Perceived Social Class, College Interest, and Post-Secondary Goals: An Application of the Scat Interest and Choice Model

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For Amber and Erik
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ABSTRACT

The purpose of this study was to investigate the role of perceived social class (PSC) in the educational development of 176 racially and economically diverse high school students. PSC was defined based on the tenants of differential status identity theory (Fouad & Brown, 2000) and then incorporated as a person variable in the interest and choice model of social cognitive career theory (Lent & Brown, 1996; Lent, Brown, & Hackett, 1994). The study first examined the relation of PSC to students’ choice intention to pursue a college degree via cognitive self-evaluations (college self-efficacy, college outcome expectations, college interest). Alternatively, PSC was also tested as a moderator between college interest and choice intention. Latent variable path analysis revealed that the hypothesized partial mediation and full mediation did not result in incrementally better fit over the null model. Results of the hierarchical multiple regression revealed that PSC did not moderate the relation between interest and choice intention. Post-hoc analysis was performed to examine the relation between a single aspect of PSC, namely social power (SPO) and college choice intention. Path analysis results revealed that the relation between SPO and choice intention was fully mediated by students’ cognitive self-evaluations. SPO was found to have a significant indirect effect on both college intent and college outcome expectations via college self-efficacy.

Theoretical and practical implications for researchers, practitioners, and prevention scientists are considered and potential directions for future research are discussed.

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CHAPTER ONE

INTRODUCTION

The field of counseling psychology postulates that human development occurs within a social context that is shaped by one’s personal affiliations (e.g. family, neighborhood, etc.), larger socio-political climate, and distinct social group affiliations. The study of these three distinct layers of socio-cultural context have coalesced into a multicultural movement within psychology that encourages researchers and practitioners to take into account the cultural beliefs, attitudes, and social practices that impact psychological functioning (Pederson, 1991; Sue, Ivey, & Pederson, 1996). Individuals’ attitudes, beliefs, and behaviors are influenced by membership in a number of social groups (e.g. age, gender, race, class, sexual orientation, etc.) as well as by the subsequent development of a shared worldview among group members (Sue & Sue, 2008). The multicultural movement has contributed to an ever-expanding line of research on psychological variables such as racial identity (Cross, 1971; 1995; Sellers, Shelton, Cooke, Chavous, et al., 1998), acculturation/enculturation (Berry, 1980; 1994), and gender/feminist identity (Bem, 1981; Bussey & Bandura, 1999; Downing & Roush, 1988) that, along with personality traits and environmental factors, influence individuals’ psychological well-being.
Within the multicultural paradigm social class is considered to be among the most influential cultural variables shaping both attitudes and behaviors (Pope-Davis & Coleman, 2001; Argyle, M., 1994). Theorists have argued that individuals develop a psychological sense of what it means to be a member of their social class just as they develop a sense of what it means to be a member of their race and gender (Liu, Soleck, Hopps, Dunston, Pickett, 2004b; Fouad & Brown, 2000). Yet, a review of the empirical research suggests that social class is significantly underexplored (Liu, 2001; Liu, Ali, Soleck, Hopps, et al., 2004a; Fouad & Brown, 2000). Furthermore, existing research primarily analyzes economic standing as a demographic variable by artificially splitting study participants into nominal groups (i.e. lower, middle, upper) and assessing class based on objective indicators (Brown, Fukunaga, Umemoto, & Wicker, 1996; Oakes & Rossi, 2003; Liu et al., 2004a). In order to examine social class as a psychological variable, researchers must take into consideration the attitudes and beliefs individuals hold about their class status. Examining class status as a psychological variable will provide new opportunities to investigate the means by which class attitudes and beliefs influence psychosocial development.

**Socioeconomic Status and Social Class Status**

In 2003 the American Psychological Association responded to growing evidence of a complex relationship between social class status and mental health by forming the Task Force on Socioeconomic Status (TFSS). The resulting TFSS report emphasized three primary tenants: (a) social class should be examined as a primary determinant of psychological functioning, (b) the field should develop an understanding of the subjective experiences of class and class inequalities, and (c) there should be a clear delineation
between demographic variables such as socioeconomic status (SES) and psychological variables such as perceived social class (PSC) in the literature (APA, 2007). This last tenet has been echoed by scholars who argue that SES, social class, class structure, and classism are often conflated or used interchangeably in the literature (Liu, et al., 2004a; Fouad & Brown, 2000; Diemer & Ali, 2009). Research on class status has also been hampered by the significant methodological problems for existing measures of SES (Oakes & Rossi, 2003, Liu, et al., 2004a) and a fundamental lack of instruments designed to measure a psychological sense of class (Brown, Fukunaga, Umemoto, & Wicker, 1996; Fouad & Brown, 2000). Each of these limitations contributes to the overall lack of theoretical and empirical exploration of social class as a psychological variable.

Recently the field has started to differentiate between objective measures of class standing such as socioeconomic status (SES) and subjective measures such as perceived social class (PSC), social class worldview, and classism (Liu et al., 2004; Liu 2001; Fouad & Brown, 2000; Diemer & Ali, 2009). A review of the empirical literature shows that SES is most often measured by one or more indicators of material resource or status and it is primarily utilized by researches to group individuals by class status (Oakes & Rossi, 2003; Liu et al., 2004a, Brown et al., 1996). Alternatively, PSC is a psychological variable consisting of individuals’ beliefs about what it means to be a member of their social class (Rossides, 1990, 1997; Brown et al., 1996; Fouad and Brown, 2000). Liu and colleagues (2004a) suggested that the distinction between SES and PSC is best understood as mirroring the distinction between analyzing race as a nominal variable (i.e. race grouping) and assessing the distinct beliefs and attitudes associated with racial group membership (i.e. racial identity; Cross, 1971; 1995; Sellers, et al., 1998). Interestingly,
PSC has received the most attention thus far within the vocational psychology literature (Brown et al., 1996; Fouad and Brown, 2000). Yet, the advancement of PSC as a meaningful psychological variable in career and academic development has been marred by a lack of sound social class theory (Brown et al, 1996; Liu et al., 2004a). While no single theoretical model exists to explain all facets of PSC, the combination of a new socio-psychological theory of class status and an established social-cognitive model of career development provides a useful framework for understanding the role of PSC in educational development.

**Social Class Identity**

*Differential Status Identity* (DSI; Fouad & Brown, 2000) is a socio-psychological theory that builds upon the concepts of self and identity (Cross & Madson, 1997; Baumeister, 1998) as well as social stratification theory (Rossides, 1990; 1997) to explain how individuals develop an awareness of their social class standing. The theory suggests that individuals’ perceived status is determined by the degree to which they differ from a perceived other or referential standard (i.e. “middle class”) in terms of access to resources, social prestige, and social power. These cognitive comparisons result in a set of attitudes that reflect the relative status of the person and of the person’s own social reference group. Essentially the theory argues that internalized class attitudes and beliefs, rather than objective wealth and status, ultimately influence individual’s social class identity and broader psychological development.

If in fact social class attitudes and beliefs are more influential on development than objective wealth it would seem unlikely that assigning individuals to a class status based on income or wealth would produce a psychologically homogenous group. Indeed,
there is evidence to suggest that people assigned to the same socioeconomic status based on objective data often profess very different worldviews depending on their economic behaviors and lifestyle (Fletcher, 2001). Social class researchers postulate that numerous factors influence perceived class status including: the availability of social and economic resources within a neighborhood (Diemer & Ali, 2009); the status of one’s social network (Liu et al., 2004b); having access to experiences that promote the development of knowledge and skill (Coleman, 1990); and having the time necessary to pursue such opportunities (Liu et al., 2004b; Liu, 2001). DSI organizes these individual indicators of status into three primary domains: access to economic resources, social power or influence, and social prestige (Fouad & Brown, 2000). The multifaceted nature of DSI and its strong theoretical underpinnings make it an excellent theory for examining the role of PSC in psychological development and behavior.

**Educational Interest and Choice**

*Social Cognitive Career Theory* (SCCT; Lent, Brown & Hackett, 1994; Lent & Brown, 1996) was originally developed as a comprehensive model of vocational behavior based on the tenants of Albert Bandura’s (1986) *Social Cognitive Theory*. SCCT has received tremendous attention and substantial empirical support within the vocational literature (see Betz, 2008; Swanson & Gore, 2000). A sub-facet of SCCT is the interest and choice model (Lent & Brown, 1996) which describes the process of developing interests in educational or occupational tasks that eventually lead an individual to choose a particular area of study or occupation. The theory posits that across numerous learning experiences individuals develop self-efficacy (SE) beliefs about their ability to complete certain tasks and outcome expectations (OE) about the consequences of pursuing a
particular domain. These two cognitive evaluations combine to promote interest development and eventually lead to a choice or goal. The SCCT model is ideal for examining the role of PSC in educational development because it takes into consideration both personal factors (race, gender, SES, etc.) and contextual affordances (discrimination, support, etc.) that shape the larger social context in which learning occurs.

The interest and choice model has received extensive empirical support for explaining educational interest development and explaining the process by which individuals select an academic major or professional field. The most studied aspect of the model is the link between SE and interest across either Holland’s (1997) RIASEC typologies or specific educational domains (i.e. math, science, engineering). A meta-analytic review of the literature shows an overall correlation of .59 between SE and interest across 53 parallel samples (Rottinghaus, Larson, & Borgen, 2003). In addition, many studies have examined the interest and choice model either in full or in part across a range of educational/vocational domains. Sheu and colleagues (2010) used a set of meta-analytic path analyses to combine the results of these studies into a test of the full interest and choice model across Holland themes. The overall results confirmed that SE and OE are directly predictive of interests and choice goals. In addition, interests were found to partially mediate the path between SE and goals and between OE and goals.

The interest and choice model has also been used to describe the educational development of adolescents. Studies of adolescents have primarily focused on subject specific interests and goals with the model displaying some initial promise for explaining the development of math interests (Lopez, Lent, Brown, & Gore, 1997; Navaro, Flores, & Worthington, 2007), science interests (Navaro et al., 2007), and intention to pursue an
academic path that includes both math and science (Fouad & Smith, 1996). Recently, the model has also been used to explain the development of college or occupational aspirations and expectations. For example, among a sample of middle school students, whose parents did not attend college, SE for college related tasks and college OE each had a significant direct effect on students’ college-going intentions (Gibbons & Borders, 2010). Additionally, a longitudinal study of pre and post-unification East German students found that academic SE was positively related to post-unification college aspirations and that higher SE predicted college enrollment post-unification (Pinquart, Juang, & Silbereisen, 2004). Vocational and educational SE and OE have also been used to successfully discriminate between Appalachian high-school students that aspire to a professional or bachelor’s degree and those that aspire to vocational training or full-time employment (Ali & McWhirter, 2006). Finally, vocational and educational SE accounted for 18.4% of the variance in college expectations among a similar Appalachian high school population (Ali & Saunders, 2006).

Within the original SCCT theory it was posited that personal and contextual variables such as SES or PSC impact choice making directly (Lent & Brown, 1996). However, recent findings suggest that contextual variables are more likely to influence choice indirectly through their influence on SE and OE (Bandura, 1999; Sheu et al., 2010). Currently, no studies have explicitly examined both the direct and indirect links between SES or PSC and choice goals. However, studies of other contextual variables in the SCCT model, such as social support or barriers suggest that the relation between contextual variables and choice is at least partially mediated by self-efficacy (Lent, Brown, Nota, & Soresi, 2003; Lent, Brown, Brenner, et al., 2001). Similarly, Sheu and
colleagues (2010) found that contextual support and barriers impact interest and choice indirectly through both SE and OE. The authors were careful to note that while the partially mediated model displayed incrementally better fit to the data, the fully mediated model also displayed minimally sufficient fit. Furthermore, within the partially mediated model the direct effect of contextual variables on choice goals was found to be very small in comparison to the indirect effects (Sheu et al., 2010; Lent et al., 2003). Therefore it is also plausible that a more parsimonious full mediation model represents a better estimate of the relation between personal or contextual variables and choice.

Finally, SSCT theory (Lent et al., 1994; Lent et al., 2001) posits that personal and contextual variables impact the process by which interests translate into choice goals. Lent and colleagues (2001) found that interests are more strongly related to choice goals for individuals who report a low level of contextual barriers versus individuals who report a high level of barriers (Lent, Brown, Brenner et al., 2001). This moderation effect of contextual variables may help to explain the often sighted underrepresentation of ethnic minority individuals in higher education and high status jobs (Arbona, 1990; Constantine, Erikson, Banks, & Timberlake, 1998; Fouad & Byars-Winston, 2005). It is worth noting that the underrepresentation of ethnic minorities in higher education and high status jobs is not due to lower aspirations. In fact, Latinos, African Americans, and Whites have consistently reported nearly equivalent aspirations (Arbona & Novy, 2001; Constantine et al., 1998; Fouad & Byars-Winston, 2005). However, there is some evidence that despite having equivalent aspirations, some ethnic minority students display lower expectations of their actual educational and occupational future (Hellenga, Aber, & Rhodes, 2002; Evans & Anderson, 1973; Arbona & Novy, 1991). Similarly, one
study found that lower SES students display greater discrepancy between their occupational aspirations and expectations as compared to higher SES students (Bogie, 1976). Thus within the SCCT framework personal or contextual variables such as PSC may moderate the link between interests and choice.

**Social Class and Educational Development**

The way in which social class has been studied in the career and educational development literature reflects the same limitations that appear within the counseling psychology literature in general. A review of the literature from 1990 to 1996 revealed that SES is related to career decision-making attitudes, work experience, and career aspirations (Brown et al., 1996). The authors summarized two key findings in regards to SES and work behavior: (a) SES impacts people’s psychological beliefs about their career potential such that those of higher SES aspire to more prestigious careers than those of lower SES and (b) SES background impacts educational attainment and exposure to work experiences such that those of a higher SES background tend to attain a higher educational level and are more likely to have access to early work experiences. While Brown and colleagues point out that the existing research almost universally relies on traditional demographic indicators of SES, they argue that there is some evidence that class status impacts educational goals and vocational behaviors.

The area within the literature where SES has received the most attention is in relation to educational or occupational aspirations, expectations, and attainment. Research studies utilizing large representative data sets of adolescents and young adults have found that objective SES is positively related to educational aspirations (Kao & Tienda, 1998; Solorozano, 1992; Schoon & Parsons, 2002; Rothon, Arephin, Klineberg,
Cattell, & Stansfield, 2011), educational expectations (Rojewski & Yang, 1997; Mello, 2009), and educational attainment (Schoon & Parsons, 2002; Majoribanks, 1991). Additionally, among high achieving, high aspiring 8th graders for every one standard deviation increase in SES, students were 2.56 to 3.32 times more likely to maintain their educational expectations 2 years post-high school (Trusty & Harris, 1998). Furthermore, SES is positively related to occupational expectations (Rojewski & Yang, 1997; Mello, 2009; Majoribanks, 1991) and occupational attainment (School & Parsons, 2002). Alternatively, at least one study found that the link between SES and occupational aspirations failed to reach the cutoff (d ≥ .20) for a meaningful effect (Howard, Carlstrom, Katz, Chew, et al., 2011). It’s important to note that the inability to reach a meaningful effect may have been the result of the authors’ treatment of SES as a dichotomous variable and use of a predominantly White sample.

Objective SES has also been included in various tests of the SCCT (Lent, Brown, & Hackett, 1994; Lent & Brown, 1996) interest and choice model. SES has been found to be positively related to math SE (Navarro, et al., 2007), general vocational/educational SE and OE (McWhirter & Chronister, 2005), and career decision-making SE (Huang & Hsieh, 2011). Within the context of academic development and post-secondary goals SES had been found to be positively related to college SE (Agayo, Herman, Ojeda, & Flores, 2011). In addition, the combination of SES, SE, OE, and perceived barriers has been found to discriminate between students’ post-secondary educational aspirations (Ali & McWhirter, 2006). While these findings regarding SES and educational/occupational development are promising they fail to address the impact that internalized class attitudes and beliefs have on the process.
Recent attempts have been made to incorporate PSC as a contextual variable within the SCCT model. Initial results suggest that PSC is positively related to college students’ career decision certainty (Thompson & Subich, 2007; 2011). In addition, the link between PSC and decision certainty appears to be at least partially mediated by SE (Thompson & Subich, 2007) in the same way that other contextual variables are mediated by cognitive evaluations in the model (Sheu et al., 2010, Lent et al., 2001; Lent et al., 2003). While these are promising findings, they have yet to be incorporated into the full SCCT interest and choice model. It is also important to note that these studies have largely relied on college-aged samples.

**Purpose of Study and Research Hypotheses**

The purpose of the current study is to examine the impact of perceived social class (PSC) on the development of interests in college related tasks and intention to pursue a college degree. The study builds upon the existing research on SCCT (Lent et al., 1994) as it applies to educational development. Specifically, it examines the impact of perceived social class (personal characteristic) on college choice intention (choice behavior) by testing three alternative models suggested by SCCT: (a) a partially mediated model in which PSC influences college intentions directly and indirectly through its influence on college self-efficacy, outcome expectations, and interest; (b) a fully mediated model in which PSC has indirect effects on college intentions via college self-efficacy, outcome expectations, and interests but retains no concomitant direct effect on choice intentions and (c) a null model in which PSC has no effect on college intentions, self-efficacy, outcome expectations, or interests.
An alternative hypothesis is that interest in college related tasks is more strongly associated with college choice intention for students who perceive a higher level of social class as compared to students who perceive a lower level of social class. In order to test this alternative moderator hypothesis a hierarchical multiple regression (HMR) analysis will be performed based on the procedures outlined by Frazier, Tix, and Barron (2004). The analysis will include a predictor variable (college interest), a moderator variable (perceived social status), and an outcome variable (college intention). HMR will be used because it allows for the variables and the interaction term (predictor by moderator) to be entered in separate steps. In the literature, PSC has not been tested as a possible moderator between college interest and college intention. Therefore, the expected \( \Delta R^2 \) at the step where the interaction term is added will be small (\( R^2 > .02 \)) based on Cohen’s (1992) conventions for multiple regression.
CHAPTER TWO
LITERATURE REVIEW

The following chapter provides a comprehensive discussion of the psychology of social class including origins, methodological issues, and the development of a theoretical model of perceived social class. This chapter also reviews major tenants of the interest and choice model within social cognitive career theory (Lent & Brown, 1996; Lent, Brown & Hackett, 1994) as it applies to educational development. Finally, the chapter provides an in-depth review of existing research regarding the relation between social class variables and educational development.

Socioeconomic Status and Poverty in the United States

The terms social class and socioeconomic status (SES) conjure up a multitude of images associated with wealth (large estates, high fashion, delicacies) and poverty (substandard housing, utilitarian dress, destitution). The most recent Census data shows that 15.1% of the United States population is living below the poverty line as of 2010. A review of the last 40 years shows that the poverty rate has fluctuated with the overall health of the economy, yet over that period it has held steady between 11.1% and 15.2% despite numerous efforts to raise wages and improve Americans’ overall standard of living. A closer examination of the numbers reveals that income remains divided along racial lines with the median income for Whites at $54,620 as compared to African Americans/Blacks at $32,068 and Latinos at $37,068. Furthermore, while all Americans
have seen income decline since the peak of household income in 1999 the top 10% of earners have fared the best with only a 1.5% decline in income versus a 7.1% decline for those below the median and a 12.1% decline for the bottom 10% of earners (U.S. Census Bureau, 2011).

The distribution of income has also become increasingly skewed in favor of the highest earners, with the top 20% accounting for 50.2% of all income in 2010 versus 43.6% of all income in 1967. The largest earners are far outpacing the rest of the country with the top 5% of earners generating 21.3% of all income (U.S. Census Bureau, 2011). Yet, data on the poverty rate and income distribution remain insufficient to describe the complexity within the American class system. Specifically, the lack of data regarding total wealth and the fundamental disregard for examining the stark differences in social networks and opportunities based on access to social capital makes it impossible to understand the full psychological impacts of class in our society.

**The Psychology of Social Class**

The APA Task Force on Socioeconomic Status (TFSS; 2007) suggested that although economic standing has been examined in psychological research, it has primarily occurred within a materialist framework. More specifically, the report argues that researchers primarily focus on objective SES differences that are based on a set of objective markers used to estimate individuals’ economic standing. Scholars in the field have argued that SES constitutes both an objective difference in access to resources and status (Oakes & Rossi, 2003) and an assigned position within a defined economic hierarchy (Liu & Ali, 2008). A review of the empirical literature shows that in practice SES is primarily assigned by researchers based on a set of objective indicators including
income, education level, occupational prestige, or some combination of the three (Liu et al., 2004a; Diemer & Ali, 2009; Brown et al., 1996). Thus, SES is best defined as an assigned level within an economic hierarchy based on objective access to resources and attainment of specific indicators of status (i.e. education or occupation). It is important to note that the materialist approach utilizes objective SES as a grouping variable (lower, middle, upper) making it impossible to account for individual perceptions of social status (Liu et al., 2004a). Furthermore, SES does not take into account additional subjective factors associated with class such as social and political influence (Fouad & Brown, 2000; Rossides, 1997) or differential access to certain privileges or experiences (APA, 2007; Liu et al., 2004b).

The TFSS (2007) proposed that perceived social class (PSC) represents a useful alternative for researchers who are interested in a psychological sense of social status. Similarly, Liu and colleagues (2004a) argue that individuals’ knowledge about their social position and the social position of others is what determines their PSC separate from their assigned SES. The most basic way to assess PSC would be to simply ask individuals how they would categorize themselves relative to others in the economic hierarchy. However, when asked about their status directly individuals overwhelmingly identify themselves as “middle class” despite evidence that an examination of their resources would indicate a relatively higher or lower social class status (Scott & Leonhardt, 2005; Rossides, 1997). Thus, it appears that PSC is partially determined by an individual’s objective resources and status, but is also influenced by the meaning given to membership in a particular status group (Fouad & Brown, 2000). In other words, individuals who perceive that they are members of a particular class develop a
certain schema about their consumption behaviors (e.g. shopping, eating, travel), hobbies (e.g. art collection, bowling, fishing), and values that are associated with their social class group (Liu, 2001; Liu et al., 2004a). For the purpose of this study PSC will be defined as a perceived position within a social and economic hierarchy based on a set of beliefs about what it means to be a member of a particular class. Given that counseling psychology is particularly interested in examining a psychological sense of social class, PSC is a more appropriate variable to consider within the framework of educational, occupational, or social development. However, determining how to best assess PSC will require a review of methodological and measurement issues for assessing SES and PSC.

Methodological and Measurement Issues

Reviews of the SES and social class literature have revealed a number of issues in terms of research design and measurement (Liu et al., 2004a; Liu & Ali, 2008; Oakes & Rossi, 2003; Brown, et. al., 1996). Liu and colleagues (2004a) performed a content analysis of three major journals in counseling psychology and found that 18% of all publications included a class variable. Among the 384 empirical articles that considered social class only 13% of them included a class variable in the introduction, methods, results, and discussion compared to 53% of the studies that mentioned class in the introduction or methods sections but did not include it in the main analysis. This finding supports the assertion that class is seldom a central focus of investigators; rather it is most often included as a basic description of participant characteristics that can be controlled in the investigation of other psychological variables (Brown et al., 1996; Oakes & Rossi, 2003). In addition, investigators who examine class status in depth often focus on a specific class group (i.e. middle class, working class, etc.) or split the sample to display
class differences (Liu & Ali, 2008; Fouad & Fitzpatrick, 2009). These practices restrict investigators' ability to both analyze class as a continuous psychological variable and to examine the contribution that class has on other psychological variables.

The measurement of SES and class variables has almost exclusively relied on objective indicators including income, education level, occupational level, or some combination of the three (Brown et al., 1996; Oakes & Rossi, 2003; Liu & Ali, 2008). In fact, Liu and colleagues (2004a) found that the majority of empirical studies employed non-distinct, self-reported demographics such as parental education or percentage of students receiving free or reduced lunch to assess participants’ SES. In general, these indicators are all sociological in nature and are unable to capture the psychological impact of aligning with a particular social class group (Oakes & Rossi, 2003). Furthermore, commonly used indicators such as income level are likely to be inaccurate for assigning a person to a particularly SES because they do not account for familial wealth (Fouad & Brown, 2000) or differences in spending and saving habits (Liu et al., 2004b). In fact, the results of an analysis performed by Wolff (1998) found that, while the top 10% of households accounted for 71% of the wealth in the U.S., the same group accounted for only 41% of the total income (as cited in Deimer & Ali, 2009).

Three other prominent ways of estimating SES include education level, occupational status, or some combination of the two. There is clear evidence that an individuals’ level of education predicts both income and lifetime earnings (U.S. Census Bureau, 2011; Pew 2011). However, grouping individuals based on highest degree earned fails to take into account a full range of educational experiences including the quality of education received, differences in networking opportunities (i.e. student
organizations, fraternities, alumni, etc), and the prestige of the institution attended (Liu et al., 2004b; Liu 2001). Alternatively, occupational status provides insight into a multitude of factors associated with SES including income potential, prestige associated with the position, and level of control over work responsibilities or organizational practices. However, in practice most measures effectively index occupational prestige based on a non-scientific system of subjective opinion or focus primarily on the required education and income potential of the position (Oakes & Rossi, 2003).

The most commonly used continuous measures of SES such as the Hollingshed Index (HI; Hollinshead & Redlich, 1958; Hollinshead, 1971, 1975) and Duncan’s Socioeconomic Index (SEI; Duncan, 1961; Reiss, Duncan, Hatt, & North, 1983) both generate scores based on a combination of education level and occupational prestige. Although these indices provide a slightly more detailed picture of status they are subject to similar methodological criticism. In reviewing the two scales Oakes and Rossi (2003) point out that HI scores are essentially prestige scores that were created by the developers to classify occupations based on a 1970’s conception of the world of work and were never subject to the peer-review process. Alternatively the authors suggest that Duncan’s SEI received more regular updates than the HI but is still subject to criticism because it bases occupational prestige solely on required education and income potential. Both measures fail to tap into psychological class status in any meaningful way and therefore should only be utilized as indicators of objective SES. The limitations associated with objective measures of SES, and the methodological limitations associated with restricting class status to a demographic or grouping variable, provide further justification for the
development of alternative assessments of subjective or perceived class status based on sound psychological theory.

**Differential Status Identity Theory**

Differential Status Identity Theory (DSI; Fouad & Brown, 2000) provides a framework for understanding class difference in terms of individuals’ unique social class identity development. DSI posits that an individual’s social identities (race, class, etc.) emerge from a combination of psychological processes that include self construction (Baumeister, 1998; Cross & Madson, 1997), group affiliation (Brewer & Miller, 1996; Kemper, 1995), and intergroup relations (Tajfel, 1974) within a larger social context. Fouad and Brown (2000) argue that individuals’ psychosocial development and behavior are driven by the extent to which they differ from or are perceived to differ from some other person or perceived standard in terms of resource, status, or power. It is this perceived difference or *differential status identity* that individuals use to define their social standing. Furthermore, it is individual’s beliefs about their class standing that ultimately influences their interests, values, goals, and motivations. For example, when coming into contact with people from a higher or lower status individuals are likely to become aware of their relative access to resources and power such as desirable consumer goods, a quality education, or opportunities to influence existing social structures. This psychological process will then impact other aspects of identity and behavior. For example, individuals that perceive a lower relative status are likely to display interests and aspirations that reflect their perception of lower access to the goods, services, and social influence. These perceptions are also limiting in terms of the individuals’ development of certain interests or goals. In the educational realm these individuals may
develop expectations that exclude higher education and instead develop educational or occupational interests in tasks that they perceive to be more representative of their social standing.

DSI theory (Fouad & Brown, 2000) outlines three key components that contribute to a psychological sense of social status based on the three primary domains from Rossides’ (1997) Social Stratification Theory. The first is perceived access to resources which constitutes individuals’ ability to accumulate monetary assets and to procure material goods and services. By considering access to both basic necessities as well as luxury goods and leisure opportunities, this variable is able to account for differences that exist in purchasing behaviors, saving practices, and overall wealth. The second is perceived social power which constitutes individuals’ beliefs about their ability to control or influence social policy, legal policy, and the practices of public and private institutions. The third is social prestige which constitutes individual’s beliefs about the value of their social affiliations, occupations, and consumption behaviors within the greater society. Social prestige beliefs likely develop in response to experiences of classism, which Liu and colleagues (2004b) describe as both a top-down (i.e. discrimination of lower classes perpetrated by members of the upper class) and a horizontal process (i.e. exclusion of a person at a similar economic level due to differences in attitudes or values) that in essence pathologizes certain economic or social practices.

In sum, DSI theorizes that PSC is a complex variable that incorporates both sociological and psychological factors associated with social status. In addition, social class influenced individuals’ development via the beliefs they form about their own class
standing. According to DSI these beliefs include perceived access to resources, social prestige, and social power. The introduction of a more complex model of class allows for a clear delineation between SES and PSC variables. It also allows for a more accurate assessment of a psychological sense of social class status.

**Social Cognitive Career Theory**

Within vocational and educational psychology one of the most well established and empirically validated theories of career attitude and behavior is Social Cognitive Career Theory (SCCT; Lent, Brown, & Hackett, 1994). SCCT is based on the tenants of Albert Bandura’s (1986) social cognitive theory as it applies to vocational identity and performance. The central tenant of SCCT is that individual characteristics (i.e. cognitive states, personality factors, social identities) along with environmental context (i.e. neighborhood, community, and school characteristics) influence students’ learning experiences. These learning experiences are then used to form the basis for cognitive evaluations of the vocational/educational self (i.e. self efficacy) and the vocational/educational environment (i.e. outcome expectations). Within SCCT, social group affiliations such as race, ethnicity, and SES are considered personal variables that influence learning experiences. The theory also accounts for general environmental or contextual variables such as availability of support, barriers, and cultural influences that impact learning experiences. The inclusion of personal and contextual variables in SCCT makes it an ideal theory for examining the impact of cultural variables such as perceived social class on behaviors related to educational and vocational development.

The Interest and Choice Model is an application of SCCT that explains the process of interest development and career choice making (Lent et al., 1994; Lent &
Brown, 1996). The model outlines three primary cognitive evaluations that contribute to making an educational or vocational choice: self-efficacy (SE) beliefs, outcome expectations (OE), and interests. SE beliefs are cognitive evaluations of one’s capability in terms of specific educational or occupational tasks. OEs are cognitive evaluations of the consequences of choosing a particular educational path or vocation. These two evaluations are the primary driver of interest development for a particular vocation which in turn is the primary predictor of goal setting behavior and choice. It is important to note that cognitive evaluations such as SE or OE are domain specific and therefore are unable to accurately translate to other areas of interest or skill. In sum, the theory states that SE and OE are central to the vocational choices that people make, both directly and indirectly via their influence on interest development.

The SCCT framework was primarily developed to describe the career development process; however it has been successfully applied to educational development and educational goal setting behaviors. Many investigations have focused on educational interest and choice in STEM (science, technology, engineering, & math) fields within a college population (e.g. Hackett, 1985; Ganior & Lent, 1998; Lent et al., 2001, 2005). Others have focused on educational interest and choice in one or more of Holland’s (1997) RIASEC themes (Brown, Lent, & Gore, 2000; Lent et al., 2003; Ferry, Fouad, & Smith, 2000). One of the earliest investigations found that math SE was related to choice to pursue a degree in math while the impact of math performance on choice was fully mediated by SE (Hackett, 1985). This result provided initial evidence that cognitive evaluations of ability rather than objective performance are the primary driver of educational and occupational choice. Later investigations testing a more complete SCCT
model found that both SE and OE are related to interest in STEM subjects and choosing a major in a STEM field (Lent et al., 2001, 2005). Additionally, there is evidence that OE makes a unique contribution to variance in educational interests above and beyond SE and that the same is true of SE above and beyond OE (Ganior & Lent, 1998; Diegleman & Subich, 2001).

One consistent finding across studies of the Interest and Choice Model in college students is that interest in a particular educational field is the strongest predictor of choosing a major in that field (Ganior & Lent, 1998; Lent et al., 2001, 2005; Diegleman & Subich, 2001). However, what remains in question is whether SE and OE influence choice directly or indirectly via their relation to interest. Ganior and Lent (1998) found that SE and OE had direct and indirect effects on choice intention for African American college students. However, Lent and colleagues (2003) found that SE had both a direct and an indirect effect on choice, while OE only had an indirect effect on choice via interest. Sheu and colleagues (2010) meta-analytic path analyses across Holland (1997) themes found that SE and OE each had a direct and indirect effect on choice but the authors noted that OE had much larger direct effects while SE had much larger indirect effects via interest and OE. In sum, the SCCT model adequately explains the development of educational interests and choice behavior in college students, although the specific mechanisms require further investigation.

The Interest and Choice Model has also been applied to high school and middle student populations. One investigation found that high school students’ math SE and OE each made a unique contribution to students’ interest in math related course work (Lopez, Lent, Brown, & Gore, 1997). Similarly, Fouad and Smith (1996) found that middle
school students’ math and science SE and OE were related to students’ interest in math and science, while interests along with SE and OE were related to goal intentions in the areas of math and science. The authors note that while OE seemed to have a strong direct effect on goal intentions ($\beta = .39$), SE had a weaker direct effect ($\beta = .13$) but a stronger indirect effect via interests and OE. Finally, Navarro, Flores, and Worthington (2007) tested the full interest and choice model for explaining the development of math/science interest and goals of Mexican American middle school students from low SES families. The authors found significant direct relations from SE and OE to goals. They also found that for OE there was a significant indirect relation to goals via interest and for SE there was a significant indirect relation to goals via interests and OE. These findings suggest that the interest and choice model can be appropriately applied to adolescents’ academic development in terms of specific educational domains. Furthermore it appears that the pattern of direct and indirect relations among SE, OE, interest, and goals for adolescents matches the pattern suggested by Sheu and colleagues (2010) meta-analytic review. Taken together these findings suggest that SCCT’s Interest and Choice Model has some initial promise for outlining adolescents’ educational interest development and choice intentions.

**Social Class and Educational Development**

Despite the increasing consideration given to contextual variables in modern theories of educational and vocational development, the role of social class has continued to receive limited attention within vocational psychology. A review of the vocational literature from 1990-1996 revealed 71 articles examining the relation between some indicator of social class and at least one educational or career variable (Brown et al.,
The authors note that the majority of these studies relied exclusively on objective measures of SES and did not include class variables in the primary analysis. The review identified 4 primary subcategories in which SES was being researched: (1) career choice attitudes (i.e. aspirations, career decision making), (2) career/educational choice behavior (i.e. educational/occupational attainment), (3) work behavior (work centrality, quality of job experience), and (4) retirement behavior. Although no formal meta-analytic procedures were utilized, a summary description of the research was provided for each subcategory. For career choice attitudes the authors suggested that SES had a small but inconsistent relation to aspirations. Furthermore, in terms of career choice behavior, the authors identified a consistently positive relation between SES and educational attainment as well as evidence that the positive relation between SES and occupational attainment may be mediated by educational attainment. However, the authors’ primary critique in their review was the overreliance on objective indicators of SES. Yet, despite the measurement limitations these findings are promising in regards to SES and social class playing a significant role in educational development.

**SES and Educational/Occupational Aspirations and Expectations**

In the 16 years following Brown and colleagues (1996) review career and educational researchers have been increasingly interested in the impact of SES and other demographic factors on educational or occupational aspirations, expectations, and attainment. Although aspirations and expectations represent separate constructs they have often been used interchangeably in the literature. Thus, for clarity sake this summary will follow Rojewski’s (2005) recommendation to define aspirations as an individual’s expression of a hoped for or idealized goal and expectations as an
individual’s expression of a realistic or anticipated end. Also, for this review the terms educational attainment and occupational attainment will be used only when referencing the actual education or occupation level attained by the individual.

The field has long recognized that for children and adolescents background variables such as SES, race, and gender influence educational and occupational aspirations which in-turn influence educational and occupational attainment (Sewell & Shah, 1968; Sewell & Hauser, 1975). Recently the establishment of large representative data sets such as the National Educational Longitudinal Study: 1988 (NELS: 88) have allowed for empirical analysis testing this hypothesis at distinct time points from 8th through 12th grade. The NELS:88 includes items assessing family background characteristics including parents’ education level, parents’ occupation, and income. These measures have been used by researchers individually or in combination to estimate SES and study its impact on educational and occupational development (see Solorzano, 1992; Trusty, 1998; Trust & Harris, 1999; Kao & Tienda, 1998; Rojewski & Yang, 1997; Mello, 2009).

The findings across studies of the NELS88 database have been relatively consistent regarding the impact of SES on aspirations and expectations. In one of the first studies, Trusty (1998) found that SES was a better predictor of educational expectations than other family background variables such as parental involvement or emotional support. By grouping students into four SES (parental education, occupation, income) quartiles he found that within the bottom quartile 20% of students expected to only complete high school while 12% expected to complete at least a master’s degree. These percentages were reversed for those in the top SES quartile where 2% expected to
only complete high school and 40% expected to complete at least a master’s degree. Further study of the NELS:88 has revealed that parents’ education and family income are both positively related to educational aspirations at 8th, 10th, & 12th grade (Kao & Tienda, 1998). Furthermore the positive relation between SES and educational aspirations exists for both White and African American 8th graders (Solorzano, 1992). Similarly, Rojewski and Yang (1997) using latent variable path modeling found a significant direct path from SES to 8th grade occupational expectations after controlling for the impact of both gender and race. Additionally, among high achieving, high aspiring (minimum bachelor’s degree) students in 8th grade for every one standard deviation increase in SES, girls were 2.56 times and boys were 3.32 times more likely to maintain their educational expectations at 2 years post-high school (Trusty & Harris, 1998). Finally, a recent longitudinal analysis revealed that SES was positively associated with educational expectations and occupational expectations after controlling for academic achievement; this effect held from age 14 to 26 despite changes in overall expectation levels as students persisted through higher grade levels and into higher education (Mello, 2009).

The link between SES and aspirations/expectations has also been found for adolescents and young adults in other industrialized nations (School & Parsons, 2002; Rothan et al., 2011; Majoribanks 1991). A longitudinal study of two national British cohorts from 16 to 33 (1958-1992) and 16 to 26 (1970-1996) revealed that composite family SES has a significant positive effect on teenage educational aspirations, educational attainment at age 16, and occupational attainment in adulthood (Schoon & Parsons, 2002). An additional study of London teens found that students who were eligible for free lunch were only .64 times as likely to aspire to continuing their education
after completing secondary school as students who were not eligible for free lunch (Rothon et al., 2011). Finally, a study of 20 year-old young adults in Australia found that for men SES was positively related to educational attainment and occupational expectations and for women SES was positively related to occupational expectations (Majoribanks, 1991).

Despite the numerous results showing a link between SES and aspirations/expectations there is at least some recent evidence that the link may not be sufficiently meaningful. Howard and colleagues (2011) utilized a large Midwestern database of 8th and 10th grade students to investigate the link between SES and occupational aspirations. They found that high SES students were more likely to aspire to careers with higher median salaries ($d = .16$) while lower SES students were more likely to aspire to careers requiring higher education ($d = .12$). However, the authors point out that the effects failed to reach the .20 cutoff suggesting that SES did not have a meaningful effect on aspirations. However, certain methodological issues may account for their disparate results. First, the authors relied on participation in a free or reduced lunch program to create a dichotomy of low and high SES students, essentially restricting the variance in all subsequent analyses. Secondly, the sample was overwhelming white (87%), suggesting that the results may not be applicable to a more diverse population. In fact, the authors found that among Asian/Pacific Islanders and Native Americans in their sample SES was significantly related to occupational aspirations.

In sum, SES appears to be an important factor influencing educational and occupational aspirations, expectations, and attainment. Furthermore, there is evidence that SES impacts goal setting behaviors after controlling for other socio-cultural
influences including nationality, race, ethnicity, and gender. However, the existing studies are unable to examine the psychological influences of social status on goal setting behaviors due to their universal reliance on objective indicators of class status. Future research on goal setting attitudes (aspirations, expectations) and behaviors (attainment) could benefit from framing their investigations within an organizing theory of career and academic development. Furthermore, within the SCCT paradigm the potential role of PSC in explaining the gap between aspirations and expectations should be explored by testing PSC as a potential moderator between aspirations (i.e. interest) and expectations (i.e. choice intentions).

**SES and Social Cognitive Variables**

Recent studies of SCCT (Lent, Brown, & Hackett, 1994) have investigated the role of personal and contextual variables such as SES in educational and occupational development. Navarro and colleagues (2007) used the SCCT framework to examine the impact of SES, generational status, and cultural orientation on the math and science interests and goal intentions of Mexican American 8th grade students. The authors found that SES directly related to past math and science performance and indirectly related to SE via past performance. In addition, the authors found that the full SCCT model accounted for significant variance in both interests ($R^2 = .22$) and goals ($R^2 = .40$). In a similar study of economically diverse 9th grade students, Ali, McWhirter, and Chronister (2005) found that SES was correlated with vocational/educational SE ($r = .24$) and vocational OE ($r = .22$). However, in their regression analysis SES did not account for unique variance in SE and OE above and beyond what was accounted for by perceived support and anticipated barriers. Finally, SES has also been found to correlate with
career exploration intentions among Taiwanese college students (Huang & Hsieh, 2011).

There are a handful of studies that have examined the link between SES and SCCT variables in the context of college aspirations and performance (Aguayo et al., 2011; Ali & McWhirter, 2006; Ali & Saunders, 2006). Agayo and colleagues (2001) found that among Mexican American college students SES significantly correlated with both college SE ($r = .20$) and college GPA ($r = .24$). Additionally, the authors examined a large set of personal and contextual factors (i.e. gender, age, acculturation status) and found that SES along with acculturation/enculturation status were the only significant predictors of college SE. Finally, a similar examination of students’ academic performance revealed that SES was the only significant predictor of GPA among the same set of factors.

An additional set of studies investigated the impact of both SES and SCCT variables on the post-secondary aspirations of Appalachian high school students (Ali & McWhirter, 2006; Ali & Saunders, 2006). The first study used discriminant function analysis (DFA) to determine which cognitive variables (e.g. SE and OE), personal variables (i.e. objective SES), and contextual variables (e.g. parent support and perceived barriers) best predicted student’s post-secondary aspirations (Ali & McWhirter, 2006). The four aspiration categories were pursuing (a) a professional degree, (b) a bachelor’s degree (c) vocational or technical training, or (d) full-time employment. SES was found to be the third largest of the four significant predictors that discriminated among the four aspiration groups; it was behind SE and OE and just ahead of perceived barriers. The four significant predictors correctly categorized 67% of the total sample, 84% of the college group, and 92.9% of the professional degree group. These findings are important
for two reasons: (a) they suggest that SES has a significant impact on aspirations along with cognitive variables and (b) that SES has an impact on aspirations that is not accounted for by its inclusion as one of the possible perceived barriers to educational goals.

In the second study Ali and Saunders (2006) used regression analysis and found that vocational/educational SE accounted for 18.4% of the variance in college expectations of Appalachian high school students. Neither parent occupation nor parent education accounted for unique variance in college expectations beyond SE and parental support. However, an examination of the zero-order correlations showed that father’s education level was positively related to vocational/educational SE ($r = .26$). These findings suggest that even if SES does not have a direct impact on college expectations it may still impact it through its association with SE.

In sum, the research on contextual and personal variables within the SCCT framework suggests that SES is an integral variable impacting students’ educational and occupational development. However, additional research is necessary to understand the specific mechanisms by which SES influences students’ behavior. In addition, researchers need to consider social class as a psychological variable rather than a demographic variable. This is especially important given the use of unsound objective measures that may be contributing to some of the disparate results regarding the impact of SES on vocational behavior. The previously outlined arguments in favor of examining social status as a psychological variable seem to suggest that individuals’ beliefs about their status are likely to have a greater impact on their thoughts processes, self-evaluation, and decision making. Therefore, it is plausible that a more complex PSC
variable will account for unique variance in SE, OE, and goal intentions within the SCCT framework. This may occur despite at least some evidence that objective SES may not be a significant predictor of these variables after accounting for the impact of other cognitive (Ali & Saunders, 2006) or contextual variables (Ali et al., 2005).

**Perceived Social Class and Educational Development**

Growing interest in the study of social class as a psychological variable (APA, 2007; Liu et al., 2004) and the development of a theoretical understanding of the influence of PSC on psychological variables (Fouad & Brown, 2000; Lent, Brown, Hackett, 1994) has allowed for some initial empirical investigation of PSC within vocational psychology. In the literature, PSC is most often assessed by the recently developed Differential Status Identity Scale (DSIS; Brown et al., 2002) based on Fouad and Brown’s (2000) theory. Initial validation of the DSIS revealed a four factor structure retaining social power and social prestige as independent factors and splitting access to resources into the economic resources-amenities factor and the economic resources-basic needs factor (Thompson & Subich, 2007). Subsequent empirical investigations using the DSIS have found that PSC is positively related to career decision certainty (Thompson & Subich, 2007; 2011). Consistent with recent findings regarding personal and contextual variables within the SCCT framework (Bandura, 1999; Sheu et al., 2010), the link between PSC and career outcomes appears to be mediated by context specific cognitive evaluations. Specifically, Thompson and Subich (2007) found that the link between PSC and career choice comfort is fully mediated by SE.

The influence of PSC on self-efficacy and outcome expectations within the context of SCCT’s interest and choice model (Lent & Brown, 1996) has also been the
target of recent empirical investigation. Thompson and Dahling (2012) examined the link between PSC, SE, and OE across Holland’s (1997) RIASEC typologies. The authors found evidence of a direct link between PSC and self-efficacy and between PSC and outcome-expectations for Investigative, Enterprising, and Conventional careers. In addition, they found that across the IEC typologies the link between PSC and SE, as well as the link between PSC and OE were mediated by students’ typology specific learning experiences. Additional research is needed to understand why PSC did not have the same significant impact on SE and OE for the Realistic and Social typologies. However, the authors suggest that low career prestige for Realistic occupations and the seemingly less resource dependent nature of learning experiences in the Social domain may partially explain these findings. Finally, PSC appears to be a significant predictor of the discrepancy between college students’ occupational aspirations and expectations in terms of the cognitive complexity of the desired versus expected career (Metz, et al., 2009).

The existing literature on PSC in vocational psychology is promising in regards to its influence on a range of social-cognitive outcomes. While existing studies have made some attempts to sample from culturally and economically diverse populations, they have all been limited by a reliance on college student sampling. To advance the research it will be necessary to examine PSC among diverse adolescent populations (e.g. high school students, community college students) and working adults. Additionally, future research should build off of existing studies by testing a more complete SCCT model that includes PSC. Finally, initial evidence that PSC is related to the aspiration-expectation gap should be further explored by testing PSC as a moderator between aspirational interests and goal intentions.
Summary of the Problem

In sum, there is both a sound theoretical rationale and initial empirical support to suggest that personal and contextual variables such as SES and PSC influence learning experiences and educational development. However, the existing research has almost exclusively examined social status through the use of demographic indicators of SES. This practice persists despite a movement within psychology to treat class as a psychological variable that expands beyond income and education level (APA, 2007; Liu et al., 2004; Fouad & Brown, 2000; Diemer & Ali, 2009). Previous studies found that SES is related to high school students’ educational aspirations and expectations to pursue a college degree (Trusty, 1998; Kao & Tienda, 1998; Rojewski & Yang, 1997; Solorzano, 1992; Ali & McWhirter, Ali & Saunders, 2006). However, these studies lack two key elements: (a) an examination of all the cognitive predictors of choice behavior including college self-efficacy, outcome expectations, and interests; and (b) an examination of the role that a student’s PSC has in predicting college interest development and college choice making behavior. Thus, this study will attempt to address this gap in the literature by integrating PSC into the SCCT Interest and Choice model for predicting high school students’ intention to pursue a college degree.

Previous research suggests three possible ways in which PSC might impact college choice intention (CCI). First, it may predict CCI both directly and indirectly (i.e. partial mediation) through college self-efficacy (CSE), college outcome expectations (COE), and college interests (CI). Thus, a partial mediation model (Model A) will free all paths proposed by the interest and choice model and will free a path from PSC to CSE, COE, and CCI. Second, PSC may predict CCI indirectly via CSE, COE, and CI
and have no concomitant direct effect on CCI (i.e. full mediation). Thus, a full mediation model (Model B) will free all paths proposed by the interest and choice model while fixing the direct path from PSC to CCI at zero. Finally, PSC may not have a meaningful impact on CCI, CSE, or COE. Thus a null model (Model C) will free all paths proposed by the interest and choice model while fixing the direct paths from PSC to CSE, COE, and CCI at zero. Alternatively, it is possible that PSC will impact the relation between college interest and choice intention. This moderation effect would result in individuals with higher PSC displaying a stronger relation between CI and CCI than students with lower PSC.
CHAPTER THREE

METHOD

Participants and Procedure

Participants were recruited from high schools, church youth programs, and academic development organizations in urban and suburban areas within a large Midwestern city. Using an Institutional Review Board (IRB) approved script (see Appendix A), high school students were recruited from 8 sites with approval from staff and administrators at each site. Students who had been previously accepted to a post-secondary institution or had pre-arranged employment plans post-high school were ineligible to participate in the study. Sites included two urban private schools (N = 71), one suburban private school (N = 22), two urban charter schools (N = 63), one church youth program (N = 13), and two academic development organizations (N = 12).

The two urban private schools had an ethnically and economically diverse student body. Both schools had students complete an entrance exam and apply for admission prior to enrollment; the mission of each school included preparing students for college. The suburban private school is a predominantly White (15% minority) all boys school with a 95% college attendance rate. The median household income for surrounding communities ranged from $67,000-$107,000 in 2009 (“City data,” 2013). The first urban charter school was predominantly African American (96%) and 94% of students received free or reduced lunch. The second urban charter school is predominantly African
American. The median household income for surrounding communities ranged from $27,000-$43,000 (“Neighborhood,” 2013). Both schools offered college preparatory programming and high counselor-to-student ratios. The church youth program was predominantly White and included youth from a number of urban and suburban communities. The two academic development organizations worked with predominantly African American and Latino students. Both organizations had the mission of preparing students for college. The median household income for surrounding communities ranged from $27,000-$34,000 (“Neighborhood,” 2013).

The use of multiple recruitment sites was intended to sufficiently sample from a racially and economically diverse high school population. All potential participants were provided with a letter to parents describing the study and a parental consent form (See Appendix B and C, respectively). Participants returning a completed parental consent form were then provided with an assent form, demographics form, and study questionnaire (See Appendix D, E, and F, respectively). Participants were entered into a drawing for 1 of 8 gift cards ($10) and received a candy bar as an incentive to participate in the study.

While 181 students completed all study materials, those submitted by 5 (2.7%) participants were dropped due to missing items. Two cases were dropped for missing 13% ($k = 14$) and 14% ($k = 15$) of the total items respectively. Three cases were dropped for missing 33% or more of the items on one of the scales. In all 62.5% ($N = 110$) of the remaining participants had 0 missing values, 18.2% ($N = 32$) had 1 missing value, 15.9% ($N = 28$) had between 2 and 4 missing values, and 3.4% ($N = 6$) had between 5 and 8 missing values. The number of participants with missing items is not surprising given the
developmental level of the sample. The relatively high cutoff for missing values is necessary to ensure that the sample is not biased by excluding participants who elected to omit or missed items. In addition, recent literature on best practices for handling missing data suggest that using a stochastic imputation method such as expectation maximization (EM) retains the maximum statistical power of the sample and is preferable to deleting cases (Schlomer, Bauman, & Card, 2010). EM value replacement was completed using a maximum likelihood (ML) procedure for handling missing cases in the Prelis package of Lisrel 8.80 (Joreskog & Sorbom, 2001). The EM procedure is a recursive process that utilizes observed data to generate a covariance matrix that is then used to replace missing values. The procedure requires multiple iterations comparing a generated covariance matrix that includes both observed and missing values to the original covariance matrix for the observed data. The resulting missing values imputation is based on the full covariance matrix that most resembles the covariance matrix for the observed data. The EM method is preferable to non-stochastic methods such as mean or regression replacement because it does not restrict variance (Schlomer, Bauman, & Card, 2010).

While 176 participants may not seem insufficient for a complex latent variable modeling procedure, it is in line with the standard practice in field. While, no operation exists to estimate the power to detect sufficient overall model fit, statisticians have suggested that samples reach a minimum of 100 participants to be deemed moderate in size and 200 participants to be deemed large in size. However, a more prudent approach for determining a sufficient sample involves the use of a minimum sample target based on the complexity of the model(s) tested. Kline (2011) suggests that a 10:1 ratio of participants to estimated parameters in the model represents a reasonable target and
warns that a ratio of less than 5:1 is likely to cast doubt on the accuracy of the findings.

In the case of this study the most complex model is the partially mediated model that contains 17 paths to be estimated. Thus the final sample of 176 reaches and surpasses Kline’s 10:1 recommended target.

All demographic variables for the final sample are displayed in Table 1. The final sample is comprised of 176 participants including 72 boys (39.8%) and 99 girls (54.7%); an additional 5 participants (2.8%) elected not to report their gender. Participants’ ages ranged from 12 to 18 with an average age of 15.8 \( (sd = 1.16) \) excluding 5 participants who elected not to report age. The final sample included 67 freshman (37%), 25 sophomores (13.8%), 78 juniors (43.1%), and 5 seniors (2.8%) with 1 student (.6%) electing not to report year in school. The sample was racially diverse and included 80 African Americans (44.2%), 46 Whites (25.4%), 26 Latinos (14.4%), 17 Multiracial (9.4%), 4 Asian Americans (2.2%), 2 Native Americans (1.1%). In addition, 5 participants (2.8%) identified their race/ethnicity as “other” and 1 participant (.6%) elected not to report race/ethnicity. The family income of participants was sufficiently diverse in that slightly less than one-quarter of participants (23.7%) reported family income of less than $40,000 annually while slightly less than one-fifth of participants (18.3%) reported family income greater than $100,000 annually. However, it is important to note that a significant number of participants \( (N = 46; 25.4\%) \) elected not to report family income. This is not surprising within an adolescent population that may be unaware of family income or may have been encouraged by parents not to share income information.
Table 1. Sample Demographic Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
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<tr>
<td>Male</td>
<td>74</td>
<td>42.0</td>
</tr>
<tr>
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<tr>
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<td>2.8</td>
</tr>
<tr>
<td><strong>Age</strong></td>
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<td></td>
</tr>
<tr>
<td>14 and under</td>
<td>25</td>
<td>13.9</td>
</tr>
<tr>
<td>15</td>
<td>51</td>
<td>28.2</td>
</tr>
<tr>
<td>16</td>
<td>41</td>
<td>22.7</td>
</tr>
<tr>
<td>17</td>
<td>50</td>
<td>27.6</td>
</tr>
<tr>
<td>18 and older</td>
<td>9</td>
<td>5.0</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European American, White</td>
<td>46</td>
<td>25.4</td>
</tr>
<tr>
<td>African American, Black</td>
<td>80</td>
<td>44.2</td>
</tr>
<tr>
<td>American Indian, Alaskan Native</td>
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</tr>
<tr>
<td>Asian American, Pacific Islander</td>
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<td>2.2</td>
</tr>
<tr>
<td>Mexican American, Chicano</td>
<td>17</td>
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</tr>
<tr>
<td>Latino, Hispanic</td>
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<td>5.0</td>
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<tr>
<td>Multiracial</td>
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</tr>
<tr>
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<tr>
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<td>0.6</td>
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<td><strong>Year in School</strong></td>
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<tr>
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<tr>
<td>Sophomore</td>
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<tr>
<td>Junior</td>
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<td>Senior</td>
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<tr>
<td>Missing</td>
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<td>0.6</td>
</tr>
<tr>
<td>Family Income (in thousands)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>$0-20</td>
<td>16</td>
<td>8.8</td>
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<tr>
<td>$20-60</td>
<td>56</td>
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<tr>
<td>$60-100</td>
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<td>15.5</td>
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<tr>
<td>$100-140</td>
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<td>10.5</td>
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<tr>
<td>$140+</td>
<td>14</td>
<td>4.4</td>
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<tr>
<td>Missing</td>
<td>48</td>
<td>26.5</td>
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<table>
<thead>
<tr>
<th>Social Class (self-report)</th>
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</tr>
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<tbody>
<tr>
<td>Lower Class</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Lower Middle Class</td>
<td>34</td>
<td>18.8</td>
</tr>
<tr>
<td>Middle Class</td>
<td>82</td>
<td>45.3</td>
</tr>
<tr>
<td>Upper Middle Class</td>
<td>40</td>
<td>22.1</td>
</tr>
<tr>
<td>Upper Class</td>
<td>12</td>
<td>6.6</td>
</tr>
<tr>
<td>Missing</td>
<td>10</td>
<td>5.5</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Father's Level of Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not Complete High School</td>
<td>26</td>
<td>14.4</td>
</tr>
<tr>
<td>GED/High School Diploma</td>
<td>47</td>
<td>26.0</td>
</tr>
<tr>
<td>Associate's Degree</td>
<td>27</td>
<td>14.9</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>27</td>
<td>14.9</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>18</td>
<td>9.9</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>9</td>
<td>5.0</td>
</tr>
<tr>
<td>Missing</td>
<td>27</td>
<td>14.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother's Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not Complete High School</td>
<td>15</td>
<td>8.3</td>
</tr>
<tr>
<td>GED/High School Diploma</td>
<td>9</td>
<td>5.0</td>
</tr>
<tr>
<td>Associate's Degree</td>
<td>28</td>
<td>15.5</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>50</td>
<td>27.6</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>14</td>
<td>7.7</td>
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</table>
When participants were given the opportunity to self-identify their class standing, a little fewer than half (44.8%) reported that their families were middle class, while the remaining participants reported either higher (27.6%) or lower (19.9%) class standing. Interestingly, only 3 participants (1.7%) indicated that their family’s status was lower class and only 12 participants (6.6%) indicated that their family’s status was upper class. Additionally, 9 participants (5%) elected not to report their family’s class standing. This tendency towards mid-point responding on items assessing individuals’ self-reported class standing is consistent with previous findings (Scott & Leonhardt, 2005; Rossides, 1997).

Approximately two-fifths of participants (39.2%) reported that their father’s highest level of education was a high school diploma or less. Similarly, about one-third of participants (34.3%) reported their mother’s highest level of education was a high school diploma or less. Alternatively, nearly one-third (29.8%) of participants reported their father’s level of education to be at least a bachelor’s degree and nearly two-fifths (38.1%) reported their mother’s level of education to be at least a bachelor’s degree. Twenty-five participants (13.8%) elected not to report father’s education level and 18 (9.9%) elected not to report mother’s education level.
Instruments

Perceived Social Class – Differential Status Identity Theory

The Differential Status Identity Scale (DSIS; Brown et al., 2002) is a 60-item self-report measure of perceived social class across the three distinct dimensions of economic resources, social power, and social prestige. The scale is based on Fouad & Brown’s (2000) Differential Status Identity Theory that defines social status as a multifaceted psychological sense of one’s social position relative to others within society. An initial exploratory factor analysis of the DSIS revealed four distinct factors which are each represented by four subscales (Thompson & Subich, 2007). The Economic Resources – Amenities (ER-A) subscale assesses individuals’ perception of their relative ability to gain access to material possessions and participate in leisure activities. The Economic Resources – Basic Needs (ER-B) assesses individuals’ perception of their relative ability to meet basic needs such as education and medical care. The Social Power (SPO) subscale assesses individuals’ perception of their relative ability to influence legal policy, social policy, and the practices of private and public institutions. The Social Prestige (SPR) subscale assesses individuals’ perception of the relative degree to which their social affiliations, occupation, and consumption behaviors are valued in society. The ER-A, ER-B, SPO, and SPR subscales contain 15, 15, 14, and 16 items respectively.

Instructions for the original DSIS scale asked individuals to "compare yourself to what you think the average citizen in the U.S. is like." These directions were modified for an adolescent sample to "compare yourself and your family to what you think the average citizen/family in the United States is like" (see Appendix F). In addition, the second item on the ER-A subscale was modified from “ability to give your children (now or in the
future) additional educational experience like ballet, tap, art/music classes, science camp, etc.” to “ability to afford additional educational experiences like...” All other items remained unchanged from the original scale. Participants were instructed to respond to the items based on their perceived status relative to “the average citizen/family in the United States” on a 5-point scale ranging from -2 (very much below average or much less) to + 2 (very much above average or much more). Scores on each scale were transformed to a 1 to 5 scale for data analysis purposes. Sample items for the ER-A scale were “ability to travel recreationally” and “ability to shop comfortably in upscale department stores”; for the ER-B scale were, “ability to afford prescription medication” and “ability to join a health club”; for the SPO scale were, “influence state or national educational policies” and “influence the policy of a corporation”; and for the SPR scale were, “type of home you live in” and “places where you shop.” Internal consistency estimates for the four subscales in a previous college sample were found to be .95, .95, .94, and .92 for the ER-A, ER-B, SPO, and SPR subscales respectively (Thompson & Subich, 2007). In the present sample of high school students the internal consistency estimates were .93, .94, .93, & .93 for the ER-A, ER-B, SPO, and SPR subscales respectively.

Thompson and Subich (2007) previously provided construct validity evidence for the DSI subscales including moderate to large ($r = .32$ to $.56$) correlations with self-reported income and social class standing. However, the strength of these correlations remained below the cutoff level ($r \geq .80$) used to identify scales measuring an identical construct. This pattern of relations also provides discriminate validity evidence suggesting that the DSI subscales represent unique constructs separate from but related to
income and self-reported class standing. Furthermore, recent studies have supported the factorial stability of the scale (Thompson & Subich, 2006; 2007; 2011). The present study provides further construct validity evidence for the 4 DSI subscales including moderate correlations with family income (.33 to .41) as well as moderate to large correlations with self-reported social class standing (.26 to .57).

**College Self-Efficacy – College Self-Efficacy Inventory**

The College Self-Efficacy Inventory (CSEI; Solberg, O’Brien, Villarreal, Kennel, & Davis, 1993) is a 19-item self-report measure of perceived confidence in performing tasks related to college across the three distinct dimensions of course efficacy, roommate efficacy, and social efficacy. A previous exploratory factor analysis of the CSEI revealed that college efficacy was made up of three factors which are represented by the three CSEI subscales. For the present study only the total scale score was used. This practice is in-line with previous research on high school student’s college self-efficacy (Flores, Navarro, & DeWitz, 2008). Responses were marked on a 9-point scale ranging from 0 (totally unconfident) to 8 (totally confident). Higher scores indicate a higher degree of perceived efficacy for completing tasks related to college. Sample items included “talk to your professors,” “make new friends at college,” and “do well on your exams.”

The original examination of the measure revealed an internal consistency estimate of .93 on the total scale in a Latino college population (Solberg et al., 1993). An additional study using the CSEI suggested that the internal consistency estimate for the total scale was slightly higher (α = .95) for a Latino high school sample (Flores et al., 2008). In the present sample the internal consistency estimate for the total scale was .90. Construct validity evidence provided by the scale developers suggested that scores on the
college self-efficacy scale were related to other indicators of adjustment including college stress and were distinct from constructs such as social support and acculturation (Solberg et al., 1993). Additional validity evidence for the total scale in the current sample included positive bivariate correlations with college outcome expectations ($r = .59$), college interest ($r = .72$) and intention to pursue a college degree ($r = .40$).

**College Outcome Expectations – College Outcome Expectation Questionnaire**

The College Outcome Expectation Questionnaire (COE; Flores et al., 2008) is a 19-item measure of anticipated outcomes associated with completing college. The scale was rationally developed based on Bandura’s (1986) definition of outcome expectations and the original scale includes items that were generated from other outcome expectation measures. For example, the stems of items from a measure of math/science outcome expectations (Fouad & Smith, 1996) were modified to reflect outcomes related to completing a college education. The items used the stem “if I get a college education…” and sample items include, “I will be better able to achieve my future goals” and “it will please my parents.” The scale is a unidimensional measure of outcome expectations and produced a single total score. Responses were marked on a 10-point scale from 1 (strongly disagree) to 10 (strongly agree). Higher scores indicated more positive outcome expectations related to completing college. The internal consistency estimate for the total scale was .94 in the original sample of Latino high school students. The internal consistency estimate was .92 in the present sample.

Construct validity evidence for the scale includes a positive relation to college self-efficacy and college interest (Flores et al., 2008) as predicted by SCCT theory (Lent et al., 1994). In addition, discriminant validity evidence includes nonsignificant relations
to demographic variables such as age, generational status within the U.S., and SES in a Mexican American college sample (Robitschek & Flores, 2007). Additional construct validity evidence from the present study included positive bivariate relations with college self-efficacy ($r = .59$), college interest ($r = .58$), and intent to pursue a college degree ($r = .28$).

**Interest in College – College Interest Questionnaire**

The College Interest Questionnaire (CI) is a 12-item measure of interest that was developed for the study. The scale was developed rationally based on Bandura’s (1986) original definition of interest and includes modified items from related measures. The stems of the items from the Math/Science Interest Scale (Fouad & Smith, 1996) that read “How interested are you in…” were used to anchor each item. The subject of each item was selected to represent a range of activities that are associated with attending college. The domains that were covered include interest in academics, living in the college environment, and engaging in social activities on campus. These domains were selected to match with the course efficacy, roommate efficacy, and social efficacy domains that are assessed by the CSEI (Solberg et al., 1993). The scale is a unidimensional measure of college interest and produces a single total score. Responses to all items were marked on a 7-point scale from 1 (not very interested) to 7 (very interested). Higher scores on the scale indicate greater interest in college related activities. For the present study the internal consistency for the total scale was .84. Construct validity evidence for the scale in the present study includes a large bivariate correlation with both college self-efficacy ($r = .72$) and college outcome expectations ($r = .58$). Additionally, the CIQ had a small but significant bivariate relation to students intention to pursue a college degree ($r = .27$).
College Choice Intention

Students’ college choice intention (CCI) was assessed using a single item. The use of a single indicator is in line with other research in the area of college aspirations and expectations (Flores et al., 2008; McWhirter, Hackett, & Bandalos, 1998). The item asked how likely it is that the respondent will attend a 4-year college or university in the term following their high school graduation. Responses to the item were marked on a 7-point scale ranging from 1 (very unlikely) to 7 (very likely). Higher scores on the scale indicate greater intention to pursue a college degree. Construct validity evidence in the present sample included positive bivariate correlations with college self-efficacy ($r = .40$), college outcome expectations ($r = .28$), and college interest ($r = .28$).

Preliminary Analysis Procedure: Data Cleaning, Normality, Correlations

Once data had been appropriately cleaned, each scale was analyzed to determine the normality of score distribution. Mean, standard deviation, range, skewness, and kurtosis for each scale were reported. These statistics provided evidence of the univariate normality of the data. In addition, the Maximum Likelihood (ML) procedure used for the main analysis had an underlining assumption that the data display multivariate normality (Kline, 2010). Therefore the bivariate relation between the measured variables are reported as Pearson $r$ values. Then to ensure multivariate normality, the bivariate combinations among the eight measured variables were analyzed to determine that the relationships were linear and homoscedastic.

Main Analysis Procedure: Latent Variable Path Modeling

The primary analysis for the current study is latent variable path modeling utilizing the maximum likelihood procedure in the LISREL 8.8 (Joreskog & Sorbom,
software package. There are essentially four primary steps for completing a latent variable path analysis: model specification, identification, estimation, and evaluation (Weston & Gore, 2006). In order to answer the primary research question it was necessary to specify three hypothetical models (see Figure 1): a partial mediation model (Model A), a full mediation model (Model B), and null model (Model C). All three models contained the four measured indicators (ER-A, ER-B, SPO, and SPR) of the latent variable perceived social class (PSC). Four factor loadings and four error terms were estimated: one loading and one error term each for ER-A (paths 1, 5), ER-B (paths 2, 6), SPO (paths 3, 7), and SPR (paths 4, 8). The models also included a path from CSE to COE as representing the relation between these two measured variables (path 9). All three models contained a path from CSE (path 10) and COE to CI (path 11).

*Figure 1.* The Hypothetical Model. The hypothetical model displays all study variables and estimated parameters for the partial mediation model (Model A), the full mediation model (Model B), and the null model (Model C). Filled lines represent path coefficients estimated in all three models. Dotted lines represent path coefficients estimated in select models. When a parameter is only included in a select model(s) the path is marked with the corresponding letter.

The models also contained a direct path from CSE to CCI (path 12) and from COE to CCI (path 13). Finally, all three models included a path from CI to CCI (path 14).
Models A and B also included paths leading from the latent variable PSC to the two mediating variables CSE (path 15) and COE; path 16. Model A also included a path from the latent variable PSC to CCI (path 17).

Thus, Model A was a partially mediated model for the effect of PSC on CCI and contained 17 estimated parameters including a direct path (path 17) between the latent predictor and the outcome. Model B was a fully mediated model for the effect of the latent predictor on the outcome and included 16 estimated parameters excluding the direct path from PSC to CCI (path 17) which was constrained to zero (Model B). Model C was a null model for the effect of the latent predictor on the outcome and included 14 estimated parameters excluding the paths from PSC to CSE (path 15), PSC to COE (path 16), and PSC to CCI (path 17). Furthermore, Models B and C are nested within Model A based on two primary criteria. First, all three models contain the exact same measured variables. Second, Model B can be generated by constraining one path (path 17) estimated in Model A and Model C can be generated by constraining three paths (path 15, 16, & 17) estimated in Model A.

Following the model specification procedures, each model was subjected to model identification which is a procedure for determining the degrees of freedom for each model based on the number of estimated parameters. As stated above Model A, Model B, and Model C had 17, 16, and 14 estimated parameters respectively. However, when creating a latent variable based on measured variables with different scales it is necessary to fix the loading for the variable that displays the highest loading in the measurement model to 1. This procedure results in the estimation of one less parameter and creates the appropriate scaling for the latent variable allowing it to be standardized.
and analyzed in relation to the other variables in the model. Therefore the resulting
degrees of freedom were 15, 16, and 18 for Model A, Model B, and Model C
respectively. Model A is the most complex model based on the number of parameters
estimated and it is followed by Model B and then Model C.

Next, the overall goodness-of-fit was estimated for each of the hypothesized
models. The first step of model estimation for latent variable path modeling is a check on
the measurement model for each latent variable. In the present study, the measurement
model for the single latent variable PSC was analyzed to determine the goodness-of-fit to
the data. In addition, the four factor loadings for each indicator (ER-A, ER-B, SPO, and
SPR) were assessed to ensure that the latent variable PSC accounted for significant
variance in each of the measured variables. The second step of model estimation is to
analyze the three hypothesized structural models for overall goodness-of-fit to the data.
The overall fit for the measurement and structural models were determined by examining
the chi square ($\chi^2$) for each model, as well as a set of absolute and relative fit indices
produced by the LISREL (Joreskog & Sorebom, 2001) software. The use of multiple fit
indices is consistent with recommended best practices for reducing bias in determining
overall fit (Hu & Bentler, 1999). The fit indices analyzed in the present study included
two measures of absolute fit: the root mean square error of approximation (RMSEA) and
the standardized root mean residual (SRMR). In addition, a 90% confidence interval was
calculated for the RMSEA. The present study also included two measures of relative fit:
the comparative fit index (CFI) and the non-normative fit index (NNFI). Finally, a direct
comparison of the fit of the three nested models was assessed via a series of chi square
difference scores ($\Delta\chi^2$) calculated by subtracting the $\chi^2$ of a more complex model from the
of the more parsimonious model. A significance test for the $\Delta \chi^2$ was utilized to determine if there was a significant decrease in fit between models. The preferred model was then selected on the basis of the overall fit, the comparative fit between the models, and the principle of parsimony.

Finally, the individual parameters of the best fitting model were calculated and reported. The standardized path coefficients were calculated for each parameter and the statistical significance of each parameter was analyzed based on the unstandardized path coefficients. Next, the proportion of variance in college intention that is accounted for by all variables in the model was calculated and reported. In addition, the unique proportion of variance in college intention accounted for by perceived social class, college self-efficacy, college outcome expectations, and college interest were each calculated and reported. Finally, the indirect effect of perceived social status on college interest and college intention was calculated and subjected to a statistical significance analysis based on Sobel’s test.

**Alternative Analysis Procedure: Moderation**

The alternative analysis tested PSC as a moderator in the relation of college interest to college choice intention using hierarchical multiple regression based on the recommendations of Frazier and colleagues (2004). Both the predictor (CI) and the moderator (PSC) are continuous variables and thus scores on each were standardized by transforming them into $z$ scores. This procedure addressed potential problems related to multicolinearity between the predictor and moderator variables. In addition, a visual plot was generated to provide clear visual representation of the effect. The first step of the analysis was the creation of a product term for the interaction between the predictor and
moderator. It was generated by multiplying the standardized predictor by the standardized moderator. Next, the variables were entered into the multiple regression equation in a series of predetermined steps. The standardized predictor and moderator were entered together at the first step and the product term was entered by itself at the second step. The amount of variance in college intention that is explained by the combination of college interest and PSC was calculated and reported. In addition, the amount of variance accounted for by the moderation effect was calculated and reported. Next, the degree of change in \( R^2 \) from step 1 to step 2 was calculated along with the results of a single degree of freedom \( F \) test to determine if the \( \Delta R^2 \) is statistically significant.
CHAPTER FOUR

RESULTS

Preliminary Analysis: Normality, Frequencies, Correlations, T-tests

Table 2 presents means, standard deviations, skewness, and kurtosis for the eight study variables. All variables were inspected for univariate normality based on skew and kurtosis. Seven of the eight variables showed minimal skew (skew < 2.0 and kurtosis < 7.0). Additionally, college choice intention (CCI) displayed moderate negative skew (-2.3) but remained below the cutoff for substantial kurtosis.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER-Basic Needs</td>
<td>3.67</td>
<td>0.54</td>
<td>-0.19</td>
<td>-0.70</td>
</tr>
<tr>
<td>ER-Amenities</td>
<td>3.07</td>
<td>0.82</td>
<td>-0.20</td>
<td>-0.52</td>
</tr>
<tr>
<td>Social Power</td>
<td>3.05</td>
<td>0.74</td>
<td>-0.03</td>
<td>-0.17</td>
</tr>
<tr>
<td>Social Prestige</td>
<td>3.45</td>
<td>0.71</td>
<td>0.18</td>
<td>0.21</td>
</tr>
<tr>
<td>College SE</td>
<td>6.40</td>
<td>1.02</td>
<td>-0.99</td>
<td>1.00</td>
</tr>
<tr>
<td>College OE</td>
<td>8.58</td>
<td>1.05</td>
<td>-0.89</td>
<td>0.39</td>
</tr>
<tr>
<td>College Interest</td>
<td>5.53</td>
<td>0.87</td>
<td>-0.96</td>
<td>1.68</td>
</tr>
<tr>
<td>College Intention</td>
<td>6.39</td>
<td>1.12</td>
<td>-2.34</td>
<td>6.27</td>
</tr>
</tbody>
</table>

Therefore, all eight variables were included in all subsequent analyses. Table 3 presents zero-order correlations for the four demographic SES variables and zero-order correlations and Chronbach’s alphas for the eight study variables. As expected, the four DSIS variables displayed strong bivariate inter-correlations ranging from .55 between
### Table 3. Correlations for Demographic Variables and Study Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family Income</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Social Class (self-report)</td>
<td>.517***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Father's Level of Education</td>
<td>.578***</td>
<td>.278***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Mother's Level of Education</td>
<td>.485***</td>
<td>.321***</td>
<td>.619***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. ER-Basic Needs</td>
<td>.437***</td>
<td>.527***</td>
<td>.310***</td>
<td>.203*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. ER-Amenities</td>
<td>.404***</td>
<td>.566***</td>
<td>.301***</td>
<td>.148</td>
<td>.857***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Social Power</td>
<td>.331***</td>
<td>.258**</td>
<td>.218**</td>
<td>.071</td>
<td>.687***</td>
<td>.721***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Social Prestige</td>
<td>.364***</td>
<td>.420***</td>
<td>.135</td>
<td>.049</td>
<td>.697***</td>
<td>.640***</td>
<td>.547***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. College SE</td>
<td>-.059</td>
<td>.013</td>
<td>-.042</td>
<td>-.033</td>
<td>.062</td>
<td>.035</td>
<td>.198**</td>
<td>.033</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. College OE</td>
<td>-.068</td>
<td>-.063</td>
<td>-.094</td>
<td>-.131</td>
<td>.069</td>
<td>.032</td>
<td>.089</td>
<td>.044</td>
<td>.588***</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11. College Interest</td>
<td>-.110</td>
<td>-.062</td>
<td>-.013</td>
<td>-.040</td>
<td>.083</td>
<td>.076</td>
<td>.204**</td>
<td>.049</td>
<td>.724***</td>
<td>.581***</td>
<td>1</td>
</tr>
</tbody>
</table>

*Chronbach’s alpha*  
∞ ∞ ∞ ∞ ∞ ∞ ∞ ∞ ∞ ∞ ∞

Note. N = 176. * p < .05, ** p < .01, *** p < .001.
SPO and SPR to .86 between ER-A and ER-B. Also as expected, the four SCCT variables displayed moderate to large bivariate inter-correlations ranging from .31 between college interest (CI) and college choice intention (CCI) to .73 between college self-efficacy (CSE) and college interest (CI). An examination of the bivariate correlations between the DSIS variables and SCCT variables revealed that for the most part the DSIS variables were not significantly related to the four SCCT variables. The two exceptions were significant bivariate correlations between Social Power (SPO) and two of the SCCT variables: College SE ($r = .20$, $p < .01$) and CI ($r = .20$, $p < .01$).

A set of eight univariate t-tests were performed on the eight study variables to assess for possible mean differences by gender. The $p$-values used to detect significant mean differences were adjusted ($p = .01$) to account for the increased risk of rejecting a true null hypothesis when conducting multiple mean comparisons. The results for each t-test are presented in Table 4. No significant effect for gender was found across the eight study variables. Therefore, all participants were combined into a single group for all subsequent analyses.

Table 4. T-tests for Gender Differences Across Study Variables

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>$T$</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER-Basic Needs</td>
<td>3.66</td>
<td>3.68</td>
<td>-0.187</td>
<td>169</td>
<td>.853</td>
<td>-.250 to .206</td>
</tr>
<tr>
<td>ER-Amenities</td>
<td>3.09</td>
<td>3.07</td>
<td>0.155</td>
<td>169</td>
<td>.877</td>
<td>-.235 to .275</td>
</tr>
<tr>
<td>Social Power</td>
<td>3.07</td>
<td>3.07</td>
<td>-0.046</td>
<td>169</td>
<td>.963</td>
<td>-.227 to .217</td>
</tr>
<tr>
<td>Social Prestige</td>
<td>3.48</td>
<td>3.46</td>
<td>0.153*</td>
<td>169</td>
<td>.879</td>
<td>-.203 to .237</td>
</tr>
<tr>
<td>College SE</td>
<td>6.32</td>
<td>6.47</td>
<td>-0.917</td>
<td>169</td>
<td>.361</td>
<td>-.459 to .168</td>
</tr>
<tr>
<td>College OE</td>
<td>8.47</td>
<td>8.68</td>
<td>-1.291</td>
<td>169</td>
<td>.199</td>
<td>-.523 to .110</td>
</tr>
<tr>
<td>College Interest</td>
<td>5.38</td>
<td>5.68</td>
<td>-2.272</td>
<td>169</td>
<td>.024</td>
<td>-.569 to -.040</td>
</tr>
<tr>
<td>College Intention</td>
<td>6.48</td>
<td>6.37</td>
<td>0.677</td>
<td>169</td>
<td>.499</td>
<td>-.214 to .437</td>
</tr>
</tbody>
</table>

Note. * Equal variance not assumed.
Main Analysis: Latent Variable Path Modeling

Latent variable path modeling was performed using a maximum likelihood (ML) procedure in Lisrel 8.80 (Joreskog & Sorebom, 2001) to test three competing models: a null model, a partial-mediation model, and a full mediation model. The analysis involved two stages: measurement modeling and structural modeling. A test of the measurement model for the latent variable DSIS with four measured indicators (ER-A, ER-B, SPO, SPR) revealed adequate overall fit to the data (see Table 5). An examination of the standardized path coefficients showed that ER-A, ER-B, SPO, and SPR all loaded significantly on the latent variable PSC. All other variables included in the model were based on single indicators and therefore not subjected to measurement modeling.

The structural model was tested by fitting the three hypothesized latent variable path models to the covariance matrix for the entire sample. Each of the three models represented one of three hypothesized patterns of the relation between PSC and college choice intention: partial mediation (Model A), full mediation (Model B), and null relation (Model C). Structural modeling was performed without the benefit of prior investigations of the role of PSC in the SCCT model and thus preceded from the least restrictive partial mediation model to the next least restrictive full mediation model, to the most restrictive null model. The first step was to examine the overall goodness-of-fit for the three competing models. The six resulting fit indices for each of the three latent variable path models are displayed in Table 5. The ML procedure produced a $\chi^2$ goodness-of-fit of 23.88 ($df = 15, p = .07$) for Model A, 24.38 ($df = 16, p = .08$) for Model B, and 25.22 ($df = 18, p = .12$) for Model C. In the case of the $\chi^2$ statistic a smaller value is an indication of better overall fit. However, because $\chi^2$ is highly sensitive to
sample size it provides limited information regarding the fit of the model for larger data sets. Thus, to address the possible sample size bias in $\chi^2$, it was necessary to calculate a $\chi^2/df$ ratio. All three models reached the suggested cutoff of $\chi^2/df < 2$ indicating adequate overall fit to the data. Also, all three models were found to have adequate absolute fit based on Hu and Bentler’s (1999) criterion of RMSEA $\leq .08$ and SRMR $\leq .08$. Finally, all three models displayed adequate relative fit based on Bentler’s (1990) criterion of CFI $\geq .90$ and the Bentler & Bonnett’s (1980) criterion of NNFI $\geq .90$.

Table 5. Summary of Model Fit Indices

<table>
<thead>
<tr>
<th>Model</th>
<th>Overall $\chi^2$</th>
<th>$df$</th>
<th>$\chi^2/df$</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>CI for RMSEA</th>
<th>CFI</th>
<th>NNFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Model</td>
<td>5.92</td>
<td>2</td>
<td>2.96</td>
<td>.02</td>
<td>.11</td>
<td>0.0--0.21</td>
<td>.99</td>
<td>.98</td>
</tr>
<tr>
<td>Model A: Partial Mediation</td>
<td>23.88</td>
<td>15</td>
<td>1.59</td>
<td>.04</td>
<td>.06</td>
<td>0.0--0.10</td>
<td>.99</td>
<td>.98</td>
</tr>
<tr>
<td>Model B: Full Mediation</td>
<td>24.38</td>
<td>16</td>
<td>1.52</td>
<td>.04</td>
<td>.05</td>
<td>0.0--0.09</td>
<td>.99</td>
<td>.98</td>
</tr>
<tr>
<td>Model C: Null Model</td>
<td>25.22</td>
<td>18</td>
<td>1.40</td>
<td>.06</td>
<td>.04</td>
<td>0.0--0.09</td>
<td>.99</td>
<td>.97</td>
</tr>
</tbody>
</table>

Note. $N = 176$. SRMR = standardized root mean residual; RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; NNFI = non-normed fit index.

Next, the three competing models were subjected to a series of $\chi^2$ difference tests to determine the best fitting model for the data. The comparative fit procedure requires that all competing models be nested within the least restrictive model. In the current study, both Model B and Model C contain the same set of measured variables as Model A and both models were generated by constraining paths estimated in Model A. In addition, comparative fit tests are performed with a consideration for the overall restrictiveness of the models due to the inverse relationship between the number of estimated parameters
and the \( \chi^2 \) goodness-of-fit statistic. Each comparison was generated by subtracting the \( \chi^2 \) and \( df \) of the less restrictive model from the \( \chi^2 \) and \( df \) of the more restrictive model. In order to reject the more restrictive model (i.e. most parsimonious model) the less restrictive models must display a greater than chance improvement of fit over the most restrictive model. Results for all three comparison tests are displayed in Table 6. A comparison of the most restrictive model (Model C) to the next most restrictive model (Model B) resulted in a non-significant improvement in fit (\( \Delta \chi^2 = .84, df = 2 \)). In addition, the comparison of the most restrictive model (Model C) to the least restrictive model (Model A) resulted in a non-significant improvement in fit (\( \Delta \chi^2 = 1.34, df = 3 \)). Based on the comparative fit procedure the more parsimonious null model (Model C) was retained suggesting that the latent variable PSC is not significantly related to CCI (i.e., the more complex models that included the PSC variables did not result in incrementally better fit over the more parsimonious null model).

Table 6. Comparative Fit Test

<table>
<thead>
<tr>
<th>Model Comparison</th>
<th>( \Delta \chi^2 )</th>
<th>( \Delta df )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model C &amp; Model A</td>
<td>1.34</td>
<td>3</td>
</tr>
<tr>
<td>Model C &amp; Model B</td>
<td>0.84</td>
<td>2</td>
</tr>
<tr>
<td>Model B &amp; Model A</td>
<td>0.50</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition, a closer examination of the standardized path coefficients in the partial mediation model (see Figure 2) revealed a series of non-significant paths from PSC to CCI (\( \beta = .05, z = .10, p > .05 \)), PSC to CSE (\( \beta = .07, z = .10, p > .05 \)), and PSC to COE (\( \beta = .01, z = .09, p > .05 \)). The lack of significant paths between PSC and the proposed mediator variables and the outcome variable provides further evidence in support of the null model.
Figure 2. Model A. A partial mediation model for the relation between perceived social class and college choice intention. Filled lines signify significant path coefficients and dotted lines signify non-significant path coefficients.

An examination of the remaining path coefficients in Model C (see Figure 3) revealed that for the most part the four SCCT variables displayed the expected pattern of inter-relations. The only exceptions included a non-significant path coefficient from COE directly to college intent (β = .14, z = 1.49, p > .05) and a slightly negative and non-significant path coefficient from CI to college intent (β = -.04, z = -.30, p > .05).

Figure 3. Model C. A null model for the relation of perceived social class and college choice intention. Filled lines signify significant path coefficients and dotted lines signify non-significant path coefficients.

The three predictors CSE, COE, and CI in Model C combined to account for 19% of the variance in CCI. In comparison, the latent variable PSC along with CSE, COE, and CCI
in Model A combined to account for an equivalent 19% of the variance in CCI. This finding suggests that the addition of PSC variable to the established SCCT model provides little to no improvement in the variance accounted for in CCI above and beyond what is accounted for by CSE, COE, and CI.

**Post-Hoc Analysis: Path Analysis for Social Power and SCCT Variables**

The retention of the null model supporting a non-significant relationship between PSC and CCI was unexpected based on the original hypotheses of the study. However, the finding is consistent with the non-significant bivariate correlations in the sample between three of the four exogenous social class variables and the four endogenous SCCT variables in the study. In reexamining the bivariate correlations there seems to be some empirical evidence that social power (SPO) is related to the endogenous variables CSE and CI. Therefore, a separate post-hoc analysis was run in order to provide some tentative understanding of the potential impact of SPO on CCI via the cognitive evaluations CSE, COE, and CI. The post-hoc structural path models were generated using the same theoretical underpinnings used to generate the models tested in the main analysis. The post-hoc models excluded the unrelated ER-A, ER-B, and SPR exogenous variables. Therefore, a set of three path models were generated each containing 1 exogenous variable SPO and the 4 endogenous variables of CSE, COE, CI, and CCI. The three competing path models mirrored the latent variable models in the main analysis: they included a partial mediation model (Model D, \( df = 1 \)), a full mediation model (Model E, \( df = 2 \)), and a null model (Model F, \( df = 4 \)). All variables in the models were measured by single indicators which effectively negated the requirement to complete the measurement modeling step.
The post-hoc structural modeling analysis involved fitting the three post-hoc path models to the covariance matrix for the entire sample. All fit indices for the three post-hoc path models are displayed in Table 7. The ML procedure produced a $\chi^2$ goodness-of-fit of 1.97 ($df = 1$, $p = .16$) for Model D, 2.34 ($df = 2$, $p = .31$) for Model E, and 9.40 ($df = 4$, $p = .05$) for Model F. The $\chi^2/df$ for Model D ($\chi^2/df = 1.97$) and Model E ($\chi^2/df = 1.17$) reached the recommended cutoff of less than 2, however Model F ($\chi^2/df = 2.35$) failed to reach the cutoff. All three models had adequate fit as measured by SRMR ($\leq .08$).

Table 7. Summary of Model Fit Indices for Post-Hoc Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Overall $\chi^2$</th>
<th>$Df$</th>
<th>$\chi^2/df$</th>
<th>SRMR</th>
<th>RMSEA CI</th>
<th>RMSEA</th>
<th>CFI</th>
<th>NNFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model D: Partial Mediation</td>
<td>1.97</td>
<td>1</td>
<td>1.97</td>
<td>.02</td>
<td>.07</td>
<td>.0--.23</td>
<td>1.00</td>
<td>.99</td>
</tr>
<tr>
<td>Model E: Full Mediation</td>
<td>2.34</td>
<td>2</td>
<td>1.17</td>
<td>.02</td>
<td>.03</td>
<td>.0--.16</td>
<td>1.00</td>
<td>.99</td>
</tr>
<tr>
<td>Model F: Null Model</td>
<td>9.40</td>
<td>4</td>
<td>2.35</td>
<td>.08</td>
<td>.09</td>
<td>.0--.16</td>
<td>.98</td>
<td>.97</td>
</tr>
</tbody>
</table>

Note. $N = 176$. SRMR = standardized root mean residual; RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; NNFI = non-normed fit index.

Model F did not reach adequate fit as measured by RMSEA (RMSEA = .09). Model D and Model E displayed adequate fit as measured by RMSEA ($\leq .08$), however Model E (RMSEA = .03) also surpassed Hu and Bentler’s (1999) and Steiger’s (1989) criterion for “close fit” ($\leq .05$). In addition, all three models had adequate relative fit as measured by CFI ($\geq .90$) and NNFI ($\geq .90$).

Next, the three competing models were subjected to a series of $\chi^2$ difference tests to determine the best fitting model for the data. Results for all three comparison tests are displayed in Table 8. A comparison of the fit between Model F (most restrictive) and
Model E (next most restrictive) showed a significant improvement in fit for Model E ($\Delta \chi^2 = 7.06, df = 2, p < .05$) over Model F. A comparison of the fit for Model F (most restrictive) to Model D (least restrictive) showed no significant improvement in fit for Model D ($\Delta \chi^2 = 7.43, df = 3, p > .05$) over Model F. Finally, a comparison of the fit for Model E (more restrictive) to Model D (least restrictive) showed no significant improvement in fit for Model D ($\Delta \chi^2 = .37, df = 1, p > .05$). Based on the post-hoc results Model E displaying the relation of PSC to CCI as fully mediated by CSE, COE, and CI was retained.

Table 8. Comparative Fit Test for Post-Hoc Analysis

<table>
<thead>
<tr>
<th>Model Comparison</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model F &amp; Model D</td>
<td>7.43</td>
<td>3</td>
</tr>
<tr>
<td>Model F &amp; Model E</td>
<td>7.06</td>
<td>2</td>
</tr>
<tr>
<td>Model E &amp; Model D</td>
<td>0.37</td>
<td>1</td>
</tr>
</tbody>
</table>

An examination of the path coefficients in Model E (see Figure 4) revealed a similar pattern of inter-relations between the SCCT variables as appeared in the main analysis. In terms of the relation between SPO and the SCCT variables the results were somewhat mixed. The model contained a significant path coefficient from SPO to CSE ($\beta = .27, z = 2.62, p < .05$). SPO also had an indirect effect on CCI such that a one standard deviation increase in SPO resulted in a .12 standard deviation increase in college intent. Results of a Sobel test indicated that CSE was a significant mediator ($z = 2.14, p = .03$) of the influence of SPO on CCI. The hypothesized path coefficient between SPO and COE ($\beta = -.05, z = -.53, p > .05$) was found to be slightly negative and non-significant. However, SPO had an indirect effect on COE via CSE such that a one
standard deviation increase in SPO resulted in a .16 standard deviation increase in COE. Results of a Sobel test indicated that CSE was a significant mediator ($z = 2.60, p < .01$) of the influence of SPO on COE. Overall SPO, CSE, COE, and CI in Model E combined to account for 19% of the variance college intent.

**Alternative Analysis: Moderation**

The moderation analysis testing PSC as a moderator between CI and CCI was completed with hierarchical regression based on the recommendations of Frazier and colleagues (2004). In order to address concerns regarding multicollinearity scores on the predictor and moderator were centered using z-scores. In the first step, the standardized DSIS total score (PSC) and the standardized CI scores were entered together. As expected, SPO and CI were found to be significant predictors of CCI ($R^2 = .10, p < .01$). In the second step, the standardized interaction term (PSC x CI) was entered. The resulting incremental change in the $R^2$ did not reach significance ($\Delta R^2 = .001, p = .80$) suggesting that PSC did not act as a moderator between CI and CCI.
CHAPTER FIVE
DISCUSSION

This study is one of the first attempts to investigate perceived social class (PSC) as a contextual affordance in the SCCT interest and choice model (Lent & Brown, 1996). It follows in a line of previous studies examining the impact of social identity variables such as racial identity (Byars-Winston, 2006; Byars-Winston, Estrada, Howard, Davis & Zalapa, 2010) and acculturation/enculturation (Aguayo et al., 2011; Flores et al., 2008) on cognitive evaluations, interests, and goals. It does so by specifically examining PSC in relation to intent to pursue a college degree among a diverse group of high school students. In addition, it adds to the existing literature examining the relation between PSC and academic and career variables (Thompson and Subich, 2006; 2007; 2011; Metz et al., 2009; Thompson and Dahling; 2012). Specifically, the findings of the study expand on previous work by providing preliminary evidence for the critical role of a single component of PSC, namely perceived social power, to influence college self-efficacy and also indirectly impact both college outcome expectations and intent to pursue a college degree.

The preliminary bivariate correlation results suggest that the four sub-factors of PSC are measuring constructs that are related to but unique from objective indicators of class status such as family income and self-reported social class. These findings constitute additional construct
validity for the Differential Status Identity Scale (Brown et al., 2002) as well as further evidence that individual’s psychological sense of class status cannot be adequately inferred from objective indicators of class status. Furthermore, father’s and mother’s education level, which is one of the most widely used indicators of class status especially for minors, displayed an inconsistent pattern of relation to the PSC sub-factors in this sample. Most notably neither father’s education nor mother’s education was significantly related to social power; while father’s education but not mother’s education was significantly related to social prestige. Thus relying on these traditional measures of SES to infer a psychological sense of class may result in the acceptance of a false null relation between perceived class status and other psychological variables when that relation does in fact exist. These results, along with similar findings by others scholars in the field (e.g. Thompson and Subich, 2006; 2007; 2011; Thompson and Dahling, 2012) constitute growing evidence in support of efforts put forth by the APA Task Force on Socioeconomic Status (2007) to clearly distinguish between objective and subjective class status in psychological research. Future research considering the role of social class status should provide a clear rationale for the selection of objective versus subjective measures and evidence that the choice is consistent with the overall purpose of the study.

**Implications of Primary Analysis Results**

The measurement model for PSC revealed adequate fit for the four factor structure proposed by Thompson and Subich (2007); providing additional construct validity evidence for the DSIS. The current study was the first to use the DSIS in an adolescent population. Therefore the findings also provide initial evidence in support of the DSIS as an appropriate measure for assessing PSC in an adolescent population.
However, additional research is necessary to confirm that the factor structure holds across multiple adolescent samples. Alternatively, despite the evidence in support of a four factor model of perceived social class the very high zero-order correlations among the DSIS variables and especially between economic resources – amenities and economic resources – basic needs ($r = .86$) provides evidence that these two factors may in fact represent a single economic resources factor in line with the original tenants of the theory (Fouad & Brown, 2000). These findings are similar to the findings of Thompson and Dahling (2012) using the DSIS in an adult population. In their study, the inter-correlations between the 4 DSIS factors ranged from .84 for social power and economic resources – basic needs to .95 for economic resources – amenities and economic resources – basic needs. In order to better understand the construct of PSC it is imperative that the model be consistently replicated in the literature. Therefore, additional research examining the factor structure of the DSIS as well as an examination of the structural equivalence for the DSIS in an adolescent versus an adult population is needed to further clarify the structure of PSC in both populations.

The test of the structural model for the relation of PSC and college choice intention resulted in the retention of a null model representing no significant relationship between PSC and the SCCT variables. This finding is contrary to the original hypothesis of a relationship between PSC and college choice intention that is partially or fully mediated by self-efficacy, outcome expectations, and interest. The finding is also contrary to the tenants of DSI theory (Fouad and Brown, 2000) which suggests that perceived status serves to shape individuals’ perceptions and behaviors. The non-significant relations between PSC and college self-efficacy expectations as well as
between PSC and college outcome expectations are surprising given recent finding in the literature. First, PSC has been found to positively influence occupational self-efficacy and outcome expectations both directly and indirectly via learning experiences within three (investigative, enterprising, and conventional) of Holland’s career themes (Thompson and Dahling, 2012). Second, Navarro and colleagues (2007) have shown that a latent SES variable based on both objective and subjective (self-reported) class indicators is indirectly related to math/science self-efficacy via past performance.

One possible explanation for the disparate findings is varying impact that learning experiences of students have on the relation between PSC and cognitive evaluations. For example, in addition to mediating the relationship (Thompson and Dahling, 2012), students’ learning experiences may also moderate the impact of PSC on students’ cognitive evaluations. Thus, students who have positive learning experiences may display a much smaller link between PSC and cognitive self-evaluations as opposed to students who are having more negative learning experiences. The sample for this study displayed sufficient variance on the 4 sub-factors of PSC, yet the majority of the sample was enrolled at institutions where some level of emphasis was placed on college preparation. Therefore the majority of students in the sample may have been exposed to positive learning experiences that moderated the hypothesized relationship. In addition, other contextual variables in the model such as specific support for academic skills and college preparatory activities may have masked the impact of perceived status on SCCT variables. A recently performed comprehensive meta-analysis of the career and academic literature has revealed that specific support has a larger impact on learning experiences, cognitive evaluations, and goals than perceived barriers (Abrams, Hacker, Lamp,
Telander, et al. 2010). Thus students receiving high levels of academic support may be less likely to make a connection between their PSC and their efficacy beliefs in terms of college related activities. Future research on the role of PSC that includes both learning experiences and additional personal and contextual variables is necessary to provide a clear picture of the role of PSC on cognitive self-evaluations and academic behavior.

A second possible explanation for the disparate findings has to do with students’ perceptions of the relevance of PSC to their academic development. Fouad and Brown (2000) suggested that status differences need to be salient in order to impact the developmental process. Thus, it is possible that certain aspects of PSC may be more or less salient in terms of collegiate goals. The more salient factors would be predicted to have a greater influence on cognitive evaluations and goals related to college. Helms and Piper (1994) made a similar argument for factors related to racial and ethnic identity suggesting that internalized beliefs about one’s identity impact occupational/educational development and behavior only if they become salient within a particular experience. While not described specifically in terms of saliency, Gottfredson’s (1986) career development theory suggests that woman, ethnic and racial minorities, and other “special groups” display differences in career behavior due to experiences that differentiate them from the majority experience as well as from others in their social reference groups.

Therefore, to understand the mechanism by which PSC is influencing academic development it is necessary to identify the aspects of PSC that produce these differential experiences.

Using racial and ethnic identity as a model helps to illuminate the role of saliency. Ethnic minority students’ perceptions of their ethnic identity is likely to become salient
only if they perceive that it will limit or negatively affect their skill accusation or access to certain occupational/educational opportunities. Alternatively, students’ other group orientation will become salient only if individuals perceive that aligning with or being able to operate within a mainstream (White) cultural perspective is advantageous for navigating the occupational/educational environment (Helms & Piper, 1994). This phenomena helps explain the finding in the literature that that own group orientation has little effect on ethnic minority students’ cognitive evaluations and behaviors while other group orientation has a significant impact (Byars-Winston et al., 2010). Similarly it helps explain the stronger relation between Anglo-orientation and self-efficacy than between Mexican-orientation and self-efficacy among Mexican-American students (Navarro et al., 2007). In both cases being able to navigate an educational environment with mainstream White values seemed to promote academic development. Thus, in terms of PSC it is important to consider which aspects of PSC are likely to be salient in the context of students’ learning experiences.

Considering the theorized factors of PSC (Fouad and Brown, 2000), it seems that students perceived access to resources whether basic needs or amenities are less likely to become salient in the context of the learning experiences which influence students’ cognitive self and environment evaluations, interests, and goals related to college. The most prominent exception to this might be in relation to being able to afford tutoring, extra-curricular activities, and college itself. However, students’ with lower perceived access to resources may have access to free or subsidized services and are likely aware that government or private funding is available for college if they display the necessary academic skill and interest. Additionally, social prestige which is essentially the
perceived value of one’s social affiliations and status is only likely to become salient when students perceive that they are being evaluated or judged based on their social status. In academic environments students are likely to perceive that evaluation is based on performance and intelligence rather than on their social status especially if status is relatively equivalent among their peers.

The final PSC sub-factor, social power seems to be particularly relevant to how students understand and experience their learning environment and thus more likely to influence efficacy development and outcome expectations. Social power is referred to by Fouad and Brown (2000) as the “agency [individuals] have or do not have to shape personal, interpersonal, and physical/material destinies.” From an SCCT perspective individuals’ agency is considered to influence the development of efficacy for performing specific educational or occupational tasks. SCCT also considers academic and occupational goals to be the primary way that individuals exercise this agency (Brown & Lent, 1996). Thus, when it comes to the influence of PSC on academic development it seems likely that social power would contribute to the development of the requisite beliefs in one’s ability to form a post-secondary goal of pursuing a college degree. Perceived social power can be seen to influence efficacy information in a way that leads students to believe that their actions will/or will not have an influence on the nature or quality of their education. Thus, it seems likely that students with relatively high perceived social power will develop positive self and environment evaluations, form interests in college tasks, and develop post-secondary goals that reflect these beliefs. Alternatively students who perceive little social agency or influence will be unlikely to develop the same positive evaluations and college goals. The relative influence of social
power as compared to the other PSC factors was reflected in the bivariate correlations in this study showing that social power was the only factor that was significantly related to both self-efficacy and college choice intention.

**Implications of Post-hoc Results**

The post-hoc analysis was an attempt to further investigate the role of social power in the development of collegiate goals. The retention of the full mediation model for the relationship between social power and college choice intention suggests that the influence of social power on college intentions is entirely through its influence on cognitive evaluations. In the model, the direct path from social power to college self-efficacy was significant while the path from social power to outcome expectations was non-significant. Moreover, an analysis of the indirect relationships in the model revealed that self-efficacy mediates the relationship between social power and college intention as well as between social power and outcome expectations. Taken together these findings support the importance of social power particular for shaping students’ beliefs about their efficacy. Additionally, social power was shown to influence outcome expectations and behavioral intentions for pursing a degree through its influence on efficacy. Given the post-hoc nature of the results further research is needed to determine if social power is indeed influencing academic development and whether social power is the most critical aspect of perceived social class for influencing academic development.

One of the original purposes for selecting a psychological variable such as perceived social class for this study was that unlike material wealth or family background psychological variables can be altered through cognitive processes. Based on the post-hoc analysis psychologists and educators should target strategies to build students
perceived ability to influence social systems. This process requires that students identify the role of social and sociopolitical processes within larger social systems and become actively involved in overcoming or changing the system. Psychologists have adopted Pablo Freire’s (1973, 1993) concept of critical consciousness to describe the process by which marginalized individuals learn to ‘read’ social inequality and become empowered to affect change. Recent scholars have enveloped critical consciousness along with concepts from liberation psychology (Martin-Baro, 1994) to develop a framework for describing sociopolitical development (SPD; Watts, Griffith, & Abdul-Adil, 1999; Watts, Williams, & Jagers, 2003). Essentially, the argument is that students’ efficacy in their ability to explore the role of power, privilege, and oppression in social institutions will increase their perceived power to positively influence that system.

In terms of perceived social power as an aspect of PSC advancing sociopolitical development could assist students in recognizing that negative messages about their class status are the result of a larger systematic pressure. For example, students may recognize that negative messages from teachers, administrators, and the educational hierarchy are potentially a consequence of downward classist attitudes rather than reflective of the students’ true academic ability or potential. Helping students to avoid internalizing these messages is likely to shift their cognitive evaluations when it comes to higher education. In terms of empowerment, students could be taught alternative avenues to actively influence institutions that shape their educational experience. Educational activities designed to empower students’ to voice their ideas and build the skills necessary to influence the educational system may serve to increase perceived social power. For example, students could learn persuasive communication skills, become involved in
designing and implementing a social media campaign, or set up meetings with local or state government officials to discuss topics relevant to their school environment or academic curriculum. It has also been purposed that students simultaneously display and increase their sociopolitical awareness through becoming active in community groups or political movements (Diemer & Li, 2011; Diemer, Wang, Moore, Gregory, Hatcher, & Voight, 2010; Diemer & Bluestein, 2006). By making the process of influencing social institutions more transparent students may be more likely to begin challenging those systems and challenging negative internalized beliefs about other aspects of their abilities. This may help alleviate the burden of believing “college is not for someone from my class background”, “others agree that college is not an option”, “I don’t have a say in my education.”

Limitations and Future Directions

This was the first study utilizing the Differential Status Identity Scale (DSIS; Brown et al., 2002) to assess aspects of PSC in an adolescent population. The use of self-report measures with adolescents is notoriously challenging given certain aspects of their identity are yet to be entirely solidified. Furthermore there is evidence that adolescents struggle to accurately convey aspects of their career development through self-report measures (O’Brien and Fassinger, 1993). However, there is at least some early indication that DSIS may by a valid measure for assessing PSC in this population. Future researchers should attempt to further explore the structure of PSC in adolescents through invariance testing and replication of the measurement model in other adolescent samples. Also given the exploratory nature of the post-hoc results any attempts to generalize these
findings outside this specific group of diverse urban and suburban adolescents should be limited or avoided.

All participants in the sample were involved in some college preparatory activities either through school programming or a student development organization. Although this shared experience of students contributed to the homogeneity of the sample, it also resulted in some range restriction for college choice intention. The range restriction on the outcome may have concealed significant relations between predictor and outcome in the main analysis and may have also led to an underestimate of the path coefficients in the post-hoc analysis.

Future studies should attempt to replicate the findings with a larger and more diverse sample. Attempts should be made to recruit students from communities and schools representing the complete range of academic preparation by expanding to include neighborhood schools as well as alternative, vocational track, and technical high schools.

This study was able to integrate aspects of PSC into a limited version of the SCCT interest and choice model (Brown & Lent, 1996). However, the original theory suggests that multiple personal variables and contextual variables interact to generate a complex set of factors influencing the learning experiences of students. By artificially separating out PSC from related personal and contextual influences it is difficult to ascertain whether other factors may account for or contribute to the resulting non-significant relationship between the latent variable PSC and cognitive evaluations, interest, and intention in the preliminary analysis. Future research on the role of PSC and perceived social power should incorporate additional personal and contextual variables such as perceived support (Kenny, Bluestein, Chaves, Grossman, & Gallagher, 2003;
Ferry et al., 2000), perceived educational barriers (McWhirter, 1997), perceived classism (Thompson & Subich, 2012; Liu et al., 2004b, Liu, 2001), and a host of other relevant variables. Furthermore students’ learning experience should be included in the model as a potential mediator (see Thompson & Dahling, 2012) in the model. In addition, students’ learning experience should be investigated as a potential moderator between personal and contextual variables and cognitive evaluations. Finally, this research used a cross-sectional design and thus could not test for the causal relationships among the variables. The results were interpreted as perceived social power influencing college going intentions through the mediating effect of college self-efficacy and outcome expectations, but other causal directions are also possible. For example, it could be that developing positive college-related self-efficacy beliefs and outcome expectations facilitate feelings of social power. Although, the causal explanations provided in this study fit nicely within the SCCT paradigm, alternative causal possibilities need to be addressed in future research.

Conclusion

Nonetheless, the findings of this research and my interpretations suggesting that social power influences college intent via cognitive evaluations should be confirmed in a representative sample of adolescents. Psychologists and prevention scientists interested in promoting positive academic development for youth should consider assessing students’ perceived social power and develop programs targeted at developing critical consciousness of the class system and sociopolitical development and participation. These may include recognizing and deconstructing classist attitudes, building persuasive communication skills, designing social media campaigns, or meeting with local or state
government officials. In addition, students should be encouraged to become active in community groups or political movements that align with her personal goals and values as way to promote a sense of social power or influence.
APPENDIX A:

RECRUITMENT SCRIPT
Hello,

My name is Jason Hacker and I am counseling psychology doctoral student at Loyola University Chicago. I am currently collecting data for my dissertation project and would appreciate the opportunity to recruit students from your organization. The study consists of a 20 minute paper and pencil survey regarding students’ attitudes towards college, interest in pursuing a college career, and intention to seek a college degree after high school. The study is open to any high school student that has not already applied and been accepted to a college, university, technical school, or other post-secondary program.

In order for the students to be eligible to participate in the survey they will need to have parents sign a consent form that outlines the study procedure. The student's survey responses will be confidential and students will not be required to provide any identifying information to the researcher. All I would need from you is the opportunity to meet with students on two separate occasions. During the first I will introduce the study (5 to 10 minutes) and hand out consent forms and during the second I will collect the data (20 minutes).

All students that participate in the study will be offered the opportunity to enter a drawing to win one of eight $10 gift cards. I am also open to offering a candy bar or similar treat as a reward for students who participate.

I would be happy to set up a meeting or phone call to discuss the study in more detail. If you are interested in having your students participate, I will work with you to develop a plan for recruiting students and completing the surveys. As a thank you for allowing me recruit from your organization I would be happy to present my findings to teachers, administrators, or parents once I have completed data analysis and I am willing to share my data with members of the staff.

Thank you for your time,

Jason Hacker, M.A.  
Doctoral Candidate  
Loyola University Chicago
APENDIX B:

RECRUITMENT LETTER TO PARENTS
Dear Parent/Guardian:

I am doctoral candidate at Loyola University Chicago and I am currently conducting a research project on adolescents’ attitudes towards college. Your child has been contacted to participate in the study because of their involvement in ____________________.

**Background Information:**
The American job market is facing a number of issues including high unemployment and a reduction in the number of jobs that do not require at least some college education. Students are then under increasing pressure to perform academically and begin planning for their educational future. However, some students believe that college is not an option because they do not have the academic ability, they lack financial resources, or they don’t expect to receive positive outcomes from completing a college degree.

**Invitation:**
I want invite your child to participate in a research project that will help uncover some of the reasons why students decide to get a college degree. My hope is that this information will help teachers, counselors, and administrators promote college attendance for their students. There is a detailed consent form attached to this letter that outlines a number of specific issues related to the project. Please read it thoroughly before deciding if you want your child to participate.

**Important Information to Know:**

- Participation is completely voluntary
- No identifying information will be recorded on the survey
- Students will be asked to complete a 20 to 25 minute paper and pencil survey
- All data collection will occur with ________ staff present
- Participants be entered into a lottery drawing to win one of eight $10 Visa Gift Cards

If you have any questions after reading the consent form that is attached to this letter please feel free to contact me

Sincerely,

Jason Hacker, MA
Counseling Psychology Doctoral Candidate
Loyola University School of Education
APPENDIX C:

PARENTAL CONSENT FORM
PARENTAL CONSENT TO PARTICIPATE IN RESEARCH

**Project Title:** Perceived Social Class, College Interest, and Post-Secondary Goals: An application of the SCCT Interest and Choice Model

**Researcher(s):** Jason Hacker, MA

**Faculty Sponsor:** Steven Brown, Ph.D.

**Research Assistants:** Theresa Chan, Colleen Martin, Anneliese Kranz

**Introduction:**
Your child is being asked to take part in a research study being conducted by Jason Hacker for a dissertation under the supervision of Dr. Steven Brown in the Department of Counseling Psychology at Loyola University Chicago.

Your child is being asked to participate because I am interested in the opinions of a diverse group of adolescents between 13 and 18 years of age. Your child must be fluent in English in order to participate in the study.

Please read this form carefully and ask any questions you may have before deciding whether your child may participate in the study.

**Purpose:**
I am interested in learning what students believe about their ability to perform activities that are required to attend college and what kind of outcomes students associate with completing college. I am also interested in what students believe about their social and economic standing compared to others in society. Finally, I want to understand how these beliefs influence students’ goals or plan to pursue a college degree.

**Procedures:**
If you agree to your child’s participation in the study, he/she will be asked to complete a 20 to 25 minute questionnaire containing 5 surveys and a demographic form. The surveys ask about students’ abilities, interest in college activities, benefits of attending college, plan to pursue a college degree, and beliefs about their social and economic standing.

The demographic form includes questions on age, gender, family income, and parents’ level of education. Students will not place their names on the surveys and there will be no way to match the person with the survey they completed.

**Risks/Benefits:**
There are no expected risks for your child if he/she participates in this research beyond those experienced in everyday life.

There are no direct benefits to your child from participation, but the information will help us to understand how students’ beliefs about themselves and about college influence their current goals or plans for pursuing a college education.
A summary of the data collected will be made available to ___________ following data analysis. The data will contain no identifying information and can not be linked to individual participants in any way.

**Compensation:**
There will be 8 lottery drawings for a $10 Visa gift card as an incentive to participate. Only the students whose names are drawn in the lottery will receive gift cards. Students who begin the survey and decide to discontinue before completing the survey will also be included in the lottery. Students who complete the survey will have their name entered into the system to become eligible for the drawings. Names will be kept separate from all survey and research material and will be kept under lock and key to protect the identity of the participants.

All students who return a signed consent form will also receive a candy bar as an incentive to participate. Students who begin the survey and decide to discontinue will also receive a candy bar.

**Confidentiality:**
I will protect the privacy of those who participate in the research study. No identifying information of the participants will be shared with anyone that is not connected with the project. Data presented at conferences or for publication will not identify any individuals who participated. There are no questions on the surveys that ask for identifying information.

The demographics form as well as the consent and assent forms will be collected and stored by the dissertation supervisor under lock and key away from the surveys. At the conclusion of the study the individual surveys will be destroyed and the resulting data will be kept in a password protected file on the computer of the primary researcher.

**Voluntary Participation:**
Participation in this study is voluntary. If you do not want your child to be in this study, he/she does not have to participate. If your child chooses not to be in the study, they do not have to participate. Even if he/she decides to participate, he/she is free to not answer any question or to withdraw from participation at any time without penalty.

**Contacts and Questions:**
If you have questions about this research study, please feel free to contact Jason Hacker, School of Education, Counseling Psychology, at jhacker1@luc.edu or the faculty sponsor Dr. Steven Brown, School of Education, Counseling Psychology at (312) 915-6311 or at sbrown@luc.edu.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.
Statement of Consent:
Your signature below indicates that you have read the information provided above, have had an opportunity to ask questions, and agree to allow your child to participate in this research study. You will be given a copy of this form to keep for your records.

____________________________________________   __________________
Parent/Guardian Signature                                            Date

____________________________________________
Child’s Name

____________________________________________
Researcher’s Signature                                                    Date
APPENDIX D:

PARTICIPANT ASSENT FORM
ASSENT TO PARTICIPATE IN RESEARCH

Project Title: Perceived Social Class, College Interest, and Post-Secondary Goals: An application of the SCCT Interest and Choice Model
Researcher: Jason Hacker, MA
Faculty Sponsor: Steven Brown, Ph.D.
Research Assistants: Theresa Chan, Colleen Martin, Anneliese Kranz

Introduction:
You are being asked to take part in a research study being conducted by Jason Hacker for a dissertation under the supervision of Dr. Steven Brown in the Department of Counseling Psychology at Loyola University Chicago.

You are being asked to participate because I am interested in the opinions of a diverse group of adolescents between 13 and 18 years of age. You must be fluent in English in order to participate in the study. You must also have a completed consent form signed by a parent or guardian to participate in the study.

Please read this form carefully and ask any questions you may have before deciding whether you want to participate in the study.

Purpose:
I am interested in learning what students believe about their ability to perform activities that are required to attend college and what kind of outcomes students associate with completing college. I am also interested in what students believe about their social and economic standing compared to others in society. Finally, I want to understand how these beliefs influence students’ goals or plan to pursue a college degree.

Procedures:
If you agree to participation in the study, you will be asked to complete a 20 to 25 minute questionnaire containing 5 surveys and a demographic form. The surveys ask about students’ abilities, interest in college activities, benefits of attending college, plan to pursue a college degree, and beliefs about their social and economic standing.

The demographic form includes questions on age, gender, family income, and parents’ level of education. Students will not place their names on the surveys and there will be no way to match the person with the survey they completed.

Risks/Benefits:
There are no expected risks involved in participating in this research beyond those experienced in everyday life.
There are no direct benefits to you from participation, but the information will help us to understand how students’ beliefs about themselves and about college influence their current goals or plans for pursuing a college education.

A summary of the data collected will be made available to Gary Comer College Prep following data analysis. The data will contain no identifying information and can not be linked to individual participants in any way.

**Compensation:**
There will be 8 lottery drawings for a $10 Visa gift card as an incentive to participate. Only the students whose names are drawn in the lottery will receive gift cards. Students who begin the survey and decide to discontinue before completing the survey will also be included in the lottery.

All students who return a signed consent form will also receive a candy bar as an incentive to participate. Students who begin the survey and decide to discontinue will also receive a candy bar.

Students who complete the survey will have their name entered into the system to become eligible for the drawings. Names will be kept separate from all survey and research material and will be kept under lock and key to protect the identity of the participants.

**Confidentiality:**
I will protect the privacy of those who participate in the research study. No identifying information of the participants will be shared with anyone that is not connected with the project. Data presented at conferences or for publication will not identify any individuals who participated. There are no questions on the surveys that ask for identifying information.

The demographics form as well as the consent and assent forms will be collected and stored by the dissertation supervisor under lock and key away from the surveys. At the conclusion of the study the individual surveys will be destroyed and the resulting data will be kept in a password protected file on the computer of the primary researcher.

**Voluntary Participation:**
Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free to not answer any question or to withdraw from participation at any time without penalty.

**Contacts and Questions:**
If you have questions about this research study, please feel free to contact Jason Hacker, School of Education, Counseling Psychology, at jhacker1@luc.edu or the faculty sponsor
Dr. Steven Brown, School of Education, Counseling Psychology at (312) 915-6311 or at sbrown@luc.edu.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

**Statement of Consent:**
Your signature below indicates that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in this research study. You will be given a copy of this form to keep for your records.

____________________________________________   __________________
Participant Signature                                            Date

____________________________________________  ___________________
Researcher’s Signature                                                  Date
APPENDIX E:

DEMOGRAPHICS FORM
Demographics

Age: ________

Gender:  ○ Male   ○ Female

Race/Ethnicity:
○ European American, White   ○ Mexican American, Chicano
○ African American, Black   ○ Other Latino or Hispanic origin
○ American Indian, Alaskan Native   ○ Multiracial
○ Asian American, Pacific Islander   ○ Other

If response is multiracial or other please describe: _____________________________

Year in School:
○ Freshman   ○ Junior
○ Sophomore   ○ Senior

Family Income Level:
○ Under $ 20,000   ○ $120,000 to less than $140,000
○ $20,000 to less than $40,000   ○ $140,000 to less than $160,000
○ $40,000 to less than $60,000   ○ $160,000 to less than $180,000
○ $60,000 to less than $80,000   ○ $180,000 to less than $200,000
○ $80,000 to less than $100,000   ○ $200,000 or more
○ $100,000 to less than $120,000

How would you describe your family’s social class level:
○ Lower Class   ○ Upper Middle Class
○ Lower Middle Class   ○ Upper Class
○ Middle Class
Father’s Highest Level of Education
- Did Not Complete High School
- GED
- High School Diploma
- Associate’s Degree
- Bachelor’s Degree
- Master’s Degree
- Doctoral Degree

Mother’s Highest Level of Education
- Did Not Complete High School
- GED
- High School Diploma
- Associate’s Degree
- Bachelor’s Degree
- Master’s Degree
- Doctoral Degree
APPENDIX F

STUDY QUESTIONNAIRE
How confident are you in your ability to complete the following tasks related to attending college? Please respond to the items by circling your response on the following scale:

<table>
<thead>
<tr>
<th>Totally</th>
<th>Unconfident</th>
<th>Unconfident</th>
<th>Confident</th>
<th>Totally</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

For example, if you are totally confident in your ability to successfully research a term paper, you would circle “8” for item 1.

1. Research a term paper.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
2. Get along with roommate(s).  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
3. Do well on your exams.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
4. Participate in class discussions.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
5. Join a student organization.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
6. Take good class notes.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
7. Write course papers.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
8. Talk to university staff.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
9. Understand your textbooks.  
   0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
10. Socialize with your roommate(s).  
    0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
11. Ask a professor a question.  
    0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
12. Divide chores with your roommate(s).  
    0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
13. Manage time effectively.  
    0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
14. Ask a question in class.  
    0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
15. Get a date when you want one.  
    0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
16. Keep up to date with your schoolwork.
   0 1 2 3 4 5 6 7 8

17. Talk to your professors.
   0 1 2 3 4 5 6 7 8

18. Divide space in your apartment/room.
   0 1 2 3 4 5 6 7 8

19. Make new friends at college.
   0 1 2 3 4 5 6 7 8

To what degree do you agree or disagree with the following statements related to completing a college education? Please respond to the items on the following scale:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. A college education will allow me to obtain a well-paying job
   1 2 3 4 5 6 7 8 9 10

2. A college education will allow me to obtain a job I like doing
   1 2 3 4 5 6 7 8 9 10

3. With a college education, I will be respected by others
   1 2 3 4 5 6 7 8 9 10

4. A college education will allow me to get a job where I can use my talents and creativity
   1 2 3 4 5 6 7 8 9 10

5. A college education will leave me enough time to have a family, friends, and leisure time
   1 2 3 4 5 6 7 8 9 10

6. A college education will give me the kind of lifestyle that I want
   1 2 3 4 5 6 7 8 9 10

7. With a college education, I will be better able to achieve my career goals
   1 2 3 4 5 6 7 8 9 10

8. A college education will increase my career opportunities
   1 2 3 4 5 6 7 8 9 10

9. If I get a college education, then my family will be pleased
   1 2 3 4 5 6 7 8 9 10

10. If I get a college education, then I will be better able to achieve my future goals in life
    1 2 3 4 5 6 7 8 9 10

11. A college education will increase my knowledge base
    1 2 3 4 5 6 7 8 9 10
12. If I get a college education, then I will be able to pursue the career of my choice
   1  2  3  4  5  6  7  8  9  10

13. If I get a college education, then I will do well in life
   1  2  3  4  5  6  7  8  9  10

14. A college education will give me the opportunity to meet new people
   1  2  3  4  5  6  7  8  9  10

15. If I get a college education, then I will learn what I need to know to make good decisions
   1  2  3  4  5  6  7  8  9  10

16. A college education will give me the time to explore different career interests
   1  2  3  4  5  6  7  8  9  10

17. A college education will give me an opportunity to make several friends
   1  2  3  4  5  6  7  8  9  10

18. If I get a college education, then I will be better prepared for life
   1  2  3  4  5  6  7  8  9  10

19. If I get a college education, then I will cause problems in my family
   1  2  3  4  5  6  7  8  9  10

Compare yourself and your family to what you think the average citizen/family in the United States is like. Please indicate how you compare to the average citizen/family by circling one of the responses on the following scale:

<table>
<thead>
<tr>
<th>Very Much Below Average</th>
<th>Below Average</th>
<th>Equal</th>
<th>Above Average</th>
<th>Very Much Above Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
</tr>
</tbody>
</table>

For example, if you believe you and your family are equal to the average U.S. citizens in terms of your ability to afford to go to the movies, you would circle “0” on the first item below.

1. Ability to afford to go to the movies, restaurants, and/or the theater on a regular basis
   -2  -1  0  +1  +2

2. Ability to afford additional educational experiences like ballet, tap, art/music classes, science camp, etc.
   -2  -1  0  +1  +2

3. Ability to join a health club/fitness center
   -2  -1  0  +1  +2

4. Ability to afford regular dental visits
   -2  -1  0  +1  +2
5. Ability to afford dry cleaning services on a regular basis
   -2  -1  0  +1  +2

6. Ability to travel recreationally/ take a family vacation
   -2  -1  0  +1  +2

7. Ability to travel overseas for business and/or a family vacation
   -2  -1  0  +1  +2

8. Ability to shop comfortably in upscale department stores, such as Saks Fifth Avenue
   -2  -1  0  +1  +2

9. Potential for receiving a large inheritance
   -2  -1  0  +1  +2

10. Ability to secure loans with low interest rates
    -2  -1  0  +1  +2

11. Ability to hire professional money managers
    -2  -1  0  +1  +2

12. Ability to go to a doctor or hospital of your own choosing
    -2  -1  0  +1  +2

13. Ability to hire others for domestic chores (e.g. cleaning, gardening, child care, etc.)
    -2  -1  0  +1  +2

14. Ability to afford prescription medicine
    -2  -1  0  +1  +2

15. Ability to afford elective surgeries and/or high-cost medical examinations, such as MRIs or CAT scans
    -2  -1  0  +1  +2
Compare what is available to you and your family in terms of type and/or amount of resources to what you believe is available to the average citizen/family in the United States. Please indicate how you compare to the average citizen/family in terms of the type and amount of resources by circling one of the responses on the following scale:

<table>
<thead>
<tr>
<th>Very Much Below Average</th>
<th>Below Average</th>
<th>Equal</th>
<th>Above Average</th>
<th>Very Much Above Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
</tr>
</tbody>
</table>

For example, if you believe you and your family are equal to the average U.S. citizen in amount of money you have, you would circle “0” for item1 below.

1. Money
2. Land Owned
3. Stocks and Bonds
4. House(s) Owned
5. Cars
6. Computers
7. New Appliances (Washers, Dryers, Refrigerators, etc.)
8. Amount of Education
9. Quality of High School(s) Attended
10. Life Insurance
11. Quality of Health Insurance
12. Money in Savings
13. Maids or Cooks
14. Close Connections to the Rich and Powerful
15. Quality of Health Care
Compare yourself and your family to what you think the average citizen/family in the United States is like. Please indicate how you and your family compare to the average citizen in your ability to do the things below by circling a response on the following scale:

<table>
<thead>
<tr>
<th>Very Much</th>
<th>Below Average</th>
<th>Below Average</th>
<th>Below Average</th>
<th>Above Average</th>
<th>Above Average</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Much</td>
<td>Below Average</td>
<td>Below Average</td>
<td>Below Average</td>
<td>Above Average</td>
<td>Above Average</td>
<td>Very Much</td>
</tr>
</tbody>
</table>

For example, if you believe you and your family are equal to the average U.S. citizen/family in your ability to contact people in high places for a job, you would circle “0” for item 1.

1. Contact people in high places for a job or position.
   
   -2  -1  0  +1  +2

2. Contact people who can help you get out of legal problems.
   
   -2  -1  0  +1  +2

3. Start a job in a high-profile position that requires responsibility.
   
   -2  -1  0  +1  +2

4. Gain information and services not available to the general public.
   
   -2  -1  0  +1  +2

5. Control how your social group is represented in history, media, and the public.
   
   -2  -1  0  +1  +2

6. Receive a fair trial.
   
   -2  -1  0  +1  +2

7. Become a millionaire by legal means.
   
   -2  -1  0  +1  +2

8. Control the type and amount of work of others as a manager, executive, or business owner.
   
   -2  -1  0  +1  +2

9. Control the salary and compensation of others as a manager, executive, or business owner.
   
   -2  -1  0  +1  +2

10. Influence the laws and regulations of your state or city/town.
    
    -2  -1  0  +1  +2
11. Influence state or federal educational policies.  
   | -2 | -1 | 0 | +1 | +2 |

12. Influence the policies of a corporation.  
   | -2 | -1 | 0 | +1 | +2 |

13. Influence where and when stores are built and operated.  
   | -2 | -1 | 0 | +1 | +2 |

14. Influence where and when waste treatment facilities are built and operated.  
   | -2 | -1 | 0 | +1 | +2 |

15. Influence the decision-making of foundations, charities, hospitals, museums, etc.  
   | -2 | -1 | 0 | +1 | +2 |

Compared to how society values or appreciates the average U.S. citizen/family, how does society value or appreciate your . . . ?

<table>
<thead>
<tr>
<th>Much Less</th>
<th>Less</th>
<th>Equal</th>
<th>More</th>
<th>Much More</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
</tr>
</tbody>
</table>

1. Ethnic/racial group
2. Socioeconomic group
3. Nationality

Compared to how society values or appreciates the average U.S. citizen/family, how does society value or appreciate the . . . ?

<table>
<thead>
<tr>
<th>Much Less</th>
<th>Less</th>
<th>Equal</th>
<th>More</th>
<th>Much More</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
</tr>
</tbody>
</table>

1. Neighborhood in which you live
2. Type of home you live in
3. Places where you shop
4. Places where you relax and have fun
5. Type and amount of education you have
6. Type of car you drive
7. Position you hold in society
Compared to how society values or appreciates the average U.S. citizen/family, how much does society value or appreciate you and your families . . .?

<table>
<thead>
<tr>
<th>Much Less</th>
<th>Less</th>
<th>Equal</th>
<th>More</th>
<th>Much More</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
</tr>
</tbody>
</table>

1. Physical appearance -2 -1 0 +1 +2
2. Occupational success -2 -1 0 +1 +2
3. Financial success -2 -1 0 +1 +2
4. Physical abilities -2 -1 0 +1 +2
5. Economic background -2 -1 0 +1 +2

How interested are you in participating in the following activities related to attending college? Please respond to the items on the following scale:

<table>
<thead>
<tr>
<th>Not Very Interested</th>
<th>Very Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

1. Researching and writing papers 1 2 3 4 5 6 7
2. Joining a student organization 1 2 3 4 5 6 7
3. Regularly attending classes 1 2 3 4 5 6 7
4. Sharing a room or apartment with a roommate(s) 1 2 3 4 5 6 7
5. Reading textbooks for class 1 2 3 4 5 6 7
6. Socializing with your roommate(s) 1 2 3 4 5 6 7
7. Participating in class discussions 1 2 3 4 5 6 7
8. Making new friends at college 1 2 3 4 5 6 7
9. Dividing-up and completing chores with a roommate(s) 1 2 3 4 5 6 7
10. Talking with professors 1 2 3 4 5 6 7
11. Studying for exams 1 2 3 4 5 6 7
12. Living away from family and friends

How likely are you to complete the following?

1. How likely is it that you will attend a 4-year college or university in the term following your graduation from high school?

<table>
<thead>
<tr>
<th>Not Likely At All</th>
<th>Unlikely</th>
<th>Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
REFERENCE LIST


VITA

Jason Daniel Hacker was born in Rochester, Minnesota in 1983 and grew up in Owatonna, Minnesota and then Apex, North Carolina. In 2002 Jason graduated from Cardinal Gibbons High School in Raleigh, North Carolina. In 2006 Jason graduated magna cum laude from the University of North Carolina Wilmington with a Bachelor of Arts in Psychology. In 2006 he enrolled in the Community Counseling program at Loyola University Chicago, earning a Master of Arts degree in 2008.

Since starting his doctoral degree in the APA-accredited Counseling Psychology program at Loyola University Chicago in 2008 Jason has been an active contributor to research. He has participated in 15 referred conference presentations and co-authored 1 book chapter and 5 articles published in peer-reviewed journals including a first author publication in the Journal of Career Assessment. Jason has also taught undergraduate courses in the School of Education at Loyola University Chicago in the areas of multicultural education and human development. During his graduate career Jason received a graduate assistantship and merit award from the School of Education for two years and the Graduate School for two years. In October 2010 Jason passed his comprehensive exam with distinction and in December 2012 he defended his dissertation with distinction. Jason was honored with the 2012-2013 Dissertation Award for Professional Schools from the Council of Graduate Programs at Loyola University Chicago.
Jason completed his doctoral clinical training at Advocate Illinois Masonic Medical Center, DePaul University Counseling Services, and Loyola University Chicago Wellness Center. He completed his pre-doctoral psychology internship at the University of Illinois Urbana-Champaign Counseling Center. Jason has accepted a staff psychologist position at American University Counseling Center.