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PERCEPTIONS OF THE GLASS CEILING

AN ASSESSMENT OF PENN STATE STUDENTS' OPINIONS ON GENDER AND RACIAL BARRIERS IN
HIGHER LEVEL CAREER POSITIONS

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ABSTRACT

This research focuses on the presence of the glass ceiling by asking respondents to evaluate the job and family experiences of an individual with the same life story. The only thing that varied is whether the person in the vignette was male or female and Black or White. Race and sex differences in predicted reactions to seven of the job and family situations presented to the respondents. While respondents reported that a Black female is more likely than a White male to receive a job out of college in the career she prefers, Black females are also perceived to make significantly less money 20 years into their career than White males. Implications of the findings are discussed.

Key words: glass ceiling, gender, race, work, family

Table of Contents

Contents

ABSTRACT	i
Table of Contents.....	ii
Introduction	1
Literature Review	2
Theoretical Frameworks.....	2
Marxian Theory	3
Social Identity Theory.....	4
Status Characteristics Theory.....	5
The Glass Ceiling.....	7
Racial Minorities and the Glass Ceiling	12
Methods	14
Participants.....	14
Materials and Procedures	14
Dependent Variables.....	15
Control Variables.....	15
Findings	16
Discussion	18
Limitation	20
Conclusion	21
Table 2. Manager.....	23
Table 3. First Job.	24
Table 4. Higher Education.....	25
Table 5. Money Earned 20 years into Career.....	26
Table 6. “Start Family”.....	27
Table 7. “Kids Prevent”.....	28
Table 8. “Advance 10 Years”.....	29
References	30
Appendix A – Gender Role Scales	384
Appendix B- Survey	39

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Words are never enough.

Introduction

First noted by Gay Bryant in *The Working Woman Report* (1984), the ‘glass ceiling’ and women and minority’s rights, have been a topic of discussion for decades. According to Coyne, Coyne, & Lee (2004), the definition of the ‘glass ceiling’ refers to “an upper limit to professional advancement, especially as imposed upon women, that is not readily perceived or openly acknowledged” (pg. 15).

Due to important changes in society including delayed marriage and childbearing, and increases in women in the labor force, the issue of gender discrimination became a focal issue. The Glass Ceiling Act Title II of the Rights Act of 1991 gave way to extensive research concerning women and minority’s discrepancies in the workforce. One of the main objectives for the Federal Glass Ceiling Commission was to find invisible barriers hindering women and minorities from moving up the “corporate ladder”. The glass ceiling is predominantly said to be a “metaphor for the invisible and artificial barriers that block women and minorities from advancing up the corporate ladder to management and executive positions” (Johns, 2013, p. 1). The Glass Ceiling Commission, established by the Glass Ceiling Act of 1991, gave proof of the seemingly invisible, yet impermeable, barriers women and minorities face. In 1995, Johns (2013) stated that the Glass Ceiling Commission “noted that only 3 to 5 percent of senior management positions in Fortune 500 companies were filled by women...that where women held senior positions, their compensation was lower than that of their male counterparts,” and that “Furthermore, the commission’s findings showed that for women who were in senior positions, the types of positions they held were in areas such as human resources or research, which are not part of the usual pipeline or career pathway to executive positions” (pg. 2-3). As of 2014, 4.8 percent (24 women) of the Fortune 500 companies have female CEOs (Banga, 2014). Even at a greater disadvantage are racial minorities, with only nine African-American CEOs in the Fortune 500 as of February 2010 (Kaplan, 2011).

The focus of my thesis is to assess students’ perceptions of the glass ceiling in relation to career advancement opportunities while controlling for specific demographic variables such as gender, race, and

socioeconomic status as well as other background information. Data for my study come from a 2015 convenience sample of 608 students at a large northeastern university. I examine the following hypotheses:

H1) Controlling for race and gender of the respondent, females are less likely to be expected to advance in their career than males,.

H2) Controlling for race and gender of the respondent, females are more likely to be expected to stay home to raise a family as compared to males.

H3) Black females will have lower career advancement expectations than any other combination of race and gender.

H4) Racial minorities will be more likely to perceive discrimination towards minorities as compared to Whites.

H5) The greater the student's feminist views, the more likely she/he is to have equal expectations for career advancement, regardless of race or gender differences.

H6) White males will perceive less discrimination towards women and racial minorities than their counterparts.

Literature Review

Theoretical Frameworks

There are a number of barriers impeding women and minority's success in senior and executive positions, as well as barriers in career advancement in a plethora of workforce fields. Political, familial, social and economic obstacles all impact women and minority's success in moving up to higher level career positions. Ridgeway, Cecilia, Backor, Li, Tinkler, & Erickson, (2009) assessed the consequences of status distinctions based on social differences (i.e. race, ethnicity, and gender). Status distinctions are said to "implicitly bias the everyday processes through which people are evaluated, given access to rewards, and directed toward or away from positions of power and prestige in society" (Ridgeway et. al., pg. 44-45). Beliefs about status distinctions are associated with social worthiness, expectations, and competence and are and conceded as a social reality of the in-group out-group distinction, and therefore the social reality of the disadvantaged and advantaged.

Similar to Cooley's 'looking glass self' theory, status distinction effect the way in which individuals are treated and reinforce, because of reactions, the stereotypes associated with status distinctions such as race and gender. When status distinctions are obvious and diverse participants are required to work together for a common goal, such as the workforce, a hierarchy of esteem and competence plagues the group- often based on socially constructed prejudices associated with status distinctions (Ridgeway & Correll 2006). Similar to the social identity theory experiment by Tajfel and Turner (1979), which shows how little similarity it takes to form in- and out-groups, status distinctions are, in relation to this thesis, visible physical characteristics that are thought to hold inhibitory presumptions towards racial and ethnic minorities and women. With the preceding information in mind, the Marxian Theory, Social Identity Theory, and Status Characteristics Theory are used to aid in the explanations of the results of the survey on students' perceptions of the glass ceiling.

Marxian Theory

In *The Communist Manifesto*, Karl Marx establishes the historical pattern of oppression, stating that "In the earlier epochs of history, we find almost everywhere a complicated arrangement of society into various orders, a manifold gradation of social rank. In ancient Rome we have patricians, knights, plebeians, slaves; in the Middle Ages, feudal lords, vassals, guild-masters, journeymen, apprentices, serfs; in almost all of these classes, again, subordinate gradations" (Marx and Engels, 1848, pg. 3-4). Although Karl Marx was referring to a specific 'class struggle,' the Marxist-feminist view argues the drive for capitalism, economic and material wealth oppresses specific social groups, including women and racial minorities (1848). Social and economic oppressive behaviors manifest themselves in much more implicit ways when applied to race and gender. This has been referred to as the Glass Ceiling which describes today's oppressed classes.

With views similar to that of a socialist feminist, Karl Marx focuses on the distribution of equal economic and material goods (1848). Marx suggests that such economic distribution is notably divided unequally, with private property and capital goods allocated disproportionately to (in 21st century United States) one specific race and gender, regardless of hard work and due to oppressive societal norms (Marx and Engels, 1848). In relation to the social identity theory, racial/ethnic makeup and gender of the individual is the 'social comparison,' whereby males are the dominant in-group for administrative and higher level career positions in most bureaucratic entities. Through social comparison, individuals notice the disproportionate groupings of women and racial minorities in

lower-level positions within organizational hierarchies and the categorization of an individual is therefore boiled down to a checklist of race, socioeconomic status, and gender. Although Marxian theory takes a macro approach to the application of the glass ceiling model, it is relevant to my research because it focuses on ideas embedded in the wider social structure of society. These ideas are transmitted to members of a society and result in different perceptions of opportunities based on gender and race. Consequently, I expect that those individuals who are members of the Marxian oppressed classes will be more likely to indicate they will have experiences consistent with the glass ceiling as compared to their counterparts. This Marxian philosophy supports my hypothesis that females are less likely to be expected to advance in their career than males, and racial minorities will be more likely to perceive discrimination towards minorities as compared to Whites (H1 & H4).

Social Identity Theory

Social identity theory (Tajfel & Turner, 1979) suggests that groups in society (i.e. family, social class, ethnic relations, soccer team, etc.) give individuals a social identity and, therefore, a sense of belonging in the world, pride, and self-esteem (McLeod, 2008). Tajfel and Turner (1979) posits that individuals increase the status of their own group, while also discriminating against other groups outside of their own, to enhance their self-image. Tajfel and Turner (1979) refers to this phenomenon of a divided group as the 'in group' and 'out group'. In other words, the in-group purposely discriminates against the out-group to enhance their self-esteem and self-image. Such in-groups and out-groups can have effects as simple as whose team one is on and as complex and extreme as who is under attack in a war or genocide. Tajfel and Turner (1979) report that assigning individuals into in- and out-groups is normal, as people have a natural tendency to group things together to make sense of them and, as a result, often exaggerate differences between groups. The social identity theory is said to have three mental processes involved which follow in the proceeding order: 1) categorization 2) social identification, and 3) social comparison. Categorization is broad, and can begin from many characteristics, including but not limited to characteristics such as gender, ethnicity, body weight, religion, geographical location, athletic ability, age, etc. and can have a large influence on one's status in society (i.e. student, teacher, administrator, janitor). Once an individual determines, or once society determines, what group an individual will be in, the individual adopts that identity and therefore acts according to expected norms of that in-group or identity. This adaptation into a group and a specific identity is referred to as the social identification stage. Finally, social comparison is the root of the distinction(s) between the in- and out-groups. This is where differences between groups are highlighted, where the

rivals pin-point the other group's differences, and where the basis of prejudice and discrimination stem from (Tajfel and Turner, 1979).

Although the social identity theory posits that there are a plethora of variables that determine whether, from the eye of the beholder, a person is in the in- or out-group, my thesis suggests that certain characteristics override or are more influential than others. For instance, even though educational attainment and success is supposedly the most significant predictor of future career success according to the American merit system, I expect that racial ethnicity and gender will have a greater impact on students' perception of the likelihood of career advancement into higher level career positions. I expect that, although academic success may be an important predictor of the likelihood of future career advancement, the reality may be that women and racial minorities are not perceived to be capable of reaching the economic and administrative expectations equivalent to that of non-minorities. Because of these status distinctions and assumptions of specific groups, females are hypothesized to be less likely to be expected to advance in their career than males and, following the socially constructed gender norms; females are predicted to be more likely to be expected to stay home to raise a family as compared to males (H1 & H2).

Status Characteristics Theory

Status characteristics theory, also known as the expectation states theory, is used to assess the cues and characteristics of individuals in relation to their perceived and assumed ability to perform (a) specific task(s). According to Berger et. al. "status characteristics theory focuses upon the behavioural manifestations of certain attitudes and evaluations" (Ogilvie, S. n.d.). There are said to be two types of status characteristics, specific and diffuse. Specific expectations are based upon culturally shared attitudes. For instance, in regards to the sex of an individual, "male and female are accorded differentially valued attributes: males are accorded higher mathematical ability, and females, higher creative ability" Ogilvie, S. (n.d.). Such evaluations are based on the culturally preconceived notions about racial minorities and women. Diffuse status characteristics are these evaluations based on larger-scaled stereotypes. A diffuse characteristic would be, for instance, the implicit ideation that males are, in general, more competent and superior to females, or that Whites are more competent than African Americans. Such preconceived notions can, for example, set expectations for who is supposedly the better mechanic, babysitter, CEO, or president.

These stereotypes set a "burden of proof" for the individual, where it is her/his responsibility to prove

her/his ability. When a minority deviates from stereotypical norms (i.e. a black woman becomes the college Dean), that “burden of proof” often is never fully “proven,” as pressure to perform beyond par is expected. When errors are made, these errors are often attributed to her/his racial profile or her gender. A specific "performance expectancy" is developed and characteristics of that individual in relation to their, as Ralph Linton would say, ascribed characteristics and achieved characteristics; even if the individual's ascribed characteristics are unrelated to the task at hand. Such expectations set the norm for an expected amount of gender and racial inequality. This theoretical explanation is consistent with my hypotheses that females are less likely to be expected to advance in their career than males, and Black females will have lower career advancement expectations than any other combination of race and gender (H1 & H4). Ascribed characteristics of racial minorities and females are expected to supersede most achieved characteristics and, as Ogilvie notes, that overall, men are thought to be more competent than women and maleness is an indicator of competence (Ogilvie, n.d.).

The Glass Ceiling

Both social identity theory and status characteristics theory explain the existence of the glass ceiling since they focus on the development and maintenance of status and prestige in societies. According to Coyne et. al. (2004), there are four main areas of the notion of the 'glass ceiling,' these four main areas being: 1) job discrimination, 2) perceptions of personal achievement, 3) the role of in-house training and development, and 4) home-based issues such as caregiving. One of the theoretical explanations Foley (2002) used to dissect the structure of the glass ceiling is the distributive justice theory (Maiese, 2013; Foley, 2002). Findings showed that women and racial minorities both believed that White males were the most favored group in their workforce environment, and that White males generally felt better overall about how they were treated within the organization. Additional findings reveal the combination of being a racial minority and female effects perceptions of promotions and high levels of discrimination were perceived. Similarly, perceptions of a glass ceiling were found to have a deflating perception of promotional fairness, which impacts individuals' perception of their own career projections (Foley, 2002). Overall, the theme of existing literature shows that perceptions of the glass ceiling tend to be more prominent, and more pervasive, for women and minorities than for White males.

Foley's (2002) empirical findings revealed that discrimination and perceptions of the glass ceiling can hinder such persons' perceived ability to move up in the workforce (Foley, 2002). He concluded that the mere perception of a glass ceiling can influence work-related attitudes (Foley, 2002). Focusing on the relationship between the justice theory and the glass ceiling, it is also noted that fairness perceptions of third-party outcomes, such as promotions, influence each individuals' fairness perception and work-related attitudes. Perceived discrimination towards a certain minority group, or preferential treatment of White males would decrease Hispanic and females' views of equality, fairness, and positive work-related attitudes. These suggestions support my hypothesis that racial minorities will be more likely to perceive discrimination towards minorities as compared to Whites (H4). In addition, Glick & Fiske (2007) report that, in relation to the status characteristics theory, culturally defined norms associate women with communal, warm, and incompetent qualities, which can elicit patronizing discrimination. Glick and Fiske's (2007) findings support my hypothesis that females are more

likely to be expected to stay home to raise a family as compared to males, as the communal, warm, and nurturing characteristics ascribed to women influence their economic and familial expected roles (H2). This patronizing discrimination can, on a positive note, also lead to what Glick & Fiske describe as a “wow” effect (2007). The “wow” effect is when the female or racial minority employee is undermined and stereotyped, allowing minority employees to surpass presupposed “standards” for women and/or racial minorities (Glick & Fiske, 2007). This “wow” effect may lead to greater integration (but by no means complete) for the individual into the impermeable barrier of the “in-group,” yet it cannot justify the economic and administrative inequality still pervasive among many professions in higher level positions. In opposition to my hypotheses that (H1) females are predicted to be expected to advance in their career than males and (H2) Black females will have lower career advancement expectations than any other combination of race and gender, perhaps findings to the contrary may be explained by this “wow” effect.

Widely recognized in the literature is the disproportionate grouping of women and racial minorities in lower-level positions within organizational hierarchies. Beller (1984) found that there is an obvious deficit in female occupied administrative and higher level positions within specific occupations. To put matters into perspective, John (2013) revealed that, as of 2009, “female college graduates earned 70.9 cents for every dollar earned by male college graduates... [but] the gender pay gap is largest at the top of the educational spectrum, with professional women earning 57.9 cents for every dollar earned by professional men” (pg. 2). Research findings have shown that women are far more likely than men to have jobs in advising, counseling, and other staff positions within certain organizations, such as an institution of higher education. Affirmative action is said to also inflate minorities of gender and race in such positions, as well (Johnsrud & Heck, 1994).

Johnsrud and Heck (1994) provide an explanatory theoretical model describing how the gender of an individual affects the organizational structure and hierarchy within higher education universities. While there is little agreement to the explanation of their initial finding, researchers found, similar to much other literature, the pervasiveness and persistence of gender stratification in the workforce (Johnsrud & Heck, 1994). The cumulative effect gender has on the ability of females to ascend in administrative positions within a university setting was

found to have “significant direct effects on the status, salary, and responsibility achieved as a result of promotion” as well as an effect on the placement of an individual prior to advancement (Johnsrud & Heck, 1994, Pg. 39). For example, women are typically grouped in entry-level positions within administrative staffs. Similarly, a specified designation in “women’s work” versus “men’s work” can lead to, or causes, subsequent pay disparities as well as the amount of responsibilities the position holds. Even if women attain positions of “men’s work”, women still have to face an uphill battle to preserve their status. Cikara & Morrow (2004) acknowledge that if women do penetrate the glass ceiling barrier, the path they took to get there as well as their new status brings with it hostile environments, sexual harassment, and a need to fight hard for the “grudging respect of their competence” (pg. 83).

Focusing on the placement of an individual based on gender has empirically shown the cumulative effect gender plays in status, salary, and responsibility within the university. As women were more likely to be placed in lower level positions to begin with, their likelihood of ascending to an administrative is diminished. This is referred to as the “power of the prior position” that puts females at a lower place in the hierarchy (Johnsrud & Heck, 1994). In addition, researchers found there are no objective qualitative measures that validate the initial lower level positions women are frequently initially placed in. In other words, the study indicates that “women have equivalent educational backgrounds and significantly more experience when compared to males” (Johnsrud & Heck, 1994). Such findings align with my hypothesis that women, regardless of their success on a resume, experience a type of implicit bias towards their work-related expectations (H1).

Care-Giving, the Family and the Glass Ceiling

The traditional family model consisted of the familiar notion of a male breadwinner, a mother caretaker, and children at home for her to tend to. Coyne, Coyne, & Lee, (2004) note this family model, developed in the 1940-60s, is not an efficient ideation of today’s family for a number of reasons. The ramifications of this structure are discussed by Kossek et. al. (2001) in which the researchers state that “one of the most universal types of non-work decisions that most employees will make during their careers are care-giving decisions” (pg. 3). Hasslette,

Geis and Carter (1992) also suggest that marriage and children are negatively correlated with women's pay in the workforce, and that a lack of geographic mobility that comes with having children, along with other factors, substantially influences the negative correlation. Caregiving is a time and energy consuming job which may overlap into a work setting and may result in less rewards at work. Similarly, numerous studies "have identified both potential motherhood and motherhood as 'impacting detrimentally' on women's opportunities for employment and promotion (Coyne et. al., 2004, pg. 21). Also noted is the impact of divorce and the resulting pattern of females still holding the majority of the primary custody caregiving role post-divorce, further increasing the overlap between caregiving and career responsibilities.

To improve the caregiving and family dilemma, the Family Leave Act of 1992 was enacted, which provided employees who worked 26 or more weeks of work to up to 12 weeks of unpaid work for "personal time" (Coyne et. al., 2004, pg. 24). While there has been some recognition of family-related duties, such recognition may even serve as a detriment. As reported by Cohn, S. (1996), organizations take into consideration pertinent economic liabilities. For instance, women in particular are an economic deficit in the assumption that they will need time away from work to care for child/children. From an economic perspective Cohn (1996) notes there is an equation in which the cost of training is compared to the productivity of the worker. Similarly, Hasslette et. al. (1992) show that women were less likely to hold managerial and administrative positions (in general more demanding positions), and Cohn (1996) interprets such discrepancies to a fear to hire women for high-level firm specific fields due to the notable likelihood of women taking time off of work and/or quitting to raise a family.

Perhaps more notable than the implicit hiring and promotion discrimination towards women is the assigned gender roles women are still expected to adhere. Coyne et. al. (2004) reports that women still retain the greater proportion of caregiving and home duties, men are increasingly valuing their family roles and willing to modify their career and work schedule to accommodate such increasing values. The researchers also argue that, to some degree, there has always been some gender-based division in caregiving; from the primitive evolutionary leap to *homo sapiens*, providing the family with food and shelter, to the pre-industrial planned marriages, designed for the women to be expected to marry into wealthy families where the male provides (Coyne et. al.,

2004) Such studies, along with the extensive history of a division of expectation of gender norms, support the current study's hypothesis that females are more likely to be expected to stay home to raise a family (H2).

Liss, O'Connor, Morosky, and Crawford (2001) found that certain beliefs of individuals are correlated with feminist self-identification. More liberal views, such as having a high embeddedness/emanation score (i.e. "Relationships with most men stunt my growth"), high self-reliant individualism and low denial of discrimination score all contribute variance. Similarly, in a sample of young college women, Liss, Crawford, & Popp (2004) utilized bivariate correlations to assess feminist collective action with specific life experience variables. Researchers found that having a mother who was feminist, having experienced discrimination and having taken a class that focused on women's issues were correlated with feminist collective action (Liss, et. al., 2004). Such life experiences were also found to be correlated with more liberal-sided beliefs versus conservative beliefs. These findings support my hypothesis that student's feminist views are likely to be positively correlated with the likelihood she/he is to have equal expectations for career advancement (H4), as well as my prediction that those who do not experience overt or implicit racism or sexism, such as white males, are less likely to perceive racial and gender barriers in regards to career advancement (H5).

Current literature shows that perceptions of the glass ceiling tend to be more prominent, and more pervasive, for women and minorities than for white males. Similarly, a Seagram Company sponsored survey was sent out to various women in top-level managerial positions to examine gender discrimination (Coyne et. al., 2004, pg. 18). While 52 percent of females reported male stereotyping as the most significant barrier to promotion, only 25 percent of males cited male stereotyping as a problem (Coyne et. al., 2004, pg. 18). This study supports my hypothesis that white males will perceive less discrimination towards women and racial minorities (H6). It seems as though in-groups have a difficult time perceiving their own injustices; while, perhaps, at the same time out-group members (i.e. racial minorities and women) may tend to have a cognitive bias to over exaggerate the differences and prejudices of the in-group (i.e. white males). Or perhaps this still does not explain the discrepancy in economic, social, political, and familial inequity.

Racial Minorities and the Glass Ceiling

According to the article “*Racial Inequality and Meritocracy*,” Kaplan quotes that “The net worth of whites is eight to ten times more than blacks. Three times as many blacks as whites live below 125 percent of the poverty level, and black median household income is only 65 percent that of whites” (Kaplan, 2011, p. 1). According to the social identity theory, it is no surprise as to why such barriers to higher level career positions exist- it is simply not part of one’s “in group”. Singh, Winkel, & Selvarajan (2013) sought to assess the effect diversity at a specific firm has on racial differences in individuals’ reactions and how, hence, performance may or may not be affected. Applying social and racial identity theories, it was found that an open, diversity-supportive climate brings with it psychological safety and racial minorities feel safe expressing their real identities (Singh, et. al., 2013). Concurrently, it was found that the opportunity and acceptability of expressing one’s identity was positively correlated with individual performance (Singh, et. al., 2013).

In studying race relations of interviewer and interviewee interaction, Hannon & Defina (2014) reveal that, not only does race matter, but the skin tone of both the interviewer and interviewee has significant effects on the interviewer (Hannon & Defina, 2014). Using data from the National Longitudinal Survey of Youth and General Social Survey, Hannon & Defina (2014) found that “On average, African American respondents with a white interviewer were about 3 times more likely to be classified as dark than those with an African American interviewer,” enhancing the likelihood of racial bias (pg. 1). When replying to CNN’s host Anderson Cooper during the time of the 2007 presidential democratic debate, the question of whether or not Obama is “black enough” to be considered the first black president, a question originally posed by a student at Kansas University, Barack Obama countered the question by stating “You know, when I’m catching a cab in Manhattan -- in the past, I think I’ve given my credentials” (Part I: CNN/YouTube Democratic Presidential Debate Transcript, 2007). Such findings and subjective knowledge both question the variances in responses of students’ perceptions of the glass ceiling, noting that race is on a continuum, per se, more-so than a pigeonholed category that can be

objectively measured. Even in the absence of obvious, overt discrimination, aversive discrimination may be becoming the norm.

In an in-depth analysis on perceptions of the glass ceiling focused on a cross-sampling of Hispanic law associates, Foley (2002) utilized the term “*perceived glass ceiling*” to portray the perception that ascribed characteristics (i.e. race, gender) instead of achieved characteristics (i.e. ability, intellect, qualifications) lay within the foundation of certain organizations as a barrier to achieving promotions and/or career advancements. In addition, “perceptions of the glass ceiling, and the processes that lead to these beliefs, do not occur within a social vacuum, but within social contexts that often reward people differently on the basis of the social group to which they belong” (Foley, 2002, pg. 472). Such social comparisons among race and gender are perhaps limitations in the projected possibilities of salary and promotion. Applying the social identity theory, the preceding studies support my hypothesis that racial minorities will be more likely to perceive discrimination (H4). Similarly, black females will have lower career advancement expectations than any other combination of race and gender, as gender merely exacerbates an already out-grouped individual (H3).

Methods

Participants

The goal of this study was to assess students' perceptions of the glass ceiling. The universe of the study are full-time college students who are 18 years or older. The population used in this study is college students attending a large northeastern university. The sample is a convenience sample of 608 students enrolled in introductory level courses at the large northeastern university in the spring of 2015. The population of this convenience sample consisted of 55% freshman, 23% sophomores, 13% juniors, 8% seniors and fifth year or more students. Of the respondents, 92% are between the ages of 18 and 21. The majority (75%) of the sample are students of a Non-Hispanic White/Euro-American, 8% Black/Afro-Caribbean/African, 8% East Asian/Asian American, and 7% Latino/Hispanic American. In addition, 359 of the respondents (58%) are female, 257 (42%) male.

Participants were given an opportunity to volunteer for this study, with a small incentive of extra credit for their course. An alternate assignment was available for students who did not feel comfortable partaking in the survey. Responding to the survey served as implied consent. Students were told that all participation was voluntary and each student had the opportunity to stop if she/he felt uncomfortable answering any of the questions. This study was approved by the Institutional Review Board at the University.

Materials and Procedures

The study was designed as a series of vignette and respondent information was recorded through a survey site called Qualtrics (<http://www.qualtrics.com/>). Each individual who volunteered in the study was randomly assigned one-out-of four possible vignettes. All questions on the survey were the same, only the race and gender of people in the vignette was varied (Black female, Black male, White Female, or White Male). The specific vignette the person received is the independent variable.

Multiple regression analysis was utilized to analyze the results of the survey data. This is an appropriate techniques because the data used for this analysis is a multi-category dependent variable and many independent and control variables. This technique allows me to examine the direct effect of the vignette the person received on the attitudes toward the questions about the person alone and while controlling for a number of additional variables.

Dependent Variables

Students were asked to respond to eleven questions about the person described in the vignette. “A few years down the road, [Black Meredith/White Meredith/Black Martin/White Martin] plans on starting a family. Do you believe that beginning a family (i.e. marriage, kids) will prolong [Black Meredith/White Meredith/Black Martin/White Martin] from advancing in [her/his] career?” A similar question was asked is as follows: “10 years into [Black Meredith/White Meredith/Black Martin/White Martin’s] career, [she/he] advances to the managerial position (i.e. program coordinator, director, vice president), working roughly 60-70 hours per week. [She/He] alshas two kids and a [Husband/Wife]. In relation to [her/his] circumstances, [she/he]: 1) Far Exceeds Expectations, 2) Exceeds Expectations, 3) Equals Expectations 4) Short of Expectations, and 5) Far Short of Expectations.” The picture clearly depicting the race and gender of the vignette was shown on screen above the above questions students received, as well as the correct female/male name and “she/he, “her/his” orientation. The responses to the vignettes are the dependent variables in this research.

Control Variables

The control variables utilized in the multiple regression analyses included sex (0=male, 1=female), race (White, other race), age (range from 18 to 24 and older), highest level of mother’s and father’ education (less than high school to Ph.D.) and a gender role scale. Respondents reported that 2% completed less than a high school diploma 16% high school diploma or equivalent, 9% some college or no degree, 12% associate’s degree, 40% bachelor’s degree, and 21% master’s degree or higher. When respondents were asked, “What level of schooling did your mother/female guardian complete?” 3% reported less than a high school diploma or GED, 10% high school diploma or equivalent, 0% some college or no degree, 6% associate’s degree, 48% bachelor’s degree, and 33% master’s degree or higher. Eight gender attitudes items were included in a gender role scale (See Appendix A for the items in the scale). Gender role scales were assessed on a five point scale with the higher number indicating a more general role liberal/non-conventional response. The items were added together to form the scale. The Chronbach’s alpha for the scale is .794 which shows that it is a reliable scale. The descriptives for the variables in the analysis are presented in Table 1.

[Table 1 about here]

Findings

In this research, I examine the effects of the four vignettes on respondent attitudes toward the person in the vignette's career path and family. I examine eleven dependent variables and report on the seven that have a significant main independent variable effect. There were no significant effects of the vignettes on the dependent variables of managerial position in 1 to 3 years, and amount of money made between the first and third year in the job and first and fifth year in the job. There was also no significant effect on the vignette that focuses on the likelihood of the person in the vignette being the primary caregiver.

Table 2 presents the relationship between the vignette and the control variables on whether or not the respondent would like to work with this person as a manager. White male (Martin) is the reference category in all of the analyses. Respondents are significantly more to say they would like to work with White Meredith, Black Meredith and Black Martin as a manager compared to White Martin ($p < .001$). Interestingly, none of the control variables have a significant effect on manager preference and there are no significant interactions with the vignettes on race or sex.

[Table 2 about here]

The next analysis, shown in Table 3, examines the vignette of focusing on perceived success of getting a first job of choice. Only one of the vignettes is significant with respondents indicating that Black Meredith will be more likely to get her first job of choice as compared to White Martin ($p < .05$). None of the other control variables or interactions is statistically significant.

[Table 3 about here]

Respondents were asked to assess the likelihood the person in the vignette they received will return to school between 1-3 years into their career. Black Martin is found to be significantly more likely than White Martin to attend higher education in 1-3 years ($p < .05$). Controlling for other variables, the sex of the respondent is the only significant control variable ($p < .05$). Female respondents are more likely to believe people will attend higher education 1-3 years into their career as compared to male respondents. The results for this analysis are shown in Table 4.

[Table 4 about here]

Students were asked to predict approximately how much money the vignette will receive 20 years into the randomly assigned vignette's career. Table 5 shows the differences between White Martin and Black Meredith are found to be significant ($p < .05$), with students expecting Black Meredith to make less money than White Martin. Sex of respondent is significant ($p < .001$) to the perceived income in twenty years variable with women respondents indicating they are less likely than men to think people will make a great deal of money in twenty years. The vignette received and race of the respondent interaction is also statistically significant ($p < .05$). Respondents who received the Black Meredith vignette and are non-White do not expect Meredith to make as much money 20 years into her career as do White respondents.

[Table 5 about here]

The next table (Table 6) presents results of the question, "A few years down the road, [Meredith/Martin] plans on starting a family. Do you believe that beginning a family (i.e. marriage, kids) will *prolong* [Meredith/Martin] from advancing in [her/his] career?" Analysis shows respondents who received the White Meredith ($p < .001$) and Black Meredith ($p < .05$) vignettes are significantly more likely to think starting a family will *prolong* their career advancement as compared to those who received the White Martin Vignettes. Sex of the respondent has a statistically significant effect as well ($p < .001$). Women are more likely to believe starting a family will *prolong* s one's career as compared to male respondents.

[Table 6 about here]

Table 7 represents the results of the analysis with same question posed above, referring to the effects on career advancement for starting a family, with the only difference referring to children *preventing* the parent from advancing in his/her career as opposed to the likelihood of being *prolonged* from advancing in his/her career. Respondents believe that White Meredith is significantly more likely to be *prevented* from advancing in her career as compared to White Martin ($p < .001$). When examining the interaction between the race of the respondent and the vignette received, respondents of a non-White race report that Black Meredith is significantly more likely to be *prevented* in advancing in her career as compared to White Martin ($p < .05$).

[Table 7 about here]

The last analysis focuses on the degree of expectations met in relation to balancing a demanding career as

well as a family. These findings are shown in Table 8. The results examine students' responses to the question, "10 years into [Meredith/Martin's] career, [she/he] advances to the managerial position (i.e. program coordinator, director, vice president), working roughly 60-70 hours per week. [She/he] also has two kids and a wife/husband." Respondents report White Meredith ($p < .001$) and Black Meredith ($p < .01$) significantly exceeds career expectations as compared to White Martin. The interaction between vignette received and race of respondent is also significant. Those respondents who received the Black Martin vignette and are non-White are significantly more likely to report Black Martin exceeds expectations ($p < .05$) compared to White Martin.

[Table 8 about here]

Discussion

First, there is an ironic difference in the career outlook and expectations between respondents' interpretations of the Black Meredith vignette and White Martin vignette. While respondents reported that a Black female is more likely than a White male to receive a job out of college in the career she prefers, Black females are also perceived to make significantly less money 20 years into their career than White males. This is perhaps the most suggestive finding of the presence of a glass ceiling in this study. Students appear to assume being a minority both racially and in sex helps provide a Black female an "upper hand" on getting their first job out of college, but not making significantly as much as White males 20 years into their career. The Glass Ceiling Act, Title II of the Rights Act of 1991 and Affirmative Action make cause respondents to assume the rights of minorities to be hired in their desired positions is a legal mandate so they will indeed get their jobs and this is especially true for Black females since they represent two minority groups. This finding is relevant to Tajfel and Turner's (1979) social identity theory, which shows how little similarity it takes to form in- and out-groups and the visibility of physical characteristics that are thought to hold inhibitory presumptions towards racial and ethnic minorities and women. Even a slight difference, such as an increase in very few "out-group" members in a workforce setting is thought to create a bias of how much Affirmative Action actually helps the employment rights and career advancement of women.

When controlling for race, Non-whites are significantly more likely to believe a Black female will make less money 20 years into her career compared to White males. This finding supports my hypothesis that non-White individuals will be more likely to perceive discrimination and supports Foley's (2002) use of the

distributive justice theory to explain the glass ceiling (H4). Foley (2002) noted that women and racial minorities were both more likely to perceive discrimination in the workforce, and also more likely to believe that White males were treated better and liked more. Similar to Tajfel and Turner's (1979) in-group and out-group comparisons, a perception of being in the "out-group" influences the likelihood a Black female will make as much as a White male down the road in their respective careers.

Responses to Women show that respondents expect having a family will both prolong and prevent their career advancement (H1, H2). Support for these findings are found through Karl Marx's focuses on the distribution of equal economic and material goods (1848). When characteristics, specifically gender, are taken into consideration, culturally preconceived notions of whom the primary household caregiver should be seem to have an effect on students' assumptions, as well as impact the expected career advancement of women (Berger, et. al. 2006). That is, status characteristics cannot be differentiated from assumptions of economic equality and, in relation to gender, appear to effect students' perception of who is presumed to be accorded the responsibilities of household and familial duties.

Similarly, regardless of race, female respondents are significantly more likely to believe starting a family will prolong the female vignette's career advancement. Non-White respondents are more likely to predict starting a family will prevent the Black vignette from advancing in her career. To support this finding, one of the theoretical explanations Foley (2002) used to dissect the structure of the glass ceiling is the distributive justice theory (Maiese, 2013; Foley, 2002). Findings showed that women and racial minorities both believed that White males were the most favored group in their workforce environment, and the combination of being a racial minority and female effects perceptions of promotions and high levels of discrimination were perceived. Perhaps women and racial minorities may be more realistic about the likelihood their race and gender play on advancing in their careers (H3, H4).

Interestingly, respondents are significantly more likely to desire to have a Black female, Black male, or White female as a manager than a White male. Since there were no control variables that significantly affected this result, further research should focus on explanations for this finding. It may be that respondents who received the women and minority vignettes feel some pressure to respond in a normatively acceptable manner and to not respond in a racist or sexist manner. Further research will need to examine this explanation.

Next, respondents' reported that both Black and White vignettes of the female race would exceed expectations as compared to White Martin if they were working 60-70 hours a week and also raising a family. This finding agrees with what Glick & Fiske (2007) describe as a "wow" effect, the effect that takes place when the female or racial minority employee is undermined and stereotyped, allowing minority employees to surpass presupposed "standards" for women and/or racial minorities. While this "wow" effect may have positive qualities for the dual career-family raising mother, it also can only be a phenomenon that exist when assuming the typical woman in our society cannot hold a demanding job as well as raise a family. Had there been an assumption women can do both, there would be no "wow" effect.

When controlling for race, non-White respondents are more likely to believe the Black, female vignette is exceeding expectations. This finding shows an interesting relationship between whom non-White individuals expect to be the primary caregiver in their home, with non-White respondents predicting Black woman to be more likely within the "out-group" of being a primary caregiver while also working. Whether the hours of work, the raising of the family, or both contribute to this finding, social identity theory indicates that a significant assumption about the implicit ideation of what minority women are expected to do is prevalent.

Women are found to be more likely than men to believe the vignette, regardless of race and gender, will attain higher education a few years into his/her career. John (2013) revealed that, as of 2009, while women with a college education make 70.9 cents to every dollar a male in the same educational position makes, "the gender paygap is largest at the top of the educational spectrum, with professional women earning 57.9 cents for every dollar earned by professional men" (pg. 2). In addition, even when women were found to have equivalent backgrounds and significantly more experience in their work positions than men, women were still more likely to be placed in lower level positions to begin with and were still less likely to advance in their careers (Johnsrud and Heck, 1994). Again, similar to Foley's (2002) findings, perhaps women and racial minorities both believe that White males were the most favored group in their workforce environment. Perhaps women are more likely to attribute the need for higher education for the vignettes, regardless of race or gender, because of the differences they notice to be true for their female counterparts.

Limitation

One limitation of this study was the design of the study. While pictures displayed the race and gender of

the vignette, students may have taken the survey on smaller technology items such as an iPhone. This may have made it more difficult for students to fully absorb the race and gender of the person shown in the vignette since the picture would have been small. In addition, an icon of a person may have less of an impact when transmitted through the superficiality of technology, and respondents may not have focused on the race and gender which would limit the effects of the vignette. On the same topic, students may have focused on the objective evidence of educational success on the vignette's resume instead of who the person is in their entirety. Further research might want to find ways to highlight the possible effects of race and gender.

Conclusion

While familial duties suggested women are, in general, more likely to find that raising a family will, in some ways, prolong or prevent their career advancement, interestingly there is no significant effect on the vignette that focuses on the likelihood of the person in the vignette being the primary caregiver. After a review of the question, I conclude that the ambiguity of what students understood a "primary caregiver" to mean to them may have impacted the outcome of this question. That is, respondents' answers may have been skewed by the meaning of a primary caregiver referring to an individual in the household who is the breadwinner, and primary caregiver referring to what I defines as the primary caretaker of the children (i.e. running the child to practice, staying home with the child, attending school parent-teacher meetings, and taking care of the child when she/he is ill). Failure to clarify the definition of "primary caregiver" may have impacted findings.

Interestingly, gender role scales of the respondent were not found to be statistically significant, related to the dependent variables. This is contrary to my hypothesis that an increase in students' views towards a feminist perspective would be positively related to equal expectations for career advancement. It may indicate, however, other factors play a considerably higher role in students' perspectives that override gendered expectations. Similarly, the hypothesis that White males will perceive less discrimination towards women and racial minorities than their counterparts was not supported, and there were no effects of the gender of the vignette on any of the students' responses.

Further, while Black Meredith vignette is expected to be more likely than White Martin to receive employment in the career she wants, Black Meredith is also perceived to make significantly less money 20 years into her career than will White Martin. Further research on why getting a job immediately and making money in

the long-term differ in terms of race and gender may benefit from explanation, and may further contribute to the growing body of knowledge, and awareness of, the glass ceiling. Perhaps other factors influence the glass ceiling beyond race and sex.

Overall, I did find a presence of the glass ceiling in responses to perceived limitations and successes of each person in the vignette. Although glass ceiling research and policy has existed for decades, it is clear that these expectations are still present in the social world. This is especially interesting since my research focuses on a sample of college students who should presumably be more educated about these issues as well as less tolerant toward any kind of discrimination. While there is ample evidence that there is social change in the roles of men and women, there is also evidence that equal opportunity based on race and sex is not present in today's society. Tables

Table 1. Descriptive Statistics for Variables in the Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
First Job	650	1.00	7.00	5.1862	1.33374
Manager	650	1.00	7.00	4.4846	1.00411
Higher education	646	1.00	6.00	4.3127	1.15123
Money make in 20 years	646	1.00	6.00	4.4226	.78516
Start a family	645	1.00	4.00	2.6403	.67169
Kids prevent	645	1.00	4.00	2.1070	.67523
Advance in ten years	645	1.00	5.00	3.5938	.82241
Black Meredith Vignette	652	0.00	1.00	.2500	.43335
White Meredith Vignette	652	0.00	1.00	.2454	.43065
Black Martin Vignette	652	0.00	1.00	.2515	.43423
White Martin Vignette	652	0.00	1.00	.2500	.43335
Sex of Respondent	650	0.00	1.00	.5677	.49578
Gender Roles Scale	644	8.00	40.00	28.9550	5.46724
Age	652	1	8	3.36	1.387
Mother's education	636	2	9	6.24	1.902
Father's education	617	2	9	6.44	2.013

Table 2. Regression of the Independent and Control Variables on the Dependent Variable of Working with Vignette Person as a Manager, N=609

	Model 1			Model 2			Model 3			Model 4		
	B	Beta		B	Beta		B	Beta		B	Beta	
Vignette												
White Martin (reference)												
White Meredith	.750	.328	***	.761	.333	***	.773	.338	***	.770	.337	***
black meredith	.708	.307	***	.711	.308	***	.771	.334	***	.778	.338	***
black martin	.799	.348	***	.805	.351	***	.791	.345	***	.801	.349	***
Sex of respondent												
White (reference)				.217	.108	**	.285	.142		.230	.115	
Other race				.110	.046		.107	.045		.098	.041	
Vignette Sex Interaction												
White Martin * Sex (reference)												
Black Meredith*Sex							-.266	-.093		-.266	-.093	
White Meredith*SexR							.012	.004		.033	.012	
Black Martin*SexR							-.014	-.005		-.004	-.002	
Vignette Race Interaction												
White Martin *Race (reference)												
Black Meredith*Race							.296	.071		.267	.063	
White Meredith* Race							-.103	-.022		-.246	-.053	
Black Martin * Race							-.109	-.025		-.120	-.028	
Gender Roles Scale												
										.006	.032	
Age												
										-.030	-.041	
Mothers Education												
										.012	.023	
Father's Education												
										-.036	-.074	
Constant)	3.929			3.775			3.758			3.874		
R ²	0.111			0.125			0.134			.140		

*Sig at the .05 level

**Sig at the .01 level

***Sig at the .001 level

Table 3. Regression of the Independent and Control Variables on Dependent Variable of First Job, N=609.

	Model 1		Model 2		Model 3		Model 4 B	
	B	Beta	B	Beta	B	Beta	B	Beta
Vignette								
White Martin (reference)								
White Merdith	.073	.024	.077	.025	.116	.039	.116	.039
black meredit	.305	.100 *	.307	.101 *	.434	.143	.438	.144
black martin	.273	.090	.277	.091	.294	.097	.303	.100
Sex of respondent			.093	.035	.176	.067	.163	.062
Race White (reference)								
Other race			.014	.004	-.009	-.003	-.018	-.006
Vignette Sex Interaction								
White Martin * Sex (reference)								
Black Meredith*Sex					-.267	-.071	-.265	-.071
White Meredith*SexR					-.083	-.022	-.067	-.018
Black Martin*SexR					.008	.002	.014	.004
Vignette Race Interaction								
White Martin *Race (reference)								
Black Meredith*Race					.121	.022	.105	.019
White Meredith* Race					.050	.008	.028	.005
Black Martin * Race					-.073	-.013	-.072	-.013
Gender Roles Scale								
Age							-.021	-.022
Mothers Education							.006	.008
Father's Education							-.023	-.036
(Constant)	5.058		4.999		4.953		5.181	
R2	0.01		0.011		0.013		.015	

*Sig at the .05 level

**Sig at the .01 level

***Sig at the .001 level

Table 4. Regression of the Independent and Control Variables on Dependent Variable of Higher Education, N=609.

	Model 1		Model 2		Model 3		Model 4	
	B	Beta	B	Beta	B	Beta	B	Beta
Vignette								
White Martin (reference)								
White Meredith	.121	.046	.133	.051	.165	.063	.200	.076
Black Meredith	.176	.066	.178	.067	.188	.071	.178	.067
Black Martin	.304	.115 *	.308	.116 *	.357	.135	.376	.142
Sex of respondent			.218	.094 *	.385	.166 *	.434	.187
Race White (reference)								
Other race			.164	.060	-.176	-.064	-.081	-.029
Vignette Sex Interaction								
White Martin * Sex (reference)								
Black Meredith*Sex					-.161	-.049	-.169	-.051
White Meredith*SexR					-.190	-.058	-.257	-.079
Black Martin*SexR					-.309	-.094	-.335	-.101
Vignette Race Interaction								
White Martin *Race (reference)								
Black Meredith*Race					.393	.081	.411	.085
White Meredith* Race					.380	.071	.312	.058
Black Martin * Race					.574	.120	.460	.096
Gender Roles Scale							-.008	-.039
Age							-.027	-.032
Mothers Education							.043	.071
Father's Education							.034	.060
(Constant)	4.179		4.012		3.986		3.780	
R2	0.009		0.022		0.03		.046	

*Sig at the .05 level

**Sig at the .01 level

***Sig at the .001 level

Table 5. Regression of the Independent and Control Variables on the Dependent Variable of Money Earned 20 years into Career. N=609.

	Model 1		Model 2		Model 3		Model 4	
	B	Beta	B	Beta	B	Beta	B	Beta
Vignette								
White Martin (reference)								
White Meredith	-.088	-.050	-.096	-.054	.041	.023	.057	.032
black meredit	-.177	-.099 *	-.181	-.101 *	-.270	-.151	-.281	-.157 *
black martin	-.089	-.050	-.096	-.054	.017	.009	.022	.012
Sex of respondent			-.210	-.135 ***	-.065	-.042	-.015	-.010
Race White (reference)								
Other race			-.050	-.027	-.247	-.134	-.205	-.111
Vignette Sex Interaction								
White Martin * Sex (reference)								
Black Meredith*Sex					-.008	-.003	-.007	-.003
White Meredith*SexR					-.288	-.131	-.320	-.146
Black Martin*SexR					-.274	-.123	-.286	-.129
Vignette Race Interaction								
White Martin *Race (reference)								
Black Meredith*Race					.421	.129 *	.434	.133 *
White Meredith* Race					.135	.037	.108	.030
Black Martin * Race					.215	.067	.167	.052
Gender Roles Scale							-.008	-.060
Age							.000	.000
Mothers Education							.021	.051
Father's Education							.014	.037
(Constant)	4.519		4.656		4.612		4.606	
R2	0.007		0.026		0.041		.049	

*Sig at the .05 level

**Sig at the .01 level

***Sig at the .001 level

Table 6. Regression of the Independent and Control Variables on Dependent Variable of “Start Family”, N=609.

	Model 1			Model 2			Model 3			Model 4		
	B	Beta		B	Beta		B	Beta		B	Beta	
Vignette												
White Martin (reference)												
White Merdith	.369	.240	***	.361	.235	***	.321	.209	**	.320	.208	**
black meredit	.217	.140	**	.214	.138	**	.081	.052		.082	.053	
black martin	.056	.036		.050	.033		.058	.037		.053	.034	
Sex of respondent				-.184	-.137	***	-.242	-.179	*	-.226	-.168	*
Race White (reference)												
Other race				-.076	-.047		-.112	-.070		-.103	-.064	
Vignette Sex Interaction												
White Martin * Sex (reference)												
Black Meredith*Sex							.216	.113		.213	.111	
White Meredith*SexR							-.002	-.001		-.009	-.005	
Black Martin*SexR							.011	.006		.007	.003	
Vignette Race Interaction												
White Martin *Race (reference)												
Black Meredith*Race							.035	.013		.041	.015	
White Meredith* Race							.196	.063		.213	.068	
Black Martin * Race							-.060	-.022		-.062	-.022	
Gender Roles Scale												
Age										.000	-.003	
Mothers Education										.012	.024	
Father's Education										-.015	-.043	
(Constant)	2.481			2.608			2.651			2.547		
R2	0.047			0.069			0.077			0.081		

*Sig at the .05 level
 **Sig at the .01 level
 ***Sig at the .001 level

Table 7. Regression of the Independent and Control Variables on Dependent Variable of “Kids Prevent”, N=609.

	Model 1		Model 2		Model 3		Model 4	
	B	Beta	B	Beta	B	Beta	B	Beta
Vignette								
White Martin (reference)								
White Meredith	.288	.184 ***	.288	.184 ***	.308	.197 *	.294	.188 *
black meredit	.068	.043	.067	.043	.161	.102	.156	.099
black martin	.014	.009	.013	.008	.010	.006	-.005	-.003
Sex of respondent			-.011	-.008	-.011	-.008	.036	.026
Race White (reference)								
Other race			.019	.012	.135	.083	.099	.061
Vignette Sex Interaction								
White Martin * Sex (reference)								
Black Meredith*Sex					-.006	-.003	.002	.001
White Meredith*SexR					-.062	-.032	-.040	-.021
Black Martin*SexR					.058	.030	.065	.033
Vignette Race Interaction								
White Martin *Race (reference)								
Black Meredith*Race					-.387	-.135 *	-.384	-.134 *
White Meredith* Race					.098	.031	.142	.045
Black Martin * Race					-.134	-.047	-.087	-.031
Gender Roles Scale							-.007	-.057
Age							.039	.079
Mothers Education							-.030	-.082
Father's Education							.003	.008
(Constant)	2.013		2.015		1.99		2.214	
R2	0.029		0.03		0.043		0.059	

*Sig at the .05 level

**Sig at the .01 level

***Sig at the .001 level

Table 8. Regression of the Independent and Control Variables on the Dependent Variable of “Advance 10 Years”, N=609.

	Model 1		Model 2		Model 3		Model 4	
	B	Beta	B	Beta	B	Beta	B	Beta
Vignette								
White Martin (reference)								
White Meredith	.237	.127 **	.235	.126 **	.194	.104	.190	.101
black meredit	.336	.178 ***	.338	.179 ***	.157	.083	.159	.084
black martin	.094	.050	.097	.051	-.184	-.098	-.179	-.095
Sex of respondent			.017	.010	-.153	-.093	-.139	-.084
Race White (reference)								
Other race			-.084	-.043	-.173	-.088	-.191	-.098
Vignette Sex Interaction								
White Martin * Sex (reference)								
Black Meredith*Sex					.314	.134	.319	.137
White Meredith*SexR					.106	.045	.129	.055
Black Martin*SexR					.285	.122	.292	.124
Vignette Race Interaction								
White Martin *Race (reference)								
Black Meredith*Race					-.010	-.003	-.025	-.007
White Meredith* Race					-.142	-.037	-.149	-.039
Black Martin * Race					.472	.139 *	.487	.143
Gender Roles Scale							-.006	-.038
Age							-.007	-.012
Mothers Education							-.009	-.021
Father's Education							-.018	-.044
(Constant)	3.436		3.444		3.566		3.915	
R2	0.025		0.027		0.048		0.052	

*Sig at the .05 level

**Sig at the .01 level

***Sig at the .001 level

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Appendix A – Gender Role Scales

Possible Answers: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree

“It is much better for everyone if the man earns the money and the woman takes care of the house and the family.”

“If a husband and a wife both work full-time, they should share household tasks equally.”

“I see nothing wrong with giving a little boy a doll to play with.”

“A man who is very emotional and cries is not very masculine.”

“Female bosses are harder to work for than male bosses.”

“It is OK for women to cry in public but it is not OK for men to do so.”

“A person should generally be more polite to a woman than to a man.”

“I think it is OK for a woman to keep her maiden name after she marries.”

Appendix B- Survey

How likely is [Meredith/Martin] to get a job in [her/his] field of interest immediately after college?

- 1 Very Unlikely
- 2 Unlikely
- 3 Somewhat Unlikely
- 4 Undecided
- 5 Somewhat Likely
- 6 Likely
- 7 Very Likely

31. How willing would you be to work with [Meredith/Martin] as your manager?

- 1 Very Strongly Avoid
- 2 Strongly Avoid
- 3 Avoid
- 4 Indifferent
- 5 Prefer
- 6 Strongly Prefer
- 7 Very Strongly Prefer

32. What is the likelihood that [Meredith/Martin] will return to school and pursue [her/his] higher education 1-3 years in the future?

- 1 Very likely
- 2 Likely
- 3 Somewhat Likely
- 4 Somewhat Unlikely
- 5 Unlikely
- 6 Very Unlikely

33. What is the likelihood that [Meredith/Martin] will be already qualified for a managerial position 1-3 years into [her/his] career (i.e. program coordinator, director, vice president) without returning to graduate school?

- 1 Very Likely
- 2 Likely
- 3 Somewhat Likely
- 4 Somewhat Unlikely
- 5 Unlikely
- 6 Very Unlikely

34. How much do you expect [Meredith/Martin] to make in **1-3 years** into [her/his] career?

- 1 \$0 - \$19,999
- 2 \$20,000 - \$39,999
- 3 \$40,000 - \$59,999

- 4 \$60,000 - \$99,999
- 5 \$100,000 - \$249,999
- 6 \$250,000 or more

35. How much do you expect [Meredith/Martin] to make in **5-10 years** into [her/his] career?

- 1 \$0 - \$19,999
- 2 \$20,000 - \$39,999
- 3 \$40,000 - \$59,999
- 4 \$60,000 - \$99,999
- 5 \$100,000 - \$249,999
- 6 \$250,000 or more

36. How much do you expect [Meredith/Martin] to make in **20 years** into [her/his] career?

- 1 \$0 - \$19,999
- 2 \$20,000 - \$39,999
- 3 \$40,000 - \$59,999
- 4 \$60,000 - \$99,999
- 5 \$100,000 - \$249,999
- 6 \$250,000 or more

37. A few years down the road, [Meredith/Martin] plans on starting a family. Do you believe that beginning a family (i.e. marriage, kids) will **prolong** [Meredith/Martin] from advancing in [her/his] career?

- 1 Definitely not
- 2 Probably not
- 3 Probably yes
- 4 Definitely yes

38. Do you believe that a family (i.e. marriage, kids) will **prevent** [Meredith/Martin] from advancing in [her/his] career?

- 1 Definitely not
- 2 Probably not
- 3 Probably yes
- 4 Definitely yes

39. 10 years into [Meredith's/Martin's] career, [she/he] advances to the managerial position (i.e. program coordinator, director, vice president), working roughly 60-70 hours per week. [She/He] also has two kids and a [Wife/Husband]. In relation to [her/his] circumstances, [she/he] :

- 1 Far exceeds expectations
- 2 Exceeds expectations
- 3 Equals expectations
- 4 Short of expectations
- 5 Far short of expectations

40. What is the likelihood that [Meredith/Martin] is the primary caregiver in [her/his] family?

1 Very Likely

2 Likely

3 Somewhat Likely

4 Somewhat Unlikely

5 Unlikely

6 Very Unlikely

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EDUCATION

The Pennsylvania State University, State College, PA
 Schreyer Honors College, Bachelor of Arts, Crime, Law, and Justice
 Minor, Human Development and Family Studies

RESEARCH/TEACHING EXPERIENCE

- The Pennsylvania State University, Department of Sociology and Crime, Law, and Justice
 - Teaching Assistant
 - Responsible for grading papers, conducting review sessions, constructing quizzes, maintaining office hours, and organizing students' grades
- The Penn State University, Department of HDFS, Dr. Jacobson
 - Independent Research Study
 - Worked under Lauren Jacobson, Professor of Human Development and Family Studies to conduct research on adolescents' attitudes toward population diversity
 - Constructed presentation poster consisting of abstract, literature review, methods, and discussion sections
 - Presented research findings in the National Conference of Undergraduate Research at Weber University, Utah
 - Established grant proposal to cover flight, hotel, and meal costs
- The Pennsylvania State University, Department of HDFS, course supplement
 - Strategically developed and executed an eight week educational curriculum on nutrition tailored to benefit low socio-economic children through an after school program
 - Evaluated progression and learning outcomes
 - Constructed a research paper based on findings and previous literature

ABROAD EXPERIENCE

- Vietnam and Cambodia Embedded Course Trip
 - Enrolled in an honors course tailored to the socio-historical aspects of Vietnam and Cambodia
 - Traveled to Vietnam and Cambodia and incorporated class material to the abroad experience
 - Specific focus on the Vietnam war, the Khmer Rouge, drug trafficking, and economic sustainability
- Outreach360
 - Traveled to the Dominican Republic to teach underprivileged children
 - Developed language curriculum to progress Spanish speaking children's English skills

VOLUNTEER WORK/LEADERSHIP

- University Hearing Board, The Pennsylvania State University
 - Served as a juror to determine sentencing and sanctions for illicit and disorderly conduct of students attending the Pennsylvania State University
- YMCA, Altoona, PA
 - Cleaned and filed paperwork at a local YMCA in Altoona area
- American Rescue Workers
 - Enhanced organizational system for donated items

- Justice Association
 - Vice President

AWARDS

Academic Scholarship
 President Freshman Award
 Sparks Award (cumulative 4.0 GPA)
 Schreyer Honors College

COLLEGE ACTIVITIES/ACHIEVEMENTS

Justice Association – Vice President
 Phi Kappa Phi Honors Society
 National Residence Hall Honorary Member
 Kappa Omicron Nu National Honors Society
 Alpha Lambda Delta Honors Society
 University Hearing Board Member
 Member of B.U.S.T (Being United for Social Transformation)
 Research on adolescent’s views of diversity
 Presented at National Conference for Undergraduate Research, 2012
 Intramural Soccer
 MACUHO ResLife Conference, 2011

WORK EXPERIENCE

- Spike’s Stadium, Suite Server June 2013 – September 2013
 - Responsible for customer service
- Research Assistant, The Pennsylvania State University September 2012 – January 2013
 - ARDA Research Lab
- Resident Assistant, The Pennsylvania State University August 2011 – May 2012
 - Enforced policies and procedures of the residence halls with residents June 2013 – August 2013
 - Planned and organized programs for students enrolled in a special living option concentrated on undergraduate major exploration
 - Mediated roommate conflicts using effective conflict resolution skills
 - Mentored students and referred them to resources and services on campus
- Port Sky Dining Assistant August 2010 – May 2011
 - Food service
- Denny’s, Williamsport, PA January 2008 – August 2010
 - Waitress
- Consistently maintained at least one part-time job throughout six out of six semesters

REFERENCES

- Available upon request