net worth and job complexity. Subjective success refers to the individual’s reactions and evaluations of his or her achievements. One such subjective measure is job satisfaction. One aim of this paper is to contribute to the broader body of knowledge by integrating a context-free measure of success (net worth) from economics into the I-O psychology framework.

This chapter is dedicated to the review of the success constructs. First, (context-free) financial success is introduced and defined. Then, career success constructs are

discussed. Career success is subsequently divided into subjective (job satisfaction) and objective success (job complexity), respectively.

Financial Success

Financial success as conceptualized here refers to an individual's current financial status. It is the achievements individuals have accumulated as a result of their economic experiences. Though income is a key contributor to financial success, it is not the only significant factor. In order to give a complete economic picture any definition of financial success must integrate both economic output (income) as well as results of economic decisions and planning (debt). Net worth is the totality of an individual's assets minus their liabilities and accounts for not only how much an individual earns, but also how much they spend or owe (Zagorsky, 2007). Thus, this includes both socio-demographic factors as well as how one makes financial decisions. By adopting this measure from economics, we aim to augment the ways in which I-O psychologists typically conceptualize objective success.

Career Success

Career success is the "positive psychological or work-related outcomes or achievements one has accumulated as a result of one's work experiences" (Judge et al., 1995, p. 3). These achievements can be conceptually divided into subjective and objective outcomes (Judge et al., 1995; Ng, Eby, Sorensen, & Feldman, 2005). One indicator of subjective career success is job satisfaction (Gattiker & Larwood, 1988; Judge et al., 1995). Objective outcomes are those achievements which are observable by a third party, such as job complexity (Jaskolka et al., 1985). It is reasonable that as

individuals become more senior or advance in their careers the substantive complexity of their jobs increases and thus can be conceptualized as a measure of career success.

Subjective career success: Job satisfaction. Job satisfaction is “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke, 1976). Key characteristics of job satisfaction are that it is past or present focused and involves the evaluation by an individual, not group (Locke, 1976). It can also be in reference to either overall or individual facets of the job. The facet level refers to how an individual feels about certain aspects of the job such as rewards, other people, the work itself, and organizational context (Locke, 1976) whereas the general level is an individual’s satisfaction with the job as a whole.

As stated by Hoppock (1935, p. 3), “whether or not one finds his employment sufficiently satisfactory to continue in it... is a matter of the first importance to employer and employee” (as cited in Judge, Parker, Colbert, Heller, & Ilies, 2009b). Job satisfaction has been consistently used as an indicator of job success in the IO psychology literature (Stumpp, Muck, Hülshager, Judge, & Maier, 2010).

Though interest in the topic seems to be declining relative to years past (Judge et al., 2009b), historically, job satisfaction is possibly the most widely researched concept in I-O psychology, with over 10,000 studies devoted to the topic. By 1973, there were already over 3,300 studies devoted to the topic (Locke, 1976); Judge et al. (2009b) identified another 7,856 studies published after 1973. In addition to its proliferation in the I-O psychology literature, it has direct application to individual lives and organizational outcomes such as job performance (Iaffaldano & Muchinsky, 1985; Judd, Thoresen,

Bono, & Patton, 2001) and turnover (Cotton & Tuttle, 1986). The answers to how job satisfaction is formed could have important ramifications for organizations in both engagement and assessment and selection arenas (Dormann & Zapf, 2001). If satisfaction is simply a function of stable characteristics, should an organization assess for personality in the selection process and is it practical to modify aspects of the work to maximize job satisfaction?

Development. To better understand the formation of job satisfaction, there have been three main research approaches: situational, dispositional, and interactionist (Judge, Locke, & Durham, 1997; Judge et al., 2009b). The situational or job characteristics approach rests on the premise that characteristics of the job itself influence subsequent job satisfaction. The dispositional approach assumes that there are stable dispositional traits that influence job satisfaction independent of situation. Finally, the interactionist view holds that satisfaction is a result of the interaction between the situation and the individual.

Situational approach. Situational theories posit that job satisfaction is a function of the objective components of the environment or job itself. Judge et al. (2009b) identify three influential situational theories of job satisfaction. These are Herzberg (1966)'s two-factor theory, social information processing model (Salancik & Pfeffer, 1977, 1978), and the job characteristics model (Hackman & Oldham, 1976). Of the three models, the one that has garnered the most support is the job characteristics model (Judge et al., 2009b) (For a review and meta-analysis see Fried & Ferris, 1987; Loher, Noe, Moeller, & Fitzgerald, 1985).

In the job characteristics model, which was built on previous work by Hackman and Lawler (1971), the authors posit that five core characteristics of jobs (i.e. task identity, task significance, skill variety, autonomy, and feedback) lead to intrinsic satisfaction by influencing three important psychological states (i.e. experienced meaningfulness of work, responsibility for outcomes, and knowledge of results). These effects are moderated by the degree to which a person desires personal development, or their “growth need strength” (GNS) (Hackman & Oldham, 1976; Loher et al., 1985). In their meta-analysis of the relation between job characteristics and job satisfaction, Loher et al. (1985) posit that taken together, the job characteristics can be conceptualized as self-reported job complexity. They found a large correlation between job complexity and satisfaction of .39, with each job characteristic demonstrating a correlation of at least .32. This lends support to a situational component to the prediction of job satisfaction.

Dispositional approach. The dispositional approach posits that job satisfaction is due to stable internal characteristics of the individual. Research from the dispositional framework operates from the perspective that “people differ in how they see themselves and the world which, in turn, affects their reactions to many different job (and non-job) situations” (Judge et al., 1997, p. 153). Researchers have generally taken one of two approaches to dispositional theories of job satisfaction; direct or indirect. Those researchers who take the indirect approach try to estimate the stability of job satisfaction over time. From this estimate of stability, they extrapolate that there are some underlying dispositional characteristics that are responsible for job satisfaction without identifying the specific factors. Direct approaches seek to elucidate the specific traits that influence

job satisfaction (Dormann & Zapf, 2001).

Though the idea that individual differences influence job satisfaction was not new, two influential studies by Staw and colleagues (Staw, Bell, & Clausen, 1986; Staw & Ross, 1985), spurred the renewed interest in the dispositional sources of job satisfaction. In the first study, Staw and Ross (1985) found in a sample of older workers that job satisfaction demonstrated consistency over a five year time span, even when accounting for job and occupational changes. Then, the following year Staw et al. (1986) found that affective disposition assessed in early adolescence correlated significantly with job satisfaction up to 50 years later, with little to no decay in predictive power over the intervening time points.

Evidence suggests job satisfaction is relatively stable over time (Spector, 1997) and across jobs (Gerhart, 1987; Gupta, Jenkins, & Beehr, 1992; Staw & Ross, 1985). Dispositional factors have been shown to account for up to 30% of variance in job satisfaction either directly or indirectly (Dormann & Zapf, 2001 426) and may even be partially attributable to genetic influences (Arvey, Bouchard Jr, Segal, & Abraham, 1989).

In addition to analyzing the stability of job satisfaction, researchers have also sought to elucidate the relations of specific individual differences with job satisfaction (Staw et al., 1986). Positive affectivity (Staw et al., 1986) and negative affectivity (Levin & Stokes, 1989; Watson & Slack, 1993) have both been found to be predictors of job satisfaction levels across the lifespan; above and beyond situational attributes. Additionally, the Big Five personality factors have been found to be correlated with job

satisfaction (Gerhart, 1987; Gupta et al., 1992; Staw & Ross, 1985), with neuroticism and extraversion being the strongest predictors (negatively and positively related respectively). Judge and Bono (2001) conducted a meta-analysis of the relationship between the personality construct of core self-evaluations and job satisfaction and found positive, non-zero relationships for each of the 4 underlying component traits.

Interactionist approach. The interactionist approach incorporates both situational and dispositional predictors of job satisfaction. Theories that subscribe to the interactionist approach to job satisfaction have conceptualized the relations between disposition and situation two different ways. In the first form, satisfaction is influenced by the interaction between the job specific attributes and the values or wants of the individual. Satisfaction or dissatisfaction is a function of the degree to which the job attributes meets the needs of the individual (Staw et al., 1986; Staw & Ross, 1985). Some models that fall under this category are person-organization fit (Chatman, 1989), expectancy theory (Vroom, 1964), and affect theory (Locke, 1976). The second form of the interaction approach posits that the job environment may interact with the dispositional traits of the individual to impact job satisfaction. These traits are more general than the first conceptualization of the interactionist approach (which was job specific). One example of this type of approach is affective events theory (Weiss & Cropanzano, 1996) which states that the interaction between perceptions and expectations of the job lead to an emotional response. This response is the instrumental force in determining job satisfaction or dissatisfaction.

Job characteristics may also mediate the relationship between dispositional factors

and job satisfaction (Dormann & Zapf, 2001; Staw et al., 1986). To illustrate this point, consider the findings by Staw et al. (1986) which showed that childhood affectivity was equally predictive of job satisfaction as adult affectivity. Dormann and Zapf (2001) suggest that one possible explanation is that childhood dispositional factors influence early job choice. The stability of job satisfaction over the lifespan may be partially accounted for by the indirect effect of dispositional factors through self-selection processes. Dispositions influence the types of jobs that people (a) apply for and (b) remain in, which then affects working conditions. Job choice then impacts career trajectory. This trajectory influences job characteristics which in turn impact job satisfaction. Therefore, we posit that the correlation between childhood dispositional factors may be mediated by job and career selection processes.

Thus, the observed job satisfaction stability in job changers is likely due to both dispositional factors as well as stability in core characteristics of the jobs (e.g., job content and job stressors) (Dormann & Zapf, 2001). For instance, though they found cross-situational consistency in job satisfaction, Staw and Ross (1985) found that as situational changes increased, attitudinal consistency decreased. This implies that in addition to dispositional contributors to job satisfaction, contextual effects exist as well (Staw & Ross, 1985).

To this point, Gerhart (1987) challenged the conclusions of Staw and Ross (1985) that dispositional consistency is a stronger predictor of job satisfaction than situational constraints. By using a much younger age group in his study into the predictors of job satisfaction, he was able to capitalize on a greater degree of job fluctuations over the 3

year time frame than would be expected in older populations (Gerhart, 1987) and found that job characteristics such as job complexity are significant predictors of job satisfaction. Stability in job satisfaction over time may be due to the stability of job characteristics (Gerhart, 2005).

This paper seeks to elucidate the mechanism through which individual differences (dispositional approach) relate to job satisfaction in adulthood. Adhering to the interactionist approach, the job characteristic of job complexity is introduced as a possible mediating mechanism through which dispositional traits impact job satisfaction.

Objective career success: Job complexity. In addition to the subjective career success achievement of job satisfaction, career success as measured in this study incorporates the objective “work-related achievement” of job complexity. As mentioned previously, objective outcomes are those achievements which are observable by a third party (Jaskolka et al., 1985). Substantive job complexity refers to the degree to which the work itself requires thought and independent judgment in relation to people, data, or things (Kohn, 1980). This implies that some jobs are “objectively” more cognitively difficult than others (Strenze, 2013). For instance, judgments required in some jobs involve reconciling conflicting information or addressing ill-defined problems. Examples of how these differences apply can be seen when comparing jobs such as architects and judges versus cashiers and bus drivers. Typically, the job of an architect or judge requires more involved thought processes than a cashier or bus driver, thus rating higher in substantive complexity (Roos & Treiman, 1980). It is reasonable that substantive job complexity increases as individuals become more senior or advance in their careers thus

is a measure of career success.

As researchers of psychology and behaviors at work, job characteristics are of key importance to I-O psychology. Occupational complexity, income, and control have been found to predict higher happiness and self-confidence (Adelmann, 1987) and incumbent rated job autonomy is correlated with lower intent to leave, anxiety, and frustration and higher satisfaction (Spector & Jex, 1991). Occupational complexity is even associated with cognitive performance years later (Smart, Gow, & Deary, 2014) and has a positive reciprocal relationship with intellectual flexibility (Kohn & Schooler, 1978).

Relationship of Career Related Success Outcomes

As jobs become more complex, people are typically paid more to perform those jobs (Homola, Knudsen, & Marshall, 1987). In their longitudinal study of 5,000 adults, Furnham and Cheng (2013) found that the strongest predictor of income was occupational prestige. As net worth is the combination of income, assets, and expenses we hypothesize that job complexity will predict net worth.

Hypothesis 1: Job complexity positively predicts net worth.

In accordance with previous research, “it is reasonable to expect that objective and subjective career success are positively correlated (Judge et al., 1995)” (Ng et al., 2005, p. 375). Job level (as conceptualized by subjective and objective ratings of complexity, objective prestige, or objective time needed to attain average performance) is consistently and positively related to job satisfaction at both the global and facet levels (Robie, Ryan, Schmieder, Parra, & Smith, 1998). Loher et al. (1985) found a strong relationship between job satisfaction and job complexity. This pattern holds for both

objectively measured job complexity and incumbent perception of job complexity (Ganzach & Pazy, 2001).

A number of theories have been used to try to explain this positive relationship between objective and subjective success (Ng et al., 2005). One such theory is social comparison theory (Festinger, 1954), in which people compare themselves to others. An easy point of comparison is objective indicators of success, such as net worth or job complexity (Ng et al., 2005). Thus, when these comparisons result in perceived objective success, individuals may feel a sense of pride which leads to subjective success such as job satisfaction. Attribution theory (Johns, 1999) asserts that individuals attribute successes to internal factors which engenders positive self-perceptions and consequently greater job satisfaction (Ng et al., 2005). Job satisfaction initially results from perceptions of the job. Once initial satisfaction is developed, job satisfaction and job perceptions are reciprocally related (James & Tetrick, 1986). The moderate stability of job satisfaction over time may in fact be due to the stability in characteristics of the jobs (Gerhart, 2005).

Hypothesis 2: Job complexity positively predicts job satisfaction.

Hypothesis 3: Net worth is positively correlated with job satisfaction.

Though related, objective and subjective success are also distinct constructs which relate differentially to antecedents (Ng et al., 2005). Individual differences, which have affective components (such as personality and self-perceptions) are more likely to influence affective reactions. Conversely, socio-demographic variables (such as religion and poverty) are likely to impact social contacts and thus opportunities available to individuals. These opportunities are likely to cause socio-demographic factors to have a

greater impact on objective measures of success (net worth and job complexity) (Ng et al., 2005). In the meta-analysis by Ng et al. (2005), they found that individual differences (e.g., locus of control and neuroticism) and socio-demographic factors do predict success though individual differences predict subjective and socio-demographic factors predict objective factors to a greater degree. They did not examine the mediating effect of individual differences in the relations between socio-demographic factors and outcomes. We hope to extend this research by examining these mediating effects as a possible causal explanation for the correlation between subjective and objective success.

CHAPTER THREE

SITUATIONAL FACTORS

One goal of this paper is to contribute to the broader body of knowledge in I-O psychology by expanding the nomological network of the identified variables that predict financial and career success beyond individual differences to include situational determinates as well. This chapter reviews two situational factors in childhood and how they relate to financial and career success outcomes. Chapter four will expand on this by identifying and reviewing the individual differences we hypothesize are affected by these situational variables. Two such childhood situational factors that have significant impact on lifetime attainment are poverty and parental religion.

Poverty

Poverty is a description of economic well-being and refers to the condition of not having enough income to meet basic needs (Brooks-Gunn & Duncan, 1997). The United States Government uses a statistic called the ‘poverty line’ to represent the dollar amount below which those needs are assumed to not be met.

Poverty disproportionately affects children under the age of 18. Based on the 2014 Census, 15.4% of the people in the United States live below the poverty line. For children under the age of 18, that number grows to 21.1% (DeNavas-Walt & Proctor, 2015). Forty-two percent of related children under the age 18 lived in families with income-to-poverty ratios at or under 2.0 (DeNavas-Walt & Proctor, 2015). When looking at the poverty prevalence and duration in children (under 8 years old), of those that were currently living in poverty two thirds had lived in poverty more than 75% of their lives.

Additionally, of those who were currently in poverty, it was more long lasting among blacks and Hispanics than non-Hispanic whites (McLeod & Shanahan, 1993).

Families that are slightly above the poverty line face many of the same pressures as those below the poverty line. By examining the impacts of poverty dichotomously (income either below or above the poverty line), research may underestimate the effects of financial deprivation (McLeod & Shanahan, 1993). Thus, a more specific measure is one that differentiates by depth of poverty/ degree of advantage. Family income as well as the poverty-line statistic should be taken into account. This study will use a ratio of income-to-poverty to allow for greater differentiation along the continuum of income and conversely create context for family income levels.

Outcomes. In their attempt to concatenate poverty research across psychology, sociology, and economics Hill and Sandfort (1995) articulated a number of causal pathways through which poverty in childhood impacts accomplishments in adulthood. They found poverty is related to outcomes indirectly through its effect on home environment, growth and development, and education. Parental income in adolescence positively influences educational orientation and subsequent educational attainment (Tomlinson & Walker, 2010). For families with low income when a child is 0-15, an increase in average annual income of \$10,000 corresponds to 1.3 more years of completed education. Though this pattern decreases for high income families, it is still significant (Duncan, Yeung, Brooks-Gunn, & Smith, 1998). This effect between social class and education and ability outcomes is most influential during early childhood (0-5 years of age) (Duncan et al., 1998). In comparing educational attainment of siblings,

Duncan et al. (1998) found that children who experience poverty in early childhood complete less education than children in the same families who do not experience poverty. This negative relationship with years of education may subsequently result in less desirable financial and career outcomes.

Family income has been found to have lasting effects on children well into adulthood with individual attainment being significantly influenced by parental socio-economic status (Carmichael, 2000). Being in poverty in childhood is negatively related to educational attainment and income (Judge & Hurst, 2007; Strenze, 2007), occupational prestige (Furnham & Cheng, 2013; Strenze, 2007), mental well-being (Cheng & Furnham, 2014), and social class in adulthood (including both income and occupational status) (von Stumm et al., 2010). Based on the reviewed body of research, we offer the following hypotheses:

Hypothesis 4: Childhood income-to-poverty ratio positively predicts adult net worth.

Hypothesis 5: Childhood income-to-poverty ratio positively predicts adult job complexity.

Hill and Sandfort (1995) call for research to identify other causal pathways in which poverty impacts lifetime achievement. By doing so, more effective interventions can be developed. In addition to examining the direct effects of income-to-poverty ratio on success outcomes, this study aims to identify psychological causal pathways through which childhood poverty impacts adult career and financial success.

Religion

Religion is another situational variable which may have significant impact on individual outcomes through a number of possible mechanisms such as ability, family values, or cultural group differences (Tomes, 1985). It operates at both the individual level through its impact on personal schema development as well as the group level through its ability to shape societies and bind people together (Baumeister, 2002). Religion holds a “privileged place as one of the only large-scale institutional supports for values, morals, shared assumptions, and the like” (Baumeister, 2002, p. 166). Because of its prevalence and importance in the United States (and the world) we seek to better understand the impact it has on individual financial and career outcomes as well as intervening individual differences.

Religious affiliation refers to the denomination or tradition with which an individual associates (Keister, 2011). Most people in the United States follow some organized religion. According to a Gallup poll, in 2012, 76% of the population of the United States endorsed affiliation with a religion (41% Protestant, 10% non-specific Christian, 23% Catholic, and 2% Jewish) with more than half of respondents saying that religion was very important in their lives and almost a third of them (31%) attending religious services weekly. Given its importance in people’s lives, “[r]eligion can be among the most significant defining traits of a family” (Keister, 2003, p. 176).

History of study in I-O psychology. Though I-O psychology has yet to meaningfully look at the intersection of religion and organizations (King & Crowther, 2004; Tracey, 2012), the psychology of religion has been a topic of research for almost 100 years. The pioneers in the field of psychology of religion emerged in the early 20th

century (Hall, 1904, 1917; James, 1902; Starbuck, 1897; see also Vande Kemp, 1992) (as cited in Emmons & Paloutzian, 2003). Subsequently, due in part to the emphasis in the field of psychology on behaviorism, research on the psychology of religion decreased in the 1920s until it's revival in the 1960s (Emmons & Paloutzian, 2003). At which time, the new generation of psychological researchers began using their knowledge of psychology to address real-life social issues (Hester, 1998). Among these psychologists was Gordon Allport. Following his controversial empirical research supporting the hypothesis that religion is related to racial prejudice (Allport, 1954; Allport & Kramer, 1946; Allport & Ross, 1967), the study of religion experienced dramatic growth (Emmons & Paloutzian, 2003). By 1976, research conducted in other areas of psychology on religion had garnered enough attention to spawn its own specialty area; APA Division 36, "psychology of religion." In 1988, the *Annual Review of Psychology* hosted the first chapter on the psychology of religion (Gorsuch, 1988) which was followed up 15 years later with the second and most recent review of the field (Emmons & Paloutzian, 2003).

Despite this breadth of research on the topic, researchers have yet to coalesce on an objective definition of the construct. "Over the past decade, there has been arguably more print devoted to conceptualizing religion and spirituality than to any other topic in the psychology of religion" (Emmons & Paloutzian, 2003, p. 381). To this end, researchers have employed a plethora of ways to attempt to operationally define religion and religiosity as well as many ways to measure it. To illustrate the breadth of scales developed to measure religion at the individual level, we need only look at the book by Hill and Hood (1999). In their review of reliable and empirically validated scales they

found over 120 unique measures of religiosity. Subsequently, to encourage organizational researchers to incorporate religion into their work, King and Crowther (2004)'s distilled list still contains 12 such measures that they determined to be most useful to organizational researchers.

Religion at the individual level. Gordon Allport's (Allport, 1950; Allport & Ross, 1967) distinction between intrinsic and extrinsic religion is the dominant theory in the scientific study of religion at the individual level (Cohen & Hill, 2007). Extrinsic religious orientation describes individuals that use religion for instrumental and utilitarian purposes. This can include social positioning, security, status, and self-justification (Allport & Ross, 1967). Conversely, intrinsic religious orientation refers to the degree to which individuals internalize religion. God or the religion itself motivates individuals and other needs are viewed as less significant and important than an individual's religion (Allport & Ross, 1967).

Though Allport's theory has garnered significant support, by focusing on religious orientation at the individual level, researchers may miss important group differences. For instance, whereas Cohen, Siegel, and Rozin (2003) found that Christianity focuses equally on practice (extrinsic) and faith (intrinsic) they found that the Jewish tradition places more emphasis on ritual and practice than internalized faith. Additionally, correlations between the religious attributes of intrinsic and extrinsic orientation with other variables of interest differ across religious populations (Laher, 2007). Though, for Christian students intrinsic orientation is negatively correlated with work, intimate, and peer pressure and extrinsic orientation is positively correlated with

University pressure, these relationships did not hold for other religious affiliations (Laher, 2007). Finally, intrinsic and extrinsic orientations are negatively correlated with each other for Protestants but are positively correlated for Catholics (Cohen et al., 2005). One explanation for these differences may be that the intrinsic/ extrinsic distinction really taps into individualist versus collectivist differences in religious affiliation (Cohen & Hill, 2007). Therefore, “differences in religious groups can [actually] be understood as differences in culture” (Cohen & Hill, 2007, p. 736) and even with course labels of religious affiliation, there may be meaningful group differences to examine (Cohen & Hall, 2008).

Religion at the group level. Though conceptualizations of religious identity and theory have overwhelmingly focused on the individual (Cohen & Hill, 2007), religion in and of itself may still hold unique influence on human behavior (Baumeister, 2002). Specific religions are institutions or major groups which have a history and theological doctrine; ritual, sacred texts, and beliefs which pertain to the spiritual and the group finds meaningful (Hood, Spilka, Hunsberger, & Gorsuch, 1996). An individual’s worldview develops early in life and the religious group in which one is raised helps to determine the specific elements of that worldview. This is accomplished through cultural models (sets of beliefs that are generally held by a group of people) that are evident in the practices, artifacts, and institutions of the religion. These cultural models developed at the group level then “provide implicit blueprints of how to think, feel, and act” (Snibbe & Markus, 2005, p. 704) for the individual. Given these shared beliefs, history, and artifacts, we adopt the definition of religion as “a set of rules, developed as a part of a culture”

(Colzato et al., 2010c, p. 1).

To illustrate differences among religious affiliations, we present a brief overview of three prominent religions (Judaism, Catholicism, and Protestantism), though group differences with additional religions will also be examined.

Judaism. In Judaism, religion is determined first and foremost by heredity. A person is considered Jewish if they are born to a Jewish mother (Cohen & Hill, 2007; Morris, 1997). Perhaps because Judaism is a “descent” based religion (Cohen & Hill, 2007), Judaism places less emphasis on what constitutes appropriate religious dogma than it does on collective identity (Gillman, 1990).

In the final analysis, the suspicion that seems to have haunted Jewish philosophy most throughout its history stems from an almost intuitive feeling that the philosopher’s preoccupation with clarifying and systematizing what Jews are supposed to believe is simply not as intrinsically important to Judaism, as it is for Christianity. . . . Most Jews, even the most authentic among us, have never given much thought to clarifying just what we believe about God, nor do we feel that our religiosity is any the worse for it. The ‘religious’ among us observe the Sabbath, the dietary laws, the Festivals, thrice-daily prayer, and the ethical teachings of the tradition. (Gillman, 1990, p. xx)

Based on this view, it is clear that Judaism places more emphasis on extrinsic rather than intrinsic religious orientation. Compared to Protestants and Catholics, Jews rank significantly lower on religiousness, salience of religious identity, spirituality, and intrinsic religious orientation (Cohen & Hill, 2007). On the other hand, they rate between

Catholics and Protestants on extrinsic religious orientation with the former rating the highest (though Jews were not significantly different from either group) (Cohen & Hill, 2007).

Contrary to other religions, cultural norms in Judaism promote occupational and worldly pursuits. Rather than focus on the afterlife, Jews are encouraged to pursue occupational and financial success (Lehrer, 2004). According to the diaspora hypothesis, Jewish families place more emphasis on financial assets (Keister, 2003) and human capital, such as education than on fixed assets or physical capital (Brenner & Kiefer, 1981) because they are transportable. Evidence for the impact of Jewish religious affiliation on adolescent educational development shows that, Judaism has been found to be positively correlated with school enjoyment in adolescents (Smith & Faris, 2002) and they rate higher in need for achievement than Catholics or Protestants (Argyle & Beit-Hallahmi, 1975; as cited in Chusmir & Koberg, 1988),

Jews have consistently demonstrated higher educational (Sander, 2010) and occupational attainment, income, and representation in prestigious groups with effect sizes large enough that they reach statistical significance with even very small sample sizes (Burstein, 2007). The emphasis on investing in human capital may cause a number of positive benefits in those who practice Judaism. Higher education prepares individuals for more complex jobs, which typically results in greater income potential. Paired with higher than average educational attainment (approximately 2.5 years; Burstein, 2007), relatively small family size (number of siblings is negatively correlated with occupational achievement and income; Homola et al., 1987) and low female employment when

children are young have been found to be mediators of the significant relationship between Judaism and higher than average financial assets (Keister, 2003). Although the positive association with educational attainment helps to explain part of the reason for career success, the relationship is not yet fully understood.

Catholicism. The Catholic religion is similar to and different from both Protestantism and Judaism. Catholicism rates higher in intrinsic religious orientation than Judaism, while concurrently placing greater emphasis on ritual and religious symbols than Protestantism (Cohen & Hill, 2007). Like Protestantism, it is a religion based in Christianity and overlaps significantly in terms of beliefs. Unlike Protestantism, the Catholic Church claims that it holds the path to salvation in its structures, sacraments, and traditions (Williams, 2008), thus emphasizes extrinsic religious symbols. Like Judaism, Catholicism is categorized as collectivist in nature (Cohen & Hill, 2007).

Protestantism. In the 1500s a sect of Catholics broke with the Church in what was known as the Protestant Reformation (Williams, 2008). This new religion emphasized the relation between the individual and God. Therefore, from the beginnings of the religion, Protestants do not believe that the church is required for salvation (De Tocqueville & Frohnen, 2003). All of the religious experience is seen as a process taking place between the individual and God. Possibly because of this, Protestants are more individualist than Catholics or Jews (Cohen & Hill, 2007). Consistent with “ascent” based religions, Protestantism emphasizes an internal religious orientation (e.g., shared beliefs and values), rather than an external orientation (Cohen & Hill, 2007; Morris, 1997).

The history of the Protestant religion has caused substantial and meaningful

differences among the denominations. Mainline Protestants (e.g., Episcopalian, Lutheran, and Methodist) tend to espouse proactive views on social and economic justice, embrace modernity, and are tolerant of individual beliefs. Evangelical Protestants (e.g., Baptist) teach strict adherence to religious doctrine, distance themselves more from broader culture, and emphasize individual conversion (Steensland et al., 2000). Black Protestantism (e.g., Black Baptist and Methodist congregations) developed separately from the other two branches due largely to differences in social experiences due to race. While in white communities, religion typically occupies a separate sphere from the secular, in the Black Protestant community religious and social spheres influence each other. Adherents of this branch of Protestantism are typically economically liberal and socially conservative (Pearce & Thornton, 2007). For further review see Steensland et al. (2000). Because of these dissimilarities within the coarse grain definition of Protestantism and similarities among distinct affiliations, Steensland et al. (2000) created a classification scheme to aid researchers in the examination of between group differences.

Religious Tradition. There are more religious denominations than can be meaningfully compared, so in an attempt to categorize them into a useful schema, Steensland et al. (2000) created the Religious Traditions (RELTRAD) classification scheme. “A religious tradition is a grouping of denominations and local churches that share a set of beliefs, practices, similar historical roots and organizational ties that distinguish them from other religious groups” (Woodberry, Park, Kellstedt, Regnerus, & Steensland, 2012, p. 66). Religious traditions, as defined here fall into seven categories;

Black Protestant, Mainline Protestant, Evangelical Protestant, Catholic, Jewish, Other, and Unaffiliated.

Outcomes. Research to date has shown that religious affiliation predicts outcomes such as well-being in older adults (Cohen & Hall, 2009), propensity to make internal attributions (Li et al., 2012), family size (Cherlin & Celebuski, 1983), and even how individuals attend to visual stimuli (Colzato et al., 2010c). Religious people trust others more, are less likely to break the law, and more likely to trust the fairness of market outcomes (Guiso, Sapienza, & Zingales, 2003). They are more motivated to leave inheritances and have a longer financial planning horizon than nonreligious people (Renneboog & Spaenjers, 2012). There are statistically significant differences between adherents of religious affiliations on personality traits (e.g., extraversion and openness to experience) such that Catholics are more extraverted than Jews or Protestants and Jews are the most open to experience (besides Buddhists) (Johnstone et al., 2012).

Religious affiliation also shows significant differences on financial and career outcomes. For instance, there are significant differences between religious affiliations in socio-economic achievement (Homola et al., 1987). In their study utilizing a national longitudinal survey, Smith and Faris (2005) found persistent stratification of religious groups on years of education, household income, and occupational prestige. Based on these findings, Smith and Faris (2005) posit that the differences in religious stratification appear to be a result of differences in (among other things) theology and liturgical style. They found that religions that cluster at the top of the socio-economic rankings tended to be theologically more liberal, while also more hierarchical and tradition-oriented (e.g.,

Jewish and Episcopal). Those at the lower end of the ranking scale are more conservative and sectarian and follow more informal and emotional worship styles (e.g., Baptist and Jehovah's Witness) (Smith & Faris, 2005).

Mechanisms. Even though researchers in the field of sociology have documented and theorized about the persistent inequalities between religious affiliations, since the mid-20th century there is surprisingly little research as to how and why this stratification occurs (Smith & Faris, 2005). The scant research that does exist suggests a few identified pathways. Religious affiliation (a) shapes how people interpret their world, (b) prescribes what goals they should pursue, and (c) guides appropriate behaviors and approaches to reaching those goals.

As religion is “a set of rules, developed as a part of a culture” (Colzato et al., 2010c, p. 1), it serves as a lens through which individuals see themselves and the world around them (Silberman, 2005). For example, objective stressors can be viewed differently based on religious views (Furnham & Brown, 1992). A traumatic experience may be viewed as either punishment or merely a test from God (Mickley, Pargament, Brant, & Hipp, 1998). Additionally, because religious beliefs tend to be stable, people reappraise situations to conform to those beliefs rather than changing the beliefs themselves (Pargament, 1997).

Religious exposure in childhood has important correlations with how people think and behave in early adulthood (Pearce & Thornton, 2007). Specifically, children of Evangelical Protestant mothers distinguish themselves as the most socially conservative. They are more anti-abortion, anti-premarital sex, and more likely to support a single-

breadwinner household model than all other religious traditions including Mainline Protestants (Pearce & Thornton, 2007). Generally, Evangelical Protestants are the most morally conservative, followed in order by Catholics, Mainline Protestants, and Jews (Yamane, 2007). Interestingly, Jews are the only religious tradition that are not more socially conservative than those in the No Religious Affiliation category (Yamane, 2007). Because a religious framework serves as a core schema, used to make judgments about the self and world (McIntosh, 1995) we hypothesize that religious affiliation in childhood could have important implications for adult success and organizational outcomes (e.g., job satisfaction) through the development of intervening psychological individual differences.

Religious tradition is associated with differences in endorsement of the social and prosperity gospels. The social gospel posits that people have a responsibility to combat inequalities, encompasses a communal view of religion, and views religious texts as paths to wisdom rather than literal translation (McDaniel, 2016). The prosperity gospel is more individualist focused, supports a more literal translation of the Bible, and relates strong faith with divine blessings and favor (McDaniel, 2016). The prosperity gospel endorses belief that God rewards and punishes people based on strength of faith. Catholic and Mainline Protestant groups are positively related and Evangelical and Black Protestant groups are negatively related to endorsement of the social gospel (McDaniel, 2016). Black Protestants are significantly more likely to endorse the prosperity gospel than any other religious tradition except Catholicism.

Some aspects of religious beliefs have demonstrated relationships with economic

success outcomes. For instance, belief in divine involvement or control is negatively correlated with socio-economic status. This relationship varies by religious tradition and is strongest in the Jewish and No Religion groups (potentially due to more variability in the belief in divine control) and weakest in the Catholic and Black Protestant groups (Schieman, 2010), which take a more literal translation of the Bible.

Though relatively little is known about the effects of religion and religious values on social processes within organizations specifically (Tracey, 2012), King and Crowther (2004) posit it is “almost certain” that religion affects behaviors and attitudes relevant to organizations. One promising body of research indicates that there are between group differences in affective organizational commitment such that Catholics demonstrate higher affective commitment than Evangelicals and those who are non-affiliated and Evangelicals demonstrate a stronger attachment to God than Mainline Protestants (Kent, 2017). These relationships show promise for research on “job satisfaction, stress, absenteeism, and medical cost” (King & Crowther, 2004, p. 95). We intend to examine the hypothesized relationship between religious affiliation and the career success factor of job satisfaction.

Hypothesis 6: Childhood religious affiliation has a significant main effect on job satisfaction.

Childhood religion affects adult outcomes through shaping of behaviors, and goals (Keister, 2003). Cultural rituals, beliefs, and symbols identify worthwhile goals in the form of end states or values (Keister, 2003). Research to support this has found that practice following the “rules” of specific religious affiliations systematically changes

people's cognitive processing (Colzato et al., 2010c) to reflect biases towards what is rewarded by their religious beliefs (Colzato, Hommel, Van Den Wildenberg, & Hsieh, 2010a; Colzato, Hommel, & Shapiro, 2010b; Colzato, van den Wildenberg, & Hommel, 2008). The goals and values that are rewarded differ among religions and thus we posit, will have differing effects on adolescent development and adult success outcomes. Due to the differences among religious groups on the prioritization of occupational achievement as a valued goal, we hypothesize that there will be significant differences among religious groups on objectively measured career success.

Hypothesis 7: Childhood religious affiliation has a significant main effect on job complexity.

Religion not only provides goals for individuals but also a prescribed framework for how to achieve those goals (Pargament, 1997; Park, 2005) by giving individuals “strategies of action” by which to reach those valued states (Keister, 2003). The relationship between religious affiliation and financial and occupational stratification reflects intergroup differences in “approaches to human capital, family, work, entrepreneurship, saving, and investing” (Keister, 2011, p. 354). Though they only compared two religious groups with a nonreligious control, in their large study using the Dutch DNB Household Survey (1995-2008), Renneboog and Spaenjers (2012) found that households belonging to different religious groups have different economic attitudes and approaches to finances. For instance, Protestants and Catholic households value saving money significantly more and Catholic households hold significantly less stock than their nonreligious peers (Renneboog & Spaenjers, 2012). When comparing the concentration

of mutual fund risk and volatility profiles across locations, Shu, Sulaeman, and Yeung (2012) found that low-Protestant and high-Catholic areas had significantly greater volatility (risk) in mutual fund returns. The researchers concluded, that the differences between religions in attitudes towards gambling affected investment strategies of individuals. We hypothesize that these differences in economic attitudes and investment and savings approaches significantly impact individual's financial success in adulthood.

Hypothesis 8: Childhood religious affiliation has a significant main effect on net worth.

The majority of the existing research on religion focuses on current religion in adults and their households. Despite the importance and prevalence of religion in families, there is little longitudinal research on the effects of religious upbringing on childhood development (Bartkowski, Xu, & Levin, 2008). This paper aims to augment the existing literature by examining longitudinal effects of childhood religious affiliation on adult financial and career success relationship.

CHAPTER FOUR

INDIVIDUAL DIFFERENCES

This chapter is dedicated to the review of individual differences and how they relate to career and financial success outcomes. First the construct of cognitive ability is reviewed. Then, the two variables (core self-evaluations and risk aversion) that we posit mediate relationships between childhood factors (cognitive ability, income-to-poverty ratio, and religious tradition) and success outcomes are discussed.

Cognitive Ability

The first theory driven, systematic approach to the psychological study of general mental ability was conducted by Charles Spearman in his article “*General intelligence, objectively determined and measured*” (1904). Spearman (1904) found that there is one common factor (general mental ability, aka “*g*”) that impacts specific intellectual abilities. *G* is a general information processing ability that “involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly, and learn from experience” (Gottfredson, 1997a, p. 13). Since the inception of *g*, much debate has surrounded the factor structure of intelligence (For a review see Neisser et al., 1996). Many different tests of intelligence exist with over 70 specific abilities proposed and measured (Carroll, 1993). Despite the numerous specific abilities, all cognitive ability tests load highly on *g* (Johnson, Bouchard, Krueger, McGue, & Gottesman, 2004; Johnson, Nijenhuis, & Bouchard, 2008b) correlating at .95 or above, indicating interchangeability of the tests (Johnson et al., 2008b).

An individual’s rank order on general cognitive ability remains relatively stable

over the lifetime (Schwartzman, Gold, Andres, Arbuckle, & Chaikelson, 1987). In the first study to examine the stability of general cognitive ability from childhood to old age, Deary, Whalley, Lemmon, Crawford, and Starr (2000) found that a person's relative general cognitive ability remained stable with corrected correlations of .73 over a time span of 66 years (Deary et al., 2000). Given this temporal stability of cognitive ability, we hypothesize that cognitive ability in childhood can affect financial and career outcomes longitudinally.

Correlates. Because general cognitive ability “is essentially the ability to deal with cognitive complexity, in particular, with complex information processing” (Gottfredson, 1997b, p. 79), it is instrumental to many aspects of a person's life. Austin et al. (2002) posit that cognitive ability facilitates personal and social adjustment. It predicts greater success for everyday tasks such as banking and interpreting information (Gottfredson, 1997b) to more distal outcomes such as longer life expectancy (Deary, Whiteman, Starr, Whalley, & Fox, 2004) and social class (von Stumm et al., 2010). Most relevant to this study, cognitive ability has been found to predict economic well-being both directly and indirectly (Judge et al., 2010a). Conversely, it is negatively related to maladaptive traits such as hostility, cynicism, and social anxiety (Austin et al., 2002). Those below average in cognitive ability (IQ 76 to 90) are 7 times more likely to be incarcerated and 88 times more likely to drop out of high school when compared to those of above average cognitive ability (IQ 111-125) (Gottfredson, 1997b). One goal of this paper is to further elucidate the mechanisms through which cognitive ability predicts career and financial success outcomes.

It ought to be made clear at the outset that no psychologist is foolish enough to suppose that native intelligence is the sole factor in academic success; all that is contended is that it is one factor, and probably the most important single factor, and that it is measurable by wholesale rapid methods with a reasonable degree of precision (Whipple, 1922, p. 262).

Personality traits that generally show positive correlations with intelligence fall into two categories, those associated with 1) extraversion or positive emotionality and 2) intellectually oriented traits. Those that show a negative correlation tend to be associated with neuroticism/ negative emotionality and psychoticism (Ackerman & Heggestad, 1997).

Financial success. General cognitive ability is positively correlated with income later in life (Strenze, 2007; von Stumm et al., 2010; Zagorsky, 2007) with occupational prestige partially mediating this relationship (Judge et al., 2010a). Once individuals have more complex jobs, high cognitive ability improves individual's chances of translating the results of their jobs into increased extrinsic success (Judge, Klinger, & Simon, 2010b). People with above average cognitive ability (IQ score of 100) are three times more likely to make over \$105,000 than those below average (Zagorsky, 2007). Judge et al. (2010b) found that over a 28 year period, those high in cognitive ability increased their income by \$57,100 compared to the \$19,867 experienced increase for low cognitive ability counterparts. This relationship (though attenuated) holds even after controlling for education.

A high income does not guarantee financial well-being, though it does make it

easier to attain (Judge et al., 2010a). How many lottery winners file for bankruptcy just years after winning millions of dollars? The rate for bankruptcy among lottery winners is estimated to be higher than the general population (Hankins, Hoekstra, & Skiba, 2011). Hankins et al. (2011) propose that for lottery winners, though income changes other characteristics of the individual (e.g., abilities, household preferences, and social connections) remain stable. One such attribute that does not change is cognitive ability. Because cognitive ability involves the ability to plan, solve problems, and understand abstract ideas it has a direct effect on economic management and planning (Judge et al., 2010a) thus will be positively correlated with net worth.

Hypothesis 9: Cognitive ability positively predicts total net worth.

Job satisfaction. The literature provides conflicting results on the relation between intelligence, or cognitive ability and job satisfaction. While some studies have demonstrated negative correlations (e.g., Barrett, Forbes, O'Connor, & Alexander, 1980; Meulmann, 1991) others show no correlation at all (e.g., Bagozzi, 1978; Stone, Stone, & Gueutal, 1990) (as cited in Ganzach, 1998). Ganzach (1998) provides evidence of a possible mediator (job complexity) of this relationship, such that cognitive ability has a negative direct effect on job satisfaction. People high in cognitive ability are drawn to more complex jobs. If job complexity is held constant, then cognitive ability is negatively related to job satisfaction. Cognitive ability is positively related to job complexity, which in turn is positively related to job satisfaction. The resulting suppression effects could account for the inconsistent findings in the literature. To better understand the relationship between job satisfaction and cognitive ability, the mediated relationship is

examined in this paper.

Hypothesis 10: Cognitive ability has a negative direct effect on job satisfaction.

Job complexity. Of particular interest in this paper is the prediction of individuals' attainment of jobs with varying complexity. The 'gravitational hypothesis' (McCormick, Denisi, & Shaw, 1979) posits that individuals will gravitate towards positions which are compatible with their abilities as well as their interests and values (i.e. good person-job fit) (Wilk, Desmarais, & Sackett, 1995; Wilk & Sackett, 1996). Research supporting this shows that incumbents within a given occupation generally cluster around similar levels of *g*, with standard deviations averaging 8 points (Gottfredson, 2002).

The development of occupational aspirations develops early in an individual's life and impacts their pursuit of different career options (Austin & Hanisch, 1990; Gottfredson, 1981). When individuals first consider entering the workforce, they may be unsure of what occupation to pursue. In addition to their interests, individuals self-assess their own ability level as well as their estimates of the ability level required by various occupations (Wilk & Sackett, 1996). Employers also assess and hire candidates based on any number of criteria, chief among them being person-job fit and whether or not the individual meets the minimum requirements to perform the job (Wilk & Sackett, 1996). Those high in cognitive ability complete more years of education (Ceci & Williams, 1997). These educational credentials could signal to employers an applicant's value in the market and ability to perform the jobs (Judge, Hurst, & Simon, 2009a). As cognitive ability is the single best predictor of job performance, employers are also likely to take

cognitive ability into account directly by selecting for it in the hiring process. Thus, high cognitive ability individuals are more likely to pursue more complex jobs and they are also more likely to be selected for those jobs.

Partially due to the tendency of those higher in cognitive ability to “attain more education, complete more job training, and gravitat[e] to more complex jobs” (Judge et al., 2010b, p. 92), cognitive ability is positively correlated to the job complexity of individuals starting job (Judge et al., 2010b). Once on the job, cognitive ability speeds the acquisition of job knowledge (Hunter, 1986) and task proficiency (Borman, White, Pulakos, & Oppler, 1991). Those high in cognitive ability glean more from the same job experiences than their peers which results in better job performance (Gottfredson, 2002). The relationship between cognitive ability and job performance is moderated by job complexity. As jobs become more complex, cognitive ability becomes more important and is a stronger predictor of performance (Hunter & Hunter, 1984). So not only do those high in cognitive ability tend to start out in more complex jobs, they are more likely to capitalize and have steeper career trajectories (Judge et al., 2010b). In a meta-analysis by Strenze (2007), he found that this relationship between intelligence and socioeconomic success grew stronger over time, further supporting the idea that people will continue to progress in their careers towards roles which offer better fit.

Not only does cognitive ability predict job complexity (Judge et al., 2010a), the relationship is stronger for objective measures of complexity (DOT) than for subjective individuals perceptions of job complexity (Ganzach & Pazy, 2001). This relationship where cognitive ability predicts attained job complexity holds true even while holding

educational attainment constant (Wilk & Sackett, 1996).

Hypothesis 11: Cognitive ability positively predicts job complexity.

Hypothesis 12: Job complexity partially mediates the relationship between cognitive ability and net worth.

Hypothesis 13: Job complexity partially mediates the relationship between cognitive ability and job satisfaction.

Proximal (Mediators)

In addition to describing and predicting behavior, researchers in I-O psychology also strive to understand effects and why they occur. One approach used in the social sciences to work towards this outcome is by identifying mediators. Mediation analysis is the investigation of the causal chain of effects that lead from the independent variable to the outcomes of interest.

There are two psychological constructs that we hypothesize mediate the relationships between the predictors (i.e. cognitive ability, income-to-poverty ratio, and religion) and success outcomes. Risk preferences and core self-evaluations have both attracted a great deal of attention in research, but are rarely treated as dependent variables themselves, let alone as a part of mediation models. In this section we define the constructs and review relevant research.

Core Self-Evaluations. Core self-evaluations (CSE) are the core and fundamental beliefs individuals have about themselves and their abilities (Judge, Locke, Durham, & Kluger, 1998b). This construct is made up of four traits or ‘self-evaluations’. Not only do we hypothesize that these evaluations mediate the relationships between the predictors

and outcomes, it is our contention that CSE influences the development of risk preferences in young adulthood.

The theory behind CSE was developed in response to and as a way to unify the growing body of research on the dispositional traits which influence job satisfaction (Johnson, Rosen, & Levy, 2008a). In developing the theory, Judge et al. (1997) sought to provide a response to two debates about job satisfaction that were occurring at the time. The first debate, was whether stable, individual differences predicted attitudinal outcomes such as job satisfaction and if so then which traits (Judge et al., 1998b, p. 18). The second of which was that of bandwidth. Spector (1996) engaged in a debate in the *Journal of Organizational Behavior* about whether narrow traits or broad overarching (broad bandwidth) traits better predict behavioral and attitudinal outcomes. Work on CSE (Judge et al., 1997) provided a parsimonious response to both of these questions.

The first goal of the development of CSE was to identify dispositional attributes that predict job satisfaction and to understand why (Johnson et al., 2008a). To do so, Judge et al. (1997) developed a set of criteria through which to determine which traits to include. In order to be included, the traits had to be evaluative, fundamental, and broad. Broad bandwidth predictors are thought to predict general outcomes, narrow bandwidth predictors predict specific ones (Ajzen & Fishbein, 1977). Thus, the broader the scope of the trait, the more likely it will generalize to all areas of one's life, including job satisfaction (Judge et al., 1997).

Once, they developed criteria for inclusion, Judge et al. (1997) identified dispositional traits that met these criteria and thus could be expected to affect job

satisfaction. In doing so, they drew from the social psychology concept of Appraisal Theory (Arnold, 1960; Lazarus, 1991; Locke, 1969, 1976). This theory states that emotions are a manifestation of appraisals individuals make in reference to objects, people, or events. At their base, these appraisals are based off of deeply held fundamental appraisals or “core evaluations” (Packer, 1985). These core evaluations can be self, reality, or other people focused. The core evaluations then influence or drive more situation specific evaluations such as job satisfaction.

Though other-referent evaluations are important, evaluations that are self-focused are likely to generalize to a greater degree than those that are other or reality focused. Thus, in order to determine the traits that would have the greatest impact on job satisfaction, they focused on core self-evaluations. CSE is thus defined as “the fundamental premises that individuals hold about themselves and their functioning in the world” (Judge, Erez, & Bono, 1998a, p. 168).

The psychological traits that make up the CSE construct are self-esteem, self-efficacy, neuroticism, and locus of control (Judge et al., 1997). In their meta-analysis Judge and Bono (2001) confirm that these four dispositional traits are among the best dispositional predictors of job satisfaction (Judge & Bono, 2001). In addition to predicting job and life satisfaction (Judge et al., 1998b), Judge et al. (1998a) also argue that those with positive self-evaluations will be more motivated to perform their jobs and thus result in greater job performance (resulting in greater extrinsic success).

Though research has consistently found all four traits load onto one general factor (Erez & Judge, 2001; Judge et al., 2000; Judge et al., 1998a; Judge et al., 1998b) debate

exists on whether or not the four evaluations should be treated as one general trait or independently (Chang, Ferris, Johnson, Rosen, & Tan, 2011; Chen, 2012). Evidence that supports the argument for including CSE as one composite factor (Stumpp et al., 2010) shows that the four traits are highly correlated (Bono & Judge, 2003), load on a higher order factor (Judge et al., 1998a; Judge, Erez, Bono, & Thorensen, 2003), and have similar relationships with outcomes variables (Judge et al., 2003). Additionally, when examining the effect of measurement approach to CSE (as a sum of the four constructs or using one scale) on validity coefficients, Lemelle and Scielzo (2012) found no effect of measurement method on relationships with outcomes. They posit based on these results that more predictive ability can be gleaned from using the broader CSE trait rather than the sum of the individual scale predictors (Lemelle & Scielzo, 2012). Rather than address the nature of the CSE construct, the purpose of this paper is to ascertain the role of CSE in the relationships between demographic factors and success. Thus, we hope to demonstrate that CSE conceptualized as a higher order factor serves as a mediator between childhood situational and individual differences and financial and career success outcomes in adulthood.

Because most of the relevant research has looked at the factors independently, the approach taken in this paper is to discuss the research about each of the traits in isolation, then as an overarching construct. All hypotheses presented refer to the higher order CSE factor rather than individual traits.

Self-esteem. Self-esteem is an overall value judgment of oneself as a person. Essentially, does the individual believe that he or she is a good person (Judge et al.,

1997)? It is the most fundamental core evaluation of the self (Judge & Bono, 2001; Judge et al., 1997; Judge et al., 1998b) and constitutes the evaluative component of a person's self-concept (i.e., the "totality of the individual's thoughts and feelings that have reference to himself as an object"; Rosenberg, 1979, p. 7). This evaluation does not carry with it any pretense of accuracy thus one's self-esteem could be justified or it could be an exaggeration (or underestimate) of one's true value (Baumeister et al., 2003).

There are three factors that contribute to the development of self-esteem in individuals 1) the frequency in which individuals experience positive and negative affect, 2) their self-views (i.e., their own assessment of their strengths and weaknesses) [including their level of confidence in that assessment (Baumgardner, 1990)], and 3) the way they frame those views (Pelham, 1989).

First, individuals determine the degree to which they are good or bad at something (magnitude) as well as their certainty about that assessment. Then, they take into account how important is it to them to be good at that particular strength or weakness. Finally, they compare the magnitude of their current strength to their ideal self: how good do they ideally want to be (Pelham, 1989)? Strengths or weaknesses which are perceived as less important to an individual will have less impact on self-esteem, and conversely those skills or attributes that are more personally important will have a greater impact on self-esteem.

Predictors. Socio-economic status positively predicts self-esteem in adolescence (Bachman & O'Malley, 1977; Twenge & Campbell, 2002) with this relationship being at least partially mediated by parental behaviors (von Soest, Wichstrøm, & Kvalem, 2016).

The frequency of positive or negative affective states has the greatest influence on self-esteem during early development (Pelham, 1989). Before people are old enough to develop cognitive assessments about their selves and abilities, they learn to interpret their environment and the reactions of those around them as either friendly (positive) or frustrating (negative) (Pelham, 1989). During economic hardships, parents become less involved and supportive thus resulting in a less positive environment (Lempers, Clarklempers, & Simons, 1989). This trend towards negative parental behaviors results in a greater prevalence of negative affective states and lower self-esteem of adolescents (Whitbeck et al., 1991). Thus, we posit that income-to-poverty ratio is positively correlated with adolescent self-esteem.

Additionally, though not a direct focus of their study, Kammeyer-Mueller, Judge, and Piccolo (2008) found that general mental ability also positively predicts self-esteem. One reason may be that children with higher CA experience a greater number of academic successes than their counterparts. These successes (or lack of) provide feedback about a child's strength in relation to CA and this degree of skill subsequently impacts that child's self-esteem. In their paper, Kammeyer-Mueller et al. (2008) make a call for research to further examine this relationship between cognitive ability and self-esteem.

In the first study examining the role of individually held religion in the development of personality during adolescence, Ciarrochi and Heaven (2012) found that "the development of personality traits such as hope can be influenced by particular ideological systems, in this case religious values, at least during the more volatile adolescent years" (Ciarrochi & Heaven, 2012, p. 685). Religious values (distinct from

religious tradition) were found to be positively correlated with self-esteem (Ciarrochi & Heaven, 2012) though no causal or directional effects were found.

To our knowledge no research has looked at the effect of group level religious tradition on self-esteem. As a cultural model, religion provides individuals with a “blueprint of how to think and feel” (Snibbe & Markus, 2005, p. 704), as well as information about the value of specific goals or values. We hypothesize that religious tradition would have a direct effect on the relative importance individuals place on their different strengths and weaknesses and thus the influence each factor has on global self-esteem. Due to the lack of research comparing self-esteem outcomes of different religious affiliations, the comparisons we make will be exploratory and no a priori hypotheses about the impact of specific religions are offered.

Outcomes. Self-consistency research suggests that individuals will choose jobs that correspond with their own conceptualization of the self (Korman, 1976). If someone has high self-esteem, that individual will try to adapt roles which are in line with the individual’s own self-concept by gravitating towards higher status, more complex jobs (Kammeyer-Mueller et al., 2008). These more complex jobs, typically earn more than less complex jobs so income is positively correlated with higher job complexity or prestige (Kammeyer-Mueller et al., 2008) and as an extension, self-esteem. Consistent with this rationale, self-esteem has been found to be positively correlated with both income and net worth (Zagorsky, 2007). Not only do individuals with higher self-esteem pursue more complex and prestigious jobs, they perform better (Arnolds & Boshoff, 2002; Judge & Bono, 2001), are more likely to persist through obstacles (Baumeister et

al., 2003), and gain greater satisfaction from successes (Baumeister et al., 2003). Self-esteem predicts positive occupational outcomes (i.e., income and occupational prestige) even after controlling for educational attainment and general mental ability (Kammeyer-Mueller et al., 2008). In two independent longitudinal studies Kuster, Orth, and Meier (2013) found that self-esteem positively predicts better work conditions including support, job satisfaction, success, and lower counterproductive work behaviors.

Self-efficacy. General self-efficacy is an evaluation of one's "ability to cope, perform, and be successful" (Judge & Bono, 2001, p. 80). It can be defined as an individual's belief about one's ability to accomplish or perform an action needed to reach a desired end state (Gist & Mitchell, 1992; as cited in Judge & Hurst, 2007, p. 162). As such, it is an assessment of one's own "effectiveness, competence, and causal agency" (Gecas, 1989, p. 292).

There are three dimensions of self-efficacy; magnitude (the estimated level of skill), strength (confidence in the evaluation of the level of skill), and generality (the range of actions of which the individual has estimates of magnitude and strength) (Bandura, 1986; Judge et al., 1997). The generality dimension is of the greatest relevance to core self-evaluations because, it is the most trait-like component (Judge et al., 1997).

Whereas self-esteem is an affective evaluation of the self, self-efficacy is a judgment about capability and does not imply a positive or negative evaluation (Gist & Mitchell, 1992). Self-efficacy is developed through a process of *doing* (Boardman & Robert, 2000). In other words, individuals judge their own competence and mastery based on previous performance on tasks of varying difficulty. By succeeding in tasks that

are difficult, self-efficacy is bolstered, thus the individual is more likely to engage in future tasks of equal or greater difficulty. During engagement in these new difficult activities, the individual is more likely to persist in the face of obstacles because of their beliefs in their abilities to overcome challenges (Bandura, 1986). In order for self-efficacy to develop, individuals must be in a position where they can succeed. The largest predictor of self-efficacy is efficacious action (Boardman & Robert, 2000).

Predictors. Hughes and Demo (1989) found that measures of socio-economic status are better predictors of self-efficacy compared to other variables such as ethnicity and religious involvement. Socio-economic status may influence opportunity to encounter and engage in mastery activities. Those individuals who are of low socio-economic status have greater constraints on their activities and opportunities. As families earn more money relative to their family size, there is more disposable income which could be directed at providing children with extracurricular activities that promote mastery and efficacy. In this way, the income-to-poverty ratio may influence self-efficacy through the social resources available to children.

The effect of low socio-economic status on self-efficacy is compounded for those individuals who also live in neighborhoods which on average have individuals with low socio-economic status (Boardman & Robert, 2000). There are two hypotheses stated for this effect. First, groups with low socio-economic status may receive fewer resources. The flow of resources may correlate to range of available efficacious activities in which an individual has the opportunity to engage. Second, individuals may learn or be influenced by the self-efficacy of others. Based on social learning theory (Bandura,

1986), individuals can learn through watching similar others perform. If similar others are successful, individuals may conclude that they could also master the activity, thus bolstering self-efficacy through vicarious interactions. Individuals who are surrounded by less efficacious individuals would thus have low self-efficacy as well (Boardman & Robert, 2000).

Similar to the effects of socio-economic status on self-efficacy, the social resources provided through religious networks may also provide individuals with greater opportunities for mastery experiences over time. Because of differences in priorities placed on education and wealth, religious groups themselves differ in socio-economic status (Keister, 2003; Keister, 2008). These differences may cause religious tradition to influence the development of self-efficacy. Because these priorities are ideological rather than dependent on attendance, these effects should hold regardless of level of attendance.

Outcomes. Generalized self-efficacy plays an important role in self-regulation (Gist & Mitchell, 1992). It not only influences goal levels and commitment (Locke, Frederick, Lee, & Bobko, 1984), but also chosen tasks and activities (Lent, Brown, & Larkin, 1987). Self-efficacy positively predicts goal difficulty as well as task performance and is a greater predictor of success as task difficulty increases (Locke et al., 1984). In one study, it was found that self-efficacy positively predicts wealth accumulation even while holding income constant (Chatterjee et al., 2011). This may be due to self-efficacy increasing an individual's confidence in their ability to reach their desired goals through the use of financial instruments (Chatterjee et al., 2011). Consistent with research that self-efficacy is positively related to more difficult goals and coping

ability, it follows that those high in self-efficacy may also be more risk tolerant (Dulebohn, 2002).

In a longitudinal study of early career individuals, Abele and Spurk (2009) found that occupational self-efficacy predicted salary and status three years later and salary change and career satisfaction seven years later. Taking this into account, as well as supporting evidence that those high in self-efficacy choose harder goals and perform better, it is hypothesized that self-efficacy will be positively correlated with job complexity as well as our objective measure of success, total net worth.

Neuroticism. “Neuroticism represents the tendency to exhibit poor emotional adjustment and experience negative affect such as anxiety, insecurity, and hostility” (Boudreau et al., 2001a, p. 56). Manifestations of neuroticism include feelings of self-doubt, nervousness, and anxiety. The opposite end of the neuroticism continuum is emotional stability. Those high in emotional stability (low in neuroticism) are less reactive to negative situations and remain calm under pressure (similar to the coping benefits of self-efficacy).

Predictors. Research on the effects of poverty on neuroticism and the closely related construct of depression ($r = .71$; Jylhä & Isometsä, 2006) demonstrate that early childhood poverty is positively related to depression in adolescence (McLeod & Owens, 2004). In a longitudinal study of disadvantaged youth low parental socioeconomic status and prolonged poverty impacted depressive symptoms through negative impacts on self-concepts and chronic stress (Mossakowski, 2015).

One mechanism through which income-to-poverty ratio may affect neuroticism is

through differences in parenting styles. Research suggests that parenting styles during childhood are correlated to differing levels of neuroticism (i.e., parents high in care and low in intrusiveness are negatively correlated with neuroticism; Reti et al., 2002). The status of being poor is negatively correlated with productive parenting behaviors such as speaking with children and answering their questions and positively correlated with spanking (McLeod & Shanahan, 1993). As a result, these behaviors partially mediate the relationship between poverty in childhood and neuroticism (McLeod & Shanahan, 1993).

Similar to the relationship between poverty and parenting styles, religion is also a significant predictor of child rearing behaviors and attitudes (Wilcox, 1998). Some religions value authority and corporal punishment while others value inquisitiveness and more nurturance. For instance, the parenting style typical of Conservative Protestant parents has been characterized as “authoritative” – consistent and firm with discipline as well high levels of positive parental emotion work (Wilcox, 1998).

Evidence that supports this religion/neuroticism hypothesis indicates that religious upbringing has a significant effect on neuroticism (Willemsen & Boomsma, 2007). Though there is an absence of research examining the differences between specific religious traditions on neuroticism, Saroglou (2002) found that neuroticism is negatively correlated with open, mature religion and spirituality and positively related to extrinsic religion. The closely related construct of depression is negatively correlated with public and private religious expression and positively related to fundamentalism of the religious affiliation (Nooney & Woodrum, 2002). More research is needed on the specific factors of religion that influence the development of the personality trait neuroticism.

One theory of personality is that intelligence facilitates social and personal adjustment (Austin et al., 2002). Though the mechanisms through which effects occur are yet to be fully identified, cognitive ability has consistently been found to be positively correlated with emotional stability (negatively correlated with neuroticism)(Austin et al., 2002; Cheng & Furnham, 2014; Furnham & Cheng, 2013; Judge et al., 1999a; Rode et al., 2008). These effects apply to both the broad bandwidth (i.e. overarching neuroticism) (Austin et al., 2002) and narrow bandwidth with specific intellectual abilities (e.g., crystallized intelligence, fluid intelligence, visual perception, learning and memory) negatively correlating with subtraits of neuroticism (e.g., stress reaction and alienation) (Ackerman & Heggestad, 1997).

Outcomes. Neuroticism, as a personality trait colors how an individual perceives the world and thus Judge et al. (1997) posited that neuroticism would be negatively correlated to job satisfaction. Individuals high in neuroticism may recall more negative information and experience negative reactions to a greater degree than those low in neuroticism (Johnson et al., 2008a). Thus, two individuals who experience the same situation may interpret that stimulus in drastically different ways because of where they fall in terms of neuroticism. Subsequently, neuroticism positively moderates the relationship between job stressors and strain (Tokar, Fischer, & Subich, 1998). This magnified effect of job stressors on individuals high in neuroticism may partially explain why neuroticism is negatively related to job satisfaction (Ng et al., 2005).

Watson and Hubbard (1996) found that not only is neuroticism negatively related to job satisfaction, but also that when working towards goals, those high in neuroticism

cope with stress ineffectively by engaging in irrelevant behaviors and abandoning the goals. The anxiety and emotional instability that are trademarks of high neuroticism, likely lead to ineffective job performance as well as poor career management (Ng et al., 2005). This is consistent with the finding by Kanfer, Wanberg, and Kantrowitz (2001) that neuroticism is positively related with perceived effort on job searches, but negatively related to objective job search efforts. Essentially, those high in neuroticism believe they are exerting effort towards finding jobs, but may actually be directing that effort to mitigate feelings of anxiety rather than activities that will lead to success. The less activity one generates when searching for a job likely leads to fewer job offers as well as less desirable options when one does receive job offers. Supportive evidence shows that neuroticism is negatively correlated with promotions and salary (Ng et al., 2005) and emotional stability is positively related to job success (Rode et al., 2008). Additionally, neuroticism has been found to be negatively correlated with extrinsic (Judge et al., 1999a) and intrinsic job success (Boudreau et al., 2001a; Cohrs, Abele, & Dette, 2006; Judge et al., 1999a; Tokar & Subich, 1997) even when neuroticism is measured in childhood.

Locus of control. Locus of control refers to a person's general assumptions about expectancies associated with behaviors and outcomes (Rotter, 1966). It indicates the degree to which individuals believe they can control factors in their lives (Judge & Bono, 2001). Locus of control divides responsibility for outcomes into either internal or external sources. Those individuals with high internal locus of control believe that they can impact and have control over desired outcomes whereas those with external locus of control

view the world as acting upon them. From the perspective of someone with an external locus of control, there is little use in exerting effort because outcomes are more a matter of luck or external sources than individual control (Rotter, 1966). Like self-efficacy, in the original conception of CSE, it was postulated that internal locus of control would be positively related to job satisfaction (Judge et al., 1997).

The construct of locus of control is based on social learning theory (Rotter, 1954, 1955, 1960) which states that reinforcement of behaviors strengthens expectancies for outcomes in the future (Rotter, 1966). If a behavior is followed by a reinforcement consistently, this strengthens the expectancy that the outcomes are contingent on the actions of the individual. Locus of control is a problem-solving expectancy (Carton, 1996) regarding whether behavior “will or will not influence the attainment of reinforcement” (Furnham & Cheng, 2016, p. 178). “Depending upon the individual’s history of reinforcement, individuals would differ in the degree to which they attributed reinforcements to their own actions” (Rotter, 1966, p. 2). Thus, Locus of control as an individual difference is not expectancy in relation to one behavior-reinforcement relationship, but generalized across goals, reinforcements, and behaviors (Furnham & Cheng, 2016).

Predictors. Most research surrounding locus of control has treated it as an independent variable (Furnham & Cheng, 2016) resulting in a lack of knowledge about what influences its development (Ahlin, 2014). The studies that have attempted to examine the predictors of locus of control have typically looked at parental styles and found that they have a significant effect on the development of locus of control (Carton,

1996).

Parents of different social classes (as measured in part by occupational position) have been found to interact differently with their children and hold different beliefs and values. Middle class parents value and promote self-direction in their children whereas lower social class parents value conformity to externally-imposed rules (Kohn & Schooler, 1969). Social class has been found to be consistently and positively correlated with the degree to which parents value self-direction for their children (regardless of age or gender of the children). The value of self-direction is consistent with that of internal locus of control in that those who value self-direction see their actions as more efficacious and within their control. Consistent with this idea, parental social class has been found to be positively correlated with locus of control in childhood (Furnham & Cheng, 2016; von Stumm, Gale, Batty, & Deary, 2009).

Religious tradition may impact locus of control through socialization. For instance, Judaism places an emphasis on educational attainment (Lehrer, 2004) as a path to security and success (Ceci & Williams, 1997). This concept of investing in an education as a means of improving one's odds in life (Burstein, 2007) is consistent with an internal locus of control. Research supporting this, has shown that having parents with lower educational attainment is correlated with an external locus of control (Furnham & Cheng, 2016). Though, not heavily researched, relationships between religious affiliations and locus of control have been found in a couple of studies. In the Catholic religion, people attain the grace of God by following the rules of the church (McBrien, 2005). This belief and strict adherence to an external set of guidelines emphasizes

external control over one's life (Geist & Bangham, 1980). In a study of undergraduate students, Geist and Bangham (1980) found that Catholics had a higher external locus of control than Protestants. Corroborating evidence found by Li et al. (2012) indicates that Protestants were more likely to make internal attributions than Catholics. These findings offer support for the hypotheses that locus of control varies across religious traditions. Conversely, Black Protestants are more likely to endorse belief about divine influence in everyday life (Schieman, 2010) as well as the prosperity gospel which posits that God punishes or rewards individuals based on strength of faith (McDaniel, 2016). Taken together, we posit that Jewish participants will rate significantly higher on CSE than Catholic or Black Protestant participants.

Few studies have looked at the relationship of cognitive ability and locus of control directly, but there is evidence that they are correlated (e.g., Austin et al., 2002; von Stumm et al., 2009). Those higher in cognitive ability may experience greater opportunities for control and mastery (Furnham & Cheng, 2016). Intelligence is positively correlated with learning and success in skill acquisition (Gottfredson, 1997b). Thus the association between behaviors (e.g., studying) and reinforcers (e.g., psychosocial and instrumental support [Ceci & Williams, 1997]) may be more common for those higher in cognitive ability. Another possible mechanism through which cognitive ability shapes locus of control is through the increased ability to see relationships between events or objects. The one longitudinal study on the relationship between childhood intelligence and adolescent locus of control found that of the variables studied, cognitive ability was the single best predictor (Furnham & Cheng, 2016).

Outcomes. Those with an internal locus of control demonstrate behaviors which are more likely to result in successful careers. Mau, Domnick, and Ellsworth (1995) found that internal locus of control in young girls was associated with higher occupational prestige aspirations. The positive relationship between locus of control and subsequent occupational achievement and social class can be partially accounted for by educational attainment (Li-Ya Wang, 1999; von Stumm et al., 2009). Those with an internal locus of control show greater job search behaviors when looking for a new job (Kanfer et al., 2001) and are more likely to have greater congruence between personality and choice of part time work, increasing person-environment fit (Luzzo & Ward, 1995). In a meta-analysis on the correlates of locus of control with work outcomes, Ng et al. (2006) show that internal locus of control is positively related with general well-being, commitment, salary, and job performance.

Those high in locus of control may have, not only greater objective career success but also higher job satisfaction (Allen, Weeks, & Moffitt, 2005), because of their propensity to leave a job and search for a new one when the current job is not satisfactory. Allen et al. (2005) found that they are more likely to translate intentions to leave a job into action than those with a more external locus of control. When facing unsatisfactory job situations, internals may first try to improve their current situation and only then change jobs if their attempts to change their environment have been unsuccessful (Allen et al., 2005). Either way, whether they quit or change their environment, they should be more likely to make necessary occupational modifications to improve job satisfaction. Additionally, when remaining at their current job, those with

internal locus of control are better able to cope with occupational stressors (Rahim, 1997) such as career related change (i.e., career progression, retirement, and initiating mentor relationships); thus buffering them from negative occupational effects.

Higher order CSE. Cumulatively, these four traits have been the subject of over 50,000 publications though they are usually studied in isolation or as unique predictors of outcomes rather than as indicators of one general trait (Judge et al., 2003). In a meta-analysis of the relationships of each of the four CSE traits with outcome variables, Judge and Bono (2001) found each construct was significantly correlated with job satisfaction (corrected correlations ranged between .24 and .45) and job performance (corrected correlations ranged between .19 and .26).

To our knowledge, there is no research which has examined the stability of CSE across the lifespan. But, research studies that have examined the shorter-term temporal stability of trait CSE have demonstrated a test-retest correlation of the latent construct of .87 over two years (Dormann, Fay, Zapf, & Frese, 2006) and the “trait-like items” of .63 over five years (Wu & Griffin, 2012). From their analysis of the stability of CSE, Dormann et al. (2006) conclude that “the four CSE-variables are sufficiently stable to be seen as indicators of a common underlying *trait*” (p. 37). Other research which indicates that CSE may be somewhat unstable longitudinally has shown that CSE and job satisfaction influence each other over time through a process of self-verification and self-enhancement (Wu & Griffin, 2012). The current study posits that regardless of the longitudinal stability of CSE, the impact of CSE in adolescence will affect early career choice and/or trajectory thus having long-term impact on career and financial success.

Predictors. Despite the breadth of research on the outcomes of the composite CSE construct (with the exception of cognitive ability) surprisingly little research has been devoted to understanding the mechanisms that lead to its development. Cognitive ability and personality have typically been thought of as independent individual differences (Austin et al., 2002), though research indicates that cognitive ability correlates significantly with specific personality traits (e.g., openness, extraversion, stress-reactions, and control; Ackerman & Heggestad, 1997). Judge et al. (2009a) argue that the positive effects of cognitive ability on success outcomes for individuals should carry over to conceptions of the self. Cognitive ability is typically positively correlated with adaptive personality traits (e.g., internal locus of control and anger control) and negatively correlated with maladaptive traits (e.g., neuroticism, psychoticism, and anger) (Austin et al., 2002). In their meta-analysis, Chang et al. (2011) found that cognitive ability shares a weak but positive correlation with CSE. Core self-evaluations have been shown to mediate the relationship between cognitive ability and income and financial strain (Judge et al., 2009a) and moderate the relationship between cognitive ability and GPA (Rosopa & Schroeder, 2009).

Additionally, in their study of the relationship between social class and self-conception, Kohn and Schooler (1969) found that social class was positively correlated with self-confidence (the positive aspect of self-esteem) and internal attributions of responsibility and negatively correlated with self-deprecation (the negative aspect of self-esteem) and anxiety (indicative of neuroticism).

These findings along with the aforementioned relations between the components

of CSE and predictors lead us to the following hypotheses:

Hypothesis 14: Cognitive ability positively predicts CSE.

Hypothesis 15: Childhood income-to-poverty ratio positively predicts CSE.

Hypothesis 16: Childhood religious tradition has a significant main effect on CSE.

Specifically, based on the aforementioned research, we posit that Black Protestants will rank lowest on CSE and Jewish participants highest.

Outcomes. The outcomes of CSE have been better documented than the predictors or factors leading to its development. Individuals with high CSE are more prone to focus on the positive aspects of their environments and are less likely to feel trapped in their current employment (Chang et al., 2011). In their meta-analysis of the correlates of CSE, Chang et al. (2011) found that CSE is positively correlated with affective organizational commitment and negatively correlated with turnover intentions. Since the initial publication on CSE by Judge et al. (1997) research has found that higher levels are associated not only with higher job satisfaction (Chang et al., 2011; Judge & Bono, 2001; Judge et al., 2000; Lemelle & Scielzo, 2012; Wu & Griffin, 2012) but also with greater life satisfaction (Chang et al., 2011), higher work-related motivation (Erez & Judge, 2001), improved job performance (Judge & Bono, 2001), higher GPA (Rosopa & Schroeder, 2009), greater job complexity (Judge et al., 2000), lower levels of experienced stress and improved coping (Judge, Thoresen, Pucik, & Welbourne, 1999b; Kammeyer-Mueller, Judge, & Scott, 2009), subjective well-being (Tsaousis, Karademas, & Kalatzi, 2013), and better career success (Judge & Hurst, 2008; Judge et al., 2009a) and income (Judge et al., 2009a). Furthermore, the effects of CSE on income are stronger than those

of attractiveness and almost as strong as the effect of intelligence (Judge et al., 2009a).

In addition to further examining the effects of CSE on the outcomes of interest using a longitudinal sample, we aim to examine the mediating effects of CSE on the relations between cognitive ability and income-to-poverty ratio and financial and career success.

Hypothesis 17: CSE is positively correlated with job satisfaction.

Hypothesis 18: CSE is positively correlated with net worth.

Additionally, Lemelle and Scielzo (2012) proposed that job characteristics may account for differences in relationships between CSE and job satisfaction. Those high in CSE are employed in more complex jobs (Judge et al., 2000) and evidence from Srivastava, Locke, Judge, and Adams (2010) indicates that job complexity mediates the relationship between CSE and job satisfaction.

Hypothesis 19: Job complexity mediates the relationship between CSE and job satisfaction.

Risk aversion. The final construct we introduce into the model is that of risk aversion. People are faced with countless decisions on any given day and each of these decisions carry with them varying degrees of importance as well as risk. How people make these decisions is a function of the decision features (e.g., priming and choice), situational context (e.g., time pressure and cognitive load), and individual differences of the decision maker (Einhorn, 1970; Hunt, Krzystofiak, Meindl, & Yousry, 1989). Though the roles of decision features (see Kühberger, 1998; Lerner & Tetlock, 1999; Levin, Schneider, & Gaeth, 1998 for reviews) and the situational context (Appelt, Milch,

Handgraaf, & Weber, 2011; Cirhinlioğlu & Özdikmenli-Demir, 2012; Drolet & Luce, 2004; Ebert, 2001; Nadler et al., 2001) in decision making have been well established in the literature, the function of individual differences in the decision making process is less understood (Appelt et al., 2011).

Risk attitudes are comprised of two factors—risk perceptions and attitudes towards perceived risk (Weber, Blais, & Betz, 2002). In psychological models of risk attitudes, perceived riskiness of options is a variable that can and does differ between individuals (Weber et al., 2002) and depends in part on the degree to which individuals believe they can control and/or manage the risk (Weber et al., 2002). This represents an individual's perception of the relative benefits and costs of a given option. Risk attitudes refer to individual's comfort levels and sensitivity to potential losses. Risk aversion may be conceptualized as a preference for certainty over uncertainty, whether or not the uncertain outcome has the potential to carry greater value (as well as lower value) than the certain one (Finke & Huston, 2003). It is the devaluation of a reward as a function of the uncertainty (Borghans et al., 2008). The stronger that preference for certainty is, the greater an individual's risk aversion is said to be. An example of a tradeoff between risk and rewards can be found in stock market investment. Those financial investments which offer the greatest reward also accrue a higher possibility for loss (Finke & Huston, 2003; Ibbotson, Kaplan, & Sinquefeld, 1996). Thus, theoretically risk aversion would be negatively correlated to the amount of stock market risk someone is willing to take.

Risk attitudes are domain specific and can be categorized into health/safety, ethical, recreational, social, and financial (further divided into gambling and investment)

(Weber et al., 2002). Differences (within individuals) in risk attitudes across domains are primarily driven by differences in perceptions of the potential costs and benefits of risky options rather than individual attitudes towards perceived risk. For instance, Weber et al. (2002) found that individual differences (e.g., sensation-seeking, tolerance for ambiguity, and gender) were correlated with perceptions of riskiness and risk behaviors but had little to no relationship with attitudes towards perceived risks. Though differences have been found between genders for risk taking behavior, no systematic differences in appetite for risk (risk aversion) exist between males and females (Figner & Weber, 2011). The observed behavioral difference between genders is driven instead by differences in the perception of the riskiness of options (Weber et al., 2002).

In the first study looking at the longitudinal stability of risk aversion in children, Levin and colleagues (Levin, Hart, Weller, & Harshman, 2007) administered a risky choice task to 6-8 year olds and their parents. They administered the same task 3 years later to this group. Though children took greater risks than the adult participants, risk was relative stable over the three-year time frame for both children and their parents, temperament predicted risky choices three years later, and the risky decisions of children was significantly correlated to that of their parents. They concluded from this evidence that the tendency to make risky choices is an individual difference which can be detected as early as 6-8 years old. Using a longitudinal nationally representative sample from Germany, Josef et al. (2016) examined the rank order stability of risk taking across the lifespan and found results similar to that on the stability of personality factors. Risk-taking propensity becomes more stable from adolescence to middle adulthood and then

becomes less stable again in old age (Josef et al., 2016). Similar to the conclusions drawn by Levin et al. (2007), Josef et al. (2016) posit that risk taking can be conceptualized as a trait with rank order stability just lower than those found in personality traits.

Development of preferences. Two factors that influence the development of risk preferences are characteristics of the environment (Dohmen et al., 2011b; Gruber, 2001; Levin & Hart, 2003; Slovic, 1966) and socialization (Ahern, Duchin, & Shumway, 2014; Eckel et al., 2011). Environmental factors in the teenage years have been found to be instrumental in the development of risk preferences. For instance, in a study of high school students, Eckel et al. (2011) found the percentage of economically disadvantaged school peers is positively correlated with risk aversion and this effect is moderated by quality of the school. Higher quality school environments (as measured by percentage of teachers in those schools with advanced degrees and lower student- teacher ratios) are associated with higher risk decision making (Eckel et al., 2011). In other words, the more advantaged the school environment, the less risk averse the students become.

Dohmen, Falk, Huffman, and Sunde (2012) found that “fundamental economic attitudes are malleable through socialization” (p. 648). Additionally, parents pass down their risk preferences intergenerationally to their children (Dohmen, Falk, Huffman, & Sunde, 2011a). Separate from parental influence on risk preferences, the prevailing risk preferences of the region have also been found to predict individual risk preferences (Dohmen et al., 2011a). In their study of MBA students, Ahern et al. (2014) found that after just one year, the differences between individual risk aversion and cohort group averages shrunk by over 40%. Individuals rank order of risk aversion has additionally

been found to remain relatively stable (Levin et al., 2007). The impact of the characteristics of the environment as well as socialization processes supports the hypothesis that situational factors during adolescence help shape and predict risk aversion longitudinally.

Poverty. Cross-sectional research on the relations between economic factors and risk aversion offers clues about how childhood poverty may impact adult risk preferences. Research indicates that risk tolerance increases with wealth (Tsigos & Daly, 2016). Specifically, income in adults is positively related to financial risk taking (Dulebohn, 2002; MacCrimmon & Wehrung, 1986, 1990). Additionally, a study into the asset allocation of US households found that risk aversion decreases as household income rises above the poverty line (Riley Jr & Chow, 1992). Those closest to or below the poverty line hold less stock as a percentage of their investments with the percentage of risky assets (stocks) increasing and low risk assets (bonds) decreasing with income and wealth (Riley Jr & Chow, 1992). Those who have accumulated a higher net worth may be less risk averse and more willing to take financial risks because they can better withstand potential losses (Finke & Huston, 2003). Thus income-to-poverty ratio would have a direct effect on the perceptions of the riskiness (cost benefit tradeoff) of alternative financial options.

Though the aforementioned research examined the relations between the wealth of the respondent and risk attitudes, socio-economic status in childhood has been shown to have a lasting effect on risk aversion and financial/occupational risk taking (Hryshko, Luengo-Prado, & Sorensen, 2011) above and beyond current socio-economic status

(Griskevicius, Tybur, Delton, & Robertson, 2011). Children learn risk attitudes from their parents (Dohmen et al., 2012) and risk propensity increases in stability from adolescence to young adulthood (Josef et al., 2016). Thus, those learned attitudes from their parents are likely to influence career choice and risk propensity in adulthood. We hypothesize that children who grow up with less economic resources will be less comfortable with risk for two reasons, (a) they have learned higher risk aversion from their parents as well as the greater social environment and (b) because they have less of a ‘safety net’ to fall back on in case of failure. Over time, this learned perspective during childhood will manifest in stable trait-like risk aversion.

Evidence to support this has shown that individuals from wealthier backgrounds prefer slightly more risk than those from poorer backgrounds (Griskevicius et al., 2011). As one example, father’s income is an important factor predicting an individual’s career choice. As father’s income increases, children have been found to be more likely to choose a riskier career major in college (Caner & Okten, 2010). Because poor students are less likely to pursue high risk human capital investments, this may be one mechanism through which the intergenerational transference of socio-economic level occurs (Caner & Okten, 2010). On the other hand, higher socio-economic status in childhood is positively correlated with the ownership of risky financial instruments (i.e., stocks and mutual funds) as well as financial risk taking in adulthood (Christelis, Dobrescu, & Motta, 2012).

Hypothesis 20: Childhood income-to-poverty ratio negatively predicts risk aversion.

Religion. There is a great deal of economic stratification due to religion (Burstein, 2007) and we posit that the position of religious groups in relation to each other in terms of educational attainment and total net worth may be partially accounted for by differences in risk tolerance. Consistent with this assertion, religious affiliation has been found to impact risk preferences (Noussair, Trautmann, Kuilen, & Vellekoop, 2013; Paglieri, Borghi, Colzato, Hommel, & Scorolli, 2013; Renneboog & Spaenjers, 2012) as well as educational or human capital attainment (Burstein, 2007). Both financial investments and education attainment involve a tradeoff between potential costs and benefits of alternative options.

The decision to acquire higher education is in itself a risky decision (Shaw, 1996). The tradeoff inherent in continuing education is between a current guaranteed income versus possible higher income in the future due to greater education. The act of cognitively devaluing future possible rewards based on the time it takes to receive the payout is called temporal discounting. Paglieri et al. (2013) found differences in temporal discounting across religious upbringing such that Catholics discounted future outcomes to a greater degree than did Dutch Calvinists. When religiousness is measured by using church attendance and membership, religious involvement is positively related to risk aversion (Noussair et al., 2013).

The choice of financial instruments involves a tradeoff between possible rates of return versus stability. Those investments that are the riskiest offer the greatest possible rate of return if the gamble pays off. Religion impacts the choice of financial instruments, though results appear to be mixed (Renneboog & Spaenjers, 2012). Catholics are more

risk averse and less likely to invest in the stock market (Renneboog & Spaenjers, 2012) than other people. In her analysis of financial diversification and decision making strategies, Keister (2003) found that Jews were more likely (33%) to pursue high risk, high return strategies than the average study population (2%). In the sample, no Conservative Protestants followed the high risk trajectory, and only 4% of the Roman Catholics. Finally, in their study of demographic differences in risk aversion, Halek and Eisenhauer (2001) found that Judaism was the only religion to have a significant effect on measures of “pure risk” but both Catholics and Jews were more tolerant of speculative risk (as measured by a hypothetical choice between Job A which pays a specific amount or Job B which pays a variable amount).

Hypothesis 21: Childhood religious tradition has a significant main effect on risk aversion.

Individual differences have also been found to influence risk preferences. The most consistently correlated personality trait with risk is that of Anxiety (Lauriola & Levin, 2001) with those high in anxiety having a tendency to overestimate risk (Butler & Mathews, 1987; as cited in Lauriola & Levin, 2001). Though these findings are important and add to the nomological network for risk, Lauriola and Levin (2001) posit that there is a lack of research on higher order personality traits with risk.

Cognitive Ability. Few studies look at cognitive ability and risk aversion as it relates to real life outcomes. Those that do, suggest a positive relationship between cognitive ability and risk tolerance in financial decision making (Dohmen, Falk, Huffman, & Sunde, 2007). Research suggests that one-way in which cognitive ability

affects the lifetime financial outcomes of individuals is through the mediating effects on economic preferences (Burks, Carpenter, Götte, & Rustichini, 2008). Individuals with higher cognitive ability are more likely to adapt preferences which are favorable towards economic success (Burks et al., 2008). “Risk taking is in part an ability to comprehend uncertain outcomes and to make intelligent decisions regarding them” (Shaw, 1996). As such, higher CA is associated with lower risk aversion (Dohmen, Falk, Huffman, & Sunde, 2010), greater patience (Dohmen et al., 2007), and an increased willingness to take calculated risks (Burks et al., 2008). Consistent with this long-term and calculated risk-taking strategy, CA measured in childhood is positively associated with ownership of stocks and mutual funds in adulthood (Christelis et al., 2012).

Hypothesis 22: Cognitive ability negatively predicts risk aversion.

CSE. The majority of research examining the influence of personality on risk aversion has focused on the Big Five personality traits. While some research suggests that risk aversion is firmly rooted in personality (Nicholson, Soane, Fenton-O.Creevy, & Willman, 2005) others have found no significant effects (Dohmen et al., 2007). For instance, Nicholson et al. (2005) found that the Big Five personality traits significantly predicted risk aversion and hypothesized that those high in extraversion may be excited by risk and low neuroticism and agreeableness may insulate against the guilt and worry associated with risk taking. Research by Becker et al. (2012) was the first to our knowledge to include the CSE trait of locus of control in their study of the correlates of risk preferences and found them significantly correlated. Locus of control was found to add incremental predictive ability for all measured outcomes (i.e., subjective health, life

satisfaction, gross wages, unemployment, and years of education) above and beyond the Big Five and risk preferences together (Becker et al., 2012) suggesting that the constructs play complementary roles in predicting outcomes. Given the significant correlations found between neuroticism and locus of control with risk aversion, we posit that CSE as an overarching construct plays a significant role in the development of risk aversion. Due to an internal locus of control, and high self-efficacy, we posit that those high in CSE will hold a stronger belief that risks presented are controllable and manageable. Consistent with research by Weber et al. (2002), this would result in lower perceived risk associated with outcomes and subsequently more risk-taking behavior (such as investing in financial markets).

Hypothesis 23: CSE is negatively correlated with risk aversion.

Risk outcomes. There are many mechanisms through which risk aversion may impact financial and career success, including its impact on career or job decisions (Saks & Shore, 2005) as well as investment strategies (Conley, 2001). “Risk Aversion matters for economic behavior: it predicts individuals’ volatility of income, the share of stocks in household portfolios, and how likely households are to own businesses” (Hryshko et al., 2011, p. i).

Job satisfaction. Many career or human capital decisions involve decisions about risk. Taking a class or accepting a job higher in complexity which before being sure of one’s ability to master the material or do the job carry with them a relative risk of failure. Low risk aversion individuals are more likely to seek out risky promotions and job changes (Shaw, 1996) and then translate their intentions to leave an organization into

actual turnover behavior (Allen et al., 2005). Thus, people who are more hesitant to take risks are less likely to change jobs if they are dissatisfied. Those high in propensity for risk embrace ambiguity and uncertainty and perceive greater ease of movement within job markets (Chow, Ng, & Gong, 2012). Switching jobs and employers is a high-risk career strategy (Nicholson & West, 1988) and is associated with career success due to its relationship with proactive personality traits (Boudreau, Boswell, Judge, & Bretz, 2001b). Low job satisfaction is associated with greater turnover intentions (Allen et al., 2005; Chow et al., 2012). Risk aversion moderates the relationship between intentions to quit and turnover such that those low in risk aversion are more likely to leave an undesirable job to pursue other options (Allen et al., 2005). Risk aversion impacts an individual's likelihood of following through on intentions to leave a job/organization. Presumably, by leaving an unsatisfying job, the individual becomes available to find or pursue one which will result in greater job satisfaction. Consistent with this idea, risk aversion has been found to be negatively correlated with job satisfaction (Allen et al., 2005).

Hypothesis 24: Risk aversion is negatively correlated with job satisfaction

Job complexity. Risk aversion may also be negatively related to job complexity. Research shows that it is negatively correlated with educational attainment (Shaw, 1996) and human development (Outreville, 2015). Investing in human capital, such as training or education is in itself a risky choice for two reasons. First, by choosing to invest in skill or knowledge development there is the risk that an individual may not possess the skills or abilities to be successful in their education goals. Second, there is a risk that the

accumulated knowledge or skills will not be valued or financially rewarded in the marketplace (Budria, Diaz-Serrano, Ferrer-i-Carbonell, & Hartog, 2013; Shaw, 1996). In both cases, the possible reward is that of increased expertise and marketable skills whereas the potential risk is wasted resources (e.g., time, money, effort) and lack of payoff. Unlike with financial investments, one cannot diversify or insure against risks associated with investments in human capital. Educational attainment and human capital development then result in the pursuit and attainment of more complex jobs. Additionally, even after accounting for educational attainment, risk takers earn greater returns on human capital investments than those who are high in risk aversion (Shaw, 1996). This is possibly due to investing more in incremental unseen risky occupational skill development (Shaw, 1996).

Hypothesis 25: Risk aversion is negatively correlated with job complexity

Net worth. Risk tolerance predicts total net worth and asset ownership both directly (Chatterjee et al., 2011) and indirectly through income (Shaw, 1996). High risk aversion may limit an individual's potential for wealth accumulation and compromise future financial well-being (Finke & Huston, 2003) whereas "willingness to take financial risks is associated with a significantly higher net worth" (Finke & Huston, 2003, p. 233). For instance, variance in income and wage growth is negatively correlated with risk aversion (Shaw, 1996). Those who take more risks could potentially experience an increase in income, but they also run the risk of opposite being true (Shaw, 1996) thus resulting in the greater variability seen in high risk individuals. Risk Aversion is also inversely related to with wage growth (Shaw, 1996) and this trend holds even when using

parent risk aversion as the measure to predict children's success outcomes. Interestingly, a 1 standard deviation increase in parent's willingness to take risks is associated with 3% increase in a child's future income, 6% increase in the child's future wealth, and 1 month of additional education (Dohmen et al., 2011a).

In the first study to examine the relations between risk aversion and income, Shaw (1996) found that wage growth is positively related with risk taking preferences. Those lower in risk aversion have higher incomes as well as greater wage volatility (Shaw, 1996). Individuals sort themselves into occupations based on risk attitudes. Those with lower risk aversion gravitate towards roles with greater wage risk as well as wage levels (Bonin, Dohmen, Falk, Huffman, & Sunde, 2007). People who are less risk averse choose more complex jobs and are more likely to follow up on turnover intentions with actual turnover (Allen et al., 2005). Possibly, because job switching carries with it the risk of unknown attributes and the loss of social capital, those that switch jobs typically receive a substantial increase in salary (Chow et al., 2012; Gerhart & Rynes, 2003). Though both studies are cross-sectional, research shows that risk aversion is negatively correlated with wealth (Liu, Yang, & Cai, 2016; Tsigos & Daly, 2016). Finally, those who are more risk averse hold less stock (Renneboog & Spaenjers, 2012) thus limiting their upside potential from financial instruments.

Hypothesis 26: Risk aversion is negatively correlated with total net worth.

Relationship of Mediators

“Consistent with research that self-efficacy is positively related to more difficult goals and coping ability, it follows that those high in self-efficacy may also be more risk

tolerant” (Dulebohn, 2002).

The relationship between CSE and risk aversion has been studied both at a higher order factor level of CSE as well as the sub factors (e.g., neuroticism and locus of control). Neuroticism is negatively correlated with risk propensity across domains, some of which include: recreation, safety, health, career, and finance (Nicholson et al., 2005) and negatively correlated to risk aversion (Borghans, Golsteyn, Heckman, & Meijers, 2009). Two of the factors making up CSE (internal locus of control and self-efficacy) are positively correlated with a general propensity to take risks as well as demonstrated investment risk and loss tolerance as it pertains to participation in employer sponsored retirement plan (Dulebohn, 2002). In their study looking at the impact of personality traits on managerial coping with change, Judge et al. (1999b) included 7 dispositional traits. These 7 traits loaded on two factors, positive self-concept and risk tolerance. The Positive Self-Concept factor in their paper is very much aligned with the construct of CSE and included the following variables: locus of control, self-efficacy, self-esteem, positive affectivity, and openness to experience. The risk tolerance factor included risk aversion and tolerance for ambiguity. Meta-analytic correlations between these two factors indicate a strong positive correlation ($r = .50$, $BB < .01$). Those high in CSE were also high in tolerance for risk (Judge et al., 1999b). Additionally, risk aversion was found to be negatively correlated with each of the components of CSE with meta-analytic correlations ranging from $-.31$ to $-.56$.

Hypothesis 27: Risk aversion will be negatively correlated with CSE.

Both risk preferences and personality contribute unique explanatory power when

regressed on the important life outcomes of labor market success, health status, and life satisfaction (Becker et al., 2012). When taken together, risk tolerance and positive self-concept (similar to CSE) have been shown to predict salary, career plateaus, organizational commitment, job satisfaction, and job performance. All of these relationships except for job performance were mediated by coping (Judge et al., 1999b). This suggests that individuals who are risk tolerant and have a positive self-regard are better able to cope with occupational changes, resulting in favorable career outcomes.

CHAPTER FIVE

SUMMARY OF HYPOTHESES

Based on the research previously reviewed, there were many relationships of interest. The first set of analyses and hypotheses concern the between group differences of religious tradition on outcome variables and potential mediators. The second set of hypotheses tested utilized path analysis to identify direct and indirect effects of income-to-poverty ratio and cognitive ability on career and financial success.

Analysis One

Given the significant body of literature supporting the economic stratification of religious groups, in our first analysis we aim to first replicate these findings by looking at the mean differences of religious groups on success outcomes. Additionally, given the lack of available research on the effects of religious tradition on psychological outcomes, we aim to augment the I-O psychology research literature by elucidating group differences in the important psychological constructs of CSE and risk aversion.

Hypothesis 6: Childhood religious tradition has a significant main effect on job satisfaction (see page 33).

Hypothesis 7: Childhood religious tradition has a significant main effect on job complexity (see page 34).

Hypothesis 8: Childhood religious tradition has a significant main effect on net worth (see page 35).

Hypothesis 16: Childhood religious tradition has a significant main effect on CSE (see page 62).

Hypothesis 21: Childhood religious tradition has a significant main effect on risk aversion (see page 70).

Analysis Two

Relationship of outcome variables.

Hypothesis 1: Job complexity positively predicts net worth (see page 16).

Hypothesis 2: Job complexity positively predicts job satisfaction (see page 17).

Hypothesis 3: Net worth is positively correlated with job satisfaction (see page 17).

Direct effects of childhood factors.

On success outcome variables.

Hypothesis 4: Childhood income-to-poverty ratio positively predicts adult net worth (see page 21).

Hypothesis 5: Childhood income-to-poverty ratio positively predicts adult job complexity (see page 21).

Hypothesis 9: Cognitive ability positively predicts total net worth (see page 39).

Hypothesis 10: Cognitive ability has a negative direct effect on job satisfaction (see page 40).

Hypothesis 11: Cognitive ability positively predicts job complexity (see page 42).

On mediators.

Hypothesis 14: Cognitive ability positively predicts CSE (see page 62).

Hypothesis 22: Cognitive ability negatively predicts risk aversion (see page 71).

Hypothesis 15: Childhood income-to-poverty ratio positively predicts CSE (see

page 62).

Hypothesis 20: Childhood income-to-poverty ratio negatively predicts risk aversion (see page 68).

Mediators.

Job complexity.

Hypothesis 12: Job complexity partially mediates the relationship between cognitive ability and net worth (see page 42).

Hypothesis 13: Job complexity partially mediates the relationship between cognitive ability and job satisfaction (see page 42).

Hypothesis 19: Job complexity mediates the relationship between CSE and job satisfaction (see page 63).

CSE.

Hypothesis 17: CSE is positively correlated with job satisfaction (see page 63).

Hypothesis 18: CSE is positively correlated with net worth (see page 63).

Hypothesis 23: CSE is negatively correlated with risk aversion (see page 72).

Risk aversion.

Hypothesis 26: Risk aversion is negatively correlated with total net worth (see page 75).

Hypothesis 24: Risk aversion is negatively correlated with job satisfaction (see page 73).

Hypothesis 25: Risk aversion is negatively correlated with job complexity (see page 74).

For a graphical representation of the proposed hypotheses see Figure 2.

CHAPTER SIX

METHOD

This study utilized a publically available US based archival dataset, the National Longitudinal Survey of Labor Force Behavior - Youth Cohort (NLSY79) (Bureau of Labor Statistics, 2014), which is directed by the Bureau of Labor Statistics and conducted by the Center for Human Resource Research at The Ohio State University. Interviews for this dataset are administered by the National Opinion Research Center at the University of Chicago. Participants were originally selected in 1978 and have been interviewed annually or biannually beginning in 1979. Topics included in the surveys cover a broad range of subjects with some variation from year to year. Of particular interest to this study were issues dealing with family income, religious affiliation, cognitive abilities, and attitudes and expectancies. The longitudinal nature of the survey allowed for directionality of relationships to be examined. The sample is also large and nationally representative which provides support for generalizability of findings.

Procedure

The surveyed population consisted of a nationally representative sample of noninstitutionalized individuals born in the United States between 1957 and 1964 with subgroups for important cross sections of the population (e.g., civilian Hispanic, Black, and economically disadvantaged non-Hispanic, non-Black youth, as well as a military subsamples). Households were identified using Standard Area Probability Sampling methods, and all individuals in a household between the ages of 14 and 21 in 1978 were included in the survey. Respondents included in the sample resided in all 50 states, and

were anonymized. An initial sample of 12,686 youths (6,403 male, 6,283 female) between the ages of 14 to 22 (born between years 1957 and 1964) completed the first round of the survey in 1979 (thus the sample ranged from 47-56 years old at the time of their 2012 interviews). For more information on the selection and stratification of the selected sample, see Frankel, McWilliams, and Spencer (1983).

Funding constraints resulted in the reduction of participants in 1984 and again in 1990 (1,079 [selected individuals from the military subsample] and 1,643 [economically disadvantaged nonblack/ non-Hispanic subsample] were dropped from the sample respectively) . In 2012, 7,301 (48.3% male, 51.7% female) of the original 12,686 were still included in the survey, which represents a 73.3% retention rate for those who were not dropped in 1982 or 1990 (57.6% of the total original sample).

Responses were collected primarily using in-person interviews from 1979-2000 (with telephone interviews in 1987). Beginning in 2002, telephone interviews became more common and in 2004, web-based survey instruments began being utilized. Interviews were conducted annually from the first survey in 1979 until 1994 when they changed to biannually resulting in 23 rounds as of 2014. Until 1996, participants received \$10 for participation during each interview round. In subsequent interviews, that amount was increased to \$20.

The term survey will be used to refer to data collection, though supplemental materials were also used. Examples include school transcripts, cognitive testing results, and household interviews. Each year a household interview was conducted to collect information about (a) the number of people living in the respondent's household, (b)

completed school grade or employer/ occupational information about each person, and (c) family income information. From 1979-1986, one of three versions was used for the household interview. Version A was administered to the respondent's parent or head of household if the respondent lived at home. Otherwise, the respondent provided answers regarding if that individual lived in a group home or temporary quarters (e.g., dormitory, military lodging, hospital, or prison) [Version B], or individual unit (e.g., military family housing, orphanage, religious institution) [Version C]. After 1986 (when all respondents were at least 21 years old), all individuals were asked to respond to Version C of the Household Interview Form.

Participants

The sample used for this study was limited to individuals who were 17 years old or younger during the initial inclusion into the survey population in 1978 and not dropped from the study during the reductions in 1984 and 1990. Total number of participants in the final dataset was 5,256. The sample was 50.8% male ($n = 2,671$) and 49.2% female ($n = 2,585$) and stratified by race (19.8% Hispanic; 30.6% Black; 49.5% Non-black Non-Hispanic). The average age in 1979 was 15.58 years old.

Measures

Outcome variables.

Net worth. Responses from the 2008 and 2012 surveys were used for the net worth variable. Beginning in 1985 approximately 15 asset and debt questions were added to the survey. Respondents provided information about the estimated value of their assets (e.g., home, vehicles, retirement and savings accounts) and debts (e.g., mortgage,

property debt, or other accumulated debt). For a full list of asset categories see Appendix A.

To maintain confidentiality, prior to releasing the data publicly the top 2% of all values were “top coded.” To do this, the average of the top two percent was calculated and then used to replace each of the responses with that average. This method, does not affect the estimates of means or median holdings. To calculate net worth, the total sum of debts was then subtracted from the total sum of assets. In keeping with research by Zagorsky (2007), if respondents indicated they were married in the survey year, net worth was divide by two.

“Multivariate analysis involving monetary variables is undermined when these variables fail to take into account ... cross-state variation in the value of a dollar” (Berry, Fording, & Hanson, 2000, p. 551). Thus, to control for differences in cost of living by region of the United States, net worth was divided by a deflation factor. To calculate the relevant factors for each region/year data was obtained the Consumer Expenditure Survey ("Region and Area Tables," 2017) which provides the average annual budget expenditures in the United States overall as well as broken out by region. Regional averages were divided by the overall average resulting in a deflation factor. This number represents the cost of living in that particular region relative to the reference group (overall population) for that year. For values of the resulting net worth deflation factor see Table 1. This approach is similar to other attempts (i.e., Sierminska & Takhtamanova, 2007) to eliminate price level differences between two or more regions. The average corrected value for 2008 and 2012 was computed for net worth.

Global job satisfaction. A single global job satisfaction item was asked every year from 1979 – 2012 (“How [do/did] you feel about [your job/current assignment/business] with [employer name]? [Do/Did] you like it very much, like it fairly well, dislike it somewhat, or dislike it very much?”). This item was scored using a 1-4 scale with 1 being “*Like it very much*” and 4 being “*Dislike it very much.*” After 1994, this global satisfaction item was asked about each job (up to five). To obtain a stable measure of global job satisfaction, an average response for the first two jobs reported each year was calculated. Then, the average of that score across the 2008, 2010, and 2012 surveys was computed.

Job complexity. Job complexity can be measured directly using either subjective or objective methods or indirectly through proxies. Subjective measures of job complexity come from job incumbents and focus on the content of the job (Gerhart, 1988). Objective measures typically come from trained analysts or other external sources and focus on necessary knowledge, skills, and abilities required to do the job. One approach to obtain objective information about jobs is through publically available databases.

During the 1930’s, in response to the Great Depression and the corresponding need to inform job placement and training needs in the workforce, the U.S. Department of Labor created the Dictionary of Occupational Titles (DOT). The DOT grew to include occupational data on over 12,000 jobs and allowed placement centers and job candidates a way to identify jobs – skills linkages (Advisory Panel for the Dictionary of Occupational Titles (APDOT), 1993) (as cited in Peterson et al., 2001). This dataset has

since gone through numerous updates with the latest one being in 1991.

To make sense of the amount of information available and to put it into a format which is useful to occupational researchers, multiple attempts have been made to identify an underlying empirical structure to the job components reported in the DOT (typically done through Exploratory Factor Analysis) (e.g., Roos & Treiman, 1980; Spenner, 1980). One such underlying factor that has been consistently extracted from the dataset is “substantive complexity” (Gadernann et al., 2014).

Following the final update to the DOT in 1991, in an attempt to keep up with the rate of change and flux of occupations as well as to simplify the categorization the U.S. Department of Labor decided to switch to an online repository, the Occupational Information Network (O*NET) (Peterson et al., 2001). In the move, similar jobs and roles were combined into overarching occupation groups. Currently, O*NET houses 277 descriptors on approximately 974 such occupations (National Center for O*NET Development,). Occupation data is categorized using multiple descriptor domains (e.g., work context, tasks, knowledge, skills), a common language, and a taxonomy of occupations (Peterson et al., 2001). These data points are collected through job analysis and interviews of incumbents done by professional analysts and the database is updated on an annual basis. Consistent with the recommendation made by Hadden, Kravets, and Muntaner (2004), job complexity scores derived from O*NET data were used rather than the DOT.

Hadden et al. (2004) conducted a factor analysis of the occupational descriptors collected in O*NET. Consistent with factor analyses conducted on the DOT, Hadden et

al. (2004) found “substantive complexity” accounted for a large portion (36.6%) of the variance in occupational descriptors. In their study, Hadden et al. (2004) identified the 10 variables with the strongest loadings on the “substantive complexity” factor.

In each survey iteration, respondents were asked about the jobs they held/or hold in the current survey year (up to 5 jobs per year). Those jobs were then coded according to the prevailing occupational classification at the time. To obtain a stable measure of job complexity and maximize available data, job complexity was calculated using occupational codes collected in 2002 and 2006. These jobs were classified using the 2000 Census codes (in 2002 Census codes were updated to include an additional 0 at the end). To utilize the data housed in O*NET 4.0 (2002) a crosswalk was used to convert the 2000 Census occupational codes to the 2001 O*NET SOC codes. Then, job complexity was computed for each year by calculating the average of the following occupational descriptors from O*NET: (1) Deductive reasoning, (2) Updating and using relevant knowledge, (3) Inductive reasoning, (4) Complex problem solving, (5) Active learning, (6) Making decisions and solving problems, (7) Ability utilization, (8) Critical thinking, (9) Getting information, and (10) Importance of repeating same tasks [reverse coded]. All scores were standardized on a 0-1 scale. Some of the descriptors included more than one rating (e.g., level and importance). To create one score for each descriptor, the standardized scores (0-1) were then multiplied together. Then, a log transformation was applied. This log of the product was then converted to the same 0-1 scale for inclusion in the overall scale. Overall score per year was then the mean of the ten descriptors previously mentioned. The final job complexity value was then calculated from the

average across 2002 and 2006 survey years. For examples of resulting scores by occupation see Table 2.

Independent variables.

Religious tradition. Childhood religious affiliation was collected in the original 1979 survey (i.e., “in what religion were you raised?”) along with frequency of attendance. Respondents self-identified into one of over sixty religious categories. To classify religious affiliation into meaningful categories, the religious tradition (RELTRAD; Steensland et al., 2000) classification scheme was used. RELTRAD categorizes participants into 7 distinct religious traditions, (a) Catholics, (b) Jews, (c) Evangelical Protestants, (d) Mainline Protestants, (e) Black Protestants, (f) Other religious groups, (g) and Unaffiliated individuals based on the historical development of religious traditions. This classification scheme has been widely adopted by academic researchers with over 900 published articles using the framework (Stetzer & Burge, 2015). SPSS syntax used to code participants into the seven categories using religious affiliation, attendance, and race was obtained from the first author (Steensland et al., 2000) and adapted to the NYLS79 dataset. Results of the categorization are reported in Table 3.

Poverty ratio. People are defined as in poverty if the family in which they reside are below the income level set as the poverty line. Two factors that determine poverty level are the 1) total family income and 2) family size (Casper, McLanahan, & Garfinkel, 1994). As such, poverty status (above or below the line) is calculated at the family rather than individual level (Casper et al., 1994). Families that are slightly above the poverty

line face many of the same pressures as those below the poverty line. By using the strict dichotomous definition of poverty (income either below or above the poverty line) research may underestimate the effects of financial deprivation (McLeod & Shanahan, 1993). Thus a more specific measure is one that differentiates by depth of poverty. Similar to the approach taken by others (e.g., Duncan, Brooks-Gunn, & Klebanov, 1994; Garrett, Nicholas, & Ferron, 1994), this study utilizes a ratio of income-to-poverty line which we contend allows for greater differentiation along the continuum of income.

The income-to-poverty ratio was calculated using total household income, family size, and the national Poverty Income Guidelines. Information about total family income and size were collected each survey year in reference to the previous year. For the NYLS79 dataset, total family income was determined using one of two sources: (1) parents indicated household income during the household interview if the respondent was still living in the home or (2) if the respondent no longer lived in the parental home, household income sources reported by the respondent were summed to create a composite value. Both composite values include income for all persons related to the respondent (through blood, marriage, or adoption). Poverty level guidelines used for the 1979 and 1980 survey regarding the previous years were developed by the U.S. Department of Health and Human Services. The Family Poverty Level variable represents the cutoff value for total household income (taking into account family size) below which one is considered to be in poverty. For the exact values, see Appendix B.

Dividing household income by Poverty Level resulted in a continuous variable which can be interpreted as income as a percentage of Family Poverty Level. For

instance, an income-to-poverty ratio of 2 would indicate that the household family income was twice the Family Poverty Level for a given family size. Because income can fluctuate substantially from year to year (for instance in the case of short-term unemployment), income-to-poverty ratios were averaged across survey rounds occurring in 1979 and 1980.

Individual differences.

Cognitive ability. In addition to the survey itself, in 1980, the U.S. Department of Defense sponsored the administration of the Armed Services Vocational Battery (ASVAB) to 11,914 survey respondents. Respondents were paid \$50 to complete the test. The ASVAB was developed by the U.S. Department of Defense to serve as a criterion measure for enlistment in the U.S. military. It consists of 10 subtests which are combined to assess an overall degree of trainability. The subtests cover general science, arithmetic reasoning, word knowledge, paragraph comprehension, numerical operations, coding speed, auto and shop information, mathematics knowledge, mechanical comprehension, and electronics information.

From this data, Armed Forces Qualifying Test (AFQT) scores were calculated and subsequently updated with normed data. In 2006, the AFQT scores were renormed to be comparable to other BLS datasets. Composite scores were calculated using a formula to weight verbal and math components and controlling for age. The subtests used to create the composite score were word knowledge, paragraph comprehension, math knowledge, and arithmetic reasoning. First, respondents were divided into age cohorts (broken down into 3 month intervals). Then, percentile scores were calculated for the 4 raw scores. The

verbal component was then created by summing the percentile scores on word knowledge and paragraph comprehension, creating a percentile score for the average, and then multiplying it by two in order for it to have equal weighting as the two math components. The three scores (percentile verbal, percentile math knowledge, and percentile arithmetic reasoning) were then averaged to create the overall composite score. Those composite scores were normed, controlling for age and sampling weights in the dataset to create percentile scores for each individual. Therefore, reported scores for the NYLS79 participants range from 0-100 (with 3 decimal places). These percentile scores were used in this paper as a measure of cognitive ability.

Mediators.

Core self-evaluations. The CSE construct was first introduced by Judge and colleagues Judge et al. (1997) almost twenty years after the initial NLSY79 interview. Because of the timing, the construct as a whole was not assessed in those early interview stages. Fortunately, the components of core self-evaluation (self-esteem, self-efficacy, locus of control, and neuroticism) were assessed individually during various interview years (1987, 1992, 1979, and 1992 respectively). Consistent with research by (Judge & Hurst, 2007), we used select items from the following scales that closely map to the Core Self-Evaluations Scale (CSES) developed by (Judge et al., 2003).

Self-esteem. During the 1980 and 1987 survey administrations, self-esteem was assessed using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). This scale consists of 10 items (both positively and negatively worded) pertaining to degree of self-approval or disapproval. Respondents were instructed to rate their level of agreement to the

statements using a 4-point scale ('Strongly Disagree' to 'Strongly Agree'). Example items include "I am a person of worth" and "I am satisfied with myself." We will use items responses collected during the 1987 interview round.

Self-efficacy. The Pearlin Mastery Scale (Pearlin, Menaghan, Lieberman, & Mullan, 1981) was used to assess generalized self-efficacy in 1992. This measure consists of 7 statements (e.g., "What happens to me in the future mostly depends on me") which respondents rate on a 1 ('Strongly Agree') to 4 ('Strongly Disagree') scale. Each statement assesses the degree to which individuals believe they have control or mastery over factors that impact their lives. The full scale consists of 7 items, including a mix of positively and negatively worded items. Negatively worded items will be reverse coded before scoring the scale. Example items for this scale include "I can do just about anything I really set my mind to" and "no way I can solve the problems I have" [reverse scored].

Locus of Control. Locus of control was assessed in 1992 using a shortened version of the Rotter Internal-External Locus of Control Scale (Rotter, 1966) (Bureau of Labor Statistics, 2014). Respondents were provided with two statements. One of which exhibited an internal locus of control orientation (e.g., "what happens to me is my own doing") and the other which was more external locus of control oriented (e.g., "sometimes I feel that I don't have enough control over the direction my life is taking"). The respondents then chose one to endorse. Next, respondents indicated whether their endorsed selection was "much closer" or only "slightly closer" to their self-perception. Together, these two questions resulted in a 4-point scale (1 = internal locus of control, 4

= external locus of control) for each set of paired statements. Overall locus of control scores are typically computed by summing scores across the four paired statements resulting in possible scores ranging from 4-16 with higher scores indicating an external locus of control.

Neuroticism. Though, not measuring neuroticism directly, the 1992 interview round included a measure of symptoms of depression. The Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977) consists of 20 items and was originally included as part of the attitudes and expectations section of the interview. These items consisted of statements that either described negative states (e.g., “I was bothered by things that usually don’t bother me”) or positive states (e.g., “I felt hopeful about the future”). Respondents then indicated the frequency of experiencing those states in the past week (0 = “rarely/ none of the time/ 1 day”, 3 = “most/ all of the time/ 5-7 days”). The CES-D uses a cut score of 16 to discriminate between the normal population and those who are clinically depressed.

Latent construct. Judge and Hurst (2007, 2008) identified twelve of the items in the aforementioned surveys as closely matching those in the Core Self-Evaluations Scale (CSES) (Judge et al., 2003). Of the 12 items, 5 assess self-esteem (e.g., “I feel that I am a person of worth, on an equal basis with others”), 3 measure self-efficacy (e.g., “When I make plans, I am almost certain to make them work”), 2 pertain to locus of control (e.g., “I have little control over the things that happen to me”), and 2 measure neuroticism (e.g., “I wish I could have more respect for myself”). In their research, Judge and Hurst (2007, 2008) assessed the convergent validity of the 12 identified items with the CSES (Judge et

al., 2003) and found them to demonstrate high levels of convergent validity (r ranging from .78 to .83) (Judge & Hurst, 2008). This falls within acceptable levels in the personality literature (e.g., Cunningham, Preacher, & Banaji, 2001; Hicklin & Widiger, 2000; Stober, 2001) (for further review of validation processes see Judge & Hurst, 2008). Therefore, this study used this 12 item constructed measure of CSE. For a list of the exact items used, see Appendix C.

Risk preferences. Researchers measure risk aversion a number of ways (e.g., hypothetical situations, behaviorally, self-assessment or survey, or through proxies such as asset mix). Self-report scales can reference either risk preferences in general or in specific contexts such as gambling, driving, or health. One of the benefits of using a self-report inventory is that it provides an easy to gather indexes of risk preferences, though there are some issues such as response biases and misunderstanding of questions (Lejuez, Aklin, Zvolensky, & Pedulla, 2003). Behavioral measures of risk preferences typically employ the use of hypothetical choices or gambles. The hypothetical choice approach could require the subjects to make decisions using previous experience or from the information provided to them by the researcher (from description). “Decision from description” tasks provide subjects with relevant information and then the subjects choose how to respond from available alternatives. One such format is the “sure thing vs. risky gamble.” In this format, subjects chose between one alternative that is a “sure thing” or the risky alternative. This risky alternative has both the possibility of greater gain as well as greater loss than the sure thing. Risk is assessed by whether subjects choose the sure thing or the risky choice (as cited in Mata, Josef, Samanez-Larkin, &

Hertwig, 2011; Mikels & Reed, 2009).

Though some researchers have found significant effects of risk assessment measures on the correlations between cognitive ability and risk (Andersson, Tyran, Wengström, & Holm, 2013), others have shown that measures of risk (specifically, lottery choice measures, a risk taking questionnaire, and a self-report survey of risk across various domains) are correlated and stack ranking of individuals on risk preference measures remains consistent across measures (Reynaud & Couture, 2012).

Risk preferences were assessed in 1993 using three hypothetical choice questions. Respondents were given a scenario in which they have a satisfactory, stable job (“Suppose that you are the only income earner in the family, and you have a good job guaranteed to give you your current [family] income every year for life.”) and are given the choice to turn it down and instead take a job which has the potential to make more money (“You are given the opportunity to take a new and equally good job, with a 50-50 chance that it will double your [family] income”), with varying degrees of risk(i.e., “and a 50-50 chance that it will cut your [family] income by a third[half, or 20%]. Would you take the new job?”). Questions were presented in a branching manner. Respondents were initially asked if they would be willing to risk a pay cut of one third. If the response was yes, then they were asked whether they would risk one half. If the answer to the initial question was no, they were asked whether they would risk 20%. Thus, each respondent only received 2 of the 3 questions. Risk is scored based on the maximum percent they are willing to risk. If respondents endorse both the 1/3rd and 50% scenarios, their risk level would be evaluated as 50%. If respondents did not endorse any of the risks, their risk

level would be assessed at 0%. Levels were coded as 0 = 50%, 1 = 33%, 2 = 20%, and 3 = 0%. For exact wording of the risk items, see Appendix D.

CHAPTER SEVEN

RESULTS

This study utilized both one-way ANOVAs as well as path analysis to test the proposed hypotheses. First, between group differences on mediators and outcome variables were examined for religious tradition. Because of the hypothesized positive correlations between the various dependent variables, multivariate analysis of variance was not appropriate (Tabachnick & Fidell, 2007). Consequently, multiple one-way ANOVAs were utilized to assess main effects of religious tradition with a correction (i.e., Bonferroni procedure) applied to the omnibus test statistics to address family-wise error rates. Then, various models were compared using path analysis to examine the relationships between the continuous variables.

Data cleaning. Before conducting each of the analyses, the data was examined and cleaned. As a first step, descriptive statistics were computed for all variables to ensure that values fell within expected levels and all missing values were coded correctly. Then, distributions were evaluated and outlier analyses were performed. This process was conducted separately for each of the analyses. First, the general approach is presented below and then the results of the data cleaning for each analysis individually is presented with the discussion of the respective analyses.

ANOVAs. Because ANOVAs focus on the analysis of grouped data, the assessment of data distributions and univariate outlier analyses were conducted within each group separately (Tabachnick & Fidell, 2007) for the following continuous variables: income-to-poverty ratio, cognitive ability, job satisfaction, job complexity, net

worth, CSE, and risk aversion. Skewness, kurtosis, boxplots, and histograms were examined for each group to test for non-normality of the data as well as comparability of distributions across groups. These data points taken together were used to inform decisions about any potentially needed transformations. After any necessary transformations were applied, univariate outlier analyses were conducted by computing within group z scores. Those z scores in excess of 3.0 and which were not continuous with other cases were excluded from the relevant analysis (Tabachnick & Fidell, 2007).

Finally, homogeneity of variance assumes equal variance across groups on the dependent variable. Because Levene's Test for the Equality of Error Variances is sensitive to large sample sizes and thus more likely to be significant even at low levels of heterogeneity, we assessed for homogeneity of variances within each ANOVA using a general rule of thumb. Variances were computed for each group and the largest variance was divided by the smallest one. Any values of 2 or greater on this comparison statistic were considered indicative of violation of the homogeneity of variance assumption (Rosopa, Schaffer, & Schroeder, 2013).

Path analysis. Before conducting a path analysis, non-normal distributions and outliers were identified and dealt with. Kurtosis, skewness, boxplots, and histograms of continuous variables were computed and assessed to check for normality. For skewness, a value greater than 2 times its standard error suggests that the distribution is asymmetric (Myers & Well, 2003). If evidence of non-normality was found, transformations were applied to the variable in question to attempt to improve the distribution of the data.

z scores were then computed for each variable and any value over an absolute

value of 3.0 was flagged for potential exclusion. Mahalanobis Distance was computed to identify any multivariate outliers and any cases which exceeded the critical value according to a χ^2 distribution and $p < .001$ were again identified as potential outliers (Tabachnick & Fidell, 2007). z scores and values on Mahalanobis Distance together informed decisions about which (if any) cases to remove from the path analysis.

One-way ANOVAs

To examine the impact of religious group, between group differences were assessed using one-way ANOVAs. Following recommendations by Myers and Well (2003), the omnibus Welch F_w and post-hoc Games-Howell tests were utilized to mitigate the effects of unequal sample sizes between religious groups and any violations of the assumption of homogeneity of variance. To control for family-wise error, a Bonferroni correction was applied to the omnibus tests. Religious Tradition is being compared along five different outcome variables. Therefore, $.05 / 5 =$ a comparison statistic of .01 for each test. A summary of results for each hypothesis is presented in Table 9 and all post hoc analyses are consolidated in Table 10.

Job Satisfaction.

Hypothesis 6: Childhood religious tradition has a significant main effect on job satisfaction (see page 33).

Because of high kurtosis values relative to their standard errors (e.g., 6.37; SE of kurtosis = 0.82), before the one-way ANOVA was executed, a transformation was applied to job satisfaction. Due to a consistent negative skew, scores were first reverse coded and then the log was computed on the reverse scores. Then, this number was

reverse coded again to aid in interpretation of results so higher scores indicated higher job satisfaction. Distributions and summary statistics for job satisfaction before and after log transformation are presented in Table 4. Then, z scores were calculated for transformed job satisfaction by group. All absolute values fell below the 3.0 threshold so no outliers were removed from analysis.

The differences between groups were then assessed using the omnibus Welch F test (Welch $F = 0.265$; $p > .05$) which indicated no significant differences on job satisfaction between religious groups. Thus, Hypothesis 6 was not supported.

Job Complexity.

Hypothesis 7: Childhood religious tradition has a significant main effect on job complexity (see page 34).

Kurtosis and skewness of the distributions within each religious group indicated that job complexity was approximately normally distributed with skewness for the Jewish group being in the opposite direction than the others so likely to be made worse by any transformation that would improve normality for other groups (see Table 5). Thus, no transformations were performed for this analysis. Next, z -scores were calculated for each religious group on Job Complexity. Based on this, 2 participants (2 Black Protestant) had z scores with an absolute value greater than 3 and were subsequently removed from analysis.

Once the data were cleaned, homogeneity of variances were examined by dividing the largest variance by the smallest variance (variance_{Black Protestant} = .019; variance_{Mainline} = .028; statistic = 1.53). Based on this rule of thumb, the assumption of homogeneity of

variances was not violated. Since sample sizes varied greatly (i.e., $n_{\text{Jewish}} = 28$ vs $n_{\text{Catholic}} = 1,315$) the differences between groups were assessed using the omnibus Welch F test (Welch $F = 33.291$; $p < .01$) which indicated significant differences between group means on job complexity. Thus, Hypothesis 7, which posited that ‘childhood religious tradition has a significant main effect on job complexity’ (see page 34) was supported.

Next, the Games-Howell test was utilized for post-hoc comparisons. In general, religious groups fell into three groups (a) Mainline and Jewish, (b) Evangelical, Catholic, and Other Faiths, and (c) Black Protestant and No Religion. There were no between group differences within each respective grouping, but all other relationships were significant (with the exception of the Jewish group versus religious traditions in group b; potentially due to small sample size; $n_{\text{Jewish}} = 28$). For graphical representation of group means see Figure 3.

Net Worth.

Hypothesis 8: Childhood religious tradition has a significant main effect on net worth (see page 35).

Distribution statistics for net worth indicated that it was positively skewed with high kurtosis (see Table 6). For graphical representation of net worth distributions before transformation see Figure 4. To apply a transformation, the minimum value of net worth was calculated and then added to the variable plus one. This removed any negative values such that scores ranged from 1 to 4,679,876.5. Then net worth was transformed by computing the square root of that centered variable. Within group as well as overall z scores on transformed net worth were computed. On the within group z scores, 95 (2.4%)

participants had absolute values over 3.0. Distributions of z scores were examined visually and appeared continuous with a clear break at 5.0 for all religious groups (see Figure 5). All participants with absolute values on within group z scores in excess of 5.0 were subsequently excluded from analysis (2 No Religion, 8 Evangelical, 7 Black Protestant, 7 Catholic, 2 Other Faith). Then, a one-way ANOVA was conducted using the overall z scores as the measure of net worth. Using z scores rather than values of the transformed net worth variable directly aids in interpretation of the results.

The omnibus Welch F test (Welch $F = 52.173$; $p < .01$) indicated significant between group differences on net worth thus supporting Hypothesis 8 ('Childhood religious tradition has a significant main effect on net worth' [see page 35]). Next, Games-Howell post hoc analyses were conducted. A similar pattern emerged as that for job complexity. In general, religious groups fell into three groups (a) Mainline and Jewish, (b) Evangelical, Catholic, and Other Faiths, and (c) Black Protestant and No Religion. With the exception of a non-significant difference between the Other Faiths and No Religion groups, there were no between group differences within each respective grouping and all other relationships were significant (see Figure 8).

Risk Aversion.

Hypothesis 21: Childhood religious tradition has a significant main effect on risk aversion (see page 70).

For risk aversion, kurtosis and skewness of the distributions within each religious group was computed. Kurtosis ranged from -1.6 to -1.4 and skewness ranged from -0.47 to 0.35. This indicated that distributions were relatively normally distributed.

Additionally, since the skewness of the Jewish group was in the opposite direction from all other groups no transformations were applied (see Figure 6 and Table 7).

Next, z scores were calculated for each religious group on Risk Aversion. All z score absolute values were below 1.6. Based on this no outliers were removed from analysis. Next, homogeneity of variances were assessed ($\text{variance}_{\text{Black Protestant}} = 1.68$; $\text{variance}_{\text{Jewish}} = 1.34$; comparison statistic = 1.25) and the assumption of homogeneity was not violated.

The omnibus test (Welch $F = 2.95$; $p < .01$) indicated significant differences between group means on risk aversion. Thus, Hypothesis 21 which posits ‘childhood religious tradition has a significant main effect on risk aversion’ (see page 70) was supported. Post-hoc analyses were then conducted using the Games-Howell test and the only significant between group difference was found between the Jewish and Evangelical groups ($p = .03$) (see Figure 6).

CSE.

Hypothesis 16: Childhood religious tradition has a significant main effect on CSE (see page 62).

Based on calculated kurtosis and skewness statistics and visual inspection of histograms and box plots no transformations were applied to CSE. z scores were then computed to identify potential univariate outliers. Using z score absolute values above 3.0 as the criterion for exclusion, fourteen participants were removed from analysis (1 No Religion, 3 Black Protestant, 9 Catholic, and 1 Other Faith). Next, a one-way ANOVA was conducted to test between group differences on CSE. The omnibus (Welch $F =$

12.43; $p < .001$) was significant indicating that Hypothesis 16 which posits that ‘childhood religious tradition has a significant main effect on CSE’ (see page 62) was supported. Next, Games-Howell statistics for post hoc analyses were computed and significant between group differences were identified. For review of specific differences see Table 8.

For a review of all omnibus tests and pairwise comparisons for the one-way ANOVAs see Table 9 and Table 10 respectively. For a plot of means by religious tradition see Figure 7.

Path Analysis

Next, to assess the relationships between childhood factors, success outcomes, and their mediators - path analysis was utilized. Data was first cleaned in SPSS 24 before transferring to EQS 6.1 for analysis. Cases with missing values were removed using listwise deletion. Kurtosis, skewness (Table 11), and histograms were then computed (Figure 8 to Figure 14) for all variables. Based on the evidence, a log transformation was applied to income to poverty ratio and a square root transformation was applied to net worth. Before taking the square root of net worth, values were shifted by adding a constant so that the lowest value was 0. For information about distribution statistics see Table 11. Next univariate and multivariate outlier analyses were conducted. z scores were computed for all variables and any participants with a z score over the absolute value 3.0 were flagged for consideration. Mahalanobis Distance was then computed with one case falling above the χ^2 ($df = 5$, $\alpha = .001$) cut value of 20.515. Next, distributions of z scores were evaluated. Based on Mahalanobis Distance and the distributions and values on z

scores, 42 participants were removed from analysis ($|z_{\text{CSE}}| > 3.1, n = 3$; $|z_{\text{poverty}}| > 3.1, n = 2$; $|z_{\text{Job Satisfaction}}| > 3.1, n = 28$; $|z_{\text{Net worth}}| > 6.0, n = 8$; Mahalanobis Distance $> 20.515, n = 1$). For descriptives of the final dataset see Table 11. Correlations between the variables are reported in Table 12. All relationships are significant and in the expected direction except for those pertaining to risk aversion and the relationship between cognitive ability and job satisfaction. Contrary to expectations, risk aversion was found to be positively related to job satisfaction and cognitive ability was also positively related to job satisfaction, though these correlations do not control for potential suppression effects.

Once the variables were cleaned, to assess fit of the theoretical model and the direct and mediated relationships among continuous variables data was then imported into EQS 6.1. Recommendations were taken from Kline (2010) to test model fit and compare alternative models. To control for non-normal data in the present study, Maximum Likelihood robust estimates are reported. Fit was assessed using Model Chi-Square, Root Mean Square Error of Approximation (RMSEA) and the Comparative Fit Index (CFI). For an illustration of the theoretical model see Figure 2.

To account for differences in scale, z scores were used for all variables. First, the full model was tested. As expected because the model had just 2 degrees of freedom, the fit statistics indicated acceptable fit, Satorra-Bentler Scaled $\chi^2(2) = 5.23, p = .07, \text{CFI} = 1, \text{RMSEA} = .02$. Subsequently, the Wald Test was performed to identify potential parameters for removal. Based on these results four paths were identified (a) risk aversion to job complexity, (b) risk aversion to net worth, (c) CSE to risk aversion, and (d) income-to-poverty ratio to risk aversion. These four paths were removed (see Figure 15)

from the subsequent analysis and resulted in improved fit of the model Satorra-Bentler Scaled $\chi^2(6) = 9.28, p = .16, CFI = 1, RMSEA = .01, Model AIC = -2.715$. For the syntax used see Appendix E.

Next, we compared the trimmed model to three alternative models. For depictions of the models see Figure 16. Based on the fit indices (see Table 13) and theoretical rationale, the trimmed model was identified as the best fit. With acceptable fit established for the trimmed structural model, specific hypotheses are subsequently examined (see Table 14).

Hypotheses testing.

Success Outcomes.

First, the relationships among success variables were examined. The three hypotheses we tested are as follows:

Hypothesis 1: Job complexity positively predicts net worth (see page 16).

Hypothesis 2: Job complexity positively predicts job satisfaction (see page 17).

Hypothesis 3: Net worth is positively correlated with job satisfaction (see page 17).

Job complexity predicts both net worth ($B = 0.159, z = 8.955, SE = 0.018, p < .05$) and job satisfaction ($B = 0.05, z = 2.529, SE = 0.02, p < .05$). Additionally, job satisfaction and net worth are positively correlated ($r = .054, p < .01$). This suggests that individuals having more complex jobs leads to acquiring greater net worth and higher satisfaction longitudinally. Though the net worth, job satisfaction relationship is not directly tested in the path analysis, correlation analysis indicates that there is a significant

positive relationship. Based on the analysis, Hypotheses 1 through 3 are supported.

Income-to-poverty ratio.

Next, the direct relationships between income-to-poverty ratio and outcomes were examined. The specific hypotheses are as follows:

Hypothesis 4: Childhood income-to-poverty ratio positively predicts adult net worth (see page 21).

Hypothesis 5: Childhood income-to-poverty ratio positively predicts adult job complexity (see page 21).

Hypothesis 15: Childhood income-to-poverty ratio positively predicts CSE (see page 62).

Hypothesis 20: Childhood income-to-poverty ratio negatively predicts risk aversion (see page 68).

Analyses examining the direct effect of income-to-poverty ratio on net worth ($B = 0.108$, $z = 6.015$, $SE = 0.018$, $p < .05$), job complexity ($B = 0.105$, $z = 5.723$, $SE = 0.018$, $p < .05$), and CSE ($B = 0.069$, $z = 3.624$, $SE = 0.019$, $p < .05$) result in significant positive relationships. Children who come from more economically privileged households develop higher CSE, obtain jobs higher in complexity in adulthood, and acquire higher net worth longitudinally, even after controlling for other significant factors. The relationship between income-to-poverty ratio and risk aversion was trimmed from the path analysis, but correlations indicate that it was not significant ($r = .014$, ns). Thus, Hypothesis 4, 5, and 15 were supported but Hypothesis 20 was not significant.

Cognitive ability

Hypothesis 9: Cognitive ability positively predicts total net worth (see page 39).

Hypothesis 10: Cognitive ability has a negative direct effect on job satisfaction (see page 40).

Hypothesis 11: Cognitive ability positively predicts job complexity (see page 42).

Hypothesis 14: Cognitive ability positively predicts CSE (see page 62).

Hypothesis 22: Cognitive ability negatively predicts risk aversion (see page 71).

An examination of the direct effect of cognitive ability on net worth ($B = 0.108$, $z = 5.366$, $SE = 0.02$, $p < .05$), acquired job complexity ($B = 0.37$, $z = 18.910$, $SE = 0.02$, $p < .05$), and CSE ($B = 0.402$, $z = 21.372$, $SE = 0.019$, $p < .05$) were all significant positive relationships. Consistent with the hypothesized direction, the relationship of cognitive ability with job satisfaction ($B = -0.048$, $z = -2.317$, $SE = 0.021$, $p < .05$) was negative. Finally, the relationship between cognitive ability and risk aversion was not significant ($B = -0.021$, $z = -1.175$, $SE = 0.018$, ns). This suggests that cognitive ability predicts positive outcomes such as CSE, job complexity, and net worth. Consistent with hypotheses and prior research, after controlling for other variables (e.g., job complexity) cognitive ability had a direct negative relationship with job satisfaction. This suggests that individuals higher in cognitive ability will gravitate towards and/or acquire jobs higher in substantive complexity but, after holding job complexity and CSE constant, those higher in cognitive ability are likely to be less satisfied with their jobs.

Hypotheses 9, 10, 11, and 14 were supported. Hypothesis 22 was not supported.

CSE

Hypothesis 17: CSE is positively correlated with job satisfaction (see page 63).

Hypothesis 18: CSE is positively correlated with net worth (see page 63).

Hypothesis 23: CSE is negatively correlated with risk aversion (see page 72).

Results analyzing the direct effect of CSE on job satisfaction ($B = 0.078$, $z = 4.042$, $SE = 0.019$, $p < .05$) and net worth ($B = 0.086$, $z = 4.951$, $SE = 0.017$, $p < .05$) are significant and positive. This suggests that CSE measured in adolescence and young adulthood is a significant predictor of net worth and job satisfaction in adulthood over 15 years later. Contrary to expectations, results analyzing the direct effect of CSE on risk aversion indicate that the relationship is not significant ($B = -0.021$, $z = -1.175$, $SE = 0.018$, *ns*). Hypothesis 2 was supported. Thus Hypothesis 23 was not supported.

Risk Aversion

Hypothesis 24: Risk aversion is negatively correlated with job satisfaction (see page 73).

Hypothesis 25: Risk aversion is negatively correlated with job complexity (see page 74).

Hypothesis 26: Risk aversion is negatively correlated with total net worth (see page 75).

Contrary to expectations, risk aversion positively predicted job satisfaction ($B = 0.054$, $z = 3.178$, $SE = 0.017$, $p < .05$). Though the relationships between risk aversion and job complexity and net worth were identified as nonsignificant and removed from the path model, correlations were still examined. Neither job complexity nor net worth were significantly correlated to risk aversion ($r = .001$, *ns*; $r = .012$, *ns* respectively). Thus, Hypothesis 24 was supported and Hypotheses 25 and 26 were not supported.

Job Complexity.

Job complexity was examined as a mediator of relationships. The hypotheses are as follows:

Hypothesis 12: Job complexity partially mediates the relationship between cognitive ability and net worth (see page 42).

Hypothesis 13: Job complexity partially mediates the relationship between cognitive ability and job satisfaction (see page 42).

Hypothesis 19: Job complexity mediates the relationship between CSE and job satisfaction (see page 63).

To assess significance of mediators, z statistics were computed using the Sobel test (Sobel, 1982) and then compared to the z distribution for significance levels. Results analyzing mediating effect of job complexity on the relationships of cognitive ability with net worth ($ab = 0.059$, $z = 7.304$, $SE_{ab} = 0.008$, $p < .01$) and job satisfaction ($ab = 0.019$, $z = 2.480$, $SE_{ab} = 0.007$, $p < .01$) are significant and indicate that 35.26% of the total effect of cognitive ability on net worth is through the indirect effect of job complexity. Consistent with expectations, because the indirect effect of cognitive ability on job satisfaction through job complexity is positive and the direct effect of cognitive ability on job satisfaction is negative, this indicates a suppression effect for the cognitive ability, job satisfaction relationship.

Results analyzing the mediating effect of job complexity on the relationship between CSE and job satisfaction indicate that job complexity is a significant mediator of this relationship ($ab = 0.007$, $z = 2.579$, $SE_{ab} = 0.003$, $p < .01$). This suggests that 7.8%

of the total effect of CSE on job satisfaction is through the indirect effect of job complexity.

Hypothesis 12, 13, and 19 were supported.

Additional analyses

Additional analyses were also run to assess for significant moderation or interaction effects. Interactions were tested using general linear regression in SPSS 24. The additional hypotheses examined were: (a) religious tradition as a moderator of the cognitive ability and CSE relationship, (b) religious tradition as a moderator of the CSE and net worth relationship, (c) cognitive ability and CSE interaction predicting risk aversion, (d) risk aversion as a moderator of the relationship between job complexity and net worth, (e) income to poverty ratio as a moderator of the cognitive ability and job complexity relationship, and (f) job complexity as a moderator of cognitive ability and net worth relationship.

Religious tradition as a moderator of the cognitive ability and CSE relationship.

Religious tradition was examined as a moderator of the relationship between cognitive ability and CSE. First, cognitive ability and CSE were converted to z scores for centering purposes and ease of interpretation. Then, religious tradition and standardized cognitive ability were entered into the model as a fixed factor and covariate, respectively. Main effects and the interaction term were entered into the model specification. Results indicated main effects for both religious tradition $F(6, 4842) = 4.263, p < .01$ and cognitive ability $F(1, 4842) = 1113.88, p < .01$ as well as a significant interaction $F(6,$

4842) = 6.572, $p < .01$, $\Delta R^2 = .006$. The largest relationships between cognitive ability and CSE were in the Black Protestant ($B = .651$) and No Religion groups ($B = .526$). For information about specific relationships see Table 15, Table 16, and Figure 17.

Religious tradition as a moderator of the CSE and net worth relationship.

Religious tradition was examined as a moderator of the relationship between CSE and net worth. First, the square root was taken of the centered net worth variable. Then, square root of net worth and CSE were converted to z scores for centering purposes and ease of interpretation. Then religious tradition and net worth were entered into the model as a fixed factor and covariate respectively. Main effects and the interaction term were entered into the model specification. Results indicated main effects for both religious tradition $F(6, 3985) = 18.751$, $p < .01$ and CSE $F(1, 3985) = 216.22$ $p < .01$ as well as a significant interaction $F(6, 3979) = 3.577$, $p < .01$, $\Delta R^2 = .005$. The largest relationships between cognitive ability and CSE were in the Jewish ($B = .432$) and Other Faith groups ($B = .372$). For information about specific relationships see Table 17, Table 18, and Figure 18.

Cognitive ability and CSE interaction predicting risk aversion.

CSE was examined as a moderator of the relation between cognitive ability and risk aversion. Cognitive ability and CSE were entered in the first step of the regression analysis. In the second step of the regression analysis, the interaction term between cognitive ability and CSE was entered, and it explained a significant increase in variance in risk aversion, $\Delta R^2 = .008$, $F(1, 4571) = 35.285$, $p < .001$. Thus, CSE was a significant moderator of the relationship between cognitive ability and risk aversion (see Figure 19).

The unstandardized simple slope for employees 1 *SD* below the mean on CSE was .079 ($p < .01$), the unstandardized simple slope for employees with a mean level of CSE was -.011 (*ns*), and the unstandardized simple slope for employees 1 *SD* above the mean of CSE was -.101 ($p < .01$) (see Table 19, Table 20, Table 21).

Risk Aversion as a Moderator of the Relationship between Job Complexity and Net Worth

Risk aversion was examined as a moderator of the relation between job complexity and net worth. Risk aversion and job complexity were entered in the first step of the regression analysis. In the second step of the regression analysis, the interaction term between risk aversion and job complexity was entered, and it explained a significant proportion of variance in net worth, $\Delta R^2 = .003$, $F(1, 3389) = 10.163$, $p < .001$. Thus, risk aversion was a significant moderator of the relationship between job complexity and net worth (see Table 22). The unstandardized simple slope for employees 1 *SD* below the mean of risk aversion was .339 ($p < .01$), the unstandardized simple slope for employees with a mean level of risk aversion was .287 ($p < .01$), and the unstandardized simple slope for employees 1 *SD* above the mean of risk aversion was .236 ($p < .01$) (see Figure 20). The slope of the relationship between job complexity and net worth increases as people become less risk averse.

Income to Poverty Ratio as a moderator of the cognitive ability and job complexity relationship

Income-to-poverty ratio was examined as a moderator of the relation between cognitive ability and job complexity. Income-to-poverty ratio and cognitive ability were

entered in the first step of the regression analysis. In the second step of the regression analysis, the interaction term between income-to-poverty ratio and cognitive ability was entered, and it explained a significant increase in variance in job complexity, $\Delta R^2 = .001$, $F(1, 3584) = 5.712$, $p < .017$. Thus, income-to-poverty ratio was a significant moderator of the relationship between cognitive ability and job complexity. The unstandardized simple slope for employees 1 *SD* below the mean of income-to-poverty ratio was .387 ($p < .01$), the unstandardized simple slope for employees with a mean level of income-to-poverty ratio was .424 ($p < .01$), and the unstandardized simple slope for employees 1 *SD* above the mean of income-to-poverty ratio was .461 ($p < .01$) (see Table 23 & Figure 21). The slope of the relationship between cognitive ability and job complexity increases as income-to-poverty ratio goes up.

Job complexity as a moderator of cognitive ability and net worth relationship.

Job complexity was examined as a moderator of the relation between cognitive ability and net worth. Job complexity and cognitive ability were entered in the first step of the regression analysis. In the second step of the regression analysis, the interaction term between job complexity and cognitive ability was entered, and it explained a significant proportion of variance in net worth, $\Delta R^2 = .004$, $F(3, 3377) = 156.953$, $p < .001$. Thus, job complexity was a significant moderator of the relationship between cognitive ability and net worth. The unstandardized simple slope for employees 1 *SD* below the mean of job complexity was .133 ($p < .01$), the unstandardized simple slope for employees with a mean level of job complexity was .201 ($p < .01$), and the

unstandardized simple slope for employees 1 *SD* above the mean of job complexity was .269 ($p < .01$) (see Table 24 & Figure 22). The slope of the relationship between cognitive ability and net worth increases as job complexity goes up.

CHAPTER EIGHT

DISCUSSION

The seminal question in this present study was what causes some people to be successful and others flounder. More specifically, this paper sought to augment our understanding of the processes involved in the attainment of financial and career success. To do so, we concatenated research from I-O psychology, economics, and sociology to get a holistic view of the psychological and situational factors that impact success longitudinally.

This discussion section will review the significant results of the analyses. The effects of cognitive ability and CSE on success outcomes will be reviewed first. Then, the discussion will transition to the impact of risk aversion on the development of success. Finally, the impact of the background variables (income-to-poverty ratio and religious tradition) will be incorporated. Once findings have been reviewed, the discussion will proceed to the contributions and theoretical implications of these findings and will conclude with strengths and limitations and directions for future research.

Cognitive Ability and CSE on Success Outcomes

The fit indices of the trimmed path model indicate that the data fit the proposed model relatively well. This provides support for the influence of cognitive ability on distal success outcomes partially mediated through CSE and job complexity.

This study reaffirms findings by Ganzach (1998) that job complexity partially mediates the relationship between cognitive ability and job satisfaction. Jobs higher in substantive complexity results in higher job satisfaction of incumbents potentially

because they are less repetitive, more meaningful, and require more advanced reasoning. Consistent with their findings, our analyses demonstrate a suppression effect. People who are high in cognitive ability gravitate towards and/or acquire more complex jobs. The suppression effect occurs because the direct effect of cognitive ability on job satisfaction is negative while holding job complexity constant. This suppression effect helps to explain disparate findings in the literature about the relationship between cognitive ability and job satisfaction.

Additionally, job complexity mediates the relationship between cognitive ability and net worth. Salary generally (with some exceptions) increases as jobs become more complex (Kammeyer-Mueller et al., 2008). Thus these higher salaries would directly impact the accrual of extrinsic rewards and net worth.

Results from the present study show that cognitive ability has a strong positive relationship with CSE. One possible explanation is that individuals high in cognitive ability have a higher ability to see the connections between their actions and desired or undesired outcomes. They are also likely to have more opportunities to demonstrate efficacious actions. Because of better insight about and more successful experience with cause-effect relations this results in greater self-efficacy and internal locus of control.

CSE also emerged as a mediator of the relationship between cognitive ability and success outcomes. Contrary to findings by Ganzach and Pazy (2014), in which they assert that after controlling for cognitive ability, CSE is negatively related to career success, the present study finds significant and positive predictive effects of CSE on all three success outcomes while controlling for cognitive ability. Not only do individuals with higher self-

esteem pursue more complex and prestigious jobs, they perform better (Arnolds & Boshoff, 2002; Judge & Bono, 2001), are more likely to persist through obstacles (Baumeister et al., 2003), and gain greater satisfaction from successes (Baumeister et al., 2003).

The present study also provides evidence for a significant positive direct relationship between cognitive ability and net worth. Cognitive ability involves the ability to plan and process information. This has impacts on spending, budgeting, and investment behaviors. Cognitive ability has been found to be positively correlated with superior investment strategies and behavior in the stock market (Grinblatt, Keloharju, & Linnainmaa, 2012). Taken together, the overall correlation between cognitive ability and net worth showed that cognitive ability predicted almost 9.3% of the variance of net worth measured approximately 30 years later. Future research should examine additional mediators of the relationship between cognitive ability and net worth.

Risk Aversion

Findings from the additional analyses show that the relationships between risk aversion and predictors and outcomes is more nuanced than originally hypothesized. Contrary to expectations, risk aversion was found to positively predict job satisfaction. This is interesting in that it is contrary to both expected results and prior research (Judge et al., 1999b) on the relationship between risk aversion and job satisfaction. One explanation may be that people who are risk averse value stability and predictability whereas those low in risk aversion value ambiguity and novelty. Familiarity with current role may contribute to increased levels of job satisfaction for those high in risk aversion

but may be seen as a negative to those low in risk aversion. More research should examine the mechanisms through which risk aversion leads to greater job satisfaction and potential moderators of this relationship.

Risk aversion did not have a direct effect on net worth, but did moderate the relationship between job complexity and net worth such that the slope of the relationship between job complexity and net worth was steeper for those lower in risk aversion. If people were comfortable taking financial risks, they were better able to translate high job complexity into context free extrinsic success (i.e., net worth). Future research should examine whether salary mediates the relationship between job complexity and net worth. As jobs increase in complexity, the salary ranges may become larger and if risk aversion is negatively correlated with willingness to negotiate salary within a given job level, this could help account for this observed interaction.

Additionally, though neither cognitive ability nor CSE were found to significantly predict risk aversion, the interaction between the two was significant. For people low in CSE, cognitive ability was positively related to risk aversion and for people high in CSE, cognitive ability was negatively related to risk aversion. Taken together, people who are smart and high in CSE are less risk averse. On the other end, people who are above average intelligence but have low CSE are more careful and prefer less risk. This makes sense in that high cognitive intelligence people may be able to reason better about the possible negative outcomes associated with risk, especially if they do not have high self-efficacy or an internal locus of control. Intelligent people who are high in self-efficacy and with an internal locus of control may have more successful experiences with risk

taking and thus become less risk averse.

Risk aversion as a relatively stable difference impacts how people make decisions. In addition to moderating the relationship between job complexity and net worth, researchers in I-O psychology should examine other ways in which risk aversion may moderate important relationships.

Background Variables

Typically, when researchers in I-O psychology study childhood economic advantage they either use a dichotomous variable for poverty status (in poverty or not in poverty) or they simply look at parental income. We argue that by using a ratio of income to the poverty line for the year and family size, we were able to obtain greater differentiation than a dichotomous variable and place degree of wealth or economic deprivation with respect to income into context. Consistent with the stated hypotheses, results indicated that income-to-poverty ratio was positively related to CSE, job complexity, and net worth. The only hypothesis that was not supported was a relationship between income-to-poverty ratio and risk aversion. Poverty was approximately equally as predictive of net worth as was cognitive ability.

Income-to-poverty ratio was highly correlated with cognitive ability and predicted CSE. Furthermore, income-to-poverty ratio moderated the relationship between cognitive ability and job complexity. Consistent with research findings by Judge and Hurst (2007), economic advantage in childhood allowed individuals to better capitalize on the benefits associated with high cognitive ability. The relationship between cognitive ability and job complexity became more positive as income-to-poverty ratio increased. One possible

explanation is due to range restriction of available jobs. People low in income-to-poverty ratio may have a smaller range of jobs and occupational opportunities available to them due to living in less economically advantaged areas and networking with less advantaged individuals. This demonstrates empirically that those low in income-to-poverty ratio perform lower on assessments of cognitive ability, have lower CSE, and have a more difficult time translating their level of cognitive ability into complex jobs. Thus, this appears to be one possible mechanism through which the intergenerational transmission of poverty occurs.

Consistent with previous research (e.g., Schwadel, 2014; Smith & Faris, 2005), this study found that there were significant differences between religious traditions on the objective outcomes of net worth and job complexity. Though not measured in this study, the prosperity gospel may help explain this relationship. As hypothesized because of their respective endorsement levels of the prosperity gospel, Jewish participants ranked highest on CSE and Black Protestants lowest. The comparison between the two groups was statistically significant. This study contributes to the literature on stratification of religious groups by extending those findings to include between group differences on psychological as well as situational factors. Future research should examine the relationship between the prosperity gospel and CSE as well as their unique direct and indirect effects on outcomes.

To better understand the between group differences on CSE, the interaction between religious tradition and cognitive ability on CSE was examined. While both cognitive ability and religious tradition did have significant main effects on CSE, there

was also an interaction implying that the strength of the relationship varied by religious group. Surprisingly, the only population where the relationship between cognitive ability and CSE was not significant was in the Jewish population. This was contrary to expectations. Based on the Diaspora Hypothesis, Jewish members index heavily on education and the acquisition of human capital (Burstein, 2007). Evidence of this can be seen in their higher scores on the cognitive ability assessment. If education and cognitive ability are heavily valued in this population, it would make sense that cognitive ability would have a significant effect on the development of CSE. Because of this, a priori assumptions were that the relationship between cognitive ability and CSE would be more important for this population than the other religious traditions. The nonsignificant findings could be due to a couple of factors (1) small sample size for this group ($n = 38$) and (2) scores on cognitive ability for this group averaged at the top of the range ($M = 74.5$ out of 100) and was negatively skewed potentially resulting in range restriction on the higher end. The largest relationship between cognitive ability and CSE was for the Black Protestant population. Differences in the relationship between cognitive ability and CSE indicate potential differences in values and emphasis across religious traditions. Future research should examine whether this difference is related to beliefs about the divine involvement in everyday life.

Contributions and Theoretical Implications

I-O psychology focuses on the study of behavior and people as it pertains to work. Thus, describing, predicting, and ultimately designing mechanisms to help people obtain occupational and economic success is of utmost importance to the field. Researchers in

sociology and economics have found consistent economic and occupational stratification along religious and socioeconomic backgrounds and also have shown that risk preferences impact success outcomes. We integrated this varied research in an attempt to further our understanding of the predictors of success and better elucidate how that process unfolds over the lifespan. The present study contributes to the current literature by highlighting how socio-demographic factors impact the psychological processes relevant to success attainment over the career and lifespan. The significant findings in this study indicate that I-O psychology would be well served by incorporating research from sociology and economics into the nomological networks pertaining to the development of occupational and career success longitudinally.

Relationships between cognitive ability, CSE, demographic background variables, risk aversion, and various forms of success outcomes were tested. The current study provided a replication of findings pertaining to the indirect effect of cognitive ability on job satisfaction. We also contributed to the literature by showing which psychological and situational factors influence the gravitation towards and attainment of more or less complex jobs. How people make decisions about what jobs to pursue and the predictors of job satisfaction are of utmost importance to organizational researchers.

By incorporating income-to-poverty and risk aversion into a larger model while controlling for cognitive ability and CSE simultaneously we were able to identify multiple mechanisms through which childhood poverty impacts career and economic success over the lifetime. We also demonstrated their unique effects above and beyond what is accounted for by psychological constructs alone. By elucidating the indirect paths

and isolating moderation and the direct effects of poverty on success outcomes, we provide a better understanding of the dynamics of socioeconomic mobility or lack thereof. Because the effect of poverty on outcome variables was not fully mediated through the psychological factors, this indicates greater need to identify additional mediating pathways through which their effects manifest. In doing so, the field of I-O psychology and the subfield of Humanitarian Work Psychology could work to identify potential interventions to help mitigate the impact of childhood poverty on lifetime success and career trajectories.

We were also able to provide clarity around constructs where it may have been somewhat lacking up until this point. For example, contrary to previous research (e.g., Andersson et al., 2013), the present study found that cognitive ability is related to risk aversion but that this relationship is moderated by CSE. This could help explain the lack of consistent findings in the literature. Finally, we added to the nomological network pertaining to the predictors of CSE and show how the relationship with cognitive ability may be culture or demographic specific.

Limitations and Future Research

Some potential limitations and/or areas for future research revolve around CSE and risk aversion. For CSE, two concerns are addressed (a) the temporal stability of the construct has yet to be established in the research literature and (b) potential between group differences on the reporting of CSE. Additionally, potential reasons for the sparse findings in relation to the risk aversion construct could be due to the nature and timing of its measurement.

To our knowledge, there is no research which has examined the stability of CSE across the lifespan. But, research examining the shorter-term (two years) temporal stability of CSE (e.g., Dormann et al., 2006) provides support for treating CSE as a reasonably stable trait over that time frame. Other research indicating that CSE may be less stable longitudinally has shown that CSE and job satisfaction influence each other over time through a process of self-verification and self-enhancement (Wu & Griffin, 2012). The current study assessed CSE during adolescence and early adulthood. This timing is before or near the beginning of an individual's career. The current study hypothesized and found that CSE in adolescence affects early career choice and/or trajectory thus having long-term impact on career and financial success. This does not preclude the possibility that career experiences subsequently impact the development and stability of CSE longitudinally. Thus, while elucidating the malleability of CSE across the lifespan is important to the understanding of the construct, we posit that it does not meaningfully impact these relationships. The aforementioned research indicates that the construct of CSE is sufficiently stable for the purposes of the present study.

In addition to future research investigating the temporal stability of CSE, researchers should also investigate between group differences on self-report CSE. Some religious traditions may emphasize humility or modesty more heavily than others. This could result in response bias in the measure rather than the underlying trait. Future researchers should investigate whether modesty moderates the relationship between religious tradition and CSE.

Risk aversion is another potential area for future research. Timing may have

impacted the responses on the risk aversion measure. Individuals were asked to respond to occupational risk questions while they were in their early 30's. This time frame also coincides to when many people start their families. Young families could be less willing to take occupational risk. Thus, being parents could have been a potential moderator of the risk aversion relationships. Future research should investigate whether having children affects occupational risk aversion.

A separate, yet related potential limitation with risk aversion is how the construct was measured in the current survey. Risk aversion can be separated into risk perceptions and attitudes towards that given level of risk (Weber et al., 2002). Though the items in the survey attempted to address the issue of risk perception by providing probabilities of gain versus loss, future risk aversion research should add a measure which collects ratings of perception of the magnitude of the risk and individual's attitude towards that specific level. Research indicates that though risk perceptions vary by demographic factors, risk attitudes may not (Figner & Weber, 2011). If future research continues to support this conclusion, there may be significant between group (e.g., religious traditions or parents and non-parents) differences on perceptions of risk magnitude but not on attitudes towards that risk.

The use of a longitudinal nationally representative sample results in both strengths and limitations to the present study. The first strength is due to the temporal sequencing of the items asked. Because of this we were able to draw causal or directional inferences from the relationships between the data. The data collected was also stratified by race, gender, income, and region (etc.) so it provided evidence of generalizability of findings

across the United States. The limitations of such an approach include measure selection, ability to include additional constructs, sizes of subsamples, and potential issues with timing of items. Since this study utilized an archival dataset, the items available to measure constructs were not flexible and there were other potentially important variables which were not available for incorporation into the analyses. For instance, future research should examine the incremental effects for perception of relative poverty during childhood above and beyond the objective income-to-poverty ratio used in this study. How children perceived their economic (dis)advantage growing up could provide unique explanatory power in addition to the objective measure used here.

Another limitation was due to the representativeness of the sample. Because of the small percentage of Jewish individuals in the United States, the resulting representative sample of the Jewish population in this dataset was extremely small. Despite this, differences related to this population were large enough to reach statistical significance even with small sample sizes. Future research could identify participants through use of congressional membership lists to increase representation of smaller religious groups.

Finally, this study was interested in the influence of childhood factors on the development of success over the lifespan. Participants in this study ranged from 13 to 17 during the initial survey screen in year. Arguably, it would have been more meaningful to the development perspective if childhood factors could have been assessed at younger ages. But, questions pertaining to religion and income-to-poverty were retrospective and cognitive ability has demonstrated rank order stability over time. Thus, earlier

assessment, while it would have been preferable would likely not have altered the observed relationships. Future research should compare relationships identified here with a younger population to see if they remain consistent. Future research into the generalizability of the given findings as well as other ways in which risk aversion, income-to-poverty ratio, and religious tradition may interact with established psychological constructs is encouraged.

TABLES

Table 1*Net Worth Deflation Factor Values*

Year	Region	Deflation Factor
2012	Northeast	1.092
	North Central	0.947
	South	0.924
	West	1.103
2008	Northeast	1.064
	North Central	0.957
	South	0.922
	West	1.116

For average annual expenditures used to calculate this factor see "Region and Area Tables" 2017)

Table 2*Examples of Substantive Job Complexity by Job*

Complexity Level	Census Title	Job Complexity	O*NET job descriptors									
			DR	IR	AU	CT	AL	GI	MD	UK	RT	PS
High	Chemical Engineers	0.80	0.89	0.78	0.88	0.78	0.79	0.82	0.75	0.81	0.13	0.64
	Medical Scientists	0.79	0.51	0.79	0.88	0.81	0.93	0.85	0.76	0.80	0.10	0.68
	Aerospace Engineers	0.79	0.73	0.63	0.97	0.74	0.85	0.84	0.71	0.83	0.07	0.65
	Nuclear Engineers	0.78	0.81	0.71	0.90	0.77	0.73	0.96	0.82	0.77	0.22	0.58
Medium	Miscellaneous Assemblers and Fabricators	0.31	0.24	0.20	0.65	0.20	0.21	0.48	0.22	0.21	0.43	0.13
	Reservation and Transportation Ticket Agents and Travel Clerks	0.31	0.18	0.11	0.45	0.17	0.12	0.52	0.31	0.30	0.24	0.16
	Manufactured Building and Mobile Home Installers	0.31	0.25	0.17	0.53	0.27	0.11	0.38	0.18	0.12	0.10	0.16
	Maintenance Workers, Machinery	0.31	0.25	0.20	0.47	0.14	0.08	0.40	0.26	0.40	0.25	0.12

Low

Butchers and Other Meat, Poultry, and Fish Processing Workers	0.12	0.06	0.03	0.20	0.03	0.02	0.10	0.05	0.04	0.40	0.03
Data Entry Keyers	0.11	0.08	0.02	0.28	0.06	0.03	0.19	0.06	0.02	0.80	0.14
Maids and Housekeeping Cleaners	0.11	0.03	0.01	0.03	0.02	0.01	0.09	0.06	0.03	0.25	0.03
Refuse and Recyclable Material Collectors	0.07	0.02	0.01	0.09	0.01	0.00	0.04	0.01	0.00	0.50	0.01

Note. All scores range 0 - 1. DR = Deductive Reasoning; IR = Inductive Reasoning; AU = Ability Utilization; CT = Critical Thinking; AL = Active Learning; GI = Getting Information Needed to do the Job; MD = Making Decisions and Solving Problems; UK = Updating and Using Job Relevant Knowledge; RT = Importance of Repeating Same Tasks; PS = Complex Problem Solving

Table 3*Religion Raised (Collapsed) 1979 * Religious Tradition Crosstabulation*

	Religious Tradition							
	Protestant							
Religion Raised *	Evangelical	Mainline	Black	Catholic	Jewish	Other Faith	No Religion	Total
None, No Religion	0	0	0	0	0	0	215	215
Protestant	115	0	0	0	0	127	0	242
Baptist	524	0	1,014	0	0	0	0	1,538
Episcopalian	0	74	0	0	0	0	0	74
Lutheran	0	288	0	0	0	0	0	288
Methodist	0	238	111	0	0	0	0	349
Presbyterian	0	126	0	0	0	0	0	126
Roman Catholic	0	0	0	1,823	0	0	0	1,823
Jewish	0	0	0	0	41	0	0	41
Other	251	62	61	0	0	162	0	536
Total	890	788	1,186	1,823	41	289	215	5,232

Note. * Religion reported in the NLSY79 survey collapsed into 1 of 10 categories.

Table 4*Distributions and Means of Job Satisfaction within Religious Tradition*

Variable	Religious Tradition	<i>n</i>	<i>M</i>	Skewness		Kurtosis	
				Statistic	<i>SE</i>	Statistic	<i>SE</i>
Job satisfaction							
	No Religion	178	3.3380	-0.995	0.182	2.249	0.362
	Evangelical	659	3.3534	-0.809	0.095	0.753	0.190
	Mainline	606	3.3450	-0.929	0.099	1.069	0.198
	Black Protestant	893	3.3640	-0.896	0.082	1.314	0.163
	Catholic	1,344	3.3506	-0.760	0.067	0.812	0.133
	Jewish	31	3.4247	-2.011	0.421	6.374	0.821
	Other Faith	198	3.3443	-0.848	0.173	1.130	0.344
Log (Reverse scored job satisfaction)							
	No religion	178	0.4593	0.048	0.182	-0.489	0.362
	Evangelical	659	0.4448	0.108	0.095	-0.854	0.190
	Mainline	606	0.4473	0.162	0.099	-0.763	0.198
	Black Protestant	893	0.4401	0.122	0.082	-0.769	0.163
	Catholic	1,344	0.4496	0.035	0.067	-0.806	0.133
	Jewish	31	0.3926	0.692	0.421	0.552	0.821
	Other faith	198	0.4513	0.080	0.173	-0.769	0.344
Total		3,909					

Table 5*Descriptive Statistics for Job Complexity across Religious Groups*

Religious Group	<i>n</i>	<i>M</i>	<i>SD</i>	Kurtosis		Skewness	
				Statistic	<i>SE</i>	Statistic	<i>SE</i>
No religion	172	0.318	0.149	-0.276	0.368	0.705	0.185
Evangelical	641	0.345	0.157	-0.635	0.193	0.552	0.097
Mainline	593	0.404	0.168	-0.999	0.200	0.132	0.100
Black Protestant	880	0.297	0.136	-0.095	0.165	0.812	0.082
Catholic	1315	0.359	0.158	-0.629	0.135	0.500	0.067
Jewish	28	0.424	0.160	-0.792	0.858	-0.191	0.441
Other faith	195	0.341	0.162	-0.324	0.346	0.719	0.174
Total	3824	0.347	0.158	-0.618	0.079	0.548	0.040

Table 6*Summary Statistics for Net Worth and Transformed Net Worth*

Variable	Religious Tradition	<i>n</i>	<i>M</i>	Skewness		Kurtosis	
				Statistic	<i>SE</i>	Statistic	<i>SE</i>
Net worth							
	No religion	186	95779.19	3.181	0.178	22.193	0.355
	Evangelical	688	131242.48	3.854	0.093	20.382	0.186
	Mainline	611	210723.21	3.163	0.099	12.001	0.197
	Black Protestant	935	70524.51	9.642	0.080	134.152	0.160
	Catholic	1,371	166390.28	4.765	0.066	29.623	0.132
	Jewish	28	394710.88	2.102	0.441	4.378	0.858
	Other faith	205	186205.57	4.801	0.170	28.024	0.338
Sqrt (centered Net Worth)							
	No religion	186	1013.08	-1.864	0.178	36.432	0.355
	Evangelical	688	1031.39	2.557	0.093	15.620	0.186
	Mainline	611	1067.11	2.602	0.099	8.363	0.197
	Black Protestant	935	1004.12	6.861	0.080	72.185	0.160
	Catholic	1,371	1045.37	3.509	0.066	18.800	0.132
	Jewish	28	1143.93	1.775	0.441	3.108	0.858
	Other faith	205	1050.26	3.847	0.170	17.953	0.338
Total		4,024					

Table 7*Summary Statistics for Risk Aversion by Religious Group*

Religious Tradition	<i>n</i>	<i>M</i>	Kurtosis		Skewness	
			Statistic	<i>SE</i>	Statistic	<i>SE</i>
No Religion	218	1.762	-1.561	0.328	-0.290	0.165
Evangelical	795	1.873	-1.458	0.173	-0.471	0.087
Mainline	726	1.811	-1.517	0.181	-0.362	0.091
Black Protestant	1066	1.781	-1.628	0.150	-0.344	0.075
Catholic	1659	1.717	-1.630	0.120	-0.247	0.060
Jewish	31	1.161	-1.402	0.821	0.354	0.421
Other Faith	255	1.753	-1.596	0.304	-0.317	0.153
Total	4750	1.772	-1.586	0.071	-0.325	0.036

Note. Risk Aversion scores ranged from 0 to 3.

Table 8*Post Hoc Analyses – Between Group Differences on CSE by Religious Group*

Religious group	1	2	3	4	5	6	7
1. No religion	3.17 (0.38)						
2. Evangelical	<i>ns</i>	3.22 (0.37)					
3. Mainline	-0.13**	-0.09**	3.3 (0.36)				
4. Black Protestant	<i>ns</i>	0.05*	0.14**	3.17 (0.37)			
5. Catholic	<i>ns</i>	<i>ns</i>	0.07**	-0.06**	3.23 (0.37)		
6. Jewish	-0.22*	<i>ns</i>	<i>ns</i>	-0.22*	<i>ns</i>	3.39 (0.39)	
7. Other faith	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	3.23 (0.36)

Note. Diagonal contains *M (SD)*. * $p < .05$, ** $p < .01$.

Table 9*Results of Omnibus Tests for One-way ANOVAs Assessing Between Religious Group Differences*

Hypothesis		Welch <i>F</i>	<i>df</i> 1	<i>df</i> 2	<i>p</i>	<i>n</i>	est. ω^2	Interpretation
<i>H6</i>	Job Satisfaction	0.265	6	349.307	<i>ns</i>	3,909	<i>ns</i>	Not supported
<i>H7</i>	Job Complexity	33.291	6	320.954	0.000	3,824	.048	Supported
<i>H8</i>	Net Worth	52.173	6	310.490	0.000	3,929	.072	Supported
<i>H21</i>	Risk Aversion	2.951	6	370.378	0.008	4,750	.002	Supported
<i>H16</i>	CSE	12.432	6	420.140	0.000	5,003	.014	Supported

Table 10*Post Hoc Analyses- Significant Between Group Differences*

Variable	<i>n</i>	1	2	3	4	5	6	7
Net Worth	3,929							
1. No religion	183	-0.15 (0.91)						
2. Evangelical	671	<i>ns</i>	-0.03 (0.94)					
3. Mainline	595	-0.54** (-0.47)	-0.42** (-0.39)	0.39 (1.20)				
4. Black Protestant	922	<i>ns</i>	0.32** (0.42)	0.74** (0.84)	-0.35 (0.59)			
5. Catholic	1,333	-0.22* (-0.22)	<i>ns</i>	0.32** (0.3)	-0.42** (-0.49)	0.07 (1.01)		
6. Jewish	27	-1.51** (-1.38)	-1.4* (-1.4)	<i>ns</i>	-1.71** (-2.57)	-1.29* (-1.24)	1.36 (1.96)	
7. Other faith	198	<i>ns</i>	<i>ns</i>	0.37** (0.31)	-0.37** (-0.5)	<i>ns</i>	1.34* (1.02)	0.02 (1.20)
Job Complexity	3,824							
1. No religion	172	0.32 (0.15)						
2. Evangelical	641	<i>ns</i>	0.34					

Variable	<i>n</i>	1	2	3	4	5	6	7
			(0.16)					
3. Mainline	593	-0.09** (-0.54)	-0.06** (-0.36)	0.4 (0.17)				
4. Black Protestant	880	<i>ns</i>	0.05** (0.34)	0.11** (0.72)	0.3 (0.14)			
5. Catholic	1,315	-0.04* (-0.25)	<i>ns</i>	0.05** (0.31)	-0.06** (-0.39)	0.36 (0.16)		
6. Jewish	28	-0.11* (-0.73)	<i>ns</i>	<i>ns</i>	-0.13** (-0.92)	<i>ns</i>	0.42 (0.16)	
7. Other faith	195	<i>ns</i>	<i>ns</i>	0.06** (0.36)	-0.04* (-0.28)	<i>ns</i>	<i>ns</i>	0.34 (0.16)
Risk Aversion	4,750							
1. No religion	218	1.76 (1.24)						
2. Evangelical	795	<i>ns</i>	1.87 (1.24)					
3. Mainline	726	<i>ns</i>	<i>ns</i>	1.81 (1.23)				
4. Black Protestant	1,066	<i>ns</i>	<i>ns</i>	<i>ns</i>	1.78 (1.3)			

Variable	<i>n</i>	1	2	3	4	5	6	7
5. Catholic	1,659	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	1.72 (1.27)		
6. Jewish	31	<i>ns</i>	0.71* (0.57)	<i>ns</i>	<i>ns</i>	<i>ns</i>	1.16 (1.16)	
7. Other faith	255	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	1.75 (1.27)
CSE	5,003							
1. No religion	229	3.17 (0.38)						
2. Evangelical	855	<i>ns</i>	3.22 (0.37)					
3. Mainline	756	-0.13** (-0.36)	-0.09** (-0.25)	3.3 (0.36)				
4. Black Protestant	1,130	<i>ns</i>	0.05* (0.14)	0.14** (0.38)	3.17 (0.37)			
5. Catholic	1,728	<i>ns</i>	<i>ns</i>	0.07** (0.19)	-0.06** (-0.16)	3.23 (0.37)		
6. Jewish	36	-0.22* (-0.58)	<i>ns</i>	<i>ns</i>	-0.22* (-0.59)	<i>ns</i>	3.39 (0.39)	

Variable	<i>n</i>	1	2	3	4	5	6	7
7. Other faith	269	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	3.23 (0.36)

Note. Between group post hoc analyses utilized the Games-Howell test; * $p < .05$; ** $p < .01$; Mean differences (Cohen's d); Mean (SD) on the diagonal; Net worth value represents the $z(\sqrt{Net\ worth\ centered})$.

Table 11*Descriptive Statistics for Path Analysis*

Variable	<i>M</i>	<i>SD</i>	Skewness		Kurtosis	
			Statistic	<i>SE</i>	Statistic	<i>SE</i>
Values						
Cognitive Ability	42890.35	28718.75	0.305	0.045	-1.105	0.089
Risk Aversion	1.7912	1.25	-0.352	0.045	-1.550	0.089
CSE	3.2387	0.36	-0.190	0.045	-0.489	0.089
Job Complexity	0.3510	0.16	0.505	0.045	-0.679	0.089
Income-to-Poverty Ratio	2.4740	1.73	1.366	0.045	2.830	0.089
LN	1.1322	0.47	0.091	0.045	-0.512	0.089
Job Satisfaction	3.3650	0.50	-0.480	0.045	-0.265	0.089
Net Worth	142017.5049	261427.71	4.108	0.045	20.982	0.089
SQRT	1036.6447	106.83	3.385	0.045	14.807	0.089
z Scores						
Cognitive Ability	0.0005	1.00	0.305	0.045	-1.105	0.089
Income-to-Poverty Ratio LN	-0.0008	.99	0.091	0.045	-0.512	0.089
Risk Aversion	-0.0005	1.00	-0.352	0.045	-1.550	0.089
CSE	0.0006	0.99	-0.190	0.045	-0.489	0.089
Job Complexity	0.0005	1.00	0.505	0.045	-0.679	0.089
Job Satisfaction	0.0327	0.94	-0.480	0.045	-0.265	0.089
Net Worth SQRT	-0.0144	0.90	3.385	0.045	14.807	0.089

N = 2,998.

Table 12*Correlations between Variables and Associated Hypotheses*

	1	2	3	4	5	6	7
1. Cognitive ability	1.000						
2. Income-to-poverty ratio	0.504**	0.993					
3. CSE	0.440** + (H14)	0.273** + (H15)	0.993				
4. Risk aversion	-0.021 - (H22)	0.014 - (H20)	0.008 - (H23)	1.001			
5. Job complexity	0.481** + (H11)	0.327** + (H5)	0.323** (H19)	0.001 - (H25)	0.998		
6. Net Worth	0.305** + (H9)	0.262** + (H4)	0.236** + (H18)	0.012 - (H26)	0.302** + (H1)	0.902	
7. Job Satisfaction	0.009 - (H10)	0.00	0.078** + (H17)	0.060** - (H23)	0.055** + (H2)	0.054** + (H3)	0.939

Note. First line contains the correlations between variables ** $p < .01$; Second line is the expected direction (Hypothesis number), if missing there were no a priori predictions. Standard deviation on the diagonal.

Table 13*Comparison of Alternative Path Models*

Model	Satorra-Bentler Scaled χ^2	<i>df</i>	<i>p</i>	CFI	RMSEA	Model AIC
Full	5.230	2	0.073	0.999	0.023	1.227
Trimmed	9.285	6	0.158	0.999	0.014	-2.715
Indirect Through Job Complexity	117.781	7	0.000	0.96	0.073	103.781
Indirect Only	666.549	7	0.000	0.773	0.177	652.549
Direct	83.724	4	0.000	0.971	0.082	75.724

Table 14*Predictor Variables Relationships with Outcome Variables from Trimmed Model*

Outcome	Predictor	<i>B</i>	β	<i>z</i>	<i>SE</i>	Robust		<i>r</i>	Hypothesis	Interpretation
						<i>z</i>	<i>SE</i>			
CSE (.197)										
	Cognitive Ability	0.402	.405	21.372*	0.019	21.647*	0.019	0.405	<i>H14</i>	Supported
	Income-to-Poverty Ratio	0.069	.069	3.624*	0.019	3.590*	0.019	0.069	<i>H15</i>	Supported
Risk Aversion (.000)										
	Cognitive Ability	-0.021	-.021	-1.175	0.018	-1.17	-0.018	-0.021	<i>H22</i>	Not supported
Job Complexity (.255)										
	CSE	0.132	.131	7.462*	0.018	7.435*	0.018	0.131	\dagger	Supported
	Cognitive Ability	0.370	.371	18.910*	0.020	18.570*	0.02	0.371	<i>H11</i>	Supported
	Income-to-Poverty Ratio	0.105	.105	5.723*	0.018	5.787*	0.018	0.105	<i>H5</i>	Supported
Net Worth (.143)										
	CSE	0.086	.094	4.951*	0.017	5.426*	0.016	0.095	<i>H18</i>	Supported
	Job Complexity	0.159	.175	8.955*	0.018	7.961*	0.02	0.176	\dagger	Supported
	Cognitive Ability	0.108	.119	5.366*	0.020	5.015*	0.021	0.120	<i>H9</i>	Supported
	Income-to-Poverty Ratio	0.108	.119	6.015*	0.018	5.671*	0.019	0.119	<i>H4</i>	Supported
Job Satisfaction (.012)										
	Risk Aversion	0.054	.058	3.178*	0.017	3.178*	0.017	0.058	<i>H23</i>	Not supported
	CSE	0.078	.083	4.042*	0.019	3.943*	0.02	0.082	\dagger	Supported
	Job Complexity	0.050	.053	2.529*	0.020	2.559*	0.019	0.053	<i>H17</i>	Supported

Cognitive Ability	-0.048	-.051	-2.317*	0.021	-2.364*	0.02	-0.051	<i>H10</i>	Supported
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Note. * $p < .05$, Multiple regression R^2 values in parentheses. B unstandardized coefficient, β standardized coefficient.

† Relationships were not directly predicted. They were indirectly predicted by the following hypotheses: Hypothesis 12: Job complexity partially mediates the relationship between cognitive ability and net worth (see page 42); Hypothesis 13: Job complexity partially mediates the relationship between cognitive ability and job satisfaction (see page 42); Hypothesis 19: Job complexity mediates the relationship between CSE and job satisfaction (see page 63).

Table 15

Moderating Effects of Religious Tradition on the Relationship between Cognitive Ability and CSE

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Step 1 ^a					
Corrected Model	961.162 ^a	7	137.309	172.512	0.000
Intercept	0.119	1	0.119	0.150	0.699
Cognitive Ability	886.585	1	886.585	1113.887	0.000
Religious tradition	20.360	6	3.393	4.263	0.000
Error	3853.931	4842	0.796		
Corrected Total	4815.093	4849			
Step 2 ^b					
Corrected Model	992.332 ^b	13	76.333	96.566	0.000
Intercept	0.444	1	0.444	0.562	0.454
Religious tradition	36.673	6	6.112	7.732	0.000
Cognitive Ability	208.794	1	208.794	264.136	0.000
Religious tradition * Cognitive Ability	31.170	6	5.195	6.572	0.000
Error	3822.761	4836	0.790		
Corrected Total	4815.093	4849			

a. $R^2 = 0.200$ (Adjusted $R^2 = 0.198$)

b. $R^2 = 0.206$ (Adjusted $R^2 = 0.204$)

Dependent Variable: z score(CSE)

Table 16*Parameter Estimates of Cognitive Ability on CSE by Religious Tradition*

Religious Tradition	Parameter	<i>B</i>	<i>SE</i>	<i>t</i>	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
No Religion	Intercept	-0.059	0.058	-1.021	0.308	-0.173	0.055
	Cognitive Ability	0.526	0.053	9.910	0.000	0.422	0.631
Evangelical	Intercept	-0.006	0.031	-0.203	0.839	-0.068	0.055
	Cognitive Ability	0.374	0.032	11.590	0.000	0.311	0.437
Mainline	Intercept	-0.016	0.039	-0.412	0.681	-0.093	0.061
	Cognitive Ability	0.394	0.035	11.225	0.000	0.325	0.463
Black Protestant	Intercept	0.242	0.035	6.886	0.000	0.173	0.311
	Cognitive Ability	0.651	0.038	17.097	0.000	0.576	0.726
Catholic	Intercept	-0.015	0.022	-0.697	0.486	-0.058	0.027
	Cognitive Ability	0.473	0.022	21.587	0.000	0.430	0.517
Jewish	Intercept	0.030	0.273	0.108	0.914	-0.527	0.586
	Cognitive Ability	0.376	0.193	1.952	0.060	-0.016	0.769
Other Faith	Intercept	0.019	0.057	0.340	0.734	-0.093	0.132
	Cognitive Ability	0.399	0.059	6.807	0.000	0.283	0.514

Dependent Variable: *z* score(CSE)

Table 17*Moderating Effects of Religious tradition on the Relationship between CSE and Net**Worth*

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
Step 1 ^a					
Corrected Model	346.076 ^a	7	49.439	53.735	0.000
Intercept	10.562	1	10.562	11.480	0.001
Religious Tradition	103.513	6	17.252	18.751	0.000
CSE	198.938	1	198.938	216.222	0.000
Error	3666.448	3985	0.920		
Corrected Total	4012.524	3992			
Step 2 ^b					
Corrected Model	365.749 ^b	13	28.135	30.698	0.000
Intercept	5.160	1	5.160	5.630	0.018
Religious Tradition	101.481	6	16.913	18.454	0.000
CSE	53.228	1	53.228	58.077	0.000
RELTRAD * ZCSE	19.673	6	3.279	3.577	0.002
Error	3646.775	3979	0.917		
Corrected Total	4012.524	3992			

a. $R^2 = 0.086$ (Adjusted $R^2 = 0.085$)a. $R^2 = 0.091$ (Adjusted $R^2 = 0.088$)Dependent Variable: z score(NW_SQRT)

Table 18*Parameter Estimates of CSE on Net Worth by Religious Tradition*

Religious Tradition	Parameter	<i>B</i>	<i>SE</i>	<i>t</i>	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
No religion	Intercept	-0.164	0.070	-2.342	0.020	-0.303	-0.026
	CSE	0.178	0.066	2.717	0.007	0.049	0.308
Evangelical	Intercept	-0.038	0.033	-1.160	0.246	-0.103	0.026
	CSE	0.222	0.034	6.513	0.000	0.155	0.289
Mainline	Intercept	0.202	0.044	4.627	0.000	0.116	0.288
	CSE	0.215	0.045	4.776	0.000	0.127	0.304
Black Protestant	Intercept	-0.245	0.022	-11.354	0.000	-0.287	-0.202
	CSE	0.126	0.021	5.872	0.000	0.084	0.168
Catholic	Intercept	0.076	0.029	2.625	0.009	0.019	0.132
	CSE	0.286	0.029	9.917	0.000	0.229	0.343
Jewish	Intercept	0.634	0.330	1.918	0.066	-0.045	1.313
	CSE	0.432	0.314	1.375	0.181	-0.214	1.078
Other Faith	Intercept	0.129	0.093	1.386	0.167	-0.055	0.313
	CSE	0.372	0.096	3.887	0.000	0.183	0.561

Dependent Variable: *z* score(NW_SQRT)

Table 19*Coefficients of CSE and Cognitive Ability When Predicting Risk Aversion*

Model	Unstandardized		Standardized	<i>t</i>	Sig.
	<i>B</i>	<i>SE</i>	Beta		
Step 1					
(Constant)	-0.001	0.015		-0.059	0.953
CSE	0.035	0.017	0.035	2.125	0.034
Cognitive Ability	-0.022	0.016	-0.022	-1.317	0.188
Step 2					
(Constant)	0.039	0.016		2.429	0.015
CSE	0.023	0.017	0.022	1.352	0.176
Cognitive Ability	-0.010	0.017	-0.010	-0.598	0.550
CSE X CA	-0.091	0.015	-0.088	-5.940	0.000

Table 20*Model Summary of CSE and Cognitive Ability When Predicting Risk Aversion*

Model	R	R^2	Adjusted R^2	SE of the Estimate	Change Statistics				Sig. F Change
					ΔR^2	ΔF	$df1$	$df2$	
1	0.291 ^a	0.085	0.084	0.95020284	0.085	156.476	2	3390	0.000
2	0.295 ^b	0.087	0.086	0.94892130	0.003	10.163	1	3389	0.001

a. Predictors: (Constant), Risk Aversion, Job Complexity

b. Predictors: (Constant), Risk Aversion, Job Complexity, RA_X_JC

Table 21*ANOVA^a of CSE and Cognitive Ability When Predicting Risk Aversion*

Model		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	Sig.
1	Regression	282.559	2	141.280	156.476	0.000 ^b
	Residual	3060.782	3390	0.903		
	Total	3343.341	3392			
2	Regression	291.710	3	97.237	107.987	0.000 ^c
	Residual	3051.631	3389	0.900		
	Total	3343.341	3392			

a. Dependent Variable: Net Worth

b. Predictors: (Constant), Risk Aversion, Job Complexity

c. Predictors: (Constant), Risk Aversion, Job Complexity, RA_X_JC

Table 22*Coefficients of Job Complexity and Risk Aversion on Net Worth*

	Model	Unstandardized		Standardized	<i>t</i>	Sig.
		<i>B</i>	<i>SE</i>	Beta		
1	(Constant)	0.005	0.016		0.306	0.760
	Job Complexity	0.289	0.016	0.290	17.676	0.000
	Risk Aversion	0.010	0.016	0.010	0.590	0.556
2	(Constant)	0.005	0.016		0.330	0.741
	Job Complexity	0.288	0.016	0.290	17.652	0.000
	Risk Aversion	0.008	0.016	0.008	0.511	0.610
	JC X RA	-0.052	0.016	-0.052	-3.188	0.001

a. Dependent Variable: Net Worth

Table 23*Coefficients of Cognitive Ability and Income to Poverty Ratio When Predicting Job**Complexity*

Model	Unstandardized		Standardized	<i>t</i>	Sig.
	<i>B</i>	<i>SE</i>	Beta		
Step 1 (Constant)	-0.005	0.015		-0.371	0.711
Cognitive Ability	0.430	0.017	0.425	25.196	0.000
Income-to-Poverty Ratio	0.106	0.017	0.105	6.225	0.000
Step 2 (Constant)	-0.024	0.016		-1.429	0.153
Cognitive Ability	0.424	0.017	0.420	24.687	0.000
Income-to-Poverty Ratio	0.107	0.017	0.105	6.252	0.000
Poverty X CA	0.037	0.015	0.035	2.390	0.017

Table 24*Coefficients of Cognitive Ability and Job Complexity When Predicting Net Worth*

	Model	Unstandardized		Standardized	<i>t</i>	Sig.
		<i>B</i>	<i>SE</i>	Beta		
1	(Constant)	0.006	0.016		0.346	0.729
	Cognitive Ability	0.206	0.019	0.205	11.097	0.000
	Job Complexity	0.194	0.018	0.194	10.510	0.000
2	(Constant)	-0.027	0.018		-1.507	0.132
	Cognitive Ability	0.201	0.019	0.199	10.799	0.000
	Job Complexity	0.176	0.019	0.175	9.257	0.000
	CA X JC	0.068	0.016	0.071	4.161	0.000

FIGURES

Figure 1
Simple Hypothesized Model

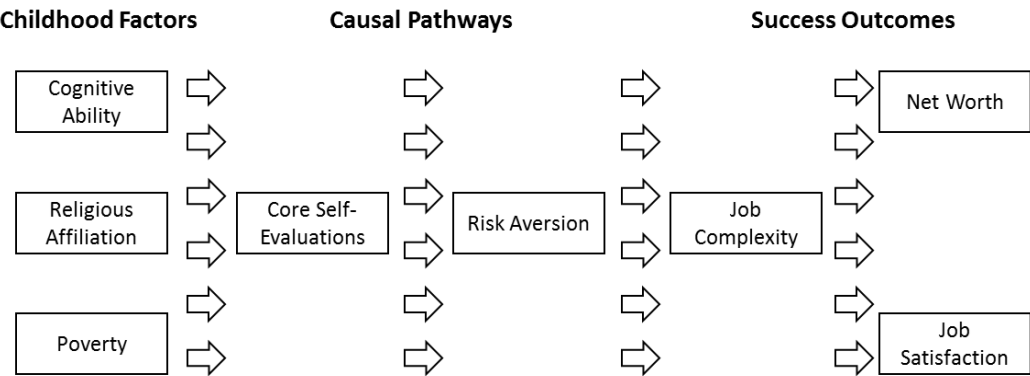


Figure 2

Hypothesized Model

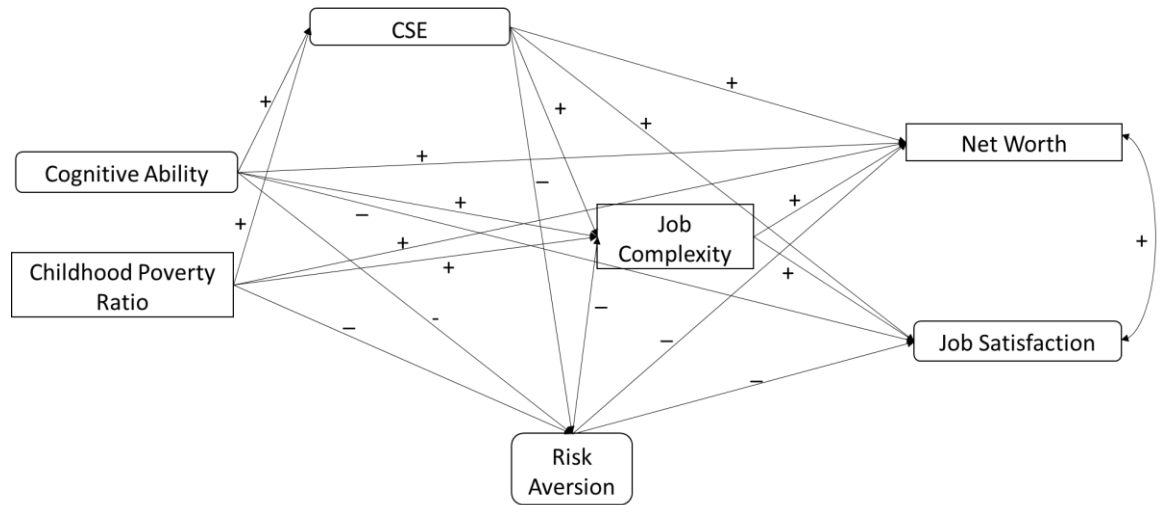
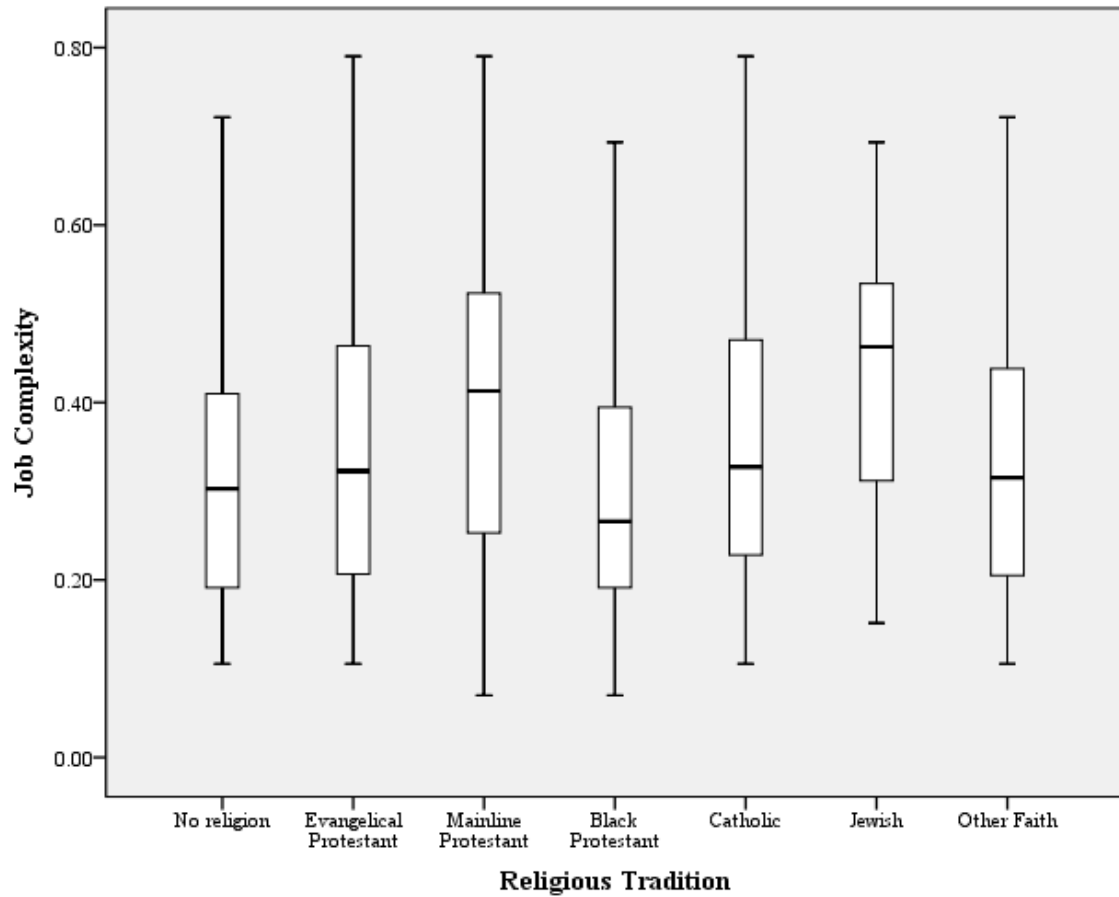


Figure 3

Boxplots of Job Complexity by Religious Tradition



Note. Scores on job complexity ranged from 0 to 1.

Figure 4

Boxplot of Net Worth by Religious Tradition

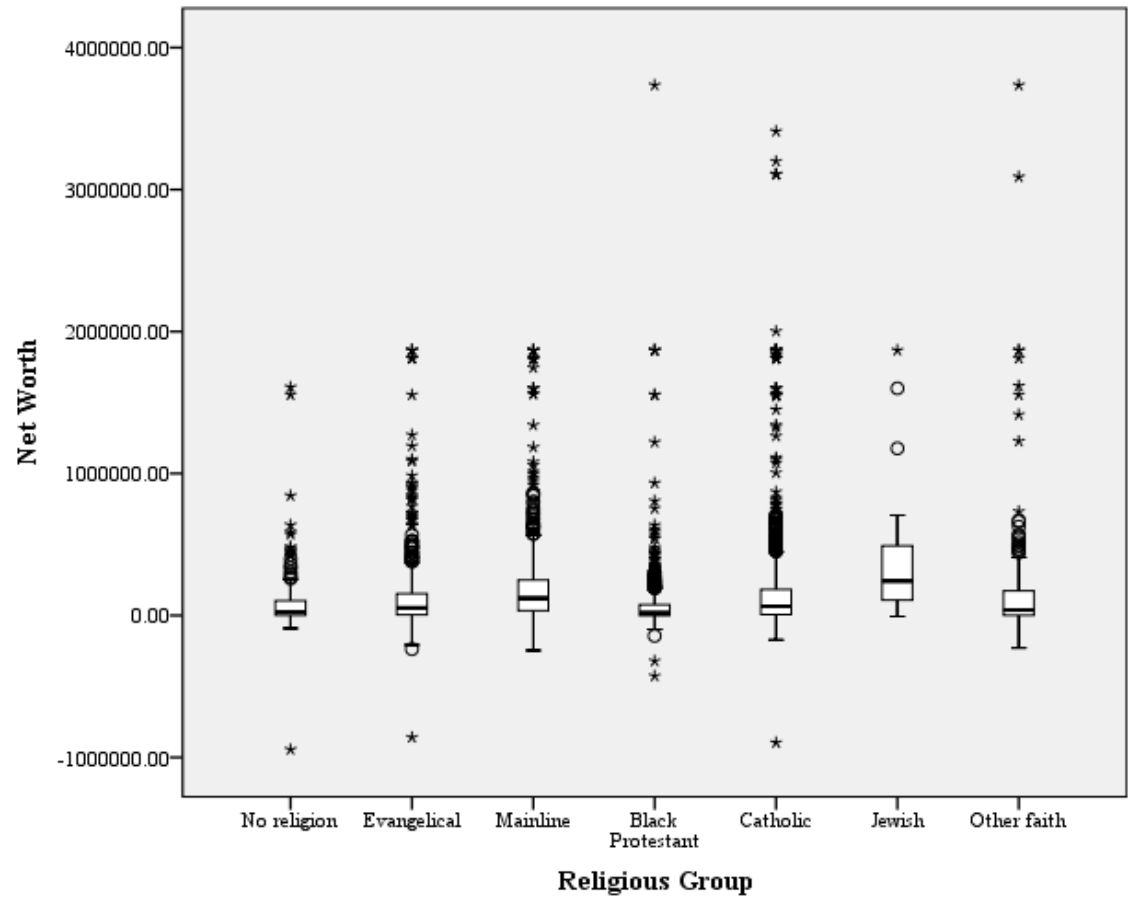
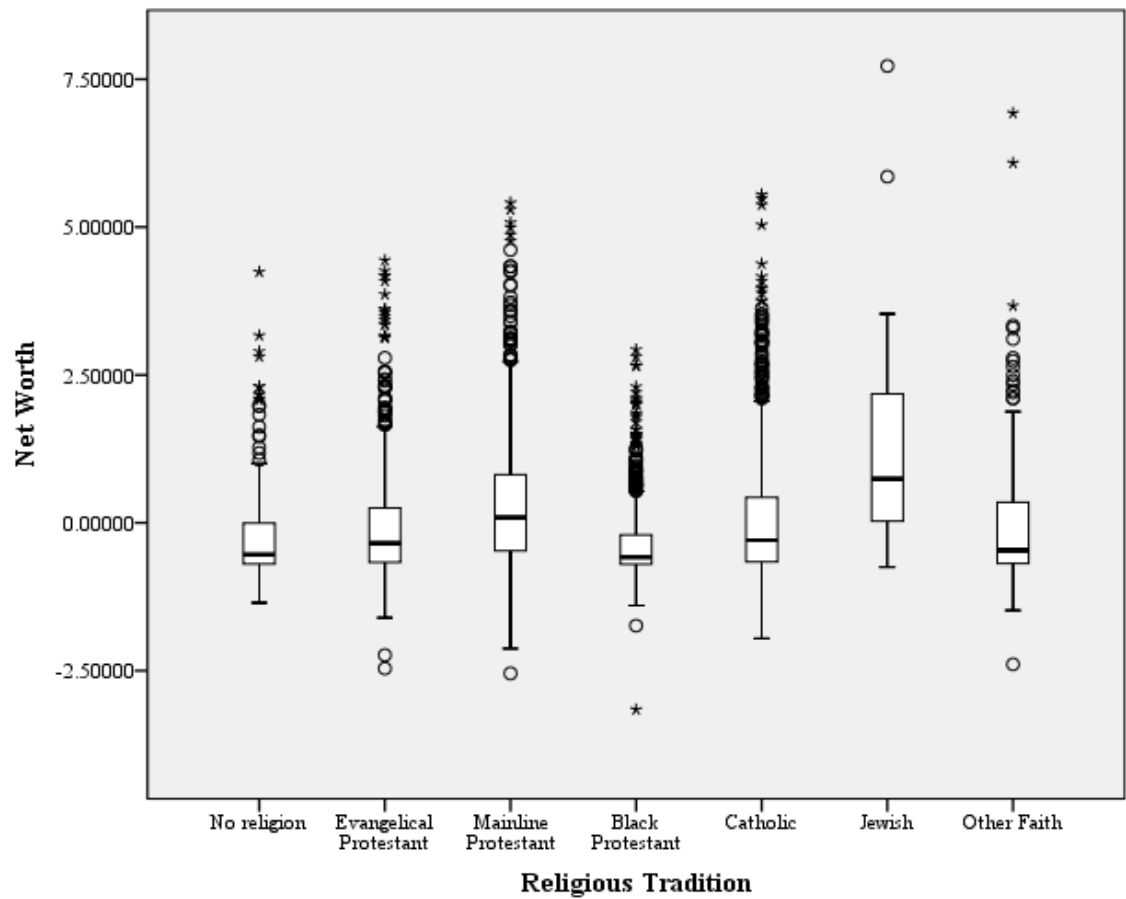


Figure 5

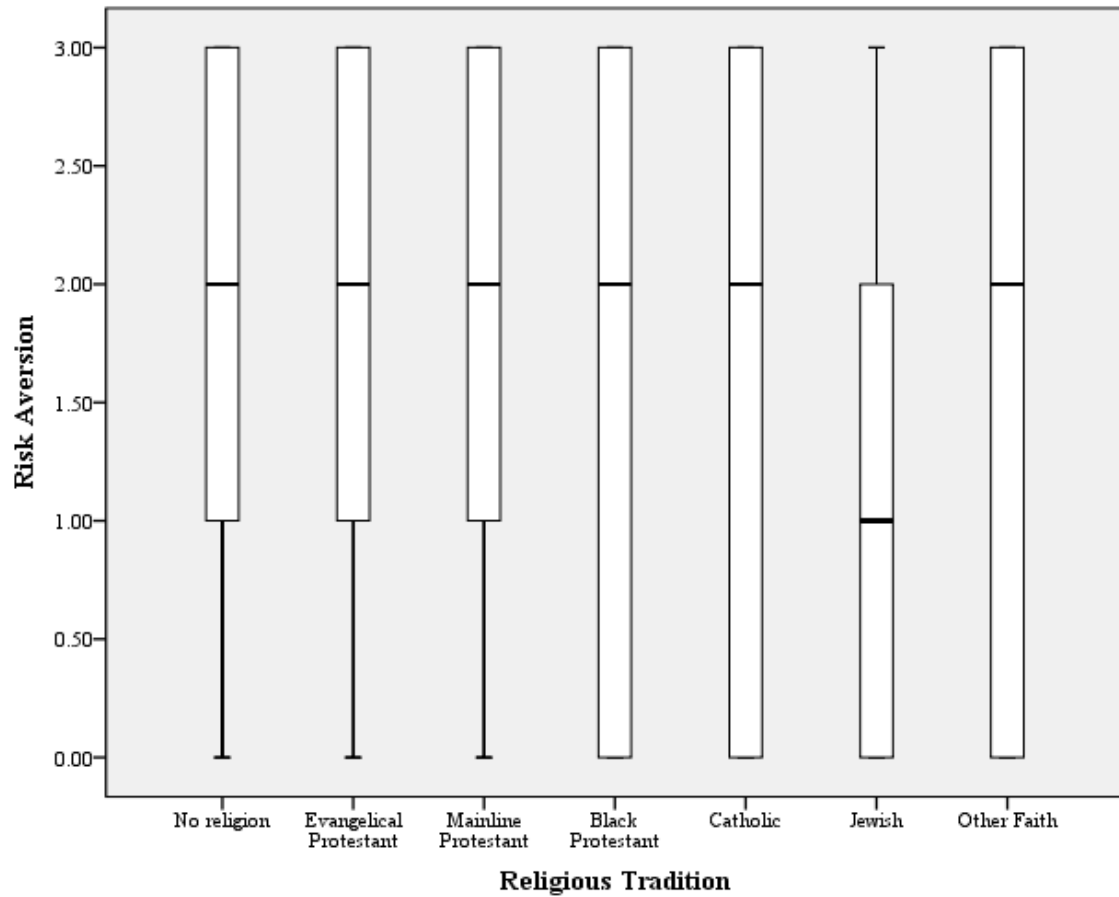
Boxplot of Transformed Net Worth by Religious Tradition



Note. Net worth is measured as the z-score($\sqrt{\text{Net Worth}}$)

Figure 6

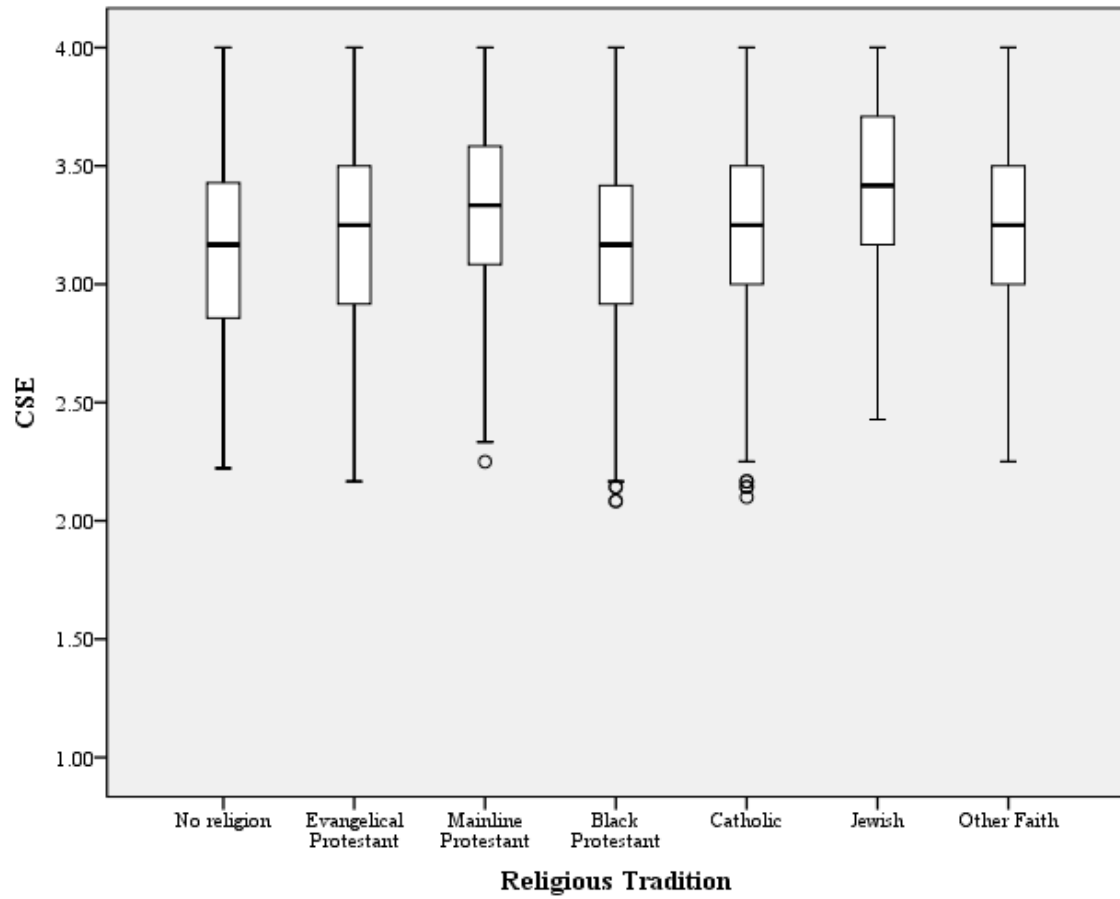
Boxplot of Risk Aversion by Religious Tradition



Note. Risk Aversion ranged from 0 to 3, with 3 being “Would not risk anything” and 0 being “Would risk 50%”

Figure 7

Plot of Means on CSE by Religious Tradition



Note. CSE ranged from 1 to 4

Figure 8

Cognitive Ability Before Transformation

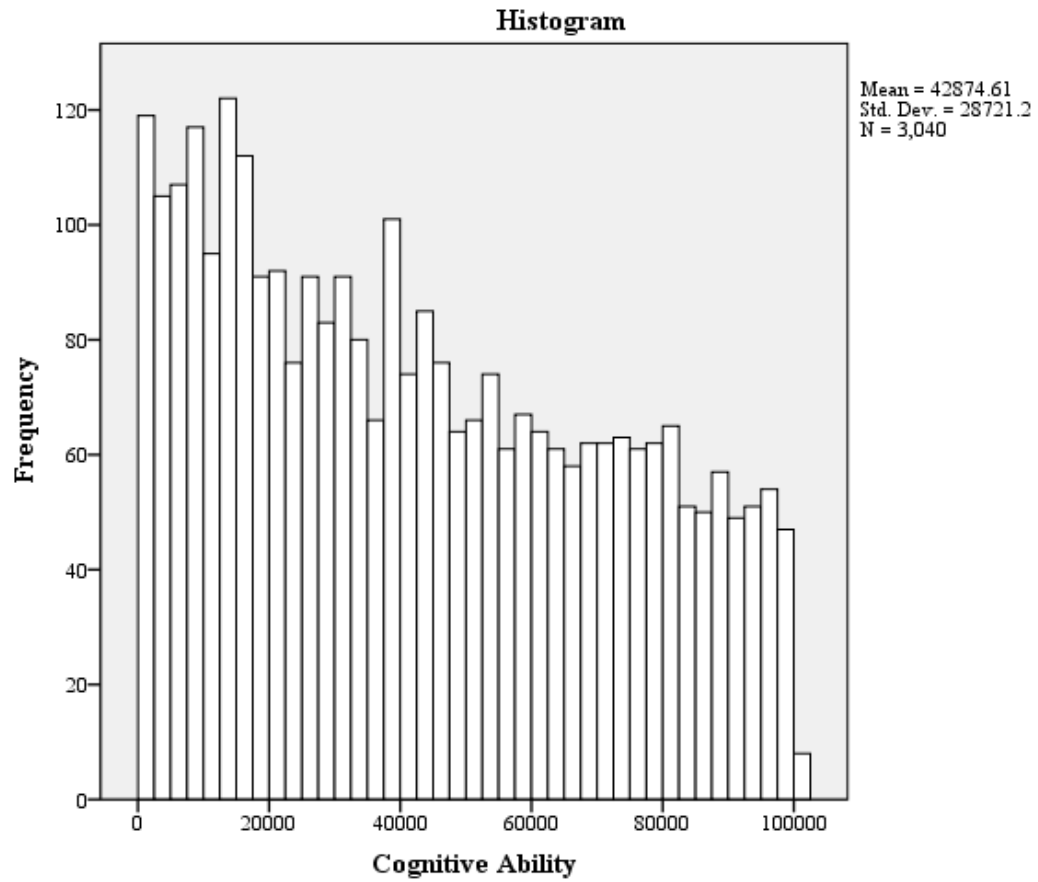


Figure 9

Income to Poverty Ratio Before and After Transformation

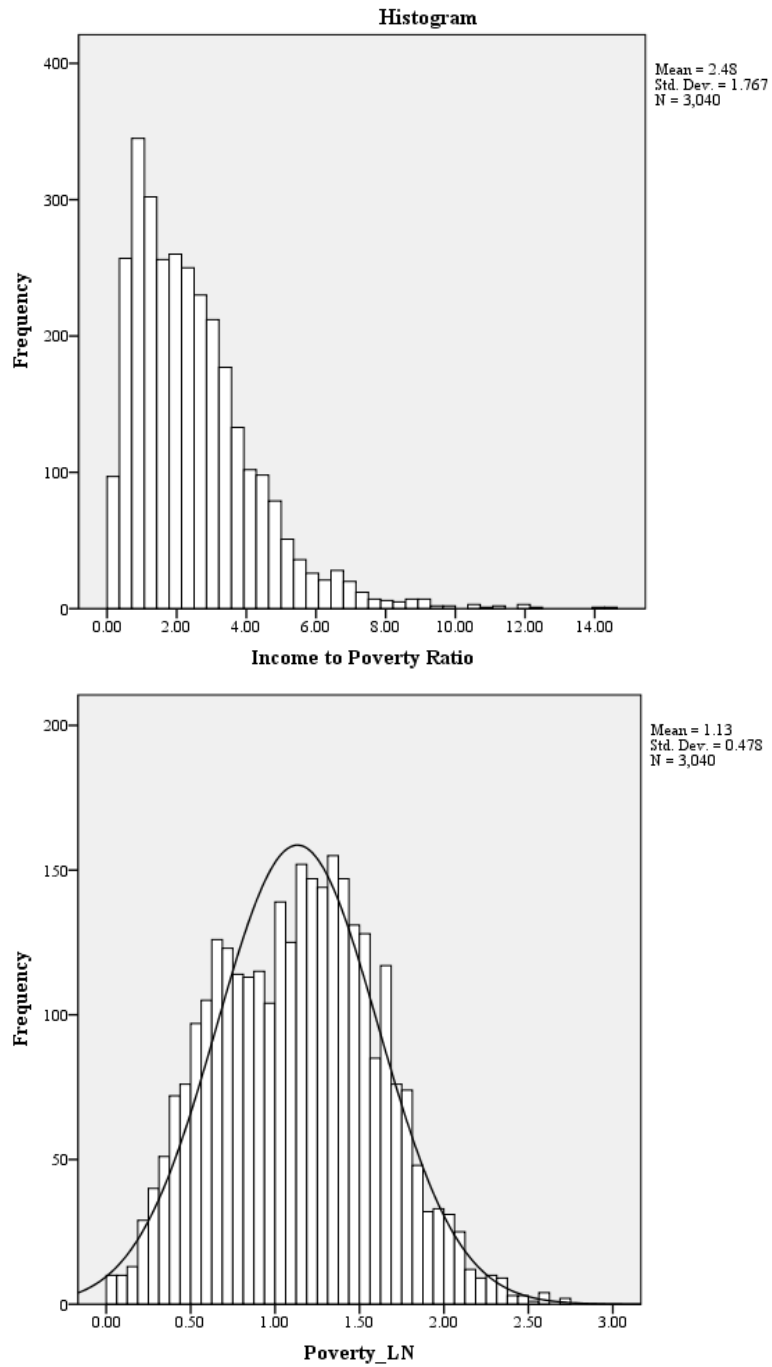


Figure 10

Risk Aversion Before Transformation

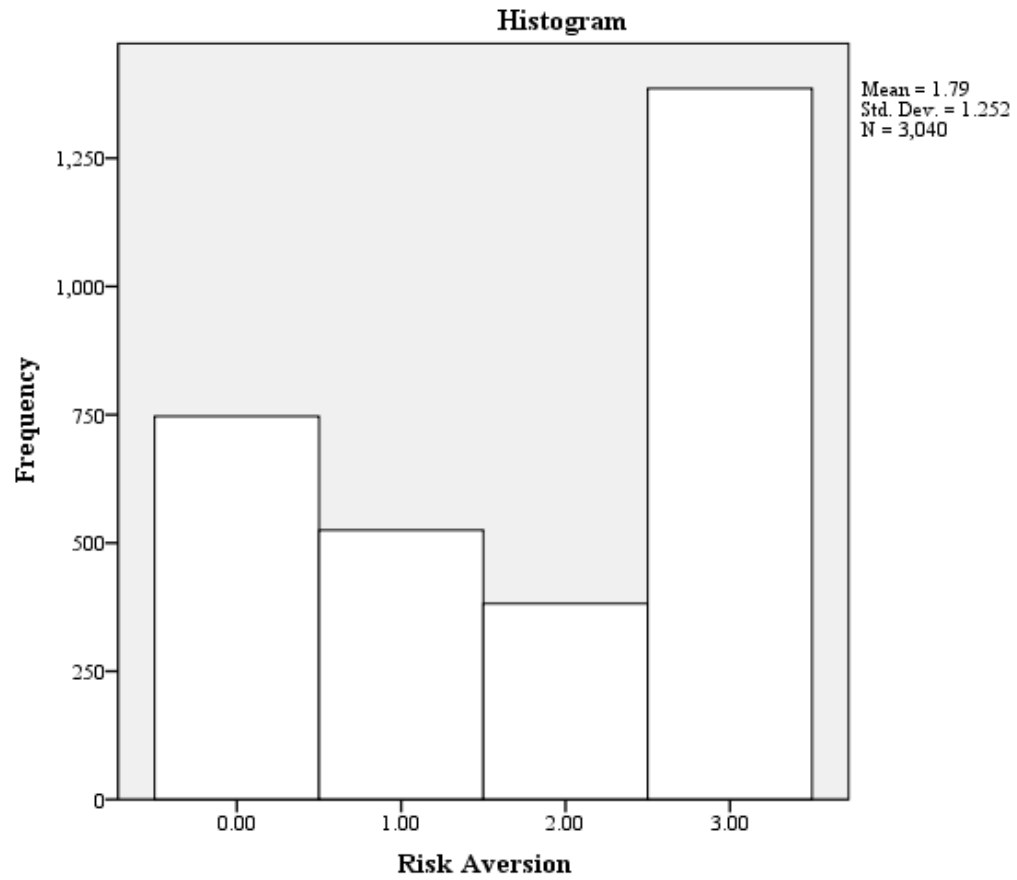


Figure 11

Distribution of CSE

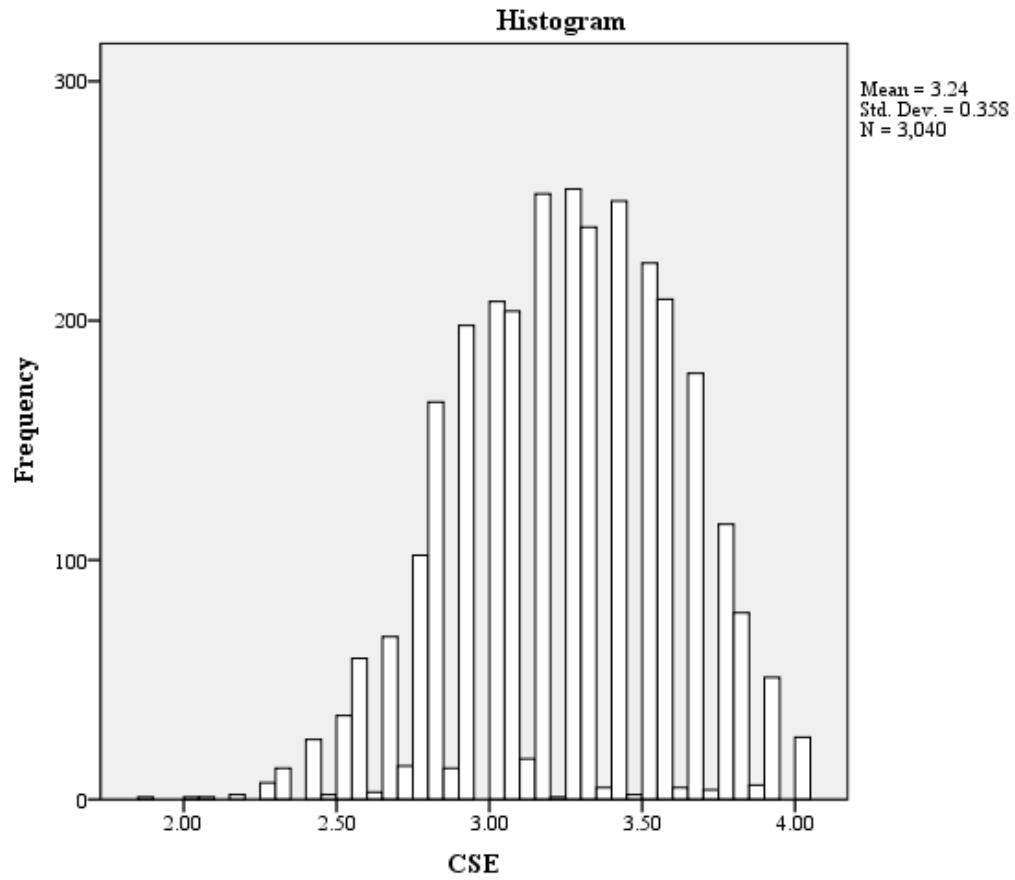


Figure 12

Distribution of Job Complexity Ability Before Transformation

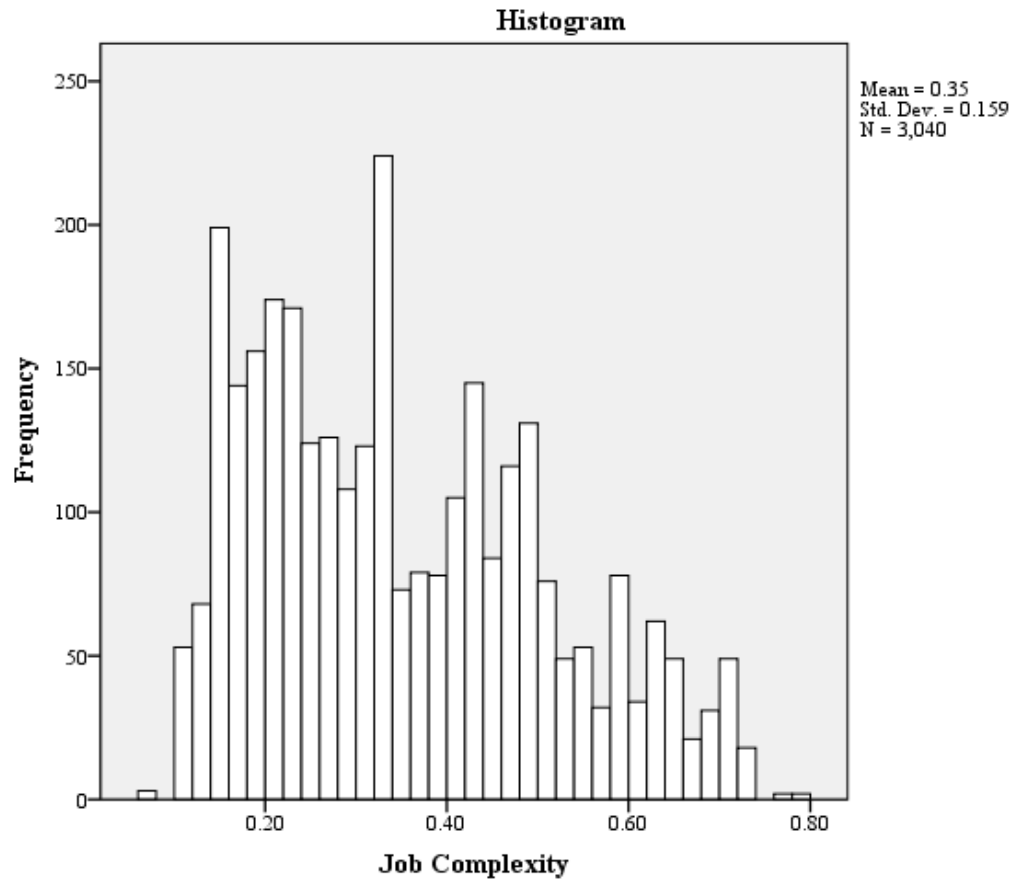


Figure 13

Net Worth Before and After Transformation

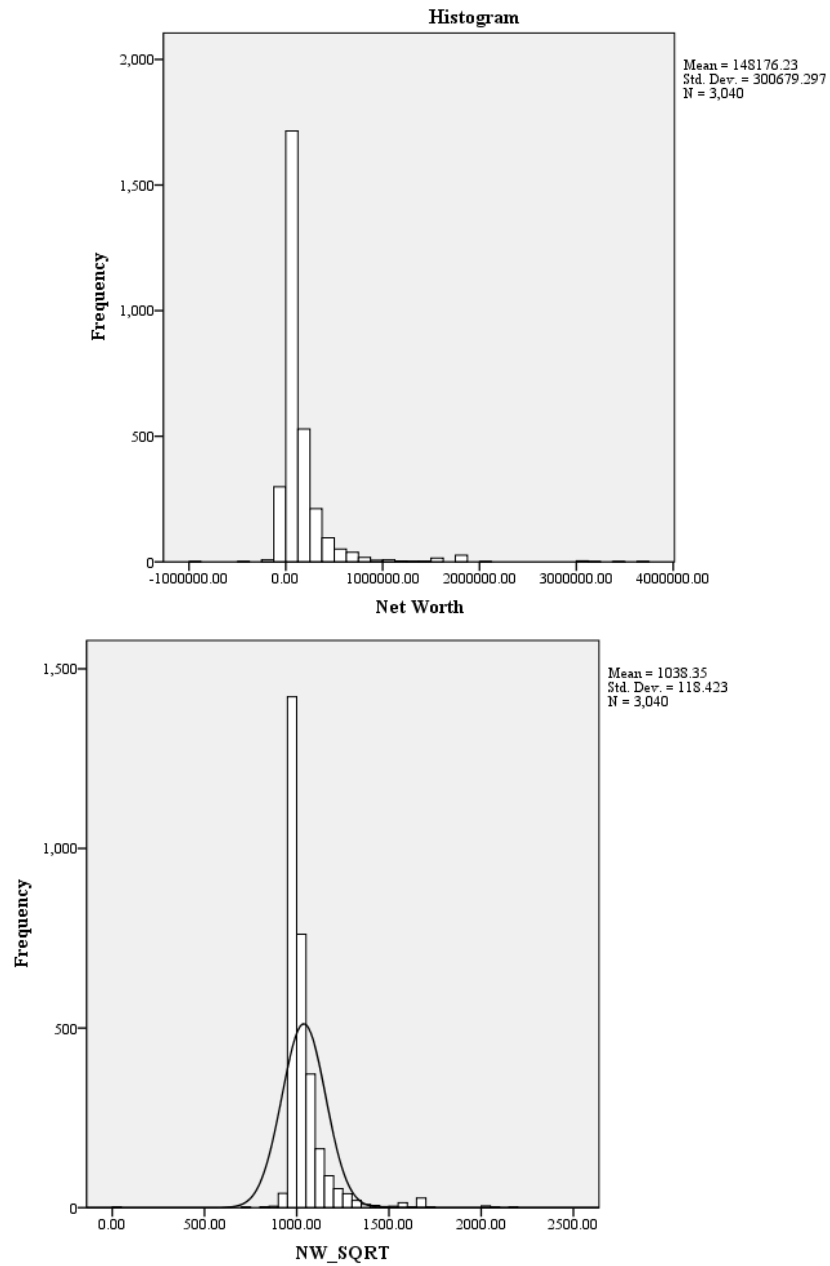


Figure 14

Job Satisfaction Before Transformation

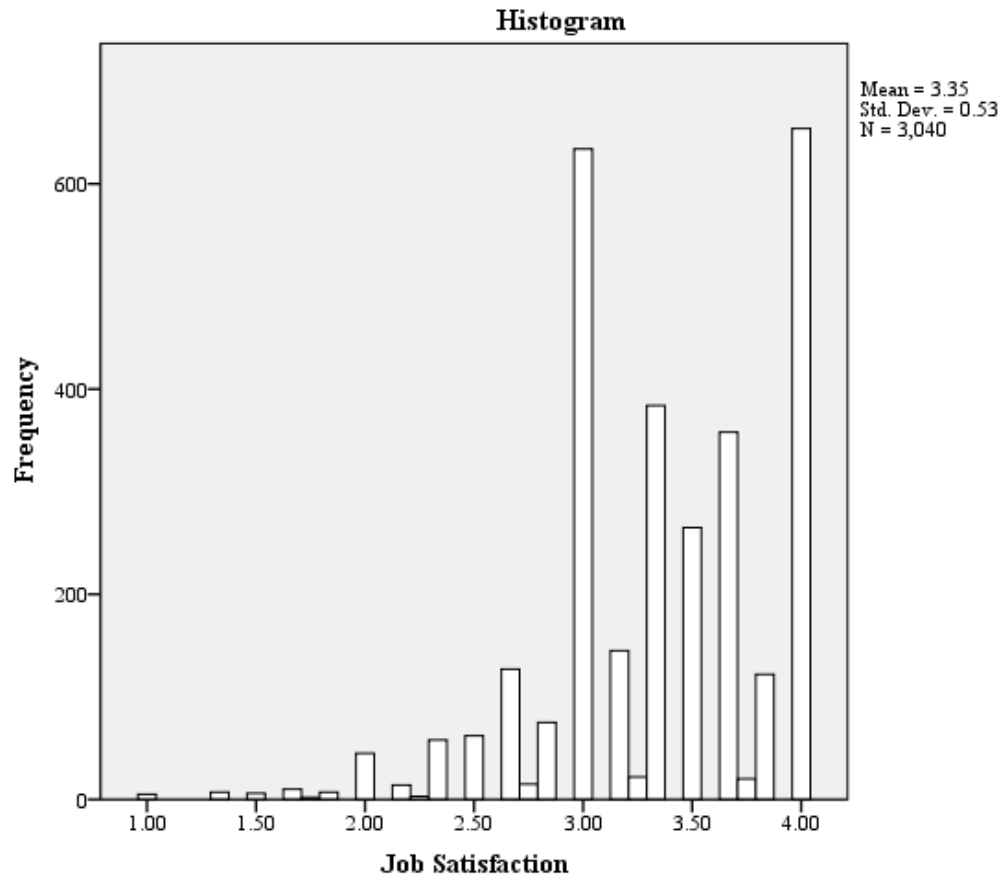
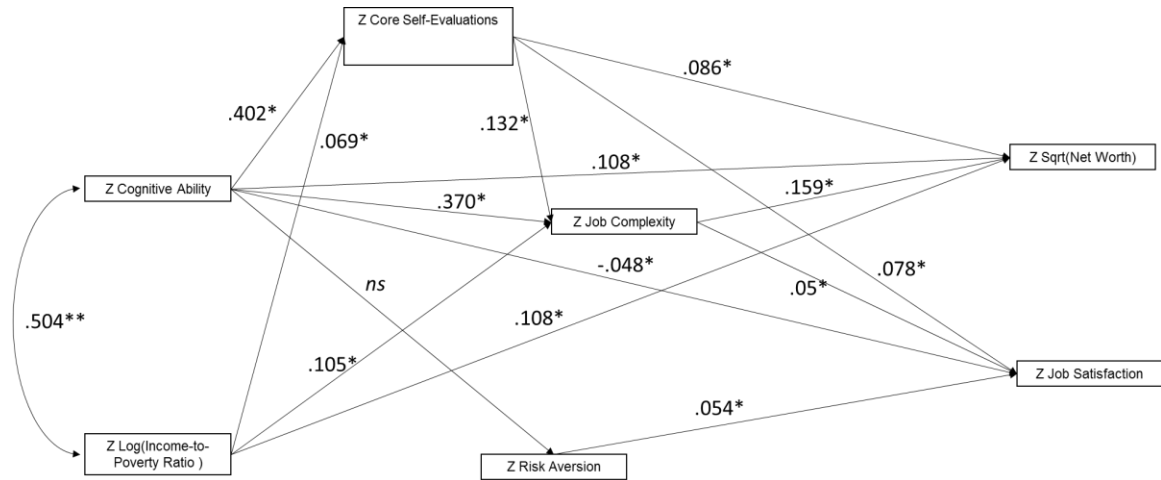


Figure 15

Trimmed Model



Note. *($p < .05$), ** ($p < .01$)

Figure 16

Alternative Path Models

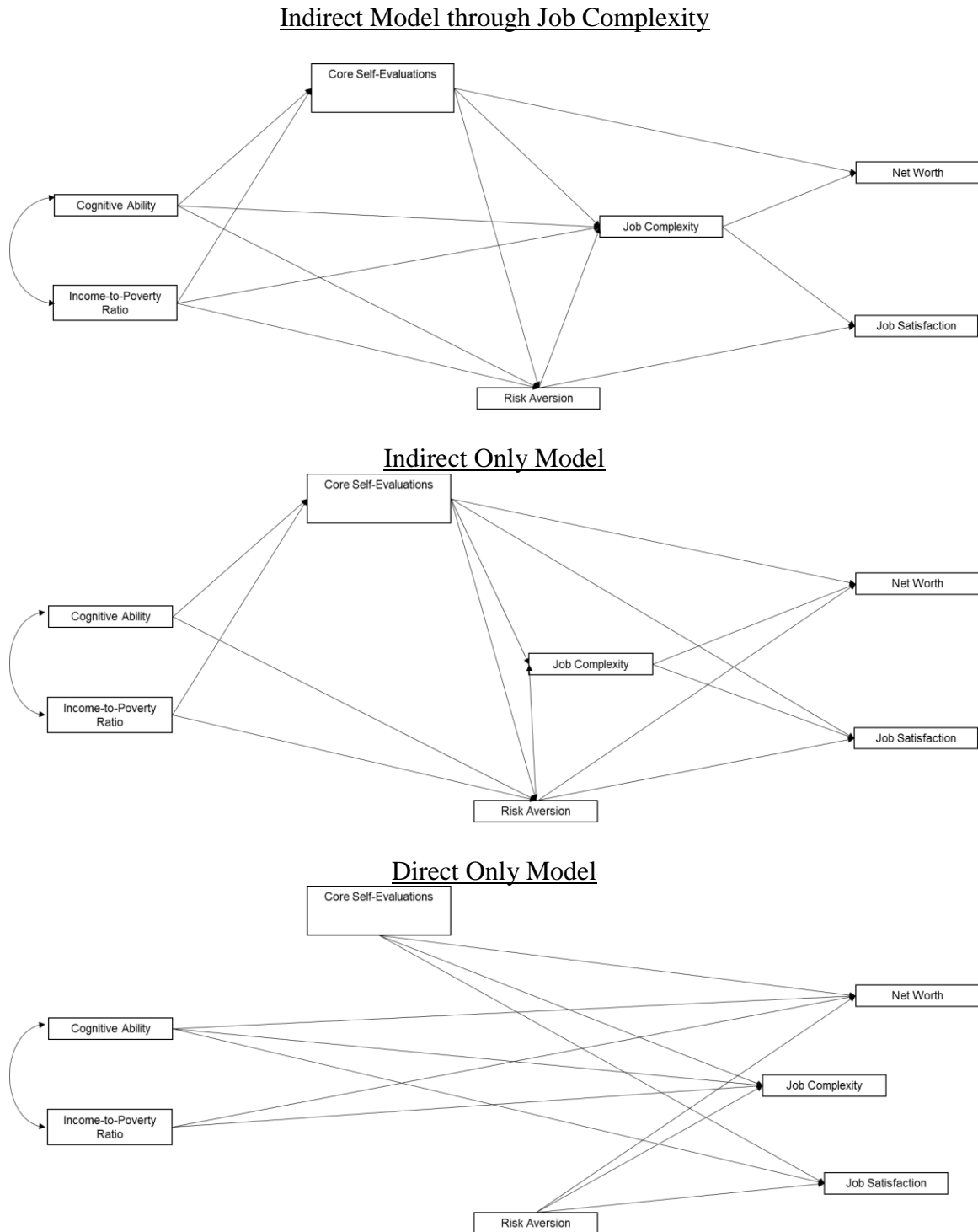


Figure 17

Religion as a Moderator of the Relationship between Cognitive Ability and CSE

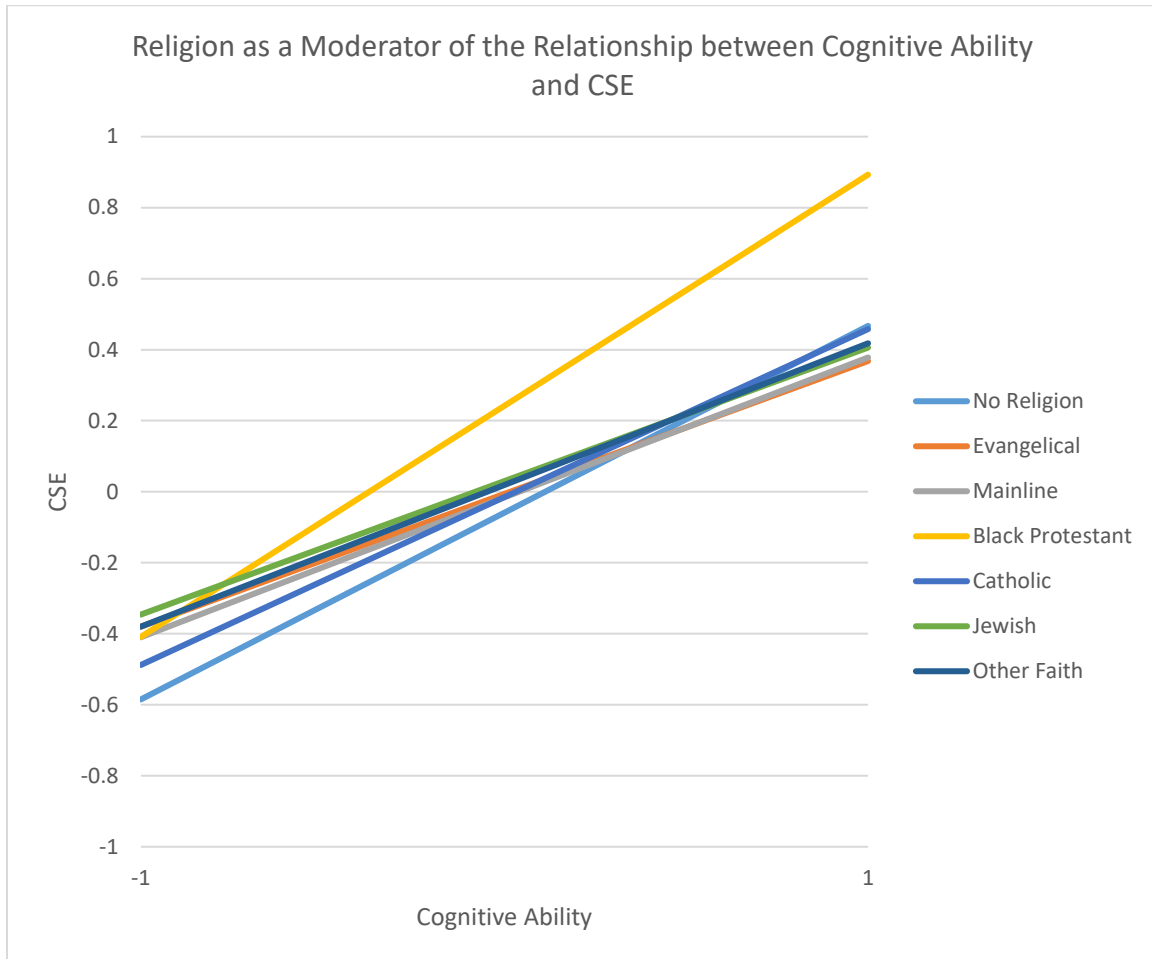


Figure 18

Religion as a Moderator of the Relationship between CSE and Net Worth

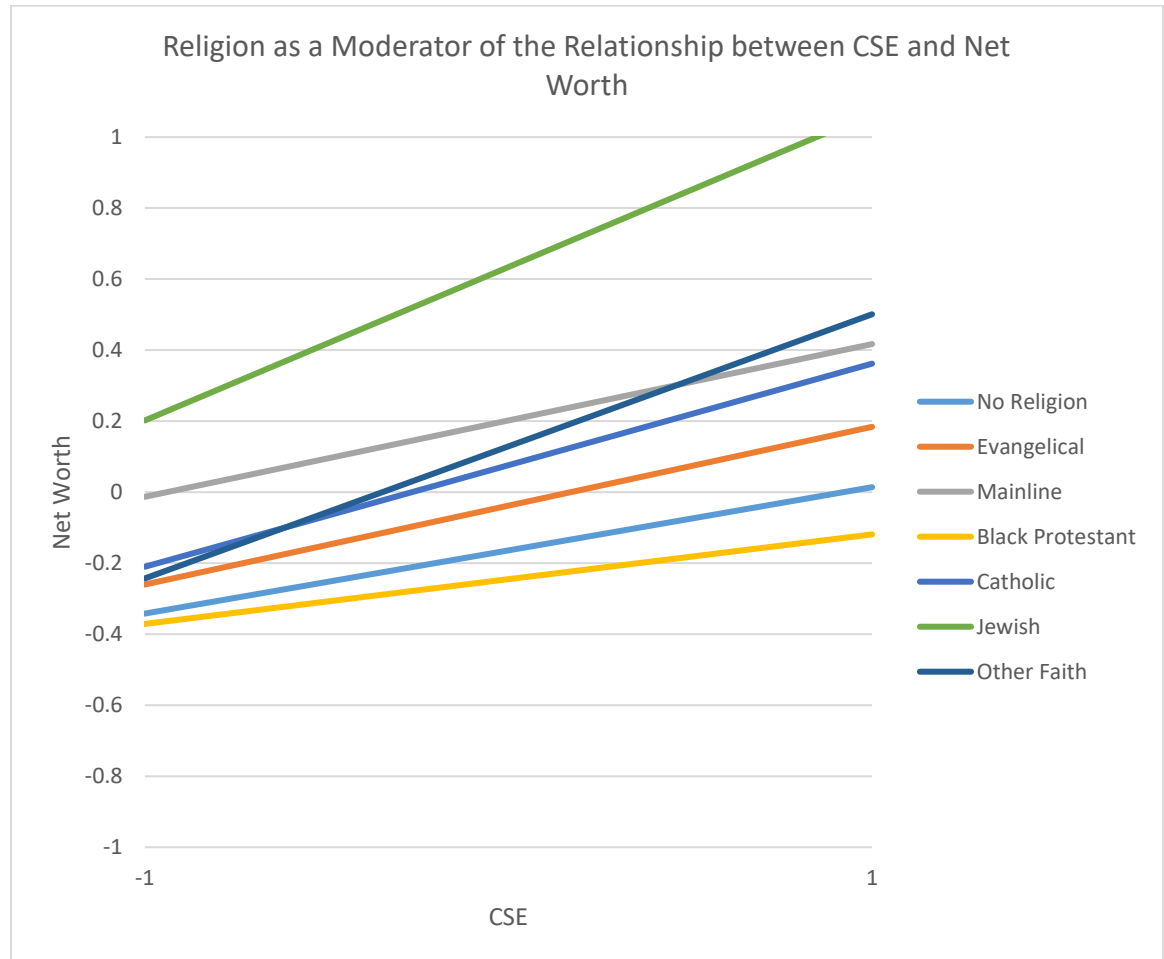


Figure 19

CSE as a Moderator of the Relationship between Cognitive Ability and Risk Aversion

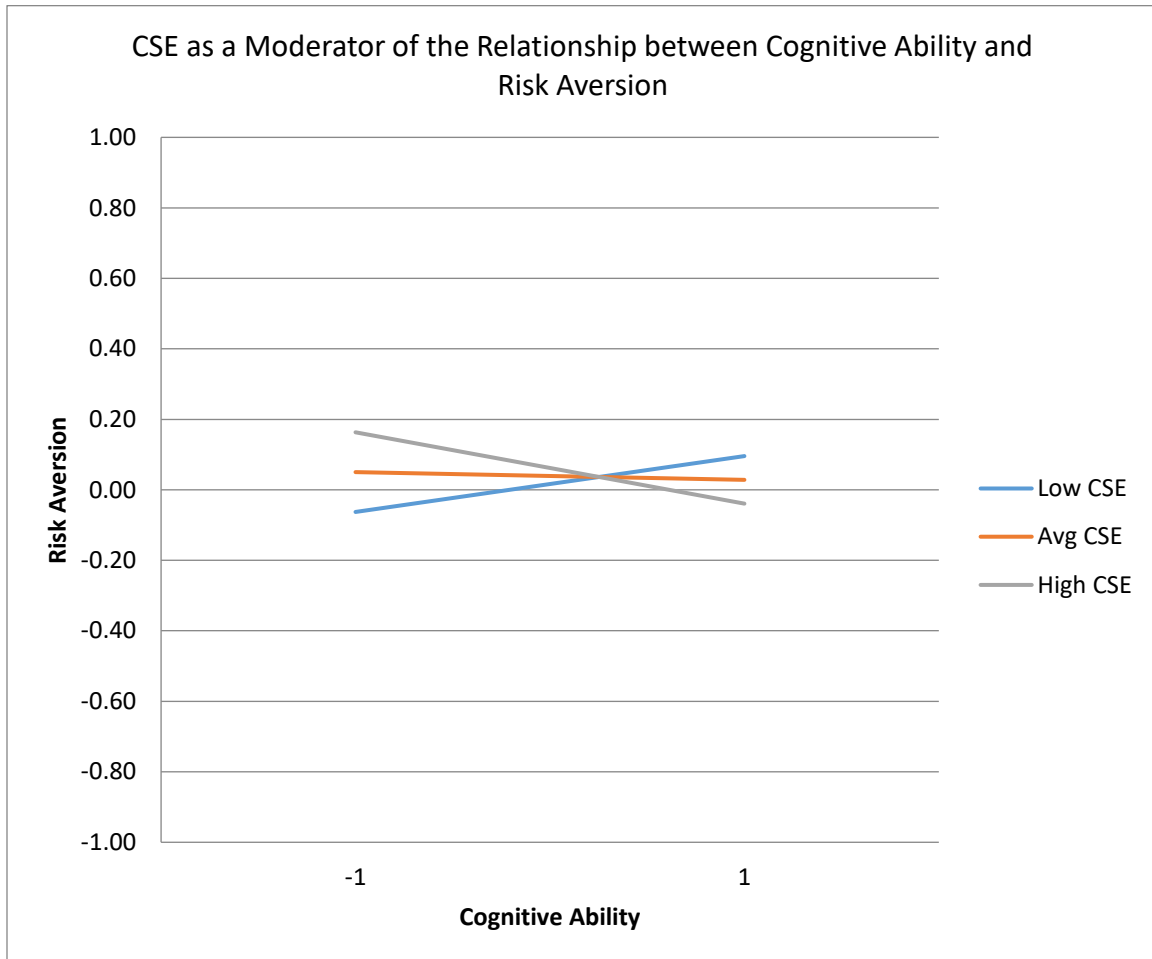


Figure 20

Risk Aversion as a Moderator of the Relationship Between Job Complexity and Net Worth

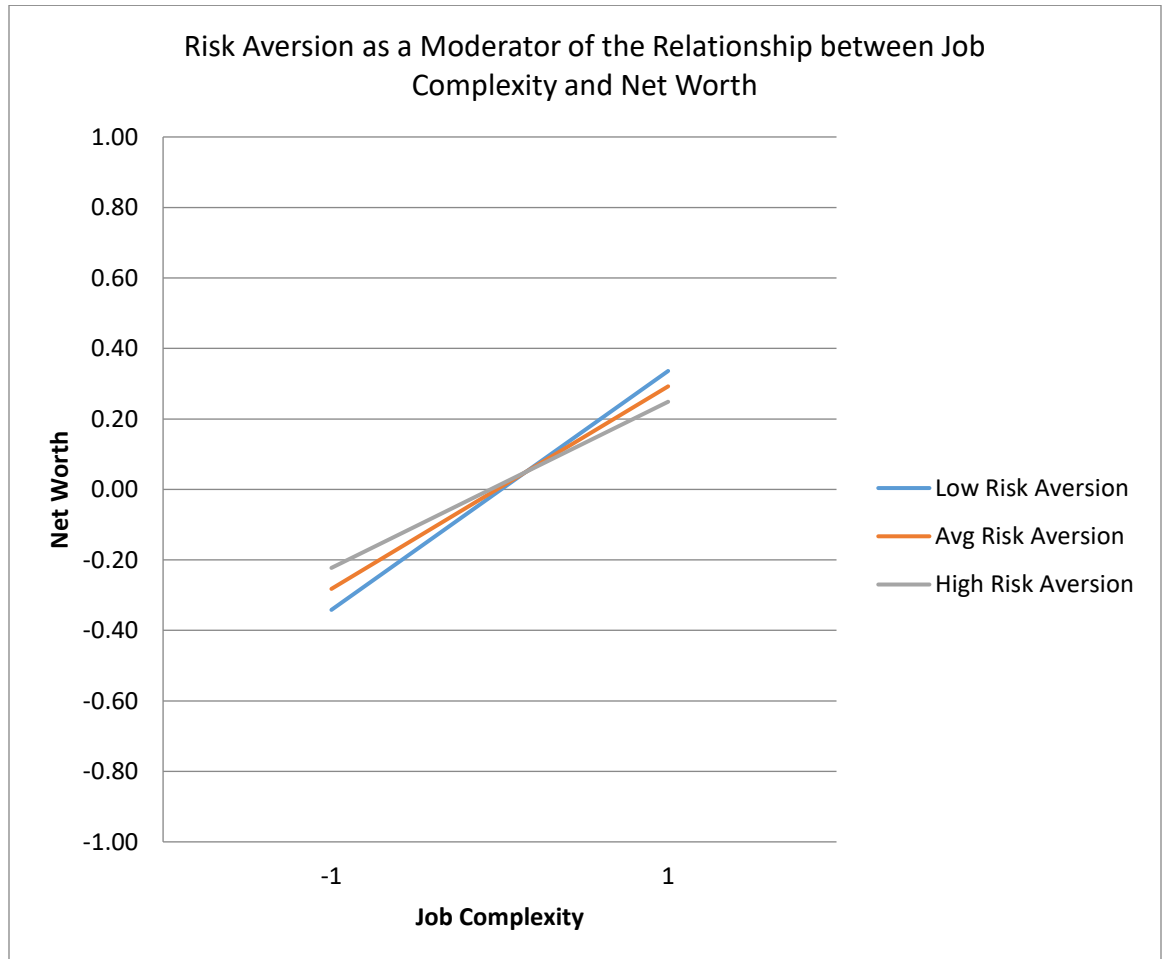


Figure 21

Income-to-Poverty Ratio as a Moderator of the Relationship Between Cognitive Ability and Job Complexity

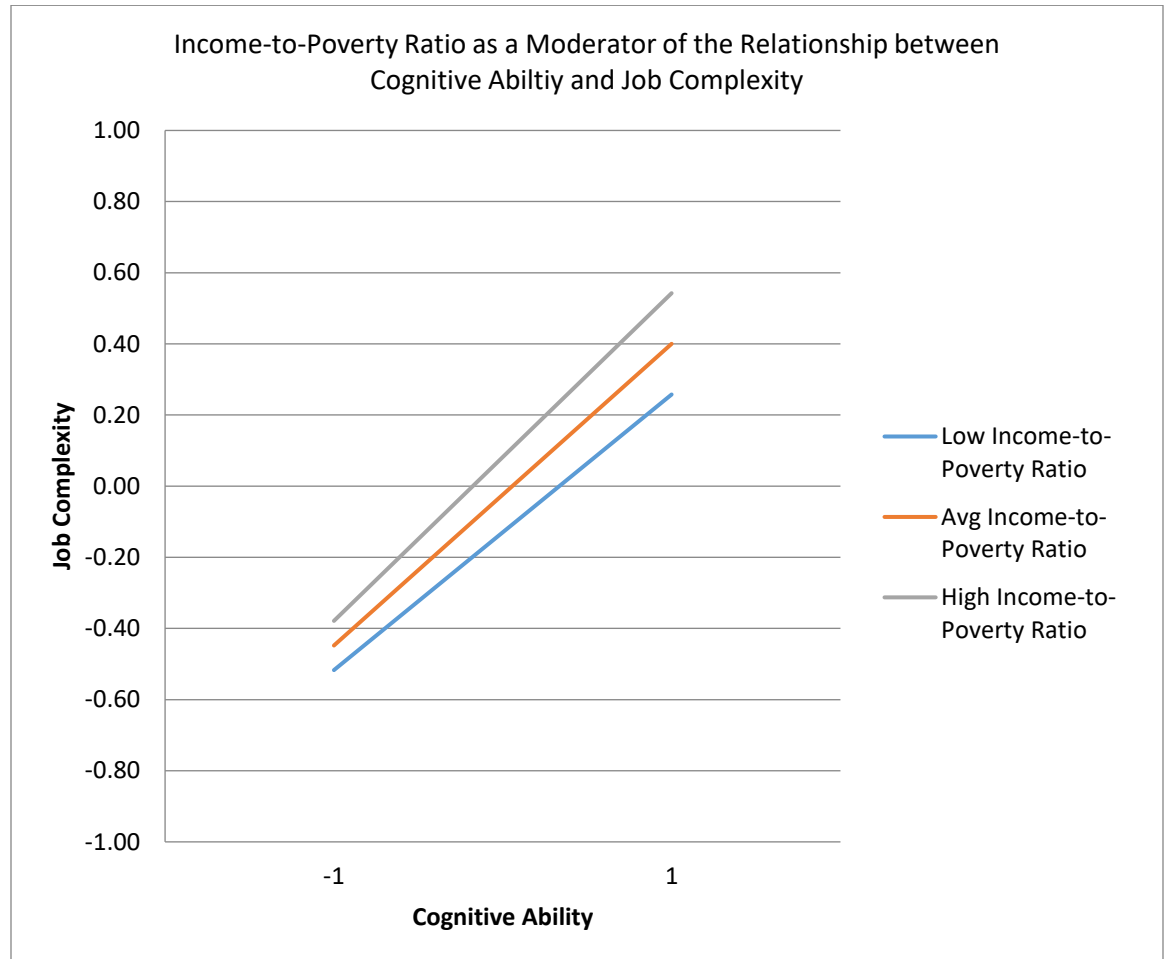
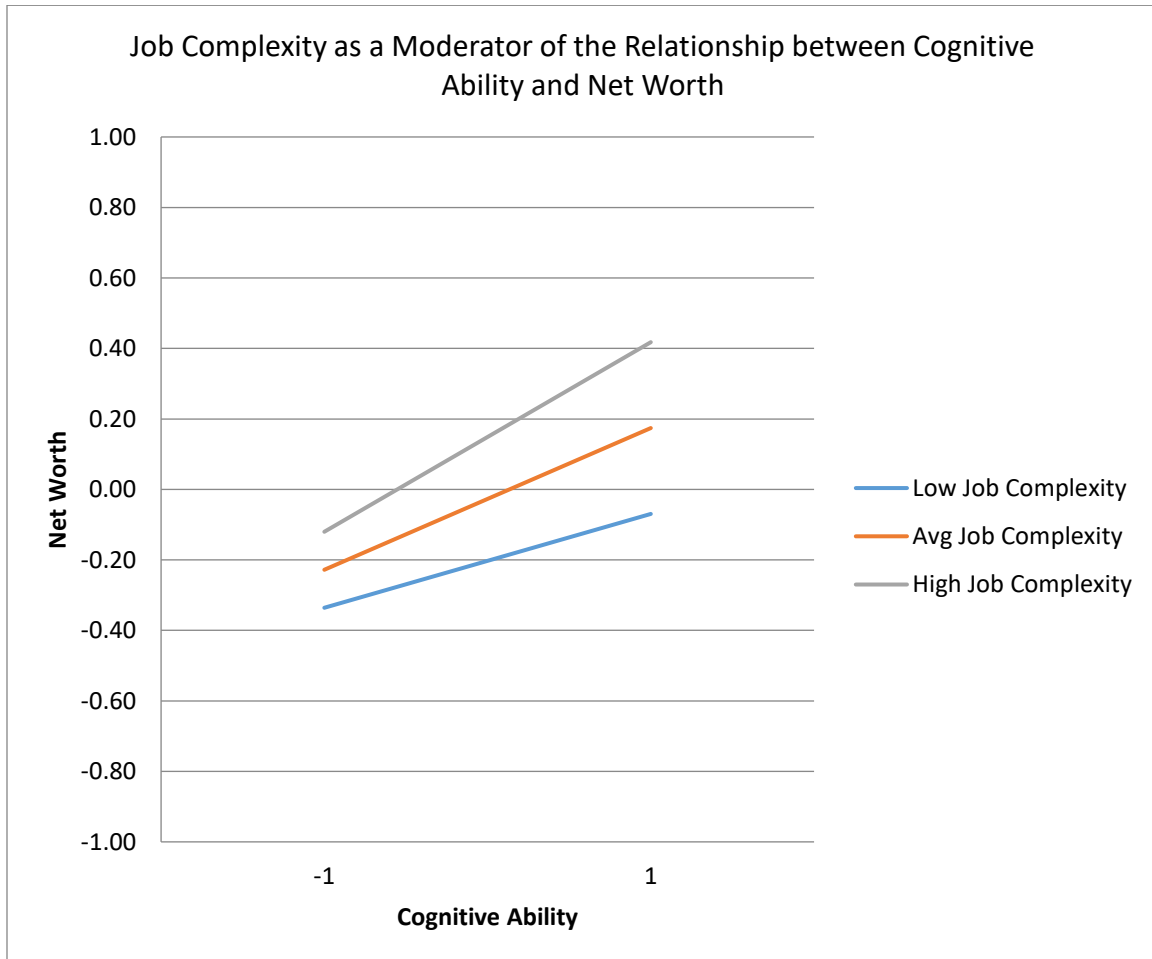


Figure 22

Job Complexity as a Moderator of the Relationship Between Cognitive Ability and Net Worth



APPENDICES

Appendix A

NLSY79 Asset Categories 2012

1. Home value
2. Mortgages
3. Other residential debt
4. Value of farm/business/real estate
5. Debts of farm/business/real estate
6. Market value of vehicles
7. Debt of vehicles
8. Value of stocks/bonds/mutual funds
9. Value of CDs
10. Value of trusts
11. Value of IRAs
12. Value of 401ks and 403bs
13. Value of cash savings
14. Value of other assets like Jewelry/collections
15. Value of all other debts like credit cards/student loans

Appendix B

Poverty Income Guidelines by NLSY79 Survey Year

Survey Year	Poverty Income Guidelines Year	First Person	Each Additional Person	Four-person Family
1979	1978	\$3,140	\$1,020	\$6,200
1980	1979	\$3,400	\$1,100	\$6,700

Appendix C

NLSY79 Items Used to Measure Core Self-Evaluations

1. I have little control over the things that happen to me. (reverse scored)
 2. There is little I can do to change many of the important things in my life. (reverse scored)
 3. What happens to me in the future mostly depends on me.
 4. I feel that I am a person of worth, on an equal basis with others.
 5. I feel that I have a number of good qualities.
 6. All in all, I am inclined to feel that I am a failure. (reverse scored)
 7. I feel I do not have much to be proud of. (reverse scored)
 8. I wish I could have more respect for myself. (reverse scored)
 9. I've been depressed. (reverse scored)
 10. I've felt hopeful about the future.
 11. What happens to me is of my own doing.
 12. When I make plans, I am almost certain to make them work.
- * ([items 1, 2, and 3] Pearlin et al., 1981; [items 9 and 10] Radloff, 1977; [items 4, 5, 6, 7, and 8] Rosenberg, 1965; [items 11 and 12] Rotter, 1966)

Appendix D

Risk Questions: Hypothetical Choice

Now I have another kind of question. Suppose that you are the only income earner in the family, and you have a good job guaranteed to give you your current (family) income every year for life. You are given the opportunity to take a new and equally good job, with a 50-50 chance that it will double your (family) income and a 50-50 chance.....

A.that it will cut your (family) income by a third. Would you take the new job?

1 YES ...(Go to B)

0 NO ...(Go to C)

B. Suppose the chances were 50-50 that it would double your (family) income and 50-50 that it would cut it in half. Would you still take the new job?

1 YES

0 NO

C. Suppose the chances were 50-50 that it would double your (family) income and 50-50 that it would cut it by 20 percent. Would you take the new job?

1 YES

0 NO

Appendix E

EQS 6.1 syntax for the final model

```
/TITLE
Model built by EQS 6 for Windows
/SPECIFICATIONS
DATA = 'c:\data.ess';
VARIABLES = 20; CASES = 2998;
METHOD = ML, ROBUST; ANALYSIS = COVARIANCE; MATRIX = RAW;
/LABELS
V1 = CASEID_1; V2 = SAMPLE_R; V3 = SAMPLE_S; V4 = Q1_3_A_Y;
V5 = RISK_INC;
V6 = RELTRAD; V7 = AFQT_3_1; V8 = POVERTY; V9 = RISK_AVE;
V10 = CSE;
V11 = JOB_COMP; V12 = JSAT_SIM; V13 = NW_SQRT; V14 =
ZAFQT_3; V15 = ZPOVERTY;
V16 = ZRISK_AV; V17 = ZCSE; V18 = ZJOB_COM; V19 = ZJSAT_SI;
V20 = ZNW_SQRT;
/EQUATIONS
V16 = *V14 + E16;
V17 = *V14 + *V15 + E17;
V18 = *V14 + *V15 + *V17 + E18;
V19 = *V14 + *V16 + *V17 + *V18 + E19;
V20 = *V14 + *V15 + *V17 + *V18 + E20;
/VARIANCES
V14 = *;
V15 = *;
E16 = *;
E17 = *;
E18 = *;
E19 = *;
E20 = *;
/COVARIANCES
V14,V15 = *;
/PRINT
EIS;
FIT = ALL;
TABLE = EQUATION;
/WTEST
PVAL = 0.05;
PRIORITY = ZERO;
COMPARE = YES;
/END
```

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