The Role of Gender, Race, Ethnicity, and Parental Education in Urban Adolescent Career Development

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THE ROLE OF GENDER, RACE, ETHNICITY, AND PARENTAL EDUCATION IN URBAN ADOLESCENT CAREER DEVELOPMENT

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Abstract

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The disparities that are prevalent in urban environments have a profound impact on the educational and career trajectories of urban minority youth. In the interest of promoting the success among urban minority youth, it is critical to understand the influence of contextual factors on career development. Urban students of color observe and experience disparities based on gender, race, ethnicity, and parental education (Chang, Chen, Greenberger, Dooley, & Heckhausen, 2006; Fassinger, 2008). A major theoretical framework that has been used to address contextual factors in career development is Social Cognitive Career Theory (SCCT); (Lent, Brown, & Hackett, 1994). The current study examines the socio-contextual variables of gender, race, ethnicity, and parental education (and their interactions) in predicting adolescents’ perceptions of barriers to academic and career goals, expectations of reaching goals, and engagement in career planning activities. Archival data was used from a larger longitudinal study that was conducted during the implementation of a vocational program [called Tools for Tomorrow] that was offered at two public high schools in a Northeastern city for three years (Kenny, Blustein, Haase, Jackson, & Perry, 2006). There were 208 participants with a mean age of 14 (57% females and 43% males).
Hierarchal multiple regressions revealed that boys, Latino/a students, and low levels of parental education were significantly associated with lower expectations about reaching goals. An exploratory analysis was conducted with three specific ethnic groups: African American, Caribbean, and Latino/a students. Among the findings, African American girls were more likely to engage in career planning activities. This study is among the few that explore the career development of Caribbean adolescents and differentiates the experiences of students of color in career related cognitions and behavior. Limitations for this study and implications for future research, education, and vocational interventions are discussed.
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Chapter 1: Introduction

The disparities that are prevalent in urban environments have a profound impact on the educational and career trajectories of urban minority youth. Urban schools tend to be underfunded and in neighborhoods with high concentrations of poverty (Lee, 2005). The majority of students attending urban public schools are racial and ethnic minority youth living in poverty (Grady, Bielick, & Aud, 2010). Because of experiences with multiple forms of discrimination, urban minority adolescents may be more likely to have negative expectations about reaching educational and career goals. For decades, Black and Latino/a urban students have attained lower levels of education than White peers (National Center for Education Statistics [NCES], 2009a). Negative experiences in one’s environment shape beliefs and expectations for one’s future and subsequent educational decisions.

Understanding the influence of environmental contextual factors on expectations and behaviors could provide valuable insight into the educational and career development of urban students of color. The anticipation or perception of barriers to one’s goals and having negative expectations about reaching goals can affect the extent to which adolescents spend their time and energy in career planning activities. For the current study, I will be examining the influence of contextual factors on three sociocognitive variables: perceptions of barriers to future educational and career goals, expectations of attaining one’s goals, and career planning among urban minority youth.
In this chapter, I will first explain the term career development as it relates to this paper and review educational disparities among Black and Hispanic adolescents. Second, the developmental period of adolescence will be discussed in relation to career development. Third, I will then review contextual factors of gender, race, ethnicity, and parental education. Fourth, the vocational theory of social cognitive career theory will be introduced. Lastly, I will outline my hypotheses for the current study.

_Career Development and Educational Disparities_

The term career development refers to a wide range of tasks in preparing, obtaining, and maintaining a career. Career development tasks for high school students can include decisions to (1) take college preparatory courses or vocational classes; (2) attend, study and pass classes to get good grades; (3) seek out extra help or tutoring for academic difficulties in order to get good grades and learn skills that may be useful in future employment; (4) participate in extracurricular activities to explore interests or enhance college applications; (5) stay in high school or drop out; and (6) apply for college or seek employment. Throughout this paper, the term career development refers to these tasks that affect educational attainment and one’s future career. The level of educational attainment (such as a high school drop out versus a bachelor’s level degree) affects career options in adulthood, such as the ability to attain highly skilled jobs for a higher wage. Thus, it is important to examine
educational attainment by race and ethnicity in order to better understand urban minority career development.

There are significant educational disparities between racial and ethnic groups. Historically, the educational attainment for Black and Hispanic students has been lower than White peers. For the year 2008, there was a higher drop out rate among Hispanics (18.3%) and Blacks (9.9%) in comparison to Whites (4.8%); (Chapman, Laird, & KewalRamani, 2010). The same report indicated that the percentage of bachelor’s degrees earned in the United States in 2008 were lowest for Hispanics (8%) in comparison to Black (10%) and White (72%) peers. More Latino/a students were assigned to public schools (76%) than Black students (69%).

There are significant economic advantages for attaining a college degree, particularly for Latinas. The percentage increase in earnings between a high school and college degree for 2005 was the following: Latinas earn 82% more with a bachelor’s degree; whereas Latinos earn 60% more (Ginorio & Huston, 2001); the increase is 63% for Black men and 53% for Black women (NCES, 2009). A critical advantage in earning a bachelor’s degree is the higher likelihood of upward social mobility, which can have an especially profound impact on urban minority youth living in poverty.

Conversely, adolescents who drop out of high school have worse educational and occupational outcomes. Earnings increase in proportion to higher levels of educational attainment. For example, for the 2005 year, the median income by
educational attainment was $25,000 for less than a high school degree; $30,300 for a high school degree; $38,000 for some college or an associate’s degree; and $50,000 for a bachelor’s degree (NCES, 2007). In an increasingly technical and globalized labor market, adolescents who dropped out of high school are less likely to work in highly skilled work with higher wages. For families living in poverty, community college may be a more feasible option that offers practical vocational training (Grubb & Laverson, 2005) and can lead to a higher salary than a high school degree (Grubb, 1999). Adolescents might not be aware about the ways in which the educational decisions they make in high school can have a long term impact on their life. Thus, many urban minority youth might not prioritize career development at this point in their lives. During adolescence, an individual continues to experience changes (physically, emotionally, and socially); as part of this process, adolescents explore and learn more about the multiple aspects to one’s identity across the domains of gender, race, ethnicity, and social status that can affect one’s expectations for the future and position in the world.

*Adolescent Identity Development and Work*

The main developmental task during adolescence is identity development (Erikson, 1980). Throughout this developmental period, adolescents explore their identity, desire a sense of belonging with peers; while also becoming increasingly aware of what society expects from them. Urban minority adolescents explore their identity in a context of stereotypes and disparities based on gender, race, ethnicity, and
social class that affect one’s sense of self. According to Gottfredson (2002), adolescents become more aware of what careers their family and community would consider acceptable based on the gender roles they are expected to assume (such as becoming a caretaker or breadwinner) and are sensitive to others’ opinions and expectations of them. Another critical factor in adolescent development is racial and ethnic identity development. During adolescence, individuals begin to more actively explore ethnic identity or a sense of belonging to one’s ethnic group (Phinney, 1996). A positive sense of one’s racial identity and ethnic identity has been linked to academic achievement, indicating the important role of ethnic identity in one’s self-concept and connection to others particularly in an environment with harmful stereotypes about one’s race and ethnicity (Chavous, Smalls, Rivas-Drake, Griffin, & Cogburn, 2008; Eccles, Wong, & Peck, 2006). In addition to gender, race, and ethnic identity, adolescents also become more aware of social class (such as differences between families in education and material possessions) and one’s social position in relation to peers (Gottfredson, 2002). Thus, adolescence is a time when multiple identities in relation to gender, race, ethnicity, and social class are explored that can affect academic achievement, expectations, and future career plans.

In exploring one’s identity, adolescents consider possible roles they want in the future. According to Super (Super, Savickas, & Super, 1996), adolescence is a time to explore educational and career interests and develop skills sets, which will contribute to one’s future career. Decisions made during adolescence can have a long term
impact. For example, the decision to drop out of high school can increase the likelihood of living in poverty into adulthood and further limit one’s options in an environment with limited resources. Adolescence is a critical period of time in which important decisions are made before an individual has reached adulthood and not fully aware of the long term consequences of their decisions. Although decisions about education are made individually, there are group differences in the attainment of education based on gender, race, ethnicity, and the level of education among students’ parents. Thus, contextual factors influence the educational experiences and decisions that can affect career options. Next, I will discuss how the contextual factors of gender, race and ethnicity, as well as parental education in relation to career development.

**Gender**

There are significant gender differences between males and females in educational attainment. According to the National Center of Education Statistics (2009), more women have earned bachelor degrees than men since 1981, and the gap is projected to continually increase to 2019. For the 2008-2009 year, women earned 57% of the conferred bachelor’s degrees, whereas boys earned 43% (NCES, 2009). Boys and girls are treated differently based on gender and observe gender differences in their environment. These experiences shape their expectations about what is possible to achieve in the future. Adolescent males of color tend to perceive more racial and ethnic discrimination in their environment in comparison to females
(Dotterer, McHale, & Crouter, 2009). However, girls are more likely than boys to perceive discrimination based on both ethnicity and gender; and thus anticipate more barriers (due to the combination of racism and sexism) in attaining educational and career goals (McWhirter, 1997). Thus, female adolescents may be more motivated and active in seeking out information to overcome obstacles. Indeed, scholars have suggested that adolescent females, in comparison to males, are more realistic and active in career planning (Patton & Creed, 2002). Others have asserted that girls are actively encouraged to achieve academically in order to overcome obstacles and to be independent (Feliciano & Rumbaut, 2005). Gender affects the types of barriers that will be anticipated (i.e. sexism and/or racism) to future goals; and the ways in which one might respond to barriers. The anticipation of barriers and having negative expectations about one’s future can influence educational decisions (such as dropping out of high school or working hard) that affect career options and income later in life.

**Race and Ethnicity**

There have been critical differences in educational attainment by racial and ethnic group. For the 2007-2008 year, more White students earned bachelor’s degree (71.8%) in comparison to Black (9.8%) and Hispanic (7.9%) students (NCES, 2009a). Latinos/as have the highest drop out rate, attain the lowest levels of education, and tend to have limited resources for educational and career planning (Vasquez, 2002). Thus, race and ethnicity are critical contextual factors in educational attainment.
As adolescents explore their identity, they are being treated differently based on race and ethnic group membership, which affects expectations about what is possible to achieve in the future. For example, students of color are exposed to negative messages about racial group membership and intellectual abilities. In previous research, male students of color were more likely to report ethnic (McWhirter, 1997) and racial discrimination than female peers (Chavous et al., 2008). In a study among adolescents, male students of color were less likely to be perceived as academically successful as female peers (Hudley & Graham, 2001). The aspirations to attain higher education is comparable across racial and ethnic groups; however, Black and Latino/a adolescents tend to report negative expectations for reaching educational and career goals (Arbona, 1990; McWhirter, 1997). Indeed, as of 2002 the educational aspirations of students across racial and ethnic groups continued to be similar in that 8% White, 11% Black, and 14% Latino/a endorsed high school as their highest academic goal; and 40% White, 41% Black, and 40% Latino/a wanted a bachelor’s degree (NCES, 2005). Negative expectations about one’s ability to achieve goals have been associated with lower levels of educational attainment and career planning (Irving & Hudley, 2005; Swanson, Daniels, & Tokar, 1996). Thus, negative expectations affect educational and career planning, which can have a critical impact on the career options of urban minority youth.

The current study will focus on Black adolescents and Latinos/as. It is important to understand the distinction between race and ethnicity. Latinos/as refers
to a shared cultural background (primarily from Spanish speaking regions of the world) and can be one or a combination of races (i.e. Hispanic White); (Flores, Navarro, & Ojeda, 2006). The construct of race is a social construction that influences how a person is treated based on physical characteristics (Helms, 1995). According to Phinney (1996), the primary factors in the construct of ethnicity include: (1) cultural beliefs and practices; (2) the extent to which a person feels a sense of connection to an ethnic group; and (3) “minority status” (p. 919) experiences associated with ethnic group membership. Each ethnic group has varying sets of beliefs, cultural practices, and may differ in experiences of discrimination based on various factors such as social status, language barriers, and immigration history. Social status can be influenced by one’s level of education, such that low levels of education among parents that can affect adolescents’ access to quality educational and career resources. In addition to race and ethnicity, parental education is critical to urban adolescent career development.

*Parental Education*

The level of parental education influences the experiences of urban minority youth. Black and Latino/a adults attain lower levels of education than Whites (NCES, 2011). Thus, the majority of racial and ethnic minority parents have low levels of education, which limits job options and lower wages (Gore, Kadish, & Aseltine, 2003). Low levels of education and income can limit parents’ ability to provide quality educational resources and information to help adolescents transition easily into
adulthood, higher education, and the work world. Parental education is an important contextual factor in urban adolescent career development.

Social Cognitive Career Theory

A major theoretical framework that has been used to address social contextual factors, such as gender, race, ethnicity, and parental education to explain career development is Social Cognitive Career Theory (SCCT) (Lent, Brown, & Hackett, 1994). The three main aspects of SCCT is career self-efficacy, outcome expectations (personal beliefs about the outcomes of engaging in certain behaviors or activities), and goals (Lent et al., 1994). Self-efficacy has been found to be affected by environmental barriers to reaching goals (Lent, Brown, & Hackett, 2000). Barriers negatively affect self-efficacy and adolescent career development. For example, research indicates that the anticipation of barriers to one’s goals and having negative expectations about reaching goals is associated with lower levels of effort and energy exerted towards career planning activities (Lent et al., 1994). The perceptions of barriers, expectations, and career planning are socio-cognitive variables that can have significant influence on the career development of urban minority youth.

Adolescents with negative career expectations may feel overwhelmed by contextual factors and engage less in career planning activities. From the perspective of SCCT, the contextual factors of gender, race, ethnicity, and parental education (which is an indicator of socioeconomic status) influence expectations and predict career planning behavior. Understanding the contextual factors that are associated
with perceived barriers and expectations could provide valuable insight into the career planfulness of urban students of color.

The few studies on the career development of racial minorities indicate the important role of contextual factors in the development of career expectations and how adolescents conceptualize future career resources and barriers. SCCT can be extended to examine the multiple contextual factors, including gender, race, ethnicity, parental education, as well as moderator variables, on career development; more specifically as they relate to the constructs of perceptions of barriers to goals, expectations of reaching goals, and career planning activities. Understanding contextual factors is critical in understanding the career-related cognitions and behaviors among urban minority youth.

The current study aims to make a meaningful contribution by focusing on the career development of urban adolescent students of color. In a literature review on career development, many studies have compared students of color to White students. This classifies students of color into one group that implies, to some extent, homogeneity. There can be significant differences among students of color such as culture, race, social status, degree of acculturation and assimilation, and the divergent histories in the way groups have entered the United States (voluntary or involuntary; documented or undocumented) with implications on how a group is treated and has access to resources. A major contribution of the current study is that it focuses on
making distinctions of the career development of students of color based on specific racial and ethnic groups.

Another way this study intends to contribute to existing literature is to examine the relationship between gender and career expectations. Previous research found that girls perceive more barriers and have lower career expectations to reach future goals (Luzzo & McWhirter, 2001; McWhirter, 1997); and are more likely to have higher career expectations and engage in career planning (Patton, Bartram, & Creed, 2004). Whereas, other researchers have found no significant differences between males and females for perceived barriers to future goals, career outcome expectations and career planfulness (Kenny, Blustein, Chaves, Grossman, and Gallagher, 2003; Kenny, Blustein, Haase, Jackson, & Perry, 2006). This study intends to add to existing findings to better understand the relationship between gender and career development constructs.

The inclusion of specific constructs that need further study among racial and ethnic minority youth is another strength of the current study. One of the outcome variables is career planfulness, which is an essential behavior in reaching educational goals and it is a construct that needs more research within this population. Furthermore, this study focuses on the specific contribution of parental education among urban youth, in order to better understand the possible contribution of this particular construct, which does not often receive primary attention because it tends to
be used in combination with parental income. This study aims to contribute to the limited literature on urban racial minority adolescent career development.

**Hypotheses**

There are seven hypotheses for the current study.

1. The first hypothesis is that gender will predict the following constructs: (a) perceived career barriers, (b) expectations about future career outcomes, and (c) career planfulness. Specifically, girls (Black and Latino female adolescents) will (a) perceive more career barriers, (b) have lower expectations about their future career, and (c) have higher career planfulness. Conversely, I predict that boys will (a) perceive less career barriers, (b) have higher expectations about their future career, and (c) have lower career planfulness.

2. For the second hypothesis, race/ethnicity will predict sociocognitive variables in that Latinos/as will (a) anticipate more barriers than students who identified as Black (which includes African American and Black Caribbean), (b) have lower expectations, and (c) have lower career planfulness. I predict that Black students will (a) anticipate less barriers than students who identified as Latino/a, (b) have higher expectations, and (c) have higher scores on career planfulness.

3. The third hypothesis is that higher parental educational levels will predict (a) lower perceived barriers, (b) more positive future career expectations, and (c) higher career planfulness for both male and female adolescents. Whereas,
lower parental education will predict (a) more perceived barriers, (b) negative future career expectations, and (c) lower career planfulness.

4. For the fourth hypothesis, gender will moderate the relationship between race/ethnicity and the constructs of (a) perceived career barriers, (b) expectations about future career outcomes, and (c) career planfulness. I anticipate that Latinas will (a) perceive the most barriers and (b) have lower expectations; whereas, Latinos will have the (c) lowest scores for career planfulness. Conversely, I predict that Black male students will (a) perceive less barriers and (b) have higher career expectations; whereas Black female students will have (c) higher scores for career planfulness.

5. The fifth hypothesis is that race/ethnicity will moderate the relationship between parental education and the outcome variables; in that Latinos/as with the lowest levels of parental education will (a) perceive more career barriers, (b) have lower expectations about future career outcomes, and (c) lower scores on career planfulness. I predict that Black students across all levels of parental education will (a) perceive less barriers to future goals, (b) have higher expectations about future career outcomes, and (c) have higher scores on career planfulness.

6. The sixth hypothesis is that gender will moderate the relationship between parent education and the outcome variables. I predict that across all levels of parental education girls will have (a) more perceived barriers, (b) lower future
career expectations, and (c) higher career planfulness; whereas boys will have (a) the least perceived barriers, (b) higher future career expectations, and (c) lower career planfulness. This is consistent with the concept of resistance in that females may engage more in career planning to overcome anticipated obstacles (Cammarota, 2004; Feliciano & Rumbaut, 2005).

7. For the seventh hypothesis, there will be a three way interaction effect between gender, parent education, and racial/ethnic groups in predicting the (a) perception of barriers, (b) career outcome expectations, and (c) career planfulness. I anticipate that Latinas with the lowest levels of parental educational will perceive the most barriers, have the lowest future expectations; and that Latinos with the lowest levels of parental education will have the lowest career planfulness in comparison to Latinas and Black male and female participants. Conversely, I predict that Black male students with the highest level of parental education will have the least perceived barriers and the highest career expectations; and that Black female students with the highest parental education will have the highest career planfulness.
Chapter 2: Literature Review

To better understand the career development of urban minority adolescents, one must understand the environmental context that affects their educational experiences and transition to the world of work. Racial minority urban adolescents make educational and career decisions in a social context that consists of unequal access to opportunity structures, such as high quality educational institutions. For example, the majority of urban minority youth attend high poverty public schools and are twice more likely to live in poverty (Lee, 2005). It is estimated that 65% of racial minority adolescents in the United States are educated in urban public schools (NCES, 2004). Unfortunately, these schools tend to be underfunded, have less qualified teachers (Irving & Hudley, 2008; Kozol, 1991; Lankford, Loeb, & Wyckoff, 2002) and lack updated curriculum to prepare students to be ready for college and the workforce (Lee, 2005).

Parents of urban minority youth tend to lack access to quality educational resources to supplement the shortcomings of public education and are more likely to have less than a high school education themselves (Lee, 2005). Indeed, urban students of color attain lower levels of education (NCES, 2009) and lack the skills needed to be competitive in current job markets leading to limited career options (Kenny et al., 2006). The disparities in education, such as underfunded educational institutions and a lack of updated educational resources limit urban adolescents’ access to opportunities and possible careers. Additional contextual factors that are critical to
urban adolescents’ career development are experiences based on gender, race, and ethnicity that serve as sources of information that shape adolescents’ expectations about what is possible for their future.

Urban minority adolescents are aware of the disparities in their environment (Irving & Hudley, 2008). Adolescents observe the differences between the dilapidated conditions of urban schools and the schools in adjacent higher income communities and what they see on television. Racial and ethnic minority adolescents witness their families struggle with employment, financial hardship, unequal treatment based on race, ethnicity and gender; and may find it difficult to believe that an education will provide the same rewards as their White peers (Irving & Hudley, 2005; Mickelson, 1990). Adolescents living in poverty may feel a sense of responsibly to contribute to their family before they have finished their high school education, which can divert their cognitive and physical energy away from their studies.

Urban students of color observe and experience disparities based on gender, race, ethnicity, and parental education (Cook, Church, Ajanaku, Shadish, Kim, & Cohen, 1996; Irving & Hudley, 2005). Examples of gender-based disparities have been shown in previous research in that boys tend to receive harsher punishments from school personnel (Chavous et al., 2008; NCES, 2007); and girls are more likely to experience sexual harassment in school (Ormerod, Collinsonworth, & Perry, 2008). Another observable disparity is being treated differently based on racial and ethnic group membership. Irving and Hudley (2005) asserted that adolescents of color are
keenly aware of being treated differently based on race and attribute the disparities in their environment and neglected school system as a manifestation of racism.

Adolescents with parents who have low levels of education (such as a high school education) are more likely to live in poverty (U.S. Census Bureau, 2009a), have fewer resources than their peers, and are aware of their lower position in social status relative to families with more resources (Gottfredson, 2002). Thus, adolescents are aware of their position in the world through their experiences with disparities based on poverty, gender, race, and ethnicity that, in turn, affect their expectations about their future options.

Previous research suggests that urban racial minority adolescents are more likely to have negative expectations about their ability to attain their education and career goals (Constantine, Erikson, Banks, & Timberlake, 1998; Jackson, Kacanski, Rust, & Beck, 2006), which influences their engagement in career planning activities and career development (Swanson & Woitke, 1997). In the interest of promoting the success among urban minority youth, it is critical to understand the role of gender, race, ethnicity, and parental education on urban adolescents’ perceptions of barriers to their academic and vocational goals, their expectations about future career outcomes, and level of engagement in career planning activities. Understanding the career development of urban adolescents, particularly women and students of color, is critical to ensure their successful transition from school to the world of work.
For the rest of the chapter, I will review the contextual factors of gender, race, ethnicity, and parental education as they affect urban adolescent career development. Then, in order to more fully understand the influence of contextual factors on urban minority career development, I will review social cognitive career theory. The next topic will cover the career development constructs for this study and their intersections with gender, race, ethnicity, and parental education. Lastly, I will outline my hypotheses for this study.

Urban Adolescent Contextual Factors: Gender Issues

The sex of an individual is of critical importance. Individuals are expected to think and behave in ways that are consistent with sex-roles or what society expects from them based on their sex. In fact, this can be seen in the long-standing differences between men and women in educational attainment and occupational choices. To understand the source of how males and females come to different career development outcomes, it may be helpful to examine the process by which adolescent males and females are socialized into roles as men and women in society. In this section, I will briefly review gender socialization, a gender-related theory, and the educational attainment among men and women. Although the current study does not examine or measure gender role socialization, it is important to understand the overall concept as an influence on career development.

Gender role socialization is the process whereby an individual’s beliefs, thoughts, and behaviors are shaped to conform to society’s expectations. Adolescents
are treated differently based on gender and are exposed to messages in their environment about what is considered normal or acceptable behavior for men and women. These gender role norms are socially constructed notions about what is acceptable behavior based on gender (Gottfredson, 1981; Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, & Smiler, 2005). Feminine role norms include being nice in relationships, domestic, modesty, focusing on appearance, and caring for children (Mahalik et al., 2005). Masculine role norms include primacy of work, pursuit of status, winning, self-reliance, and risk taking (Mahalik, Locke, Ludlow, Diemer, Scott, Gottfried, & Freitas, 2003). Both female and male adolescents are challenged with stressors in navigating gender role expectations in career decisions.

The extent to which an adolescent is influenced by the pressures of gender role socialization can be observed in one’s educational activities and interests. Tokar, Thompson, Plaufcan, and Williams (2007) found that the level of conformity to gender roles indirectly effects the types of career interests and learning experiences men and women seek out; such that men and women with high levels of conformity tend to seek out and have more experiences learning skills related to careers that are consistent with traditional gender role norms (mechanical types of work and social/caretaking types of work, respectively). Their findings are consistent with previous research in that the level of conformity to gender norms predicts career interests in male or female dominated occupations (Mahalik et al., 2005; Tokar et al., 2007). The developmental period of adolescence is a time when belonging and
acceptance to a group takes priority and adolescents may be preoccupied with how others perceive them; thus, boys and girls may be particularly susceptible to conforming to gender role expectations. Next, I will briefly review how gender socialization can affect career interests and occupational patterns.

One theory that addresses the influence of gender role socialization in career development is Gottfredson’s theory of circumscription. From the theoretical perspective of circumscription, occupational sex role stereotypes can affect an individual’s perception about which careers will be socially and will not be socially acceptable, affecting a person’s perception of barriers in the environment to access occupations, and modifying career goals in order to avoid anticipated barriers (Gottfredson, 1981). For example, if a female adolescent perceives engineering as a field that is not accessible due to barriers in her environment (i.e. lack of support, finances, or anticipation of discrimination) then she is less likely to exert time and energy in pursuing a career in engineering and more likely to seek alternative options. Conversely, men are often discouraged from pursuing traditionally female dominated occupations. Circumscription, as a part of gender socialization, affects boys and girls’ educational and career plans.

Being a male or female is a critical contextual factor in educational attainment. For example, historically, women have attained lower levels of education in comparison to men. More men have obtained a bachelor’s degree than women for the majority of the 20th century (United States Census Bureau, 2009b). Other reports
indicate that women have earned more bachelor degrees than men since 1981 (NCES, 2009b). In a report from the United States Department of Education (NCES, 2009b), women earned more bachelor’s degrees than men (57% and 43% respectively) for the 2008 – 2009 year. Based on these reports, one can surmise that gender role socialization has affected educational attainment and career development.

There are clear gender based occupational norms that segregate the sexes in occupations, in that women tend to work in caretaking jobs (i.e., teaching, nursing, or secretarial) and male dominated occupations are in the manual labor and upper management. Research has found stability in gender differences in occupational attainment from 1994 to 2000; with the most common occupation for women is clerical (79% of the field was women), whereas for men it was production/craft (91%) (Gabriel & Schmitz, 2007). Although women have attained higher levels of education and experience in the workplace, a wage gap continues to persist in that women working full time earn approximately 76% of men for comparable educational level and work (U.S. Census Bureau, 2009b). Educational achievements are not always realized in the world of work, as evidenced by the wage gap and “glass ceiling” in that women continue to struggle to reach positions of power (Fassinger, 2008). The inherent sexism and gender based patterns in the environment, such as occupational segregation, can influence a person’s perception about the accessibility and potential barriers of pursuing a particular career. Thus, the wage gap and occupational segregation continues to persist. However, it will be interesting to see
how long this trend continues as women achieve higher levels of education. The occupational gender differences reflect the types of work that is suitable for men and women. Thus, occupational segregation, as a reflection of gender socialization, can affect one’s perceptions of barriers, expectations, and educational decisions.

Male Educational Attainment. The influence of gender socialization is evident in the gender differences in educational attainment. First, I will review possible explanations for educational changes with males, then relevant explanations for females. It is important to note that this is not an attempt to explain all possible reasons; instead, this is an exploration of the ways in which gender may filter adolescents’ experiences. The reasons for the decline in the educational attainment of males remain unclear. In a review of the literature, researchers have found that boys have lower levels of school engagement (referring to the extent to which boys attend and participate in school activities). For example, in one longitudinal study, boys were less likely to report that schoolwork was interesting or connected to their future, in comparison to girls (Clark, Flower, Walton, & Oakley, 2008). Previous researchers have found that more boys, than girls, reported that school work is less a priority in comparison to other issues, such as social status and that boys were less likely to report having academic goals (Chang, Chen, Greenberger, Dooley, & Heckhausen, 2006; Clark et al., 2008). The perception that school is not a priority and not relevant to future goals can affect the extent in which boys are interested in school and exert
effort in school related activities, which can lead to lower grades and decisions to not pursue further education.

Gender role socialization might partially explain adolescents’ behaviors and educational decisions and attainment. Feliciano and Rumbaut (2005) asserted that boys’ decreased educational attainment is a reflection of gender socialization in that boys are socialized to resist authority, such as school rules, as a way to prove their manhood and gain status with peers. Indeed, boys were suspended twice more often than females (Planty et al., 2009). Boys who have been suspended or “punished” may perceive that they have been treated unfairly and are more likely to feel negatively towards school and be less engaged in their studies. Another perspective is that lower educational attainment is a reflection that boys have low expectations in their ability to perform well in post-secondary education or that education does not necessarily translate into income or status. Behaving in ways to show a disinterest in school (lower school engagement) may be a form of resistance toward the disparities boys observe in the urban high poverty school environments. Paradoxically, a traditional gender role expectation for men to be “breadwinners” requires attaining advanced education to be competitive for high earning jobs; yet, the percentage of boys attaining undergraduate degrees has decreased. Further research in needed to better understand the changes in males’ educational attainment. The gender differences in educational engagement and attainment indicate that gender socialization plays a role in the educational experiences and, ultimately, career interests of boys and girls.
Female Educational Attainment. Gender role norms might contribute to women’s educational achievement. Historically, women have been encouraged to prioritize family and caretakers; while men focus on income and career. Women tend to make educational and career decisions that are congruent with one’s family plans (Eccles, 1994). Gender differences in educational attainment might reflect gender role changes in society. In the last few decades, more women earned graduate degrees and entered professional level fields (i.e., lawyers or doctors) (NCES, 2009b; U.S. Bureau of Labor Statistics, 2011). Women’s educational attainment might also be a practical and realistic response to changes in the social context. One could argue that because of a history of earning less than men in combination with social changes (such as, getting married later in life and higher rates of divorce, both in which women must often financially support themselves), it is increasingly more acceptable and practical for women to attain higher levels of education in order to secure higher wage jobs. Another explanation for women’s higher educational attainment is that girls are socialized to be feminine and please others, resulting in behaviors associated with academic achievement, such as studying, being attentive to teachers, and getting good grades (Feliciano & Rumbaut, 2005). Cammarota (2004) asserted that academic achievement for girls is an expression of resistance against gender stereotypes and expectations. Gender socialization and girls’ reactions to gender stereotypes help explain increases in academic achievement.
 Schools are one of the primary environments in which adolescents are socialized to gender role expectations; since this is where adolescents spend a significant portion of their day. For many girls, school environments are their first exposure to gender based disparities and marginalization. The school context is an important factor in understanding girls’ educational experiences and how girls’ develop an awareness of barriers in their environment to their goals.

There are various disparities for women in educational domains including the following contextual factors in school: a null educational environment in which girls’ education is not actively promoted and sexual harassment is highly prevalent in schools (Fassinger, 2008). Betz (1989) argued that a school environment that does not encourage girls in their academic achievement is a null educational environment (one form of sexism) in that it does not actively counter the negative influence of gender socialization. Another negative contextual factor in schools is sexual harassment, which is an explicit form of sexism. Previous research has found a high number of incidences of sexual harassment in schools (Corbett, Hill, & St.Rose, 2008) and that girls experience a higher frequency and severity of sexual harassment than boys (Hand & Sanchez, 2000; Ormerod et al., 2008). In a study by Ormerod et al. (2008) among high school students, results indicated: (1) high rates of peer sexual harassment; (2) that girls tend to experience more severe forms of sexual harassment from peers and school personnel, in comparison to the harassment experienced by boys; (3) that harassment was associated with withdrawal from school (such as skipping school or
disinterest in school activities) and not feeling safe; and (4) that low self-esteem was associated with perceptions that the school climate is tolerant of sexual harassment. The direct experience of sexual harassment and/or witnessing a climate of tolerance affects the extent to which girls feel safe. These negative messages from the environment inform their sense of value and position in the world.

Based on the aforementioned research, there is inherent sexism in academic environments and these experiences socialize or teach adolescents that gender can determine how one will be treated by others. Thus, adolescent females who have been harassed or witnessed harassment may be more likely to anticipate or expect to experience forms of harassment and sexism in their future. Understandably, such negative expectations for the future can shape educational and career decisions, the extent to which a girl is engaged in school, and the attainment of goals. Thus, gender role socialization affects career interests and plans as evidenced by the occupational patterns of men and women.

Indeed, previous research has found that females report more barriers to their future educational and occupational goals in comparison to males (McWhirter, 1997). In one study among Latino high school students, although girls reported higher levels of career aspirations (a desire for a leadership position in one’s future career) than boys; they also identified more barriers to their future educational and career goals, in comparison to boys (Valencia & Johnson, 2006). Other researchers found that perceptions of barriers predicted lower levels of career planning among ninth grade
girls with low self-efficacy (Cardoso & Moreira, 2009). The combination of these findings indicates that females are aware of the bias and barriers in their environment, which in turn affects their career plans.

*Urban Adolescent Contextual Issues: Race and Ethnicity*

Another critical contextual factor that influences urban adolescent career development is racial and ethnic group membership. During 2007-2008 year, the bachelor degrees obtained among men by racial group were 73.7% White, 7.8% Black, and 7.2% Hispanic; the bachelor degrees among women by racial group were 70.4% White, 11.2% Black, and 8.4% Hispanic (NCES, 2009a). Fewer Hispanic men and women attain a bachelor level education relative to White and Black racial groups.

Previous research has found that despite having high aspirations or desire for education, ethnic and racial minority adolescents attain significantly lower levels of education in comparison to members of the White majority (Constantine, Kindaichi, & Miville, 2007). For example, Arbona (1990) found that Mexican American and Black adolescents reported high career aspirations and low expectations for reaching their career goals. Indeed, there are various sources of evidence in the environment for these negative expectations. Mexican American adolescents have one of the lowest educational attainment levels in the U.S. (Constantine et al., 2007). The 2008 high school educational attainment data in the United States by racial/ethnic group for adults included: Hispanic (of any race) 76%, Black, non-Hispanic 87%; and White,
non-Hispanic 94% (Chapman et al., 2010). Lower levels of education translate into limited job options and lower income.

With regard to income, Hispanic and Black employees in the United States earned less money than Whites, at each level of educational attainment (such as a high school diploma, associate, bachelor’s, and graduate degree); (NCES, 2007). Helms and Cook (1999) noted that (in terms of percentages) there are almost twice as many White men in managerial occupations in comparison to Black men; and that more White men and women are in higher status careers, in comparison to Black and Latino/a groups. Many urban racial/ethnic minority adolescents experience forms of racism and sexism, in addition to witnessing their parents’ struggle with financial hardship. These experiences are sources of information for an individual to develop expectations about what is possible for the future, potential barriers to goals, and decisions about pursuing goals.

According to the work of Helms and Piper (1994), racial socialization affects the career development in that (1) race and ethnic based stereotypes influence a person’s beliefs about acceptable careers and occupational status that may be attainable; and (2) there are educational disparities in accessing resources. Ethnic identity has also been found to have an important role in career development. First, I will briefly discuss racial socialization and educational disparities, then I will review ethnic identity, and lastly, Latino/a and Caribbean career development.
Racial Socialization. The term “socialization” refers to the process whereby individuals’ beliefs, attitudes, and behaviors are shaped to meet the expectations of the environment (Parke & Buriel, 2000). Recent research has described racial socialization in terms of the messages and strategies used by parents (1) to promote racial pride and (2) to prepare and protect youth from the realities of racial discrimination (such as teaching coping skills); (Bynum, Burton, & Best, 2007; Thomas, Speight, & Witherspoon, 2010). Individuals are treated differently based on race and learn about one’s status or position in society through racial socialization experiences. Certain racial groups are afforded privileges at the expense of others and distortions are communicated about people of color to maintain the status quo. Racial stereotypes are an insidious part of dominant culture and these messages about one’s race can become internalized. Helms and Cook (1999) developed a model outlining racial identity statuses, which are internal schema that influence race-based interactions. The racial identity statuses capture the different ways in which individuals internalize their racial identity in relation to the racial climate of their communities (Helms & Cook, 1999).

The internalization of racial socialization influences which educational and occupational options that may be attainable and socially acceptable. Higher racial identity (a more positive regard toward one’s race) has been found to be associated with higher levels of motivation to achieve in school among racial minority adolescents (Chavous et al., 2008). In a study among urban racial and ethnic minority
high school students, experiences of discrimination from adults were associated with a negative regard towards one’s racial and ethnic group (Rivas-Drake, Hughes & Way, 2009). In a research study by Manese (as cited in Helms & Piper, 1994), results indicated that a negative regard towards one’s own racial group was associated with foreclosing a high number of career options. The experience of discrimination and the history of oppression can shape expectations of what careers are possible or considered to be worth the time and expense to pursue.

Race Based Educational Disparities. One critical race based disparity is access to quality education. This is often attributed to a set of policies that reflect an underlying bias in the opportunity structure. Institutional racism refers to a pattern of assigning resources to advantaged members of dominant culture at the expense of minority groups (Noguera, 2001). Institutional racism appears in under-funded schools with limited resources to prepare students for a competitive global economy. Ethnic minority adolescents are aware of being treated differently based on race in educational settings (Rosenbloom & Way, 2004). With regard to the school context, Black and Hispanic students receive more frequent and harsher punishments, such as suspensions, in comparison to White peers with similar offenses (Chavous et al., 2008; Kaushal & Nepomnyaschy, 2009; Monroe, 2005). An adolescent who lives in an environment that appears unfair and hostile is less likely to feel positively toward school and engage in academic activities, which can lead to poor grades and educational outcomes.
Adolescents observe patterns in their environment as a source of information to assess one’s own future. One study among African American and European American boys found that the occupational and educational expectations of urban middle school African American boys were similar to adult African American occupational and educational attainment; and they reported lower career expectations than European American boys (Cook et al., 1996). This is an example of how racial socialization experiences affects the ways in which a person conceptualizes his/her position in the world and future options. Similarly, ethnic group membership affects educational attainment and career options.

**Ethnic Identity**

Ethnic identity refers to the extent to which a person feels a sense of connection to an ethnic group (Phinney & Ong, 2007). Previous research has shown a relationship between ethnicity and career development. In a study by Eccles et al. (2006) there was a significant association between an individual’s positive connection with one’s ethnic group and academic accomplishments. The ability to navigate and transition between two cultures may reflect a level of flexibility, which is a characteristic often associated with the successful attainment of goals and academic achievement (Mischel, Cantor, & Feldman, 1996; Zarate, Bhimji, & Reese, 2005). Students with little resources often need to be flexible with their plans, such as having to attend community college instead of a four year university due to cost. Thus, a bi-cultural identity that can help adolescents overcome obstacles in their career
development. In this next section, I will briefly review issues affecting Latino/a career development.

**Latino/a Ethnic Group.** Latinos/as are the fastest growing ethnic groups in the United States in that approximately 16% of the U.S. population is Latino/a and are projected to grow to 24% by the year 2050 (U.S. Census Bureau, 2008). Latinos/as refers to individuals who either immigrated or descended from Mexico (61% of Latinos/as), Central and South American countries, and Spanish speaking countries in the Caribbean (Ginorio & Huston, 2001; Maldonado & Farmer, 2006). There are a wide range of cultures, racial composition, and dialects represented in the overarching Latino/a ethnic category. For decades, there have been disparities in the years of schooling between Latinos/as and other groups. Although Latinos/as are the largest minority in the U.S., they are more likely to drop out of high school and attain lower levels of education than White and Black racial groups (St-Hilaire, 2002). More research is needed in order to better understand the environmental context of Latinos/as. Next, I will briefly review the role of parental education as another critical contextual factor on career development.

**Caribbean Ethnic Group.** The Caribbean includes approximately 50 islands between Trinidad and Cuba; and immigrant Caribbean Americans are one of the largest Black immigrant ethnic groups in the United States (Mitchell, 2005). Previous research has found that Caribbean Americans and African Americans experience similar levels of disparity in regards to educational attainment and high school drop
out rates (Mitchell, 2005). Along a similar line of research, both African American and Caribbean American students who perceived discrimination from teachers had poor academic performance (Thomas, Caldwell, Faison, & Jackson, 2009). Although Caribbean Americans are often grouped with African Americans in research studies, it is important to not assume homogeneity. Caribbean American students have socialization experiences that are distinct from African American students due to different cultural beliefs, acculturation stressors, and immigration status. In one of the few studies focusing on a Caribbean sample, results indicated that individuals with a stronger ethnic identity as Caribbean perceived less discrimination and more opportunities than Black Americans (Waters, 1994). Conversely, other researchers found that Afro-Caribbeans who had a greater sense of ethnic identity and positive racial identity (a higher racial identity status) were more likely to perceive discrimination over the lifetime (Hall & Carter, 2006). Thus, ethnic identity may significantly affect the perception of barriers and expectations of one’s future. There are few studies focusing on the career development of Caribbean American youth, particularly how socio-cultural factors (such as gender and parental education) impact adolescents’ expectations about the future and their educational and career plans.

Urban Adolescents Contextual Issues: Parental Education

Another contextual factor that influences the career development of urban adolescents is the educational background of their parents. Parental education is an important factor for the career development of racial minority adolescents. Social
capital theory provides a framework to conceptualize parental education as a resource or conduit that connects adolescents with their parent’s resources (Mullis, Rathge, & Mullis, 2003). Parents socialize their children to the world of work and “pass on their class and educational background to their children” (Bogt, Raaijmakers, & Wel, 2005, p. 434). Indeed, previous research has shown that parental education is predictive of children’s academic achievement (Myrberg & Rosén, 2008). Along a similar line of research, the percentage of family members with a high school education predicted grades and staying in school (Williams, Davis, Cribbs, Saunders, & Williams, 2002). Others have found that mothers with a college education reported higher levels of awareness about children’s academic performance and likelihood to promote college preparation (Baker & Stevenson, 1986). Interestingly, mother’s education was more predictive of adolescent’s college enrollment than family income (Eccles, Vida, & Barber, 2004). Parents with high educational attainment are more likely to provide the type of environment that supports the educational pursuits of their children (Yan, 1999). According to a meta-analysis by Whiston and Keller (2004), successful racial minority adults tended to indicate that their parents significantly impacted their career development through support, educational information, and financial assistance. One could surmise that parents with higher levels of education are more likely to be able provide financial resources, share educational information, and serve as a model for career success.
Lower levels of parental education can influence adolescent’s expectations and academic achievement. Research indicates that adolescents with parents that have lower levels of education are less optimistic about their future and experience more stress in comparison to teens from families with higher levels of education (Finkelstein, Kubzansky, Capitman, & Goodman, 2007). Previous research found that low parental education predicts adolescents’ low educational attainment (Sandefur, Meier, Campbell, 2006). Davis-Kean (2005) found a positive relationship between parental education and academic achievement among African American and European American children in that lower levels of parental education predicted less reading to children, which had a direct effect on children’s (lower) standardized achievement scores. Thus, parental education influences academic achievement and, in turn, affects the educational and career trajectory of their children.

Parents with low educational attainment are more likely to have limited options in choosing quality schools. Lareau (1987) asserted that parental education is a form of cultural capital and found in a qualitative analysis that working class parents (high school graduates or less) tended to be less knowledgeable and involved with their children’s formal education in comparison to professional middle class parents (with a college education). Scholars have argued that one form of institutionalized discrimination is manifested in the culture of the school environment in that low income and working class families tend to not feel accepted or wanted at their children’s’ school (Lareau 1987). These messages can also be experienced by the
student with low parental education who may be exposed to negative messages about their belonging in school, their abilities or intellect, and what is possible to achieve in the future.

Educational attainment affects job options, wages, and occupational status of parents. There are various reasons for low educational attainment including limited finances, lack of support to pursue postsecondary education, and caretaking responsibilities. Previous research found that the timing of marriage and childbirth before completing college can significantly limit educational attainment, occupational choices, and wages for women (Mortimer & Johnson, 1999; Taniguchi, 1999). Conversely, parents who waited to start a family were more likely to have higher educational attainment and wages. The occupation of parents also influences adolescents’ careers.

Previous research has found that parents’ occupations influence adolescents’ career interests, values, and goals. For example, an adolescent with a parent who has autonomy at work is more likely to also want a career with autonomy. According to Mortimer, Lorence, and Kumka (1986) the significant factor in passing on intergenerational socioeconomic status is the closeness of the parent-adolescent relationship, which influences adolescents’ career interests and future employment status. Other researchers suggested that parents with jobs that have autonomy allow them to be more flexible in their approach to parenting, which facilitates mastery in their children (Whitbeck, Simons, Conger, Wichrama, Ackley, & Elder, 1997). With
regard to adolescents’ early job experiences, Schoenals (1998) found that students with college educated parents tended to work fewer hours in comparison to students with lower parental education. Previous research has found significant correlations between parental education to adolescent employment during high school; and that students who are not interested in school pursue work as a compensatory strategy in building social capital (Zimmer-Gembeck & Mortimer, 2006). Thus, a parent’s occupation can influence short term (work during high school) and long term career interests and values.

There are a range of studies that examine specific mechanisms through which parents facilitate adolescent career development. For example, Berzin (2010) found that middle school students with parents who supported their education (such as encouraging attendance and academic performance) and were involved in their adolescents’ school related activities, were more likely to have higher educational aspirations (i.e. attend college). Indeed, Whiston and Keller (2004) emphasized that parents’ expectations and level of support have a stronger influence on adolescent career development than family income and parental education. In a longitudinal study, Kao (2004) found a positive linear relationship between frequency of discussions (from parents) about school and higher grades up to four years later among African American and Latino/a adolescents. Other research studies have examined the role of attachment in career development. For example, O’Brien (1996) found that a moderate attachment to mother and similar beliefs with parents predicted high career
self-efficacy. Therefore, there are varied family variables that influence adolescent career development. Whiston and Keller (2004) asserted that more research is needed to further identify how families influence adolescents’ career-related decisions and career development.

The majority of previous research on adolescent career development has focused on family income alone or in combination with parental education. The current study will focus specifically on the role of parental education on adolescent career development. Given the limited research for racial minority career development and the importance of obtaining an education in today’s competitive global economy, it is important to study the relationship between parent education and the career development of urban youth.

An Overview of Career Development Theories with an Emphasis on Social Cognitive Career Theory

The majority of career development theories focused on the White middle class and has not fully addresses the contextual factors affecting the urban racial and ethnic minority adolescent boys and girls. For example, Holland’s theory outlines six personality types with corresponding six environment types (Spokane & Cruza-Guet, 2005); but does not explain how contextual factors, such as race, gender, and parental education, affect career interests and decisions. Scholars have asserted that Holland’s theory is based on White Euro-American individualistic values and conceptualizations of work (Helms & Cook, 1999). Holland’s theory does not explain the stereotypical
patterns that exist for women and people of color. For example, women tend to score highly on social and conventional types of work interests than men; and Hispanic women tend to score higher on the realistic type (i.e., mechanical and athletic types of work) in comparison to white women (Arbona, 1989). Thus, there are clear differences in occupational choices by gender, race, and ethnicity that are not accounted for in Holland’s theory.

Another major theory in vocational psychology is Super’s life space, life span theory in which he took a longitudinal approach to career development that emphasized the vocational self-concept (i.e., how a person implements their identity and multiple roles in their career) and life roles (worker versus retiree) as they intersect with career decisions (Super et al., 1996). A limitation to Super’s theory is that it focuses more on self-concept issues and the life stages and roles applied to the typical career patterns of White men, and does not address contextual issues that are experienced by women and people of color such as gender and racial socialization and how experiences of discrimination impact career development. The traditional vocational theories do not fully capture how socialization experiences influence the ways in which individuals are affected by disparities in the environment, particularly for a person who is a member of a group that has been historically marginalized and disenfranchised.

A major theoretical framework that has been used to address contextual factors in career development is Social Cognitive Career Theory (SCCT); (Lent et al., 1994).
SCCT is based on Bandura’s social cognitive theory and draws on the assumptions that there are complex interactions between person, environment, and behavior (Lent et al., 2000). More specifically, in Bandura’s model of triadic reciprocality (1) person variables, such as beliefs; (2) environmental variables; and (3) behavior interacts in a bi-directional relationship (Lent et al., 1994). SCCT provides a framework to understand the interaction between social cognitive variables and the contextual factors that influence career development. With regard to sociocognitive variables, the three main aspects of SCCT are career self-efficacy (e.g., beliefs about one’s ability to reach goals), outcome expectations (personal beliefs about the outcomes of engaging in certain behaviors or activities), and goals (the decision to engage in a behavior or activity in anticipation of a particular outcome) (Lent et al., 1994). Each of the three sociocognitive variables has a critical role in career development.

Self-efficacy has been found to be affected by environmental barriers to reaching goals (Lent et al., 2000). As such, barriers should interfere with self-efficacy and, therefore, have a critical role in adolescent career development. Barriers can range from personal (i.e., skills) or societal factors (i.e., racism) that are perceived as obstacles to one’s ability to achieve goals. The perception or anticipation of barriers influences a person’s beliefs about their ability (Lent et al., 2000). For example, “as a Black woman, most people who are similar to me do not become engineers, so I probably won’t be able to do this either.” Educational and career related barriers are strongly associated with career self-efficacy and have been used to explain the
aspiration-achievement gap for women and people of color in that unequal access to resources and opportunities influence a person’s career self-efficacy, expectations, and career and educational decisions.

Outcome expectations are beliefs about possible future outcomes from engaging in certain behaviors (Lent et al., 1994). In relation to career development, outcome expectations refer to beliefs about the possible end results from engaging in educational and vocational activities. For example, “if I work hard in high school, I will get accepted to college” or “if I work hard in high school, it won’t matter, I still will not be able to go to college.” Thus, the construct of outcome expectations can influence the extent to which a person will engage in academic or career related activities.

Goals encompass not only the actual desired outcome (e.g., graduating from high school) but also the steps that need to be taken in order to achieve goals. One such mechanism in reaching goals is career planfulness (the extent to which a person engages in activities to reach goals), such as attending classes and completing coursework in order to graduate. I will be focusing on the influence of contextual factors on the following social cognitive constructs: the perceptions of barriers, future career expectations, and career planfulness (the extent to which individuals engage in career planning activities). Indeed, previous research indicates that perceived barriers and future career expectations influence the level of activity towards educational and career goals (Lent et al., 1994).
According to the framework of SCCT, there are proximal and distal contextual factors (gender, race, and parental education) that can facilitate or hinder the attainment of academic and occupational goals. These contextual factors can be internalized and affect beliefs about oneself, such as expectations about one’s ability to succeed in the future (Lent et al., 1994). Individuals use information from their environment to develop beliefs about their place in the world and expectations about their future (Krumboltz, 1991). For example, exposure to experiences of discrimination can affect expectations for future success; whereas family support and access to resources may serve as a protective factor in the pursuit of goals. According to SCCT, proximal factors (e.g. contextual factors such as exposure to discriminatory experiences) and distal factors (background factors such as family factors and supports) influence the perceptions of barriers, outcome expectations, and predict career planning behavior (Lent et al., 2000). In the current study, proximal contextual factors are gender, race, and ethnicity; and distal contextual factors are parental level of educational attainment. To more fully understand urban adolescent development, I will next review the perceptions of barriers, outcome expectations, and career planning as they are influenced by gender, race, ethnicity, and parental education.

Perceptions of Barriers as a Function of Gender, Race, Ethnicity, and Parental Education

Perceptions of educational and career barriers refer to a wide range of personal, family, and societal factors that impede one’s goals. The construct of barriers has
been used to explore the career development of women and people of color (Lent et al., 2000; Luzzo, 1993; McWhirter, 1997). According to the SCCT framework, there are internal (e.g. beliefs about the self) and external (e.g. lack of family support) barriers (Lent et al., 2000). Educational barriers can include a lack of resources to go to college, a sense of not belonging, and perceived lack of academic ability (McWhirter, 1997). Career barriers may refer to discrimination, expecting racial or sexual insults, and expecting to make less money than White colleagues with comparable educational backgrounds. Understanding the identified barriers among high school students is critical because adolescents develop career expectations and make decisions with long term consequences such as whether to complete their high school education or to pursue a college education. Indeed, the perception of barriers to reaching goals has been found to predict low engagement in career planfulness (Cardosa & Moreira, 2009). Lent et al. (1994) suggested that there are gender and ethnic differences in the perceptions of barriers. Sociocultural factors need to be considered when investigating perceived barriers to better understand the context in which adolescents make career decisions.

The perceptions of barriers have been found to be related to gender. Some researchers have found that women perceive more barriers to their educational and occupational goals than men (Lent et al., 1994; Luzzo & McWhirter, 2001; McWhirter, 1997). In a study by McWhirter (1997), Mexican-American female high school students expected more barriers to their future educational and career goals in
comparison to males. Along a similar line of research, Swanson and Tokar (1991) found that more female college students, in comparison to males, identified discrimination and caretaking responsibilities as barriers to future goals. Other researchers found that African-American women reported that racial and gender discrimination and a lack of mentors as barriers to career goals (Burlew & Johnson, 1992). Clark et al. (2008) suggest that boys are more oriented on present issues than their future. Thus, boys’ tendencies to be more oriented in the present may lead them to be less likely to anticipating future barriers in comparison to girls. However, among the few studies on urban adolescents, there are mixed findings. For example, in a study by Kenny et al. (2003) there were no significant gender differences in the perceptions of educational and career barriers among urban adolescents. Other researchers have found that boys perceive more racial and ethnic discrimination in comparison to female peers (Chavous et al., 2008). One could argue that racial minority females are more likely to perceive more barriers than males due to the combination of expecting both racial/ethnic and sex discrimination.

The anticipation of barriers to future goals can differ by ethnic group membership. Because of experiences of discrimination and the perception of overwhelming obstacles, urban adolescents may be more likely to anticipate barriers and develop negative expectations in attaining educational and career goals. The few studies conducted on career barriers among ethnic and racial minority adolescents have been generally limited to the prevalence of barriers and the extent to which
perceived barriers are associated with career expectations. McWhirter (1997) found that Mexican-American adolescents anticipated significantly more barriers to educational and career goals than Euro-American participants. Luzzo (1993) found that Hispanic students were more likely to report finances as a barrier to goals, whereas African-American students were more likely to identify discrimination based on race and ethnicity as a barrier. Thus, both Black and Hispanic students are more likely to anticipate barrier to their future goals.

Some researchers found that the anticipation of a high number of barriers is associated with negative expectations among low income urban racial minority adolescents (Jackson et al., 2006; Kenny et al., 2006). In a study among racially and ethnically diverse urban adolescents, perceived barriers were found to predict negative expectations to reach educational and career goals, lower engagement with school, and lower career aspirations (Kenny et al., 2003). In a study among Mexican American high school girls, Flores and O’Brien (2002) found an inverse relationship between perceived barriers to career goals and career plans (aspiring to lower status positions). The combined findings of the aforementioned studies indicate that female and male racial and ethnic minority adolescents may be more likely to anticipate various educational and career barriers and have negative career expectations.

With regard to the perceptions of barriers and parental education, higher levels of parental educational attainment can reflect a higher socioeconomic status and the ability to provide resources (Campbell, 2009). Chavous et al. (2008) conducted a
study among racially diverse middle and high school students and found that boys from families with low parental education were more likely to report a higher incidence of discrimination (by peers and teacher interactions) and have low academic achievement. Low parental education may result in lower income, which can result in placing a child in a school setting that is overcrowded, underfunded, and with teachers that have less experience. There is a lack of research focusing on the relationship between perceived barriers and parental education; and the implications on the career development of urban adolescents. Understanding the role of parental education on adolescents’ anticipation of barriers can be critical to help adolescents identify resources to overcome obstacles, pursue their goals, and have more positive career expectations.

_Career Expectations as a Function of Gender, Race, Ethnicity, and Parental Education_

Outcome expectations are beliefs about possible future outcomes of engaging in certain behaviors (Lent et al., 1994). Bandura (1986) differentiated between types of outcome expectations, such as physical, social, and self-evaluative (a sense of satisfaction). Factors that influence the development of outcome expectations include: (1) previous outcomes of one’s actions; (2) vicarious learning or observing the experiences of others; and (3) written accounts of others (Lent et al., 1994). Previous research found that career expectations were significantly associated with past academic achievement among an ethnically diverse sample of high school
students (McWhirter, Hackett, & Bandalos, 1998). Lent et al. (1994) proposed that outcome expectations derive from academic and vocational experiences. For example, a student with previous negative experiences in math class (lack of attention from the teacher and/or low grades) will be more likely to develop negative outcome expectations about future math classes. Another source of information occurs via vicarious learning (observing other people); for example, by observing the experiences of individuals similar to oneself and the outcomes of their behaviors (Lent et al., 1994). In a study among predominately White adolescents, Paa and McWhirter (2000) found that participants identified contextual factors as influential in their career expectations, such as role models, the media, and support from family and friends. Sociocultural factors are critical to the development of outcome expectations.

The construct of career outcome expectation is essential in understanding career development because expectations can influence career decisions and behaviors. According to SCCT, the anticipation of outcomes influences behavior (i.e. whether or not to take another math class) and the extent to which a person will engage and persist in pursuing goals (Lent et al., 1994). From a social cognitive model, individuals are less likely to pursue goals if they believe their actions will not lead to desired outcomes, such as getting good grades or graduating high school. Indeed, negative expectations has been found to be associated with lower levels of motivation in pursuing goals (Armor & Taylor, 2003) and lower levels of academic performance, above and beyond the contribution of self-efficacy (Siegel, Galassi, &
Ware, 1985). There are long term implications to having negative outcome expectations. Previous research indicates that racial minority adults with negative outcome expectations are more likely to have lower career aspirations and subsequently work in low wage jobs, particularly in the service sector (Gore et al., 2003).

Conversely, positive outcome expectations are associated with behaviors related to pursuing goals. In a longitudinal study of female adolescents, positive outcome expectations were (1) associated with self-efficacy and (2) predicted career aspirations or goals to become leaders in their respective fields of interests, such as planning to pursue an upper management position (Nauta & Epperson, 2003). This finding is consistent with Bandura’s social cognitive theory in that the anticipation of positive outcomes influences behavior (e.g. engaging in behaviors related to the pursuit of goals). Urban youth’s outcome expectations and beliefs about their future can have critical implications on career behaviors.

An important component of outcome expectations is that the anticipation of outcomes is influenced not only by a person’s efforts and abilities (i.e., “if I get good grades, I should be able to go to college”), but also whether or not the desirable outcomes will actually occur. Bandura (1989) suggested that outcome expectations have been found to be significant contributors to behavior, particularly when a person perceives outcomes as determined by external factors regardless of one’s abilities (i.e. environments that do not necessarily reward high performing individuals). More
specifically, one could argue that meritocracy (or lack thereof) plays a key component in anticipating future rewards and consequences. For example, a Latina adolescent with strong skills in science might not pursue her science related interests if she has negative outcome expectations (such as expecting a lack of resources to go to college or to get a job in the field regardless of having strong skills). Thus, outcome expectations can have implications in the domain of career development, such as academic and career decisions (e.g. whether or not to stay in high school or pursue a college education).

Gender differences have been found with regard to outcome expectations. Previous research documents gender differences in academic and career expectations. In a study by Hudley and Graham (2001), African American boys were found to have more negative expectations and perceive education as more socially acceptable for female peers than for themselves. Indeed, previous research found that Black women attained greater occupational status as a result of higher education in comparison to Black males (U.S. Bureau of Labor Statistics, 2010; Winslow-Bowe, 2009). Helms and Cook (1999) found, in terms of percentages, that more Black women (19.5%) than Black men (14.1%) are employed in managerial or professional careers.

Conversely, female adolescents might have lower expectations than males due to anticipating both ethnic and sexual discrimination, lower pay, and limited job options that fit gender role expectations. In a study of Mexican American students, McWhirter (1997) found that girls reported more barriers than boys. The expectation
and valuing higher levels of educational attainment may deviate from the traditional roles for Latina women (Vasquez, 2002). Latinas attain a lower educational level in comparison to Black women. This finding suggests that Latina adolescents might have lower expectations than Black adolescent girls.

With regard to race and ethnicity, minority youths may hold multiple, including contradictory, beliefs about their future outcomes (Mickelson, 1990). Based on social cognitive theory (Lent et al., 1994), the desirability of an outcome influences engagement in behavior (such as going to school). Given the low level of educational attainment among Black racial groups in comparison to White groups (NCES, 2009a); one might argue that education might not be highly desired. Indeed, in a study by Irving and Hudley (2005) among African American male adolescents, high scores on cultural mistrust (toward dominant culture) negatively predicted low educational outcome values (i.e. not valuing the outcomes of education, such as higher income and status). This finding might be used to support the argument that the desirability of an outcome (education) affects behavior. However, there have been inconsistent findings in the literature. For example, in a later study among African American males, Irving and Hudley (2008) found that cultural mistrust did not predict educational outcome values.

Although Black youth have low educational attainment rates, this does not automatically reflect negative underlying values and beliefs about education. For example, previous research has found that Black students tended to report high levels
of valuing education regardless of the following: academic performance (Mickelson, 1990), cultural identification and mistrust (Irving & Hudley, 2008). Other researchers have found that ethnic minority students have high aspirations, but low outcome expectations in attaining educational aspirations (Arbona, 1990; Chang et al., 2006). Given the long history of racism and unequal opportunities, it is understandable that ethnic minority students may also have negative beliefs or expectations about their future. These findings suggest that the desirability of an outcome (e.g., highly valuing educational attainment) does not entirely predict a solely positive outcome expectation.

A critical factor in outcome expectations is the likelihood of experiencing the desired outcome. Does an outcome depend on a person’s effort or an external factor? Are all people rewarded for hard work? A study among African American college students, found that educational outcome expectancies were associated with beliefs that success is determined by racial disparities instead of the actual achievement or performance of a person (van Laar, 2000). Adolescents directly experience and vicariously learn about societal norms and values (such as valuing education and status), while also learning about the existence of inequality and that opportunity structures determine who (based on racial and ethnic group membership) actually experiences the rewards of hard work and receives desirable outcomes.

The mistrust of a meritocracy is reflected in the literature. In a study by Mickelson (1990), Black adolescents tended to report negative outcome expectations,
endorsing the belief that efforts in academic activities do not translate to opportunities later in life. In a study among Black males from an urban high school, results indicated that mistrust of dominate culture (cultural mistrust) predicted academic achievement and educational outcome expectations (Irving & Hudley, 2008). In a national survey of African American adults, lower levels of achievement tended to be attributed to racial discrimination and not the personal abilities of an individual (Hughes & Demo, 1989). With regard to Latino/a groups, a study on career expectations among Mexican American and European American high school boys and girls, found that ethnicity was found to be a stronger influence over gender in that there were greater differences between ethnic groups than between genders of each ethnic group (McWhirter et al., 1998). Clearly, sociocultural factors, such as race, ethnicity, and gender, can affect outcome expectations (Irving & Hudley, 2008; Williams et al., 2002). In a review of available literature, more research is needed to better understand ethnic group membership and outcome expectation beliefs.

There is a lack of research focusing on the influence of parental education on outcome expectations. Most research analyzed socioeconomic status and/or other parenting behaviors (such as parental involvement with school) as they relate to adolescent career development. For example, prior research indicates that parental support affects the career development of their children (Whiston & Keller, 2004). In a study conducted by Paa and McWhirter (2000) among primarily White high school students, parental influences significantly impacted the career expectations of
adolescents. More research is needed to better understand the role of parent educational level on outcome expectations and the implications for career planning behaviors.

*Career Planfulness as a Function of Gender, Race, Ethnicity, and Parental Education*

Career planning is essential to prepare urban minority youth to overcome barriers in order to reach educational and occupational goals. The construct of career planfulness includes attitudes toward the career decision-making process and level of engagement in career planning activities (Lent et al., 1994). According to Super (Super et al., 1996), adolescents are at the stage of exploration and “crystallizing” their options, such as asking adults about careers or making decisions about whether to take college preparatory courses or a vocational track. These career planning activities can be critical for urban minority youth given the wide range of potential obstacles that can include discrimination and financial constraints.

Consistent with social cognitive models, career expectations play a key role in behaviors, specifically the extent to which a person engages in actively pursuing their goals through career planning activities. Researchers have found that high expectancies for successful outcomes are predictive of greater levels of persistence on tasks (Lent et al., 1994; Roese & Sherman, 2007); higher grades and career aspirations (Nauta & Epperson, 2003); and college enrollment (Eccles, Vida, & Barber, 2004). Whereas, adolescents with negative career expectations may feel overwhelmed by contextual factors and engage less in career planning activities. It is important to
examine the possible implications that outcome expectations can have on career planning behaviors in the pursuit of goals among urban adolescents.

Gender may provide a unique contribution to the level of engagement in career planning among urban minority high school students. For example, a study of high school students found that female adolescents engaged more in tasks relevant to work preparation and career decision making than male adolescents; and that females had higher levels of career maturity and planfulness than males (Patton & Creed, 2002). These results might also reflect an earlier maturity in career development in females than males during adolescence in preparation for future work roles. One could argue that ethnic minority female adolescents are more likely to engage in career planfulness. Conversely, urban female adolescents might have limited access to resources and support to actively plan and pursue career interests. A lack of resources and support might lead to low levels of engagement in career planning activities.

With regard to students of color, previous research indicates a strong relationship between future career expectations and planfulness. For example, results from a vocational intervention study indicated that racial minority high school students with positive expectations reported higher levels of career planfulness (Kenny et al., 2006). Others found that higher levels of career expectations predicted more engagement in career planning (Patton et al., 2004). In a study by Fouad and Smith (1996) among ethnic minority middle school students, outcome expectations predicted career related plans to pursue activities related to math and science. Adolescents who
perceive barriers to their future goals may develop higher levels of planfulness to overcome obstacles. Along a similar line of research, in a study by Gloria, Castellanos, and Orozco (2005) among ethnic minority women, the most frequent response to educational barriers was a proactive coping style in seeking out information, planning and taking action in pursuit of educational goals. An argument can be made that racial minority adolescents with negative career expectations might be more likely to engage in activities related to career development in anticipation of possible future barriers in reaching educational and career goals.

Parents with higher levels of education may be more likely to provide an environment that promotes career planning through various processes, such as access to resources and fostering a sense of optimism for the future. There is a lack of research in the intersection of gender, race, ethnicity, and parental education in adolescent career development. Thus, more research is needed to better understand career planfulness among urban adolescents. The current study is focusing on the perceptions of educational and career barriers, career outcome expectations and career planfulness in order to capture important career development constructs for urban racial minority youth. Next, I will review the ways in which gender, race, ethnicity, and parental education moderate each other in explaining career development outcomes, specifically, the perceptions of barriers, career outcome expectations and career planfulness.
Moderators

The individual factors of gender, race, ethnicity, and parental education are important in predicting urban adolescents’ perceptions of barriers, outcome expectations, and career planfulness. Each of the individual factors serves as an additional nuance or lens through which one sees the world and shapes one’s perceptions, beliefs, and behaviors. For example, I believe these variables operate in ways that further differentiates specific group membership (i.e., women, Black, high parental education) that predicts perceptions, beliefs and behaviors in career development. Below, I outline the four specific interactions that will be used to test moderators, including: (1) race/ethnicity by gender, (2) parental education by gender, (3) parental education by race/ethnicity, and (4) gender by race/ethnicity by parental education.

Race/Ethnicity by Gender

I anticipate that gender will moderate the relationship between race/ethnicity and the three criterion variables: perceived career barriers, expectations about future career outcomes, and career planfulness. Thus, I anticipate that Latinas (women of Latin ethnic group membership) will perceive the most barriers to their future goals and the most negative expectations about their future. In other words, Latinas will fare worse than Black women and male peers because of two factors: (1) Latinas experience a combination of racism and sexism, which would make them more likely to have negative perceptions of the future; and (2) historically, Latinas as a group
attain lower levels of educational attainment than Black women (NCES, 2009a). I anticipate that Latino men will have the lowest career planfulness because they have the highest high school drop out rates and attain the lowest levels of education; and previous research indicates boys tend to be less engaged in career related activities in comparison to girls (Patton & Creed, 2002).

Latino men attain lower levels of education and income in comparison to Black and White male groups (U.S Bureau of Labor Statistics, 2009). For the year 2008, more Hispanic males (18.3%) dropped out of high school, in comparison to Black males (9.9%); (Chapman et al., 2010). Some researchers found that Hispanic boys perceive more injustices than African American boys (Hagan, Shedd, & Payne, 2005). I anticipate that Latino men will perceive more barriers to their future goals, more negative expectations about their future, and have low levels of career planfulness in comparison to Black men. The experience of gender socialization can differ by race and ethnic group membership.

Male students of color attain lower levels of education in comparison to female peers. In a report by the U.S. Department of Education (2011), bachelor level degrees earned for the 2008 – 2009 year within racial/ethnic groups indicated the following estimates: approximately 66% Black women; 34% Black men; 61% Hispanic women and 39% Hispanic men. Based on this data more women earned an undergraduate degree in comparison to men for both Black and Hispanic adults.
Previous research has found that African American boys are more likely to disengage from school than girls (Osborne, 1997). Along a similar line of research, male students of color (1) are less engaged in school and tend to perceive education as more appropriate for females (Hudley & Graham, 2001); and (2) do not expect their time and effort in formal education will translate into tangible results (Mickelson, 1990; van Laar, 2000). Osborne (1997) found that African American males are more likely to expect others to have negative expectations of their intelligence because of race based stereotypes. Indeed, previous research has found that adolescent African American males are less likely to be perceived, by peers, as high achievers (Hudley & Graham, 2001). Researchers have asserted that disengagement from school is a coping mechanism to protect oneself from discrimination and stereotype threat (i.e. the stress response to the possibility of confirming negative stereotypes based on group membership); (Aronson, Fried, & Good, 2002; Osborne, 1997; Steele & Aronson, 1997). However, disengagement, dropping out, and not pursuing education places racial and ethnic minority males at risk for not being prepared to be successful in college and a competitive labor market.

Racial and ethnic minority boys may be witnessing the men in their family struggling with employment and might expect to experience similar difficulties before entering the job market; reflecting a long history among men of color having difficulty with racism in the labor market in attaining and maintaining a job with a living wage. Historically, Black men have struggled with higher rates of unemployment in
comparison to White men (Western & Pettit, 2005); particularly in urban low income communities that experienced a loss in manufacturing jobs (Quillian, 2003). Both Black and Hispanic men tend to be overrepresented in low income jobs in fields that involve manual labor (Arbona, 1989). Although adolescent minority males have attained lower levels of education and have greater struggles with employment than females, I anticipate that women of color are confronted with more challenges due to experiences with sexism and racism. Thus, I anticipate that females will perceive more barriers to their future goals, more negative expectations about their future, and have higher levels of career planfulness.

Another critical contextual factor is exposure to racism and how this may be experienced differently by gender. Previous research indicates that gender plays a role in the experiences of race based discrimination. Some researchers have found that Black males are more likely to perceive discrimination than female peers. Dotterer et al. (2009) found that African American males reported having more experiences of racial and ethnic based discrimination at school in comparison to female peers. Chavous et al. (2008) conducted a study among middle and high school students and found the following: boys reported higher incidences of racial discrimination at school (from peers and teachers) than females; and boys had lower academic achievement levels (i.e. grades) than girls. One could conclude that boys perceive and experience more unfair treatment than girls that negatively impacts academic achievement.
However, some researchers have not found differences between males and females in perceiving discrimination (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004). The majority of the findings provide strong evidence that gender is a critical factor in the experiences of discrimination among racial and ethnic adolescents. Given the struggles of men of color, what are the experiences of women of color in relation to career development?

With regard to women of color, previous research indicates that Black women have been able to attain higher levels of status in comparison to Black men. Winslow-Bowe (2009) analyzed data from the National Longitudinal Survey of Youth 1979, using data from the year 2000, among married men and women across Black, Hispanic, and White couples. The study found that Black married women earned as much or more than their husbands; Black married women were more likely to work full time in comparison to White women; and there were significantly more Black women as primary providers in comparison to White and Hispanic women. Furthermore, Latinas have lower workforce participation (U.S. Bureau of Labor Statistics, 2009), and earn less money at the bachelor’s level of education in comparison to Black women (NCES, 2007). Winslow-Bowe (2009) argued that the results are consistent with long standing trends, in that historically, men of color struggled with employment (because Black men are more likely to be seen as a threat) and Black women tended to be more active in the workforce.
Based on the aforementioned research, Latinas attain lower levels of education in comparison to Black women. For example, during 2008, more Latinas (16.7%) dropped out of high school in comparison to Black girls (11.1%); (Chapman et al., 2010). Indeed, Latinas experience various barriers to their academic pursuits due to the gender role expectations within Latino/a culture for women to focus on caretaking responsibilities. For example, researchers have found that Latinas are more likely to take time off from school to take care of family, which limits study time (Vasquez, 2002); and that Latinas from families with low income and traditional beliefs are more likely to experience negative family attitudes about going to college and less likely to complete post-secondary education (Corbett et al., 2008). In sum, Latinas attain fewer high school and bachelor’s degrees in comparison to Black women (NCES, 2009a).

Additionally, Latinas, in comparison to men of color, have to contend with the combined stressors of sexism and racism. Thus, I anticipate that Latinas will perceive the most barriers to their future goals and the most negative expectations about their future; in other words, Latinas will fare worse than Black students and male peers. With regard to career planfulness, I anticipate that Latino men will fare worse than all other groups because Latino men have a history of lower levels of education and might not have the supports and resources to be better able to engage in career planfulness. In the next section, I will review parental education by gender (as an indicator of social capital and access to resources) as important contextual factors in career development.
**Parental Education by Gender**

I anticipate that gender will moderate the relationship between parental education and the criterion variables. Parents with low levels of educational attainment tend to have rigidly held gender role expectations that are communicated to their adolescents, resulting in higher incidents of their adolescents pursuing occupations based on traditional gender norms (Sandberg, Ehrhardt, Mellins, Ince, & Meyer-Bahlburg, 1987). Adolescents with low parental education may be more likely to conform to gender role norms and expect to have a similar lifestyle as their parents, such as attaining a similar level of education, occupation or sex roles. Given that girls are confronted with the combination of sexism and racism (and poverty depending on the extent to which parental education translates to income); I expect that girls from parents with low educational attainment are more likely to perceive the most barriers to their success and have the most negative expectations in comparison to girls whose parents have high educational attainment. Previous research indicates that girls tend to have greater career planfulness than boys (Patton & Creed, 2002). Thus, I expect that boys with the lowest parental education will have the lowest level of career planfulness. The way adolescents experience parental education will differ by gender; in other words, gender explains the different ways that adolescents experience parental education.
Parental Education by Race/Ethnicity

I anticipate that race/ethnicity will moderate the relationship between parental education and the criterion variables. More specifically, that Latinos/as with the lowest levels of parental education will predict the most perceived barriers, the most negative expectations, and the lowest levels of career planfulness. Next, I will review previous literature on racial and ethnic differences in parental education.

Historically, Latino/as attain a lower level of high school and college level education in comparison to Black groups (NCES, 2009). Previous research has found that Latino/a adolescents tend to report lower levels of parental education in comparison to African American peers (Chang et al., 2006). According to the U.S. Bureau of Labor Statistics (2009), lower levels of educational attainment increases the likelihood of unemployment across all racial and ethnic groups. Parents with lower levels of education are more likely to have lower incomes and lack resources to help facilitate adolescents’ academic achievement and career planning activities. Latino/a urban adolescents with parents who did not attend college and work low wage jobs, do not have the convenience of turning to their parents for information about college or how to finance college (Zell, 2010); resulting in the additional stressor of lacking information about how to attain highly skilled jobs (Gloria et al., 2005). An example of the current status of Latinos/as is their prevalence in public schools. For 2007, more Latino/a students (76%) attended assigned public schools than Black students (69%) (Grady et al., 2010). Parental education is a critical factor that influences the
extent to which a parent has choices about the type of school their child attends (being assigned to a public school based on the area the family lives). For example, the educational level among parents that had children assigned to public schools for the year 2007 were the following: 85% less than a high school level of education; 80% with high school; 75% with some college; and 71% with a college degree (Grady et al., 2010). Thus, parents with the lowest level of educational attainment (less than high school) are more likely to have children in an assigned public school.

Based on the aforementioned findings, Latino/a students are more likely to attend public school and have parents with lower levels of education. Youth living in poverty do not have the same resources as upper class White students and have to work harder to obtain basic information about post-secondary education and careers, in addition to the additional stressors associated with applying for scholarships and financial aid. I expect that Latinos/as students with low levels of parental education are more likely to perceive more barriers, have more negative expectations, and lower career planfulness than Black adolescents due to a lack of resources.

Research indicates that lower levels of parental education are associated with negative expectations about one’s future (Finkelstein et al., 2007). Others have found that Black and Latino youth with low parental education are more likely to perceive barriers (social injustices) than peers with parents who have a college education (Hagan et al., 2005). Along a similar line of research, lower levels of parental education among Latino families were found to be associated with youth’s lower
educational aspirations (Plunkett & Bámaca-Gómez, 2003) and expectations (Hao & Bonstead-Bruns, 1998). Thus, low levels of parental education are associated with a higher likelihood of anticipating barriers and negative expectations about the future.

Furthermore, it is important to consider parental education findings among immigrant Latinos/as and Black groups. In a study by Kao (2004) among immigrant families, a comparative analysis indicated that parental education and income was lower among Latino families in comparison to Asian, Black, and White immigrant families. The combination of the aforementioned findings suggest that Latinos/as with the lowest levels of parental education will predict the highest level of perceived barriers, the most negative expectations, and the lowest levels of career planfulness.

**Gender by Race/Ethnicity by Parental Education**

I anticipate that the three socio-contextual factors of gender, race/ethnicity, and parental education will predict the criterion variables. For example, lower levels of parental education will predict more negative future expectations among Latina adolescents in comparison to all other peers. Given the aforementioned findings, Latina adolescents are more likely to experience both racism and sexism; and have parents with low levels of education (NCES, 2009). A three-way interaction term will be used in the analysis of moderators. These contextual factors contribute to the likelihood of perceiving barriers, having negative expectations, and less engagement with career planning due to lack of resources and supports.
There is limited research on the influence of socio-contextual factors on the career development of racial minority urban adolescents, particularly in regards to perceptions of barriers, career expectations, and career planfulness. Among the few existing studies, previous researchers have found conflicting results on whether males or females perceive more barriers to their future (Chavous et al., 2008; Kenny et al., 2003; McWhirter 1997). There is also conflicting research on which group, males or females, have the most negative expectations to reach educational and career goals (Arbona, 1990; Hudley & Graham, 2001). In a review of the literature, most studies compare racial minority students with White students (Battle & Coates, 2004). The current study aims to examine the career development of specific ethnic minority groups in relation to each other. The majority of research tends to use parental education as one part of socioeconomic status in combination with income. There are few studies that focus solely on parental education (Whiston & Keller, 2004). The current study aims to contribute to the limited literature on the role of gender, ethnicity, and parental education on career development constructs, specifically the perceptions of barriers to future goals, career expectations, and career planfulness.

Hypotheses

There are seven hypotheses for the current study.

1. The first hypothesis is that gender will predict the following constructs: (a) perceived career barriers, (b) expectations about future career outcomes, and (c) career planfulness. Specifically, girls (Black and Latino female
adolescents) will (a) perceive more career barriers, (b) have lower expectations about their future career, and (c) have higher career planfulness. Conversely, I predict that boys will (a) perceive less career barriers, (b) have higher expectations about their future career, and (c) have lower career planfulness.

2. For the second hypothesis, race/ethnicity will predict sociocognitive variables in that Latinos/as will (a) anticipate more barriers than students who identified as Black (which includes African American and Black Caribbean), (b) have lower expectations, and (c) have lower career planfulness. I predict that Black students will (a) anticipate less barriers than students who identified as Latino/a, (b) have higher expectations, and (c) have higher scores on career planfulness.

3. The third hypothesis is that higher parental educational levels will predict (a) lower perceived barriers, (b) more positive future career expectations, and (c) higher career planfulness for both male and female adolescents. Whereas, lower parental education will predict (a) more perceived barriers, (b) negative future career expectations, and (c) lower career planfulness.

4. For the fourth hypothesis, gender will moderate the relationship between race/ethnicity and the constructs of (a) perceived career barriers, (b) expectations about future career outcomes, and (c) career planfulness. I anticipate that Latinas will (a) perceive the most barriers and (b) have lower expectations; whereas, Latinos will have the (c) lowest scores for career
planfulness. Conversely, I predict that Black male students will (a) perceive less barriers and (b) have higher career expectations; whereas Black female students will have (c) higher scores for career planfulness.

5. The fifth hypothesis is that race/ethnicity will moderate the relationship between parental education and the outcome variables; in that Latinos/as with the lowest levels of parental education will (a) perceive more career barriers, (b) have lower expectations about future career outcomes, and (c) lower scores on career planfulness. I predict that Black students across all levels of parental education will (a) perceive less barriers to future goals, (b) have higher expectations about future career outcomes, and (c) have higher scores on career planfulness.

6. The sixth hypothesis is that gender will moderate the relationship between parental education and the outcome variables. I predict that across all levels of parental education girls will have (a) more perceived barriers, (b) lower future career expectations, and (c) higher career planfulness; whereas boys will have (a) the least perceived barriers, (b) higher future career expectations, and (c) lower career planfulness. This is consistent with the concept of resistance in that females may engage more in career planning to overcome anticipated obstacles (Cammarota, 2004; Feliciano & Rumbaut, 2005).

7. For the seventh hypothesis, there will be a three way interaction effect between gender, parent education, and racial/ethnic groups in predicting the (a)
perception of barriers, (b) career outcome expectations, and (c) career planfulness. I anticipate that Latinas with the lowest levels of parental educational will perceive the most barriers, have the lowest future expectations; and that Latinos with the lowest levels of parental education will have the lowest career planfulness in comparison to Latinas and Black male and female participants. Conversely, I predict that Black male students with the highest level of parental education will have the least perceived barriers and the highest career expectations; and that Black female students with the highest parental education will have the highest career planfulness.
Chapter 3: Methodology

Procedure

The current study used pre-existing data from a larger longitudinal study that was conducted during the implementation of a vocational program [called Tools for Tomorrow (TFT)] that was offered at two public high schools in a Northeastern city for three years (Kenny et al., 2003). Data for this current study was collected from the pre-testing of students over three testing times prior to the implementation of the TFT career intervention. Participants at Brighton Public High School were recruited from a health class that all students were required to take during the ninth grade. The other public school included in this study was West Roxbury High School which consists of specialized program tracks. The ninth grade students attending the Media Communications and Technology program (which is part of West Roxbury High School) were recruited for this study. The data used for this study included the pre-test data from the following data collection points: fall 2000, spring 2001, and fall 2002. The research team presented the TFT program to all the ninth grade health classes and consent forms were sent to the student’s homes. All ninth grade students with signed consent/assent forms were invited to participate in the study. Data was collected in one eighty minute long session during health class. Questionnaires were distributed during the fall and spring semester to ninth grade classes participating in TFT and were administered by graduate students, high school teachers and university faculty who were members of the research team.
The measures that were in common during each of the data collections included the following: the demographic questionnaire, career (outcomes) expectations scale, modified career development (career planfulness) scale, and identification with school scale. The following measures were used in the current study: the Perceptions of Barriers Scale, the Outcome Expectations Scale, and the Career Planning subtest of the Career Development Inventory (school version).

**Participants**

The total number of participants for the pre-test data collection were 591 students over three years of the study. Specific data collection points were excluded if all measures were not administered (perceptions of barriers, career expectations, and career planfulness); and conversely, specific data points were included if the measures were administered. The number of participants who were asked to complete the three measures were 457 ninth grade students (48% male and 52% female) from two large Northeastern urban public high schools (Brighton Public High School and the Media Communications and Technology program, which is part of West Roxbury High School). If all racial/ethnic groups were retained among the participants who completed the relevant demographic information and all three measures, the total sample is 267. Because the hypotheses for this study focused on Black and Latino/a students, only participants who identified as Black or Latino/a on the demographic form were selected from the 457 who completed all three measures. This resulted in a final sample size of 208 participants. Students who (1) did not answer questions about
demographic information (i.e. gender, ethnicity, parental education) and (2) did not complete questions on each of the three measures were deleted listwise.

The participants in the total sample of 267 that included all ethnic groups, ranged in age from 13 to 16, with a mean age of 14.30 (SD = .53) (46% females and 54% males). As a reflection of socioeconomic status, the school district reported that 85% of students were eligible for free or reduced lunch according to federal guideline; this information was attained through administrative data from the schools and was not collected from participants on the demographic form. Participants’ self-reported ethnicities were 33% Latino/a, 27.3% Black (African American), 17.6% Black/Caribbean; 9% White/Caucasian/European, 3.7% Asian/Asian American, 6.4% Bi-racial, 1.9% Cape Verdean, 0.7% Middle Eastern, and 0.4% other.

Among the 267 participants who reported their mother’s level of education, 6% reported grade school level of education, 16% incomplete high school education, 33% high school completion, 21% reported some college, 11% college completion, 3% some school beyond college, 7% professional or graduate degree, and 3% reported “unknown”. For father’s level of education, 267 participants reported the following: 4% grade school level of education, 14% incomplete high school education, 33% high school completion, 13% reported some college or a 2 year degree, 8% college completion, 4% some school beyond college, 5% professional or graduate degree, and 19% did not know their father’s educational level.
For the final sample size of 208, participants ranged in age from 13 to 16, with a mean age of 14.31 (SD = .54); 43% male and 57% female. Students’ self-reported ethnicities were 23% Black/Caribbean, 35% African-American, and 42% Hispanic/Latino. Among the 208 participants who reported their mother’s level of education, 6% reported grade school level of education, 15% incomplete high school education, 33% high school completion, 24% reported some college or a 2 year degree, 11% college completion, 2% some school beyond college, 6% professional or graduate degree, and 3% reported “unknown”. For father’s level of education, 208 participants reported the following: 3% grade school level of education, 14% incomplete high school education, 33% high school completion, 14% reported some college, 9% college completion, 4% some school beyond college, 4% professional or graduate degree, and 19% did not know their father’s educational level.

Measures

Demographic Questionnaire. Participants were given a demographic questionnaire that included items about their age, gender, racial/ethnic identity, and grade level. Socioeconomic status was assessed through questions about their parent’s occupation and whether the student received free or reduced lunch at school. Questions about family demographics included mother’s educational level, father’s educational level, and how many children lived in the home.

Gender. The demographic form included a section for participants to identify gender as male or female, which does not include other forms of gender or transgender
identity. It is important to note that the sex of a participant or the identified gender of a student does not have consistent meaning for each participant. Gender is a social construction and individuals may have a range of socialization experiences based on (1) the gender role expectations they were exposed in their particular family and community; and (2) the extent to which a person conforms to gender role expectations. Thus, gender and gender socialization are not synonymous. For the purposes of the current study, I will focus on the identified gender the participants endorsed on the demographic form. There were not any measures administered specifically related to gender socialization.

Race and Ethnicity. I specifically focused on Black and Latino groups for this study. For the current study, participants are grouped in the Black racial group if they identified as either Black/Caribbean or African-American. Both Black/Caribbean and African-American participants are grouped in one racial category because race or skin color is a physically (visually) prominent characteristic that can indicate shared experiences based on race. The construct of race is a social construction that influences access to resources and opportunities and how a person is treated based on physical characteristics (Helms, 1995). Thus, both African-American and Black/Caribbean groups can be considered as one racial category (i.e., Black) and also two separate ethnic groups (i.e., Black Caribbean and African American) for this study.
If a participant marked the Hispanic/Latino category on the demographic form, then he/she was grouped as Hispanic/Latino. It is important to note that a person who identifies as Hispanic/Latino may also be Black (or may be categorized by others as Black based on skin color or phenotype). A Black Hispanic/Latino student may have experiences that differ from individuals who identify as Black/Caribbean or African-American, due to language and cultural identity; and may have checked either the African-American or Hispanic/Latino category. Most importantly, participants were asked to choose an ethnic/racial group that most closely describes their identity.

**Parental Education.** Participants were asked to indicate the highest level of education for each parent. The level of parent education for participants with two parents will be determined by the parent with the higher level of education. The higher level of education is considered as a form of social capital and may reflect parents’ expectations for their adolescent and available resources.

The United States Census Bureau (2009b) categorizes educational levels in various ways. One report on the educational attainment of the population (over the age of 15) lists elementary grade levels, then high school graduate, some college/no degree, associates degree occupational/academic, bachelor, masters, professional degree, and doctoral degree. Another version of population reports on educational attainment categorized education as “not high school graduate, high school graduate or higher, less than bachelor’s degree, bachelor’s degree or higher” (U. S. Census Bureau, 2009b). Other reports range from high school diploma, associate, bachelor,
and master degree; and another report categorized education as completed high school or completed college (U. S. Census Bureau, 2009b). In the TFT study, the categories on the demographic form included: “grade school level of education”, “some high school education”, “high school completion”, “some college”, “4 years of college”, “some school beyond college”, “professional or graduate degree” and “unknown”.

If a participant lived with one parent or only knew the educational level of one parent, then this information was used to represent parental education. It is important to include information from single parent households to better capture the full range of household demographics. According to the U.S. Census Bureau (2009b), approximately 30% of family households have a single parent. More specifically, there were 25.8 million married couples with children, 11.6 million single family households (1.7 million father-only households and 9.9 million mother-only families); (U.S. Census Bureau, 2009b). For the current study, participants who did not know the educational level for both of their parents were deleted from the analysis involving parental education.

Parental educational level is commonly used as a proxy for socioeconomic status (White, 1982); and is a strong predictor for educational attainment of children of color (Campbell, 2009). With regard to validity, parental education is highly correlated with income (Hauser & Warren, 1997) and parental occupational level in a study of social status in the US, Sweden, and Australia (Ekehammar, Sidanius, & Nilsson, 1987). Parental education has been significantly associated with career
aspirations of adolescents (Burlin, 1976). Wills, McNamara, and Vaccaro (1995) conducted a study among adolescents and used parental education as a proxy for socioeconomic status. Their results indicated that higher levels of parental education were associated with adolescents’ greater academic competence, behavioral regulation, and coping skills. Other researchers found that parental education has been related to high school students’ work values (Mannheim & Seger, 1993). In another line of research, parental education was found to be predictive of children’s reading achievement levels across samples from seven countries (Myrberg & Rosén, 2008).

Perceptions of Barriers. The likelihood scale of the Perceptions of Barriers Scale (POB; McWhirter, 1997; McWhirter et al., 1998) assesses perceptions of high school students regarding the likelihood of experiencing barriers to reach educational and career goals. The POB includes 24 items that are relevant to various barriers including racial and gender discrimination. Identified barriers include family and social barriers, limited financial resources, and student characteristics such as motivation, confidence level, and study skills that might serve as barriers to going to college or completing a college education. Respondents rate each barrier on a 5 point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5). Higher scores indicate the expectation of experiencing a multiple educational and career barriers. Items include “If I didn’t go to college, it would be because of money problems” and “In my future job, I will probably experience discrimination because of my ethnic/racial background.” In regards to validity, McWhirter (1997) conducted a
study with Mexican American and European American high school students in which female participants identified more barriers than male participants; and Mexican American students had higher scores than their European American peers in expecting to encounter more barriers that might prevent them from going to college and in their future jobs, such as sex and ethnic discrimination. The Cronbach’s alpha reported for the entire sample was .87.

Career Expectations. There are two measures used in this study to assess career expectations. The first measure is The Outcome Expectation Scale (OE; McWhirter, Rasheed, & Crothers 2000) is a 6-item scale that was developed for high school students to assess career expectations. Respondents rate their level of expectations on a 4 point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (4) on items such as “I will be successful in my chosen career/occupation” and “The future looks bright for me”. Higher scores indicate more positive expectations with total possible scores ranging from 6 to 24. With regard to validity, McWhirter et al., (2000) conducted research on a sample of high school students participating in a career education class and found the test-retest reliability for the outcomes expectations scale was .59; and the Cronbach’s alpha was found to be .83; furthermore, outcome expectations correlated with career expectations .17 at p < .01 (participants responses were coded using Duncan’s Socioeconomic Index (SEI: Stevens & Cho, 1985). With regard to concurrent validity, McWhirter et al. (2000) administered 5 items from an outcome expectations measure (for middle school career
planning) developed by Fouad and Smith (1996) to students who did not participate in the career education class and found a significant correlation of .54 between the two measures. In a previously published article on TFT data examining outcome expectations, the Cronbach’s alpha was .83 (Kenny et al., 2006).

The second measure for expectations was derived from the question “What is the highest level that you would expect to go in school?” There were six answer choices: (1) leave school as soon as possible; (2) finish high school; (3) get some vocational or college training; (4) finish a 2-year community college degree; (5) finish college with a 4-year degree; (6) finish college and take further training (medical, law, graduate school, etc.). The answers for the expectations question were subtracted from another question that inquired about educational aspirations. The question for assessing educational aspirations is: “What is the highest level that you would like to go in school?” The six answer options are the same for the aforementioned expectations question: (1) leave school as soon as possible; (2) finish high school; (3) get some vocational or college training; (4) finish a 2-year community college degree; (5) finish college with a 4-year degree; (6) finish college and take further training (medical, law, graduate school, etc.). Total possible score range from -5 through +5. High scores indicate low expectations for attaining educational aspirations; whereas a negative score (such as -5) indicates that expectations exceed the participant’s aspiration or desired goal, such as wanting to drop out of high school, but expecting that he/she will go to college.
Career Planfulness. The Career Development Inventory (CDI; Super, Thompson, Lindeman, Jordaan, & Myers, 1981) consists of a wide range of subtests to assess career development. The Career Planning subscale for the CDI school form is a twenty item scale used to measure students’ level of career knowledge and engagement in career planning activities (e.g. items such as “Talking about career plans with an adult who knows something about me”). Regarding validity, high scores have been related to a greater awareness of the need to plan ahead and to be active in career planning, and lower scores indicate a lower level of awareness and planfulness (Lightfoot & Healy, 2001). The internal consistency reliability of .89 was found when the subscale was used with ninth graders from urban and suburban schools (Super et al., 1981). Among an ethnically diverse sample of high school students, the internal consistency reliability was .96 (Lightfoot et al., 2001). One study among undergraduates found that career planning was associated with future optimism and future goals (Savickas, Silling, & Schwartz, 1984).

The Career Planning subscale used in this study is a modified version that was developed during the previous TFT study. Kenny et al. (2006) piloted the career planning subscale with high school students and found that the students struggled in differentiating between “good” and “great” in assessing their own level of career knowledge; thus, the researchers decided to modify the scale by changing the wording and format to make it “easier and less time-consuming to read” (p. 274). The subscale was also modified by changing the 5 point Likert scale to a 4 point scale. Respondents
rated their level of involvement in career planning activities on a four point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (4). Items relating to knowledge of careers were rated from “no knowledge” (1) to “a good deal of knowledge” (4). Another modification was that the authors deleted question 12 for the fall 2002 data collection. As a result, the fall 2002 data collection used 19 items instead of the 20 items that were used during the data collection for the fall 2000 and spring 2001. Linear interpolation was used for the missing item in the fall 2002 data in order to have 20 items for the measure. The total possible score ranged from 19 to 76. Kenny et al. (2006) reported in a previous study on the TFT program that the internal consistency (Cronbach’s alpha) was .80.

Main Analyses

To test the hypotheses of the study, four hierarchal multiple regressions were conducted with perception of barriers, career outcome expectations, career expectations (aspire minus expectation), and career planfulness as criterion variables and gender, race/ethnicity, and parental education variables as the main effect predictors with their 2-way and 3-way interactions as higher order predictors testing moderation. The main effects were entered in the first step and then each interaction effects were entered separately one at a time. All predictor variables were standardized to allow testing of the interaction effects following the procedures outlined in Frazier, Tix, and Barron (2004). Prior to conducting the regression analysis, missing data was excluded listwise from the analysis. More specifically, the
predictor variables of gender, ethnicity, and parental education were entered in to the first step. In the second step, the product of each 2-way and 3 way interaction terms was entered separately (race/ethnicity X gender, parental education X gender, and parental education X race/ethnicity, and a three-way interaction term of gender X race/ethnicity X parental education).
Chapter 4: Results

Preliminary Analysis

Each linear predictor variable and criterion variable was examined for skewness and kurtosis. Gender was slightly negatively skewed (-.27) with a kurtosis value of -1.94; ethnicity was positively skewed (.31) with a kurtosis of -1.92; and parental education was positively skewed (.39) with a kurtosis of .28. Career outcome expectations were slightly negatively skewed (-1.09) with a kurtosis value of 2.97. The career expectations scores were transformed as outlined by Tabachnick and Fidell (2001) using the equation: transformed score = SQRT (25 – sum of career expectations). The adjusted skewness was .12 and kurtosis -.39, with the direction of the scores inverted after transformation. The transformed score was used throughout the statistical analysis reported in the next section, with the coefficients reported in the untransformed direction for clarity in understanding the relationship between variables. The career aspiration/expectation score (the second measure of career expectations) yielded a skewness of .45 and kurtosis 6.10. The above mentioned transformation was conducted resulting in a skewness of -.69 and kurtosis of 5.72. Because kurtosis was not significantly adjusted, the original scores for the career aspiration/expectation measure were retained for the analysis. The power analysis for this sample of 208 participants was 0.88 at p < .10 and a power of 0.81 at p < .05. Means, standard deviations, and correlations were then computed for each measure (as shown in Table 1).
Perceptions of Barriers

Results from the first analysis examining perception of barriers scores indicated that there were no significant main effects (see Table 2). However, when the 2-way of interaction term of race/ethnicity by gender was entered, race became a significant predictor of perceptions of barriers (β = .43, t = 1.84, p < .05 1-tail) indicating that Latinos/as perceived more educational and career barriers. There were no significant 2 or 3-way interaction effects.

Career Expectations

Results from the second analysis examining career outcome expectations yielded significant main effects [F (3,204) = 8.34, p < .01, R² = .11] (see Table 3) when the 3 predictors were entered into the model. Specifically, gender (β = .23, t = 3.45, p < .010); race/ethnicity (β = -.11, t = -1.69, p < .10); and parental education (β = .24, t = 3.55, p < .01) were significant predictors in the model for career expectations. Female high school students, Black students, and students with higher levels of parental education were more likely to have higher scores (more positive) career expectations. There were no significant 2-way or 3-way interactions.

With regard to the second measure for career expectations (the difference between career aspirations and expectations), there were no significant main effects [F (3, 204) = .38, p < .05, R² = .01] (see Table 4). However, when the interaction of parental education by race/ethnicity was entered into the model, ethnicity and parental education were significant (β = .57, t = 2.35, p < .05 and β = .44, t = 2.06, p < .05
respectively). Latino/a students and students from families with lower levels of education were more likely to have low expectations of reaching higher level educational goals. The interaction of parental education by race/ethnicity (see Graph 1) was significant ($\beta = -.62, t = -2.14, p < .05$) in that Latinos/as with low parental education were more likely to have low expectations of reaching higher level educational goals.

**Career Planfulness**

Results from the fourth analysis indicated that the model yielded significant main effects [$F (3,204) = 2.85, p < .05, R^2 = .04$] (see Table 5). Only parental education was a significant predictor ($\beta = .15, t = 2.10, p < .05$) in that higher levels of parental education were associated with higher scores on career planfulness or a higher level of engaging in activities to reach career goals. The model was not significant when the 2-way and 3-way interactions were entered into the analysis.

**Exploratory Analysis**

After conducting the hierarchal multiple regression analysis, an important consideration and limitation is that students who identified as either African Americans or Caribbean were grouped in one category. Students who identified as Caribbean may have significantly different socialization experiences and may be treated differently within the United States than African American students based on a various contextual factors, such as ethnic background, whether or not a student has an accent, and level of acculturation. Given the limited research on the career
development of urban Caribbean youth, further analysis based on ethnic group might offer a meaningful contribution to the literature. As part of an exploratory analysis, I conducted four hierarchal multiple regression to explore three ethnic groups (i.e., African American, Caribbean, and Latino/a) on the four criterion variables analyzed in the main analyses above.

Prior to the exploratory analysis, I used dummy coding and created three new variables for each group, which are African American (1 = African American, 0 = not), Caribbean (1 = Caribbean, 0 = not), and Latino/a (1 = Latino/a, 0 = not). Means, standard deviations, and intercorrelations of all the variables in this exploratory analysis are shown in Table 6. In the original analysis, only participants from the 3 ethnic groups were included. However, in using dummy coding, all participants from the larger TFT study can be included. That is, White, Asian, American Indian, Middle-Eastern, Pacific Islander, Cape Verdean, Bi-racial, and students who indicated their race/ethnicity as “Other” were excluded from the first of analyses. However, they can now be included in this larger analysis because they can be dummy coded. For example, a White student would have a dummy coded value of African American = 0, Caribbean = 0, and Latino/a = 0. Dummy coding creates a categorical variable that focuses on African American (equals 1) or not African American (equals 0), all persons in the sample who were not in one of the racial or ethnic groups in the first analysis could be included in the exploratory analysis. This inclusion of persons who were not Black or Latino resulted in a sample of 267 participants.
To conduct these analyses, the same general procedure was followed as in the set of analyses described above. Namely, the criterion variables for the three analyses were perceptions of barriers, career outcome expectations, and career planfulness, respectively. The predictor variables of gender, ethnicity, and parental education were entered into the first step, but in this analysis ethnicity/race were entered as three separate dummy variables (i.e., African American, Caribbean, Latino/a). In the second step, the product of each 2-way and 3-way interaction terms was entered separately (gender X African American, gender X Caribbean, gender X Latino/a, parental education X gender, and parental education X African American, parental education X Caribbean, parental education X Latino/a, and a three-way interaction term of gender X race/ethnicity X parental education).

**Perceptions of Barriers**

Examining the predictors of perceptions of barriers, results indicated that the model yielded significant main effects \( F (5, 261) = 2.79, p < .05, R^2 = .05 \) (see Table 7). African American students endorsed significantly less perceived barriers to future educational and career goals than all other ethnic/racial groups \( \beta = -.17, t = -2.18, p < .05 \). There were no significant findings when the 2-way and 3-way interactions were added into the model.

**Career Expectations**

Examining the predictors of the first measure of career expectations, results indicated that the model yielded significant main effects \( F (5, 261) = 5.38, p < .001, \)
Specifically, gender ($\beta = .20, t = 3.23, p < .01$) and parental education ($\beta = .09, t = 3.43, p < .01$) were significant predictors of career expectations. Girls and students with higher parental education reported the most positive career expectations. There were no significant 2-way and 3-way interactions.

With regard to the second measure of career expectations (career aspiration minus career expectation), results indicated that the model did not yield significant main effects. When the 2-way interaction, Latino/a by parental education, was entered into the model, the model became significant [$F(5, 261) = 1.59, p < .05, R^2 = .04$] (see Table 9). Latino/a students from parents with low levels of education had low expectations to reach educational goals (see Graph 2). When the 2-way interaction of Latino/a by parental education was entered into the model, the main effect of Latino/a ethnicity ($\beta = .58, t = 2.73, p < .05$) became significant, meaning that Latino/a ethnicity predicted low expectations to reach career goals. There were no statistically significant findings for 3-way interactions.

Career Planfulness

Results from the analysis of career planfulness yielded significant main effects [$F(5,261) = 2.59, p < .05, R^2 = .08$] (see Table 10). African American participants ($\beta = .20, t = 2.57, p < .05$) were more likely to have higher scores on career planfulness. When the 2-way interaction (Gender X African American) was entered into the analysis, the model was significant [$F(5,261) = 3.53, p < .01, R^2 = .08$] and parental education became significant in that students with higher parental education were
more likely to be more engaged in career planning activities ($\beta = .13, t = 2.04, p < .05$). There was one significant 2-way interaction (Gender X African American) ($\beta = .53, t = 2.81, p < .01$). African American girls were more likely to engage in career planning activities (see Graph 3). All other 2-way and 3-way interactions were not statistically significant. However, when the 3-way interaction (Gender X Caribbean X Parental Education) was entered into the model, the parental education variable ($\beta = .14, t = 2.11, p < .05$) became significant meaning that students with parents with higher levels of education were more likely to be engaged in career planning activities. The African American variable remained significant ($\beta = .20, t = 2.52, p < .05$).
Chapter 5: Discussion

A major contribution of the current study is that it differentiates the experiences among students of color, instead of grouping minority students into one group to be compared with White students. This study is among the few that focus on the career development of Caribbean adolescents. Another contribution is that this study focuses on career planfulness and parental education, which are constructs that need further research among urban minority youth. There were two significant 2-way interactions, which further differentiates the experiences of specific groups based on gender, race/ethnicity, and parental education.

The results from this study provide support for some of the hypotheses. The results did not support hypothesis 1a that gender would predict the perceptions of barriers. I anticipated that female adolescents would perceive more barriers than males due to the combination of anticipating a combination of future sexual and racial/ethnic discrimination. However, results did not indicate a significant difference between males and females in the perceptions of barriers. With regard to hypothesis 1b, there was a significant difference between males and females; however, it was not in the direction that I hypothesized. Results showed that male adolescents reported significantly more negative expectations than female adolescents. There was no support for hypothesis 1c in gender predicting career planfulness. This is consistent with previous research in finding no gender differences in career planfulness among ninth graders (Gibbons, Borders, Wiles, Stephan, & Davis, 2006; Kenny et al., 2006).
Given this study’s finding that males had lower career expectations, one might expect that male respondents would perceive more barriers. However, the results did not indicate that boys perceived significantly more barriers than female adolescents. Perhaps there are contextual factors that negatively influence the perceptions of male students that result in comparable scores to their female peers. For example, previous research has shown that boys are more likely to report negative treatment in school settings (Chavous et al., 2008). As indicated in chapter two, research has shown that males have a higher rate of unemployment in comparison to female peers (Hudley & Graham, 2001; U.S. Bureau of Labor Statistics, 2010); and adolescent males’ perceptions and expectations of their future can be influenced by the educational attainment of the adult men in their lives (Cook et al., 1996). Thus, if male role models are not gainfully employed, this might influence male participants’ perceptions of barriers, affect expectations about reaching goals, and education decisions. It is worthy to note that the specific measure used in this study for perceptions of barriers might not have fully captured the environmental factors that are perceived as barriers by urban youth.

Another possible explanation for not finding a significant difference on perceptions of barriers is that students’ anticipation of participating in the TFT program might have been a confounding factor in that learning to identify barriers, academic and career resources, and opportunities might have shifted expectations to be more positive, even in anticipation of future challenges. Based on the results of
the current study, it is important for future research to focus on factors that influence the career expectations of urban adolescent males.

The finding that males have lower expectations about reaching future goals in comparison to females has implications for research and education. Based on this study’s findings, males’ negative expectations are already present at the ninth grade. Why and when do these expectations form and what can be done to promote cognitive shifts to encourage engagement in school and early career planning? Feliciano and Rumbaut (2005) attributed boys’ negative expectations to gender socialization in that they are socialized to express resistance by challenging authority and appearing to fit in with masculine norms, which includes not appearing feminine. Along a similar line of research, Hudley and Graham (2001) found that boys tended to endorse cultural mistrust (e.g. not believing school will lead to desired outcomes) and school engagement as feminine or more acceptable for females than males. Boys show resistance by rejecting authority, whereas girls show resistance through engaging in formal education (Feliciano & Rumbaut, 2005). Indeed, it is a paradoxical thinking to resist institutional racism through aligning with yet another institution, albeit an educational institution. However, historically, education was a form of empowerment and liberation for Black men and women (Nicolas, Helms, Jernigan, Sass, Skrzypek, & DeSilva, 2008).

It is important for future research to explore how education shifted from a positive to a negative endeavor for boys. Nicolas et al. (2008) asserted that most
Black students do not have “equal education”; that youth are exposed to negative messages about the intellectual abilities of Black men and women; and that Black youth might drop out or disengage from school in reaction to negative school experiences, such as racial discrimination. Nicolas and colleagues further emphasize that parents and educators have a critical role in positive youth development and explain ways to promote academic success that include, but are not limited to the following: fostering (1) ethnic pride and a positive racial identity (to value the self and one’s racial group); (2) a critical conscious to raise awareness about the sociopolitical aspects of discrimination; (3) to resist in ways that are adaptive and not self-destructive (e.g. withdrawing from school); and (4) to actively teach coping skills in relation to general stress and racial discrimination. Educators and policy makers need to consider ways in which schools can develop and implement vocational interventions that are relevant to the needs and experiences of students of color.

One implication of this study is that vocational interventions need to take place earlier than high school in order to prevent or address the early formation of negative outcome expectations. Ninth grade students make important educational decisions, such as whether or not to take courses that are on the college track (Gibbons et al., 2006). An important part of high school is learning to form goals and identify step to reach goals. Negative expectations, and how they relate to self-efficacy, affect the formation of goals and goal pursuit, such as attending classes or pursing career related information (Lent et al., 1994). Research has shown that self-efficacy beliefs,
perceptions and expectations affect career-related behavior (Lent et al., 1994). Eventually, negative expectations may become more concrete and contribute to boys’ low educational attainment. The possible long term implications on their financial and career trajectory include limited job options, lower wages, and adding financial strain to their family.

Conversely, females endorsed higher expectations to reach future goals. This is consistent with previous research that found females had higher career expectations and career planfulness (Patton et al., 2004). However, in the current study; females did not report higher engagement in career planfulness (hypothesis 1c). It is not clear why hypothesis 1c was not supported. From a long term perspective, one could argue that females’ positive expectations eventually affect career planfulness in later adolescence as evidenced by their higher educational attainment. Given the higher employment rate of women, girls’ positive future career expectations translate in the world of work. Although women continue to earn less than men, they are more likely to obtain employment. Even during the recent economic downturn, racial and ethnic minority women continued to have lower rates of unemployment in comparison to men (U.S. Bureau of Labor Statistics, 2010). Possible explanations for why women are able to obtain employment during economic crisis might be a reflection of women’s higher educational attainment, or the employers’ preference to pay lower wages, or White employers might perceive women as less threatening than men of color (Winslow-Bowe, 2009). In the current study, Black females had the highest
expectations for reaching future goals, which may reflect the historical valuing of education, the belief that education will lead to desired outcomes and rewards, and the resiliency among Black women. With regard to adolescent career development, observing working women in one’s family and community might contribute to girls’ positive expectations and higher educational goal pursuit.

Results indicated support for hypothesis 2a in that Latinos perceived more barriers to future educational and career goals and hypothesis 2b in that race/ethnicity (Latinos/as) would predict lower career expectations. This finding supports SCCT theory in that environmental factors influence perceptions of barriers and career expectations, which is particularly critical in understanding the career development of students of color living in poverty. Ogbu (1988) asserted that Black students who have an ancestry of involuntary immigration (e.g. slavery) are “involuntary minorities” (p. 140) and are more likely to develop an oppositional stance, have cultural mistrust and have low expectations for reaching goals given a long history of oppression and institutional racism; whereas students with a voluntary immigration history (i.e. the family immigrated by choice) are more likely to have higher expectations to reach goals and achieve upward mobility in comparison to Black peers with a history of involuntary immigration. The findings of the current study are not consistent with this argument in that Latinos/as (voluntary immigrants) endorsed lower expectations than Black students. There are other variables that contribute to negative expectations that are not necessarily explained by involuntary versus
voluntary immigration. For example, there may be cohort effects in that Black female students have seen that educational attainment can lead to desired outcomes (such as higher employment) and are more likely to have positive expectations and engage in career planning. Previous research among immigrants have shown that length of time in the U.S. is associated with students’ lower expectations and achievement; and that second generation immigrants become disillusioned by the myths of meritocracy and limitations in the existing opportunity structures (Kao, 2004; St-Hilaire, 2002).

The findings of this study contribute to the literature regarding Latino/a career development. Indeed, the low educational attainment and income of Latinos/as may impact adolescents’ perceptions of barriers and career expectations. There was no support for hypothesis 2c in race/ethnicity predicting career planfulness. There was no support for hypothesis 3a in that parental education would predict perceptions of barriers. There was support for higher levels of parental education in predicting higher career expectations (hypothesis 3b) and career planfulness (hypothesis 3c). These findings contribute to the limited literature on the specific construct of parental education on perceived barriers, career expectations and career planfulness of urban students of color. Previous research has focused on parental education as one part of socioeconomic status and/or examined other forms of parental influences such as parental involvement in school. The results of the current study indicate parental education has an important role on adolescent career development. Parents with higher educational attainment might be better able to (1)
provide resources that can affect perceptions, such as students’ perceiving barriers as minimally impacting their goals; and (2) promote positive career expectations and career planfulness based on their own experiences in educational attainment.

More exploration is needed to understand the specific ways parents communicate their own educational background and their educational expectations for their children. One previous research study found that parents interact with their sons and daughters in different ways in that they tend to offer sons more attention and career information (Young, Friesen, & Pearson, 1988). Yet, in another study, girls were given more attention in their career development than boys (Trusty, Watts, & Erdman, 1997). Others suggested that adolescents adopt their parents’ work related values (such as wanting autonomy and flexibility at work) mostly from the same sex parent (Ryu & Mortimer, 1996). Further research is needed on the specific role and unique contribution of maternal and paternal educational level on adolescents’ expectations regarding their educational and occupational future; and how parents’ engage in the career preparation of their sons and daughters.

There was limited support for the hypotheses for 2-way interactions (hypotheses four through seven). The interaction of parental education by race/ethnicity (hypothesis 5) was supported in predicting career expectations in that Latinos/as with low parental education had the most negative expectations, which is consistent with Latinos/as historically lower educational attainment than Black peers (NCES, 2009a). There was no support for hypothesis four (race/ethnicity by gender),
six (gender by parental education), and seven (the three way interaction) in predicting career constructs.

**Exploratory Analysis**

The exploratory analysis provided limited support for the hypotheses in the main analysis. The findings in the exploratory analysis supported hypothesis 1b in that gender predicted career expectations. The results supported hypothesis 2a in that race/ethnicity would predict the perceptions of barriers and hypothesis 2b in that ethnicity would predict career expectations. Hypothesis 2c was supported in that ethnicity predicted career planfulness. Hypothesis 3b and 3c was supported in that higher levels of parental education predicted higher career expectations and higher engagement in career planfulness. Also, hypothesis 4 (2-way interaction of gender by race) and hypothesis 5 (2-way interaction of race/ethnicity by parental education) was supported. There was no support for the 3-way interaction of hypothesis 7.

The exploratory analysis revealed differences based on gender, ethnicity, and parental education. Female adolescents were associated with positive expectations for reaching educational and career goals. This finding is consistent with the main analysis in that boys were found to have more negative expectations. There are a number of contextual factors that might explain why boys were more likely to have negative expectations. Previous research has found that racial minority boys were more likely to perceive discrimination (Chavous et al., 2008). Another contextual factor is that racial minorities are overrepresented among the unemployed and among
adults who did not attain a college education (NCES, 2011; U. S. Bureau of Labor Statistics, 2009). There are significant differences with regard to gender in that racial and ethnic minority women tend to attain higher levels of education (NCES, 2009a) and to be more gainfully employed than men (Winslow-Bowe, 2009). Thus, adolescent females might be more likely to have positive expectations.

Based on the results, ethnicity was a significant predictor. African American students perceived significantly less barriers to educational and career goals. With regard to career expectations, students who identified as Latino/a were more likely to have more negative career expectations. This is consistent with results from the main analysis in that hypothesis 2b was supported in that Latino/a students had more negative career expectations than Black peers. The exploratory analysis indicates that African American students perceived less barriers than Caribbean and Latino students. African American adolescents were also more likely to be engaged in career planning activities. Previous research has shown that positive expectations predict career planfulness among racial minority adolescents (Kenny, et al., 2006; Patton et al., 2004). The trends of education and employment rates might explain why African American students were most likely to perceive the least barriers, have more positive expectations, and be more engaged in career planfulness. Historically, Black adults attain higher levels of education than Latinos/as (NCES, 2011). One example of the positive outcomes of educational attainment is that Black adults attain higher status jobs and higher median weekly earnings (in fact, Latinos/as have higher employment
rates, yet do not fare as well); (Maldonado & Farmer, 2006; U.S. Bureau of Labor Statistics, 2009). Based on the findings from the current study, African American students might be faring better than Caribbean students because of the additional challenges Caribbean students may experience due to possible language barriers and acculturative stress. Thus, African American adolescents might be more likely to have adults in their life who are educated, familiar with the U.S. education system, and have the supports needed to have a more positive outlook and to be more engaged in career planning related activities.

With regard to parental education, students with higher levels of parental education tended to have positive career expectations and be more engaged in career planfulness. This finding is consistent with previous research that has found a correlation between higher levels of parental education and their children endorsing positive career expectations (Myrberg & Rosén, 2008; Yan, 1999). There is limited available research on the relationship between parental education and career planfulness. Thus, the current study contributes to the limited body of research on the influence of parental education among urban students of color.

There were two significant two-way interactions. For career expectations, Latino by parental education was significant in that Latino students with parents who have low levels of education were more likely to have negative expectations to reach their educational goals. This is consistent with previous research in which a positive relationship has been found between higher levels of education and career
expectations (Myrberg & Rosén, 2008; Yan, 1999). However, few studies have focused on Latino/a students, particularly in comparison to students of color. The current study contributes to a limited body of research in this area.

When the two-way interaction of gender by African American was entered into the model, results indicated that African American girls were more likely to engage in career planning activities. Exerting effort in career planning indicates having interests and goals. Indeed, in a study among high school students of color, Chang et al. (2006) found African American girls were more likely to report having academic goals in comparison to African American boys. Given that African American females attain higher levels of education (NCES, 2009a) and are more likely to be employed than African American males (U. S. Bureau of Labor Statistics, 2009), adolescent African American girls might be more likely to receive guidance and support in career planning by gainfully employed women in their family and community. Thus, one could argue that the demographic of African American girls had more positive career development indicators than other racial and ethnic groups in this study; whereas, the Latino/a ethnic group had the most negative outcomes (i.e. career expectations). Latino/a groups are challenged with the combination of the lowest levels of parental education and acculturation stressors.

*Immigrant Educational Experiences*

Urban adolescents who are immigrants or children of immigrants contend with additional stressors of language barriers, acculturation, and navigating biased
Acculturation is the process of adapting to two or more cultures, more specifically, taking in selective aspects of another culture (commonly measured by years of residence and primary language spoken); whereas assimilation is the process of abandoning one’s cultural norms and conforming to the dominant culture (Sam & Berry, 2010). Understandably, an immigrant family might, at first, have high expectations and hopes for their future when entering a country they perceive to be abundant with opportunity. Exposure to disparities, ethnic based discrimination, and an awareness of a subordinate status can alter expectations about the future. Consistent with SCCT theory, direct experience with discrimination and witnessing the experiences of others similar to oneself is a source of information that influences the beliefs and expectations about the likelihood of reaching goals (Lent et al., 2000). In fact, previous research has found that Latinos/as most often identified language and discrimination as significant barriers to one’s educational goals (Valencia & Johnson, 2006). The combination of learning a new language, acculturation stress, and transitioning to a new school creates more potential barriers for immigrant students in their academic achievement.

Generational status (e.g. 1st generation to enter the United States) plays a role in academic achievement. A study by Kao (2004) among Hispanic, Black, Asian, and White immigrant families, found that (1) first and second generation Hispanic children earned higher grades in high school than third generation Hispanic children; and (2) White immigrant children, regardless of generational status, earned the highest grade.
point averages (GPAs) compared to all racial and ethnic groups. Kao (2004) suggested that first generation immigrant children are more eager to obey their parents by performing well in school and have a more positive sense of ethnic identity than subsequent generations. Despite various disadvantages (immigration stressors, language barriers, finances), first and second generation youth have higher academic achievement than subsequent generations.

Acculturation influences career expectations and plans for future education. St-Hilaire (2002) conducted a study among first and second generation Mexican American adolescents and found that low expectations were significantly associated with high acculturation (measured by the number of years residing in the United States and language preference). Interestingly, Mexican American participants with higher acculturation (longer residency in the U.S.) reported more negative expectations for their future and had plans to attain lower levels of education; whereas, students with lower acculturation (recent immigrants) reported higher educational values, positive expectations, and higher career aspirations (St-Hilaire, 2002). Thus, an individual with low acculturation may be more likely to have positive expectations and have higher educational goals, which is important for future career success.

There are mixed findings in the literature regarding the role of generational status. Some researchers did not find a significant relationship between generational status (1st generation and subsequent generations) and perceptions of barriers to educational goals (Gloria et al., 2005). More research is needed to better understand
the career development of immigrants. In consideration of the aforementioned findings, a cogent argument can be made that lower levels of acculturation might be a protective factor in students’ expectations and conceptualization about their ability to reach their goals.

Given the history of low educational attainment, many Latinos/as have parents who did not attend college and lack readily available information in the immediate family environment to help facilitate the transition into college or the world of work. Latinos/as may need to seek out information from friends and professionals about the steps to attain higher education and how to attain highly skilled jobs (Gloria et al., 2005). Although Hispanic parents value and encourage educational endeavors, caretaking responsibilities are prioritized; and girls receive mixed messages about post-secondary educational plans (Ginorio & Huston, 2001; Vasquez, 2002).

The anticipation of obstacles and disparities can influence parents to focus on preparing their adolescents for the harsh realities of adulthood. Some families actively encourage girls to pursue educational and career interests as a form of survival, even if it is not consistent with gender norms. One study found that girls from immigrant Caribbean families were encouraged to pursue financial independence and to be self-reliant in order to survive in American culture; furthermore, adjustments to gender norms (as a response to meeting the demands of a new environment) has been documented in research among immigrant families (Lopez, as cited in Feliciano &
Rumbaut, 2005). As more women of color earn undergraduate degrees, they will be in a position to pass on valuable information to their peers and future generations.

**Theoretical Implications**

The results of this study provide support for SCCT theory. According to SCCT, perceptions and expectations predict career related behaviors, such as career planfulness. There was a significant correlation between perceptions of barriers and expectations; and expectations and career planfulness. However, results indicated that males had negative expectations, but did not significantly perceive more barriers. Thus, there is not clear support for the relationship between perceptions of barriers and expectations. Perhaps other types of measures need to be developed to better capture boys’ experiences and possible perceptions and expectations. Based on SCCT, one would anticipate that negative expectations would predict lower career planfulness. However, results did not indicate that males had lower career planfulness in the main analysis. There is little understanding about the aforementioned relationship between perceived barriers, career outcome expectations, and career planfulness; thus more research is needed.

Another theory that includes contextual factors is developmental contextualism. According to Lerner (1990), developmental contextualism is based on a perspective in which there is a bi-directional relationship between the person and the environment. For example, growing up during the great depression would influence decisions about education, money and work in ways that may be different during
another time in history. Thus, there is a relationship between sociocultural factors and the career development trajectory of an individual. Based on this model, the contextual factors of gender, race, ethnicity, and parental education can shape career development. This was evident in the current study’s finding in that a student with higher parental education was more likely to engage in career planning. According to developmental contextualism, sociocultural variables influence an individual’s career development (such as career related cognitions and behaviors); and in turn an individual can also affect the environment. For example, African American females (a demographic with higher educational attainment and employment) may be more likely to grow up around educated women (compared to men) and receive the kind of support that promotes higher educational attainment; thus the individual is affected by the environment. Indeed, this study found that African American women were more engaged in career planning behaviors. As more women attain higher levels of education, they also affect the environment by being role models or helping girls go to college. Theoretical orientations that include environmental factors contribute to our understanding of career development.

Bronfenbrenner’s (1986) ecological model is another sociocultural perspective that can explain career development. The context is conceptualized as five systems that include the following: 1) the microsystem, which is the immediate setting such as home, school, and neighborhood; 2) the mesosystem is the relationship between microsystems, such as conflict at home can influence a child having disruptive
behavior at school; 3) the exosystem is a set of more distal external forces, such as the parents’ job; 4) the macrosystem is the larger cultural ideologies, such as religious beliefs; and 5) the chronosystem refers to the changing nature of the environment over the lifespan (Bronfenbrenner, 1986). These systems can influence a person’s beliefs, expectations, and behaviors. For example, parents with low educational attainment (the microsystem) and poor working conditions (the exosystem) can influence adolescents’ expectations about their own future. Interestingly, the demographic groups with the least educational attainment in the U.S., had the lowest career expectations in the current study (males, Latinos/as, and students with low parental education). This study provides further support for theories that explicitly include the role of contextual factors on career development.

The findings from the current study reflect the limitations of traditional career development theorists, such as Holland and Super. A major component of Holland’s theory focuses primarily on (1) the match between a personality type and work environment and (2) identity, particularly in relation to one’s interests, skills, and goals (Spokane & Cruza-Guet, 2005). Holland’s theory does not explain how contextual factors, such as gender, race, ethnicity, and parental education influence a personality type, identity, or career decisions; nor the role of socio-cognitive factors (e.g. perceptions of barriers, outcome expectations, and behavior) in career development. For example, an ethnic minority student living in poverty who does not have access to quality education, or exposure to higher status jobs may not have the
opportunity to explore a wide range of interests; and may be more likely to have negative expectations about the future, which affects educational and career decisions. Therefore, career development (including career decisions and occupational patterns) is not necessarily explained by personality type or identity. The disparities in the environment and lack of opportunities can result in limited career options and explain the existing demographic patterns in educational and occupational attainment based on gender, race, ethnicity, and socioeconomic background.

Another major theory is Super’s life space, life span theory focused mainly on self-concept issues and life stages/roles in career development (Super et al., 1996). A limitation to his theory is the lack of an explicit consideration of socio-cultural forces on the self-concept and career related cognitions and behaviors. The extent to which a person can implement identity may be constrained by expectations of others based on gender, race, ethnicity, or socioeconomic status. In the current study, Latino/a ethnicity predicted negative career expectations, indicating that a contextual factor can influence a cognitive aspect of identity or beliefs about what a person can achieve. His theory best captures the career development of White men living a traditional lifestyle; and has limited application to the career development of racial and ethnic minorities, whose career choices might reflect limited options and environmental disparities.

Prevention/Intervention Implications

The results indicate that boys were the most vulnerable group, particularly Latinos. Male participants had the most negative expectations and Latinos/as
endorsed more negative career expectations. Given that Latinos/as are more likely to attain lower levels of education (NCES, 2009a), this is a demographic that deserves attention and support from professionals in research, education, and policy. A multicultural approach is essential in meeting the needs of racial and ethnic minority youth (Nicolas et al., 2008). Furthermore, a vocational intervention could focus on the specific needs by gender (such as addressing the low expectations of boys) to encourage students to explore career interests, aspirations and expectations.

Vocational interventions can provide a form of social capital that students living in poverty may lack by providing access to role models, supports, educational and career related information. Tools for Tomorrow is one example of an intervention that provides clear examples of how to help students explore identity, set goals, identify barriers and resources to overcome obstacles, and develop a plan to reach goals (Kenny, Bower, Perry, Blustein, & Amtzls, 2004). Other components to a vocational program could include, guest speakers who are racial minorities, internships, and job shadowing, which are just a few types of interventions that have been utilized in various programs (Gibbons, et al., 2006; Kenny et al., 2004).

Researchers have asserted that career planning needs to be encouraged to promote earlier career exploration and planning (Gibbons et al., 2006; Gysbers & Lapan, 2001). There is a clear need to provide information about college and careers to adolescents, particularly students with low parental education and limited resources. For example, Gibbons et al. (2006) found that (1) ninth graders in their study
identified finances as a significant barrier to future goals, yet they held inaccurate beliefs about college (e.g., overestimated costs); and (2) students with the lowest parental education were less likely to take college preparatory classes. In consideration of the current study’s findings, to what extent are adolescents’ negative expectations based on inaccurate information about barriers, postsecondary education, careers, and available resources; and to what extent are they underestimating their own ability to reach goals and making early decisions (such as not taking college preparatory classes) based on inaccurate information? Vocational interventions are essential in providing guidance, accurate information, and resources to promote exploration and a planful approach to reach goals.

Parents and schools play a critical role in providing career guidance, information, and support. Gibbons and colleagues (2006) found that some of the parents in their study were uncertain about how to approach career planning with their adolescent. Perhaps parents with low educational attainment may be less familiar with navigating the transition to college and need guidance and information from teachers and staff. A few strategies for parents to facilitate career development include talking about interests and future plans, encouraging extracurricular activities (such as volunteering), and school involvement (Berzin, 2010; Gibbons et al., 2006; Kao, 2004). School guidance programs that initiate vocational interventions and provide relevant information to parents and students can provide a critical source of social capital. For example, comprehensive school guidance programs (that included
structured class activities, helping students connect school to future career goals, and providing consultation to parents and staff) have been found to predict higher grades and attendance (Lapan, Gysbers, & Petroski, 2001). Given the high levels of unemployment, a clear commitment from schools to devote time to a career intervention is critical for students who may be at the higher risk for not pursuing higher education and living in poverty.

**Limitations**

There are several limitations in this study that are important to note. The Type I error rate is a limitation in that this type of error increases the likelihood of falsely finding statistical significance. Furthermore, the additional analyses that were conducted contributes to the cumulative Type I error rate. This study is correlational and results do not indicate causal relationships. Gender socialization, instead of the sex of a student, might better explain the relationship between gender and an outcome variable such as career expectations. For example, gender socialization can influence whether a male or female will pursue a college education or prioritize marriage and caretaking responsibilities as part of meeting gender role expectations.

Racial identity, as defined by racial identity statuses (Helms and Cook, 1999), might better explain why some students perceive more barriers, have more positive career expectations, and are more planful. A student’s race encompasses a wide range of ethnic and cultural subgroups (such as African American or Haitian American) and each group may have different experiences with discrimination or access to resources
based on various factors such as accent, immigration status, or skin color. There may be a wide range of different personal experiences with discrimination that might influence participants’ perceptions of barriers, future expectations, and engagement in career planfulness.

Ethnic identity, instead of ethnicity, might more fully explain the outcome variables. For example, previous research has shown that higher ethnic identity predicted perceptions of discrimination (a perceived barrier) over one’s lifetime. Indeed, there are significant ethnic differences in the perception of discrimination. Greene, Way, and Pahl (2006) found that Dominican adolescents perceive more discrimination than Puerto Rican youth. Moreover, the level of acculturation and generational status can influence perceptions, expectations, and educational plans (St-Hilaire, 2002).

Lastly, parental education might be a proxy for socioeconomic status or social capital in that participants with parents who work in higher paid jobs are better able to afford higher education, which makes college a more realistic possibility in a student’s conceptualization of the future. Parents with low education may not have the finances and information about college or how to obtain higher paid jobs; and have family/social networks with limited information; and/or live in neighborhoods and school districts with few resources. An adolescent living in an environment with abundant resources may be more likely to have more a more optimistic outlook and have more access and support to engage in educational and career related activities.
There are various limitations to the generalizability of this study. The participants for this study were ninth grade students, who do not represent older high school students given the differences in maturity and development. The majority of the students were of lower SES status, which does not necessarily represent all racial minority urban adolescents. The students in the Northeast region of the U. S. might not be representative of urban students throughout the country. The resources that are available in the Northeast might not exist in other parts of the country such as the number of social programs and concentration of colleges that provide outreach programming in local high schools. Self-selection is another possible limitation for this study. Students who choose not to participate might have differed from actual participants in important ways; such as they (the students who did not participate) possibly had more positive expectations for their future (and did not believe they needed vocational information at the time of the study), or had a lower level of maturity and low interest in career related information.

Although there are limitations to the generalizability of this study, a major strength of this study is that it contributes to the limited literature examining racial minority adolescents in urban public schools. More specifically, the current study included an exploratory analysis to examine Caribbean students’ career development and distinguished between racial and ethnic groups instead of grouping all students of color into one group to be compared to White students. The findings offered further confirmation in identifying a vulnerable group (such as males and Latino/a students
with low parental education), which can be used to inform educational policy and vocational interventions. Furthermore, this study contributed to the limited research on the specific constructs of parental education and career planfulness.

Another limitation is that the measures used in this study were all self-report and dependent on the accuracy and honesty of participants. The participant’s knowledge of his/her parent’s educational background might not have been accurate. The fact that a number of student’s did not know their parent’s level of education might support an argument that some participants might have guessed about their parent’s educational background. The percentage of students who did not know their mother’s educational level (3%) and father’s educational level (19%) might reflect that ninth graders might not yet be aware of the educational background of their parents. These percentages were the same for the main and exploratory analysis. The majority of students knew the education of their mother. One could speculate if this difference reflects a high percentage participants from single family households; or if mothers may tend to be more communicative and open about their own academic background; or if this indicates other gender or family related factors, such as mother/father’s level of openness and valuing of education, and how career information is communicated by mother or father. Another possible question is whether parents are more communicative with their same sex child regarding educational and career related information. Future research might examine differences between mother’s and
father’s level of sharing with their adolescents, particularly how they communicate their experiences with school and the world of work.

*Future Research*

The most surprising finding in the current study is that males had more negative career expectations than females. I believe this is one of the most important findings and more research is needed to explore factors that influence males’ expectations, lower school engagement, and educational attainment. Unexpectedly, males did not perceive more barriers than females. Perhaps, the specific measure in this study did not capture adolescents’ perceived barriers. It is possible that males have less hope about the future or are unclear about how to overcome anticipated obstacles; or, as suggested by Irving and Hudley (2005), have developed a mistrust of educational systems and school disengagement. The message that it is socially acceptable for girls to be engaged in school (Feliciano & Rumbaut, 2005) may be a protective factor for females that provides a sense of connectedness, access to resources, self-efficacy to overcome anticipated obstacles, and a belief that education will lead to desired outcomes. Perhaps, the perception of resources (internal and external) may contribute to the significant differences in expectations among males and females. Given the higher unemployment of racial and ethnic minority men in comparison to White peers (U.S. Bureau of Labor Statistics, 2010), it is critical that educators and policy decision makers better understand what is happening with urban
male minority youth in order to provide programming that facilitates positive expectations and career development among male students of color.

A finding that was most concerning to me is that Latinos/as perceived the most barriers, had more negative career expectations, particularly Latinos/as with low parental education. This is consistent with previous research that found Latinos/as tended to report lower educational expectations (Chang et al., 2006). Historically, Latinos/as attain the lowest level of education in comparison to White and to Black peers (NCES, 2009). Because of a history of negative experiences with school personnel, such as pressuring families to assimilate, immigrant families have been found to be more likely to develop a distrust of formal U.S. educational systems (Ginorio & Huston, 2001; St-Hilaire, 2002). Indeed, previous research has shown that barriers to parental involvement in their child’s school included low parental education and language and cultural differences between parents and staff (NCES, 1998). Furthermore, parents of immigrant students may be unfamiliar with U.S. educational systems and depend on teachers for information and guidance. It is essential that schools provide career intervention programming. Students need to be encouraged to explore careers, identify resources, and engage in educational and career planning.

Based on the results of the current study, Latinas had the lowest career expectations (hypothesis 4). Although education may be supported within the family, females are expected to get married and take on caretaking roles (Chang, et al., 2006). Thus, programming may provide more support for this group of students, which might
include working with families and offering information about multiple pathways to education and careers. Proactive and comprehensive school guidance programs can provide life changing information and are a source of social capital that urban minority youth might not receive elsewhere.

Interestingly, Caribbean students did not have significantly higher or lower perceptions of barriers, career expectations, or career planfulness. Given that Caribbean students did not fare as well as African Americans, one might speculate that there may be a different set of risk factors for this group; and yet there are also be protective factors in that they did score as negatively as the Latino/a ethnic group. More research is needed to better understand the contextual factors impacting the career development of Caribbean Americans.

There are a number ways that future research could build upon based on this study. Male adolescent racial minority students had the most negative expectations, particularly Latino adolescents. Possible future questions include the extent to which environmental factors, such as unemployment and the most recent economic crisis affects the students who identify with a demographic that historically attains low levels of education. Another possible study might be to examine the extent to which school engagement, self-efficacy, and relational supports may be linked to how boys conceptualize obstacles and resources to attain future goals. In future, the addition of other SES constructs might help to capture the context in which adolescents plan their careers. There are various factors involved in how SES might positively and
negatively influence career expectations and planfulness. Parental income, neighborhood contextual factors (level of violence and/or level of poverty) and employment history might provide further information about how SES is linked to career development constructs. There is limited research focused on Caribbean adolescent career development. Thus, career development research is needed to understand the role of gender socialization, racial socialization, and parental education within Caribbean cultures; and how these contextual factors affect adolescents’ expectations and behaviors as they relate to education and career planning. Social constructivist models may be useful to further investigate the interrelationships between gender, race, ethnicity, social class, and career development.

Conclusions

In conclusion, the findings from this study have implications for future research and vocational programs, particularly in light of the significantly lower expectations of males, Latinos/as, and students with low parental education. Given the limited literature regarding minority adolescents and career development, there are a broad range of constructs that need to be investigated. More research is needed to better identify the specific needs of urban students relative to their local environment. It is worthy to note that the current study included only first year students and might not be generalized to all high school grade levels. A study that is inclusive of the different class years might better generalize findings to urban high school students. A future study could compare age groups to better identify changes in expectations and
career planning behavior. From a developmental perspective, future research is needed to examine how parental education and parenting practices serve as protective and/or risk factors in adolescent career development. The results of this study can be used to provide further evidence for the need of urban schools to actively promote career planning for their students; and to inform school guidance (or vocational intervention programs) in order to better address the needs of urban youth to overcome anticipated barriers, develop positive expectations, and plan for a successful career. More research focusing on specific racial and ethnic minority students may inform education professionals to develop effective vocational prevention and intervention programs. Future research can expand upon this study by using additional or different sets of career related constructs such as level of school engagement and career self-efficacy to more fully understand the career development of urban racial minority adolescents.
References


Constantine, M. G., Erickson, C. D., Banks, R. W., & Timberlake, T. L. (1998). Challenges to the career development of urban racial and ethnic minority


education to work: Cross-national perspectives (pp. 171 – 193). New York: Cambridge University.


Patton, W., Bartrum, D. A., & Creed, P. A. (2004). Gender differences for optimism, self-esteem, expectations and goals in predicting career planning and


Figure 1. Hierarchal regression of 2-way interaction (parental education by race/ethnicity) predicting career expectations (aspirations minus expectations)

1 = some grade school
2 = finished grade school
3 = some high school
4 = finished high school or GED
5 = some college or 2 year degree
6 = a 4 year college degree
7 = some school beyond college
8 = professional or graduate degree
Figure 2. Exploratory analysis: Hierarchical regression of 2-way interaction (Latino by parental education) predicting career expectations (aspirations minus expectations)

1 = some grade school
2 = finished grade school
3 = some high school
4 = finished high school or GED
5 = some college or 2 year degree
6 = a 4 year college degree
7 = some school beyond college
8 = professional or graduate degree
Figure 3. *Exploratory analysis: Hierarchal regression of 2-way interaction (Gender by African American) predicting career planfulness*

0 = not African American
1 = African American
Table 1. Means, standard deviations, and Pearson correlations of perceptions of barriers, career expectations (1), career expectations (2)(aspirations minus expectations), and career planfulness

<table>
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* = p < .05 one-tail
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Table 2. Hierarchal regression of socio-contextual variables, 2-way interactions, and 3-way interactions predicting perceptions of barriers

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* Significant predictor of Perceptions of Barriers at .10
** Significant predictor at .05
*** Significant predictor at .01
****Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.
Table 3. Hierarchical regression of socio-contextual variables, 2-way interactions, and 3-way interactions predicting career expectations

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* Significant predictor of Career Expectations at .10
** Significant predictor at .05
*** Significant predictor at .01
**** Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.
Table 4. **Hierarchal regression of socio-contextual variables, 2-way interactions, and 3-way interactions predicting the second measure of career expectations (aspirations minus expectations)**

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* Significant predictor of Aspirations minus Expectations at .10
** Significant predictor at .05
*** Significant predictor at .01
**** Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.
Table 5. *Hierarchical regression of socio-contextual variables, 2-way interactions,
and 3-way interactions predicting career planfulness*

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* Significant predictor of Career Planfulness at .10
** Significant predictor at .05
*** Significant predictor at .01
**** Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.
Table 6. *Exploratory Analysis: Means, standard deviations, and Pearson correlations of perceptions of barriers, career expectations (1), career expectations(2) (aspirations minus expectations), and career planfulness*

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*N = 267*

* = p < .05 two-tail

** = p < .01 two-tail
Table 7. *Exploratory Analysis: Hierarchical regression of socio-contextual variables, 2-way interactions, and 3-way interactions predicting perceptions of barriers*

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* Significant predictor of Perceptions of Barriers at .10
** Significant predictor at .05
*** Significant predictor at .01
**** Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.
Table 8. *Exploratory Analysis: Hierarchical regression of socio-contextual variables, 2-way interactions, and 3-way interactions predicting career expectations*

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* Significant predictor of Career Expectations at .10
** Significant predictor at .05
*** Significant predictor at .01
**** Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.
Table 9. *Exploratory Analysis: Hierarchal regression of socio-contextual variables, 2-way interactions, and 3-way interactions predicting career expectations (aspirations-expectations)*

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* Significant predictor of Career Expectations at .10
** Significant predictor at .05
*** Significant predictor at .01
**** Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.
Table 10. *Exploratory Analysis: Hierarchal regression of socio-contextual variables, 2-way interactions, and 3-way interactions predicting career planfulness*

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* Significant predictor of Career Planfulness at .10
** Significant predictor at .05
*** Significant predictor at .01
**** Significant predictor at .001

Note: Statistics for main effects are without any interactions entered into the model.